

ECONOMIC SCIENCE FOR RURAL DEVELOPMENT

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No 43 New Dimensions in the Development of Society
Marketing and Sustainable Consumption
Finance and Taxes

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Time schedule of the conference

Preparation of the proceedings and organization: October 2015 – April 2016

Conference: 21-22 April 2016

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

Aleksandras Stulginskis University	Lithuania
BA School of Business and Finance	Latvia
Belgorod National Research University	Russia
College of Agriculture at Križevci	Croatia
Corvinus University of Budapest	Hungary
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Dubnica Institute of Technology	Slovakia
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General Jonas Žemaitis Military Academy of Lithuania	Lithuania
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Institute for National Economy Research	Latvia
Institute of Agricultural Resources and Economics	Latvia
Izhevsk State Agricultural Academy	Russia
J.Vitols Latvian Academy of Music	Latvia
Kaunas University of Applied Sciences	Lithuania
Kaunas University of Technology	Lithuania
Latvia University	Latvia
Latvia University of Agriculture	Latvia
Latvian Academy of Sport Education	Latvia
Latvian Maritime Academy	Latvia
Lithuanian Institute of Agrarian Economics	Lithuania
Latvian State Institute of Agrarian Economics	Latvia
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Ministry of Finance	Latvia
Nicolaus Copernicus University	Poland
Pennsylvania State University, State College	USA
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University of Latvia	Latvia
University of Technology and Life Sciences	Poland
University of Warmia and Mazury	Poland
UTP University of Science and Technology	Poland
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Vilnius Gediminas Technical University	Lithuania
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Every article included into the Proceedings was subjected to a scientific, including international review.

All reviewers were anonymous for the authors of the articles.

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The Editorial Board is responsible for, among other, preventing publication malpractice. Unethical behaviour is unacceptable and the authors who submit articles to the Conference Proceedings affirm that the content of a manuscript is original. Furthermore, the authors' submission also implies that the material of the article was not published in any other publication; it is not and will not be presented for publication to any other publication; it does not contain statements which do not correspond to reality, or material which may infringe upon the intellectual property rights of another person or legal entity, and upon the conditions and requirements of sponsors or providers of financial support; all references used in the article are indicated and, to the extent the article incorporates text passages, figures, data or other material from the works of others, the undersigned has obtained any necessary permits as well as the authors undertake to indemnify and hold harmless the publisher of the proceedings and third parties from any damage or expense that may arise in the event of a breach of any of the guarantees.

Editors, authors, and reviewers, within the International Scientific Conference "**Economic Science for Rural Development**" are to be fully committed to good publication practice and accept the responsibility for fulfilling the following duties and responsibilities, as set by the *COPE Code of Conduct and Best Practice Guidelines for Journal Editors of the Committee on Publication Ethics* (COPE).

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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 9 the authors of the articles, and the reviewers presented blind reviews. 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.

Contribution to editorial decisions

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Foreword

The international scientific conference "Economic Science for Rural Development" is organized annually by the Faculty of Economics and Social Development of Latvia University of Agriculture.

The proceedings of the conference are published since 2000.

The scientific papers presented in the conference held on 21-22 April 2016 are published in 3 thematic volumes:

No 41 Rural Development and Entrepreneurship
Bioeconomy
Home Economics

No 42 Integrated and Sustainable Regional Development
Production and Co-operation in Agriculture

No 43 New Dimensions in the Development of Society
Marketing and Sustainable Consumption
Finance and Taxes

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

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

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

Acknowledgements

The Conference Committee and editorial Board 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

Anita Auzina

Associate professor of Faculty of Economics and Social Development
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NEW DIMENSIONS IN THE DEVELOPMENT OF SOCIETY

STATE OF ART: CREATIVE LEARNING AND CREATIVE TEACHING ENVIRONMENT IN LATVIA

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Abstract. The importance of creativity and innovation in addressing the economic, environmental and social crises has been recognized in policy discussions in Europe. The article discovers main results of the pilot study "State of Art: Creative Learning and Creative Teaching Environment in Latvia" that was carried out within the project "Looking@Learning" in 2015. The aim of the study was to gather initial information about creative learning and creative teaching environment in Latvia. The study outlines problems in the area of creative teaching environment in education system of Latvia, simultaneously viewing education policy documents and inspecting the actual situation in education institutions of Latvia. The study uses qualitative approach using semi-structured interviews and content analysis. In Latvia, creativity is defined as individual self-expression, ability to create new opportunities. Creativity is mostly developed by linking theory with practical activities, with everyday processes. Creativity is believed to be a mandatory skill necessary for every cycle of human life. Creativity is related to all individuals as attainable and developed skill. The main stimuli and initiators of creativity are different social agents in the environment of formal and informal education, local government, projects etc. that promote cooperation as essential prerequisite of creativity. These few 'key' people are essential, since they initiate and develop different activities, and different understanding of parties involved, acknowledgment and implementation of their opportunities and competencies are very important for reaching of common goals. The main obstructing factors are related to the lack of common understanding, goals and cooperation between parties involved.

Key words: creativity, creative learning, creative teaching environment, youth.

JEL code: I210

Introduction

The importance of creativity and innovation in addressing the economic, environmental and social crises has been recognized in policy discussions in Europe. Recent policies call for the strengthening of Europe's innovative capacity and the development of a creative and knowledge-intensive economy and society through reinforcing the role of education and training in the knowledge triangle and focusing school curricula on creativity, innovation and entrepreneurship. It has been recognized that schools and initial education play a key role in fostering and developing people's creative and innovative capacities for further learning and their working lives (Cachia, Ferrari, Ala-Mutka, Punie, 2010). The aim of the study is to discover basic information about creative learning and creative teaching environment in Latvia as well as understanding of creativity in learning process. The research tasks are related with theoretical explanation of creativity and analysis

of empirical materials collected by document analysis and semi-structured interviews. Main research questions: how different agents interpret creativity, creative learning, creative teaching environment.

Theoretical insights

Authors use basic theoretical interpretations and conceptualization of creativity and creative teaching environment. Creativity is conceptualised as a skill for all and it is argued that educational actors have the power to unlock the creative and innovative potential of the young. It is argued that creativity, in the educational context, should be conceptualized as a transversal and cross-curricular skill, which everyone can develop. Therefore, it can be fostered but also inhibited. Creativity is defined as a product or process that shows a balance of originality and value. It is a skill, an ability to make unforeseen connections and to generate

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new and appropriate ideas. The creative experience is seen as opposite to the reproductive experience. Literature shows that creativity is conceptualised in different ways by different people. It can be seen as arts-centred or as relevant to any domain of knowledge. It can also be seen as a quality some geniuses have or as a skill that anyone can develop (Cachia, Ferrari, Ala-Mutka, Punie, 2010).

Creative learning is thus any learning which involves understanding and new awareness, which allows the learner to go beyond notional acquisition, and focuses on thinking skills. It is based on learner empowerment and centredness (Cachia, Ferrari, Ala-Mutka, Punie, 2010).

Teaching environment is a set of social components, special objects and matters as well as interpersonal relationships in education. These factors influence and complement each other and affect every person involved. Teaching environment additionally specifies educational environment; it always implies organization process. It ensures correlation of material, communicative and social conditions in the learning process and beneficial circumstances for the development of student's creative potential. By using different sources of knowledge and various learning methods, a student constructs his/her knowledge, skills and dispositions on his/her own (Mezinska, 2011).

Creativity as a concept can be attributed to person's character traits and skills, teaching methods/content and teaching environment. Besides, creativity can be viewed as a result of some activity – new, original product or idea. If creativity is viewed as a personality trait or a skill, then it is described by innovation, originality, unconventional solutions, anticonformism, courage, productivity of innovation activities in various sectors, creative intuition, rich imagination, inspiration, psychic plasticity, viragoes activity (Bebre, 1997). Also creativity can be defined as ability for unusual thinking characterized by highly developed

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-17 imagination, divergent thinking, psychic plasticity, subconscious and viragoes activities. Assuming that the goal of education system is to encourage creativity of youth as personality trait or a skill, education documentation has to provide for fostering of the mentioned qualities.

Research results and discussion

Methodology

The study uses qualitative approach in order to understand problems linked to creativity, creative learning and creative teaching environment in Latvia. The study was conducted in June-July, 2015. The following methods were used in it:

- 1) analysis of theoretical literature in order to understand theoretical interpretation of creativity, creative learning and creative teaching environment;
- 2) qualitative document analysis used to analyze national planning documents and education system documents;
- 3) seven individual semi-structured interviews with representatives of different institutions of education. The selection of interviewees was made according to the principle of availability and purposefulness, including representatives of formal education (school and education administration), a representative of alternative education (Montessori pedagogy) and a researcher of creative learning in the study. Interviews took place from June 26 to June 29 in the informants' workplaces as well as in casual environment – in Jelgava and Riga. Average duration of an interview was 50 minutes.

Results and discussion

Document analysis. Creative environment and creative people are named in planning and normative documents of Latvia as one of the goals that must be attained and developed in both the near and distant future. In 2030, the Strategy of Sustainable Development describes Latvia as a green, clean, easily accessible and

also creative place. Therefore, creativity is significant in connection with long-term goal of sustainable development of the nation along with the priorities of clean environment and optimal infrastructure. Besides this concept is not only attributed to individual characteristics and human resources but also to Latvia as a whole and its environment.

Creativity as a priority interlaces the main mid-term development planning document "National Development Plan 2014-2020" of Latvia; and in it as well, the vision of development of Latvia is seen through creativity and – in particular – through creative people: "Latvia will be Latvian and confident, safe and people-friendly, green and clean, prosperous, effective and competitive country with hard-working, educated, creative, fit and happy people living in it" (National Development Plan...). So, in the context of the strategy of sustainable development, creativity is more focused on individual characteristics. Also, creativity has its position along with other indicators describing statehood and public welfare.

Courses of action and tasks highlighted in the National Development Plan (NDP) link creativity with two important aspects: development of business environment and human resilience. In the first case, the idea of creativity expresses itself through invention of innovative products and development of creative industries that are viewed as conditions of export capable production. Human resilience is meant to be strengthened through different competencies, including creativity and critical thinking. It can be concluded that at least on the level of political planning in Latvia there is an understanding that ability to get and keep a decent job and ability to take care for the development of oneself and nation is not possible without a set of particular competencies, including creativity.

There are several instruments that can be used to develop the competency of creativity in the society, and all of them are linked to

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-18 education: training and attracting highly qualified and creative general education teachers, implementation of innovative study content and work forms in basic education and general secondary education and provision of possibility for informal education in order to encourage creativity and entrepreneurial abilities. Both the role of human resources and education content is being stressed as well as physical environment, material and technical supply and its impact on the development of a creative individual. Innovative study content has been put forward as the main task, and the key words that describe the promotion of creativity and entrepreneurial skills are digital study environment, learning of modern languages, improvement of study content in the areas of natural and social sciences and strengthening of career education system.

Encouragement of creativity is also linked to provision of possibilities of informal education: support for youth technical innovation centres, organization of summer study camps, science seminars, competitions and science projects.

Based on the NDP guidelines, it can be concluded that on political level creativity is viewed in the context of entrepreneurial abilities and creation of innovative, exportable product. The corresponding tasks are viewed only through education system using opportunities of both formal and informal education.

Although the document "The Guidelines of Education Development 2014-2020" names creativity among the main goals, among the course of action it is only mentioned secondarily. It often highlights modern methods and modern infrastructure but it is hard to understand whether they are linked to creativity or not. The document points out necessity to improve education content to be oriented on the competencies, healthy lifestyle, creativity and promotion of innovation. Generally speaking, policy planning documents that relate to the education system present creativity as one of

many political priorities which fits into overall context of value-oriented education. Such concepts as 'creative personality', 'skill of creativity' and 'creative place' are often mentioned among the goals and particular tasks but most of all they are mentioned in goals and some of the tasks without specifying the ways how creativity is defined from the standpoint of policy planning and how it will be promoted. Abovementioned actions and tasks are general enough and can be applied to nurturing of any skills. The Cabinet Regulations attempt to specify what aspect of self-expression and creativity is but this explanation only partially reveals creativity and its meaning is reduced to the areas of the development of artistic creativity and imagination.

Compared with other EU Member States, Latvia is among those that rather often include ideas of creativity and innovativeness in education programmes. But there are different approaches to the conceptualization of creativity – from creativity that is centred on arts to creativity as interdisciplinary competence that is related to different areas of knowledge. Teachers of Latvia are among those in Europe that mostly agree with the notion of creativity playing an important role in study content (Cachia, 2010).

It can be generally concluded that in political planning documents creativity is more revealed in the broadest sense (Latvia as a creative place), instead of mentioning of it in particular study standards (creative self-expression, artistic creativity). Although creativity as a concept permeates all planning documents and education regulations, one cannot find a precise definition of creativity. Besides, promotion of creativity is mainly assigned to education system, and the role of other social institutes (family, economics) is not accessed and it can create problems in the area of implementation of creativity in the life of society.

Analysis of interviews. In their interpretations of creativity, creative teaching

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-19 environment and learning, informants of the research are fairly consistent. Sometimes it is not easy for informants to define these terms, but the essence of explanation is similar. Informants refer to creativity as a skill necessary for teachers, pupils and youth, as well as teaching methods, equally emphasizing all three aspects.

The informant that has studied creativity for several years defines it as divergent thinking that implies ability to create new correlations between different ideas and ability to understand which idea is worth implementation, realization and sharing. The highest expression of creativity is when every pupil has opportunity to express his/her creativity, to reflect on it and understand what should be done differently next time. Other informant defines creativity as ability to create new opportunities and change situations. Creativity also implies making of mistakes and learning from them, but the main accent is placed on gaining experiences, testing one's strength, daring and opportunity to do *"as a pupil sees the best"*. So, creativity is defined as a set of skills that allows pupils and youth to take responsibility for their work and choices. According to informants, creative teaching environment is when child's senses, attitude towards training content and understanding of the life around them is being nurtured. Creativity implies connection to real life and emphasises things that are useful for everyday life:

"This is the right creativity – searching for links between grammar law and its practical use. Here is my task – to place theory into the everyday context so that they could both gain the Latvian language skills and obtain something they might need later in life. And it is important for them to realize it!"

In the case of children and youth with special needs the emphasis is placed on sensual experiences, and this principle in the context of creative learning can be related to everyone. So, creative learning is a way for pupils to be prepared for real life when they 'learn by doing',

not by theorizing, thus, learning to adapt to the changes of labour market, critically assess situations, find solutions and feel secure in unusual settings. Informants believe that creativity includes such important qualities as boldness, daring to try different things in life and to find those that suit the best and trust in own strength and communication skills. A creative person will be able to solve different problems and life situation; it is a resource that allows individuals to adapt to different life cycles. Creative learning is necessary and allows seeing both gifted children, children with different disorders, helps to notice and develop individual gifts and meet different needs, to increase diversity and tolerance towards one another, and to reduce uniformity in schools. Generally speaking, the result of creativity is ability to live. Part of society of Latvia Latvian society sticks to stereotypical beliefs about creativity as part of bohemian lifestyle that is not meant, available or necessary for everyone. Informants deny this view emphasizing the potential of creativity in every individual. According to informants, talented is not the same as creative, since it narrows the notion of creativity to particular field and does not apply to every individual. Even though it is easier to develop creativity through subjects linked to arts, informants emphasize necessity to integrate creativity into all school subjects and social and cultural activities as well. At the same time, creativity does not mean the lack of planning or anarchy, as it is sometimes presented in literature and pointed out by informants; it implies planned learning process with expected results and known methods. By teachers' creativity, informants understand their ability and skill to use environment and teaching methods to motivate and teach their pupils. Teachers' creativity is considered to be a vitally important condition, since everything else depends on teacher's personality and motivation. Creative learning is interpreted as teachers' and pupils working methods that ensure the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-20 development of pupils' creativity. Creative learning means to deliver current training programme using different teaching methods. Informants do not see the need to significantly alter training programmes, which correlates with the results of other studies. Informants give almost unanimous description to creative teaching environment: it is a set of supportive, interesting, favourable conditions (school, community, society) for the training: *„A child must feel welcome. If a child sees that the janitor greets him/her favourable in the morning that the flowerbeds are neat and pretty; if he/she sees that every work is valued and that every task can be done with the right attitude“*. While describing current school situation in relation to creative teaching, informants admit that the potential of creative learning is not used sufficiently. One of the informants believes that only about 20% of teachers are creative in their work, and the percentage is smaller when working with children with special needs. It can be helped, to start with, by agreeing on a common platform for the concept of creativity. It means creating empirically understandable, clear definition of creativity, creative learning and creative teaching environment. It is needed, for example, for cases when it is difficult to assess particular teaching methods from the standpoint of creativity.

The results of the pilot research confirm known facts about the weak connection of formal documents to the real life in Latvia. Even if informants theoretically know that there are some formal requirements in relation to promotion of creativity in schools, in their work they are governed by other principles – by the particular situation, problems, finances and other factors. The interviews do not create an impression that teachers that are not faced with policy-making on any level take into their account NDP or education policy guidelines. The teachers that are creative and use creative methods in their work do it in accordance with

their personal understanding. This aspect can also be viewed as an advantage of the situation in Latvia, since teachers feel rather free in how and with what methods they manage to teach necessary topics. For the very same reason the teachers that use traditional, teacher-centred methods feel no need to change something, since creativity is not a mandatory requirement. Informants do not believe that it is possible to enforce creativity by repressive means; popularization of good practises, learning of new methods and informal sharing are much better means. Informants also emphasize that creative learning cannot be enforced through regulations or laws that begin in teacher's office: *"Law can attempt to correct us; we can write on the paper everything we need. I don't know if it can be enforced throughout the country..."*

Teachers have experienced that creativity is 'addictive' that good practices slowly but surely spread wider and wider. Informants think that the gap between theory and practice is maintained because of vague, indefinite definition of creativity, fear of change experienced by teachers and complex evaluation of creativity. Generally speaking, education policy at the national level is quite far removed from the real situation of schools.

The analysis of interviews indicates different factors that promote creative teaching environment and creative learning.

One of most important factor is physically accessible, positive, creative, emotionally supportive environment and work atmosphere where the chosen methods correspond with abilities, age, group size etc. of children and youth. It can be concluded that methods, their diversity and consistency are especially emphasized, because the result and assessment of particular activities are significant not only for children but also for teachers and experts. Positive experience, feedback as well as assessment which is especially important (peer assessment, leadership assessment) helps to

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-21 initiate new ideas, practices and cooperation at different levels (individuals, groups, schools, families, municipalities etc.) and between different social agents. Small schools, small classes and individual approach encourages creativity since it allows to create cosy atmosphere, to know one another, to see each other's needs and highlight best abilities of children and youth. Sometimes threats of school closure, small number of pupils and other difficulties are grounds for creative ideas and successful solutions: *"One school is taking a new direction in technologies and science that would not have been there if the school had 1000 children"*.

Teachers' desire and ability to develop individual talents of children, encouragement, empathy, emotionally supportive environment and creation of new opportunities is seen as a crucial point to promote creativity. It is the development of individual potential that must be put forward as the main goal; it cannot be lost under the influence of different hindrances. Human factor is mentioned in interviews as something that can both encourage and hinder creativity. Personality, activity, attitude and willingness of a teacher, an expert, and a partner to do something differently and to use different methods. *"If a teacher is active and wants to participate in all possible activities, then the children go along. This type of teachers usually has wonderful ideas!"* This situation can be changed by further training and individual growth. Creativity helps to stay 'on fire in profession' and reduces the burn-out risks for teachers and experts. All suggestions relating to creativity can be applied to all levels of education. A teacher, a lecturer, a head of interest circle – they should all be viewed as mentors and a guide.

Informants also stress the "learn by doing" principle. It is through practical operation and activity that new sensory experience; new knowledge and skills necessary for individual

development and growth can be obtained. Supportive (financially and morally) school, municipal, project leadership that cares for environment (outdoor and indoor), available technology and favourable atmosphere are the next ones factors. Opinions on the significance of environment are divided; some informants believe environment to be something not significant and place larger emphasis on the personality of a teacher who forms the environment; while others think that environment helps to release creativity. Environment plays a special role working with children and youth with special needs. So it can be concluded that creative physical and emotional environment is closely related to the willingness and interests of people in it: *„...creativity cannot be linked to finances, city, the countryside, nationality, because it is a skill. I do not use modern technologies, like a projector and the like but I do not feel disfavoured or unable to implement creative teaching methods“.*

It is also related with available financial resources and technical support. Although the informants see creativity as a way to 'manage' with available means, all of the interviewees point out that technical support is important as it allows to get results better, faster and often more effectively. Informants admit that environment has been organized thanks to the available EU financing. There is enough money at present for the organization of environment, purchasing equipment, especially if the needs are identified and expenses are planned timely. Modern technologies also is one of the things that allow actors to express themselves in different activities, for example, interactive board, technologies that causes various feelings, develops and stimulates them etc.

Researchers identified several factors hindering creative environment and creative learning. The most visible is the lack of common understanding and team work between parts involved. There is a weak connection between

Jelgava, LLU ESAF, 21-22 April 2016, pp. 16-22 school subjects, topics, between training programmes and real life; teachers fail to share their experience (due to unwillingness to accept someone else's experience since there are different courses and seminars but the information presented at these events is used insufficiently). Teachers underestimate each other's creative expressions: "Teacher is not a robot; he or she wants to hear a thank you... that in itself is a motivation".

As it mentioned before, personal qualities of teachers, school staff and experts that can be observed by children and youth, including superficiality, inaccuracy, indecisiveness, uniform teaching methods and standardized evaluation. Just like in relation to personality, the problem usually is the unwillingness to learn and use new methods. There are situations when teachers are willing to learn new things for the sake of certificate and not the knowledge and its implementation. One of the most essential hindrances is teachers' poor language skills; teachers are unable to read international studies, publications, to exchange experiences with other teachers internationally, so they have to manage with the information available in Latvian which limits their understanding, hinders development and cooperation on various levels. Communication barriers and lack of cooperation are the factors that hinders creativity. There is a triangle of cooperation – teacher/expert, pupil and parent that requires active communication; whereas involved agents are not ready or willing to communicate or there is a lack of empathy, it causes conflicts: *"...we often demonstrate demanding communication where school presents its demands, parents – their demands and everyone stays in their position"*. High weekly workload and existing wage model forces teachers/experts to take up additional jobs. In general, creative learning requires teachers/experts to sacrifice their free time and draw on financial and moral support of their families.

Additional factor is pupils' resistance and disinterest in learning process, at least in the beginning; creative learning is harder since the main part is played by students, not by teachers or experts. This problem can be solved by revealing the opportunities provided by this type of learning: *"I also interviewed the students. They say that in the beginning it is very hard to get used to creative learning methods; it took a month of inner fighting and then we realized that things will not change, that it is easy and interesting, and then it starts working"*.

The lack of sufficient, budgeted finances is hindering creativity, since environment and technical support as well as different courses asks for finances. Rather often schools or children and youth centres must share their equipment, since there is a lack of equipment and materials and facilities and infrastructure are inadequate, - it limits the quality of activities. Informants stress also insufficient number of teachers in the areas that are interesting for boys (robotics, technology), lack of male teachers in schools and interest centres, the issue of aid for children and youth with special needs. At present, the state finances assistants for general education schools, whereas this service is not available for special schools (with an exception of some districts where local government pays for it) and the largest workload falls on teachers/experts.

As a general hindering factors informants consider social environment, attitude of society and various decision-makers towards teachers/experts and issues of teacher's prestige, wage policy and social accountability.

Conclusions, proposals, recommendations

1) In Latvia, creativity is defined as individual self-expression, ability to create new opportunities. Creativity is mostly developed by linking theory with practical activities, with everyday processes.

2) Creativity is believed to be mandatory skill necessary for every cycle of human life.

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Creativity is related to all individuals as attainable and developed skill.

3) Creativity is mentioned in goals and objectives of all levels of policy-making but there are no clear directions on how to promote it. School leadership and teachers have no clear understanding how to conceptualize creativity. Promotion of creativity is insufficiently institutionalized and structured which is often an obstacle to achieving the aims and cooperation between the parties involved.

4) Some local governments and schools implement creative learning methods independently of policy documents, mostly based on individual initiative. There are many good examples that testify of presence of creativity in the education process.

5) Creativity, creative learning and creative teaching environment encourage communication, emotional and physical development, thus causing changes not only in individual children or youth but also in classes, groups and families.

6) The main stimuli and initiators of creativity are different social agents in the environment of formal and informal education, local government, projects etc. that promote cooperation as essential prerequisite of creativity. These few 'key' people are essential, since they initiate and develop different activities, and different understanding of parties involved, acknowledgment and implementation of their opportunities and competencies are very important for the reaching of common goals.

7) The main obstructing factors are related to the lack of common understanding, goals and cooperation between parties involved.

Bibliography

1. Bebre, R. (1997). Kreativitate un skolotaja personiba (Creativity and Teacher's Personality). *Skolotajs*. Nr.1. pp. 34-37.
2. Cachia, R., Ferrari, A., Ala-Mutka, K., Punie, Y. (2010). Creative Learning and Innovative Teaching. Final Report on the Study on Creativity and Innovation in Education in the EU Member States. *European Commission, Joint Research Centre, Institute for Prospective Technological Studies*, p. 61.
3. Izglitibas attistibas pamatnostadnes 2014. – 2020. gadam (The Guidelines of Education Development 2014-2020). Retrieved: <http://m.likumi.lv/doc.php?id=266406>. Access: 30.11.2015.
4. Jaunatnes likums (Law of Youth, 01.01.2009.). Retrieved: <http://likumi.lv/doc.php?id=175920>. Access: 30.11.2015.
5. Jaunatnes politikas pamatnostadnes 2009.–2018.gadam (The Guidelines of Youth Policy). Retrieved: http://www.youthpolicy.org/national/Latvia_2009_Youth_Policy_Guidelines.pdf. Access: 10.11.2015.
6. Latvijas ilgtspējīgas attīstības stratēģija līdz 2030.gadam (Latvian Sustainable Development Strategy 2030). LR Saeima. Retrieved: <http://polsis.mk.gov.lv/view.do?id=3323>. Access: 10.10.2015.
7. LR MK Noteikumi Nr. 468 (23.08.2014.). Noteikumi par valsts pamatizglītības standartu, pamatizglītības macību priekšmetu standartiem un pamatizglītības programmu paraugiem (Regulations of the State Standards of Basic Education, Standards of Primary School Subjects and Basic Curriculum). Retrieved: <http://likumi.lv/doc.php?id=268343>. Access: 10.11.2015.
8. Latvijas Nacionālais attīstības plans 2014. – 2020. gadam (National Development Plan 2014-2020). Retrieved: http://www.varam.gov.lv/lat/pol/ppd/ilgtsp_att/?doc=13858. Access: 12.11.2015.
9. Mezinska S. (2011). Studiju vides izvērtējums topogrāfiskā dizainera skatījumā (Study Environmental Assessment of the Ascendant Designer's Point of View). *Sabiedrība, integrācija, izglītība. Starptautiskās zinātniskās konferences materiāli*, I daļa. Rēzekne, 696 p.
10. Vispārējās izglītības likums (General Education Law, 14.07.1999.). Retrieved: <http://likumi.lv/doc.php?id=20243>. Access: 12.11.2015.

HOUSING SECURITY IN LATVIA: REGIONAL DIFFERENCES

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Abstract. Housing affects different areas of human life: health, education, employment and income security, social status, social networks and access to other important resources. Hence, the importance of housing security – protection from eviction and confidence that housing will not be lost. The aim of the paper is to analyze housing security in Latvia focusing on regional differences. There are several preconditions for housing security. This paper focuses mainly on habitability and affordability. The housing situation analysis is based on the publicly available statistical data and evaluation of the perception of security on the quantitative survey data.

Data analysis shows urban-rural and regional differences in the average size of dwelling, housing quality and available amenities, housing costs and their influence on household budget. Also, subjective perception of security has significant regional differences.

Key words: housing, housing security, perception of housing security.

JEL code: 131

Introduction

Shelter is one of the most fundamental human needs and rights, and the rights to housing and adequate living standards are included in many laws and regulations, both international and national (for example, "The Universal Declaration of Human Rights", "European Social Charter" Article 31, "Constitution of the Republic of Latvia" etc.).

Housing influences different areas of human life: health, education, employment and income security, social status, social networks etc. According to the research data, there is a growing body of evidence that housing circumstances affect physical and mental health of families and individuals. If families live in adequate, affordable, not overcrowded housing and they have security of tenure, children of the family will experience better educational outcome. Secure housing establishes circumstances for access to other formal and informal supports and networks (Carter, Polevychok, 2004), and reduces poverty (Payne, Durand-Lasserve, 2012). The lack of secure housing, fear of eviction has negative impact on individuals and families as well as on communities, for example, people living in fear are less likely to realize their labour potential, experience stress, are unlikely to invest in improving their homes and neighbourhoods, and

so on. Therefore, secure housing that is adequate, qualitative and affordable is of great importance for people. There are urban-rural differences in Latvia but there are also significant regional differences in employment, income and demographic structure (Bela, Rasnaca, 2015). As these factors contribute to housing security, it is useful to look at housing security in regional aspect.

The aim of the paper is to analyze housing security in Latvia focusing on the regional differences. The following tasks are set: 1) to conceptualize housing security; 2) to characterize the present housing situation in Latvia, describing regional differences; 3) to evaluate subjective perception of housing security. Housing situation analysis is based on the publicly available statistical data that provide information about housing stock, living conditions and socio-economic situation of the population. Data analysis reveals urban-rural and regional differences. The study also employs the quantitative research data of two surveys (2014 and 2015) of the population of Latvia carried out by Advanced Social and Political Research Institute of the University of Latvia. The sample size amounts to 1004 respondents in 2014 and 2007 respondents in 2015.

Research results and discussion

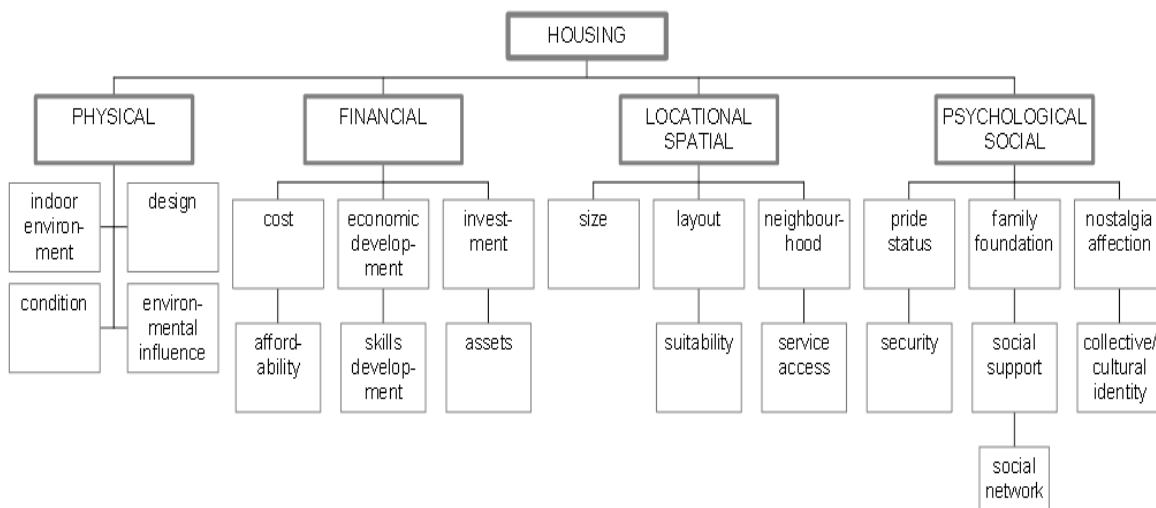
1. Conceptualization of housing security

The term 'housing' has a double meaning. It refers to housing functions and ownership issues (Fahey, Norris, 2011) and also to ownership assets (purchasing value). Housing is a necessary precondition for the development of personality, for implementing family life and for meeting physiological needs and social interaction with friends and relatives. Housing has influence on individuals' lives, as it is a precondition for obtaining other important resources. Housing can be characterized by physical, financial, spatial and psychological/social aspects (Carter, Polevychok, 2004). Each of them includes subcategories which contribute to housing security (Figure 1).

Although housing security is of great importance, no generally accepted definition of this concept has been elaborated. There are several definitions of tenure security available, and these definitions can be related to housing security. This paper does not discuss forms of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 25-26 ownership in detail; it rather focuses on security in a sense of stable place of residence, in terms of this paper – housing.

Tenure security is defined as "right of all individuals and groups to effective protection by the state against forced evictions ... the permanent or temporary removal against their will of individuals, families and/ communities from the home and/or the land they occupy" (Monitoring Security of..., 2011). Another similar definition states that a person or household can be said to have secure tenure, if they are protected from involuntary removal from their residence, except in exceptional circumstances, and then only by means of an accepted legal procedure (Payne, Durand-Lasserve, 2012). 'Secure' means that as long as the person abides by the conditions of tenancy, including paying rent and behaving reasonably, he/she can generally stay there for as long as he/she wants (Reeves, 2014). In this context, the term 'secure' is defined in relation to tenancy but it can have the same meaning in the context of any housing.



Source: Carter, Polevychok, 2004

Fig. 1. Housing importance areas

It is an essential need and right of every individual to have a stable, permanent place of residence.

Housing security refers to ontological security as a stable mental state derived from the sense of continuity in regard to the events in one's life. British sociologist Anthony Giddens refers to ontological security as a sense of order and

continuity in regard to an individual's experiences (Giddens, 1991).

Housing security in general is confidence that housing will not be lost, family will not stay without a shelter, and this concept also includes

individual's experience to obtain and use housing in accordance with his/her well-being needs. Housing and housing security can be analysed from different aspects and different dimensions: legal security of tenure, availability of services, materials, facilities and infrastructure (an adequate house must contain certain facilities essential for health, security, comfort and nutrition. Individuals must have access to water, energy, heating and lightning, sanitation and washing facilities etc.); affordability (mainly housing costs and income of the population), habitability (physical safety of the dwelling and its residents- adequate space, protection from cold or heat, rain, wind and any threats to person's health), accessibility, location (housing should not be isolated from workplaces, shops, schools, health care and recreation institutions), cultural adequacy (cultural factors should not be used as excuses for avoiding modernisation or excluding new technologies in housing) (Hohmann, 2013).

"The definition of the perception of tenure security by people and communities incorporates in the definition the degree of confidence that ... users will not be arbitrarily deprived of the rights they enjoy ..."(Payne, Durand-Lasserve, 2012). The individual perception of housing security or insecurity is influenced by physical condition of housing, available amenities, environment characteristics and financial ability to cover housing costs. Habitability, including available facilities, and affordability, in particular its financial dimension, as core factors of housing security, will be analysed further in a more detailed way.

2. Characteristics of the housing situation

As mentioned above, housing security depends on various factors, such as habitability, availability of services, affordability (Hofmann, 2013) and other.

Habitability. Total housing stock area in Latvia in 2012 was 70,086 thousand square metres,

Jelgava, LLU ESAF, 21-22 April 2016, pp. 25-27 with average 35 m² per a permanent resident. Living space is not distributed evenly, there are regional differences: in Pieriga region (44 m²) and in Vidzeme region (38 m²) it exceeds the average but in Riga region (28 m²) the living space does not reach the average (CSP datubazes).

In 2014, 36.6 % of the total population lived in the detached houses, 70.1% in flats. These data differ in urban-rural as well as in the regional dimension. The number of those living in flats in urban areas exceeds that in rural areas more than twice (83.9% and 35.7%); at the same time, there are more rural population living in detached houses (58.1% and 13.5% respectively). Also, average size of dwelling in rural areas exceeds the size in urban areas for 30.7 m² and also exceeds the average total size for 22.1m². The average size of dwelling is 65.7 m², the highest average – 85.2 m² – in Pieriga region, the lowest – 53.3 m² – in Riga region (Central Statistical Bureau ..., 2014).

Not only dwelling size but also housing quality is important, as poor housing can be a barrier for maintaining living standards that are considered as acceptable in particular society. But significant part of housing is physically and morally outdated – households do not meet technical, economic and cultural requirements and expectations of the population.

One of the factors related to housing quality is overcrowding, revealing problems with the living space in Latvia. The household is considered as overcrowded if "it does not have at its disposal a minimum number of rooms that equals to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age, not included in the previous category; one room per pair of children under 12 years" (EUROSTAT Statistics Explained). According to the data, the average

number of rooms per household member varies from 1.2 to 1.3 (Central Statistical Bureau ..., 2014) and it does not differ in urban-rural or regional dimension. Nevertheless, according to European standards the overcrowding rate exceeds 35% in Latvia (EUROSTAT, 2014).

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Dwelling supply with different amenities is another important characteristic of the housing situation. Here, the differences, both urban-rural and regional, apply, revealing better conditions in the urban areas - Riga and Pieriga regions (Table 1).

Table 1

Dwelling supply with amenities 2014, %

Region	Cold water (water pipe)	Hot water	Sewerage	Town gas or natural gas	Liquefied hydrocarbons	Stationary electrical range
All dwellings	90.9	81.5	88.8	47.5	34.3	17.4
Urban	96.4	89.7	95.1	61.8	21.5	17.2
Rural	77.0	60.9	72.9	11.7	66.3	17.9
Riga region	99.4	94.2	99.1	76.7	6.3	17.2
Pieriga region	90.3	81.2	88.5	36.3	39.6	24.9
Vidzeme region	82.6	70.4	80.2	15.8	57.2	24.1
Kurzeme region	92.5	82.6	90.0	30.9	48.1	19.2
Zemgale region	87.0	72.2	84.5	40.3	44.4	13.3
Latgale region	78.7	66.1	73.3	33.3	58.1	7.0

Source: Central Statistical Bureau of Latvia, 2014.

Not all households have a bath or a shower and indoor toilet, and the situation is worse in the rural areas, where these amenities are available to only 66.1% and 67.1% of the population respectively, compared to 89.6 and 90.9% in the urban areas (Central Statistical Bureau ..., 2015). Data reveal that household supply with different amenities is better in the urban than in the rural area, and this fact has an impact on housing costs and also directly relates to the housing affordability. Housing affordability in general is a measure denoted by housing costs and income of the population.

Affordability. Housing costs and ability to maintain housing have significant impact on housing security. Housing expenditure differs in urban-rural and regional dimension. In urban areas, the average housing maintenance

expenditure is EUR 150.1 per month, while in rural areas it amounts to EUR 108.9. The highest costs in regional dimension are in Riga (EUR 161.6) and Pieriga (EUR 162.0), the lowest in Vidzeme (EUR 106.2) and Latgale (EUR 111.5). At the same time, the expenditure as a percentage of households' disposable income is the highest in Latgale region – 18.4%, while in Riga and Pieriga regions, where costs are the highest, it amounts only to 16.6% (Central Statistical Bureau..., 2014) (Table 2). It can be explained by the regional differences in income and living standards of the population. So in 2013, at-risk-of-poverty rate in Latgale region was 33.0%, being the highest among all other regions in Latvia, while in Riga region it was only 13.7% and in Pieriga region 19.6% (Central Statistical Bureau ..., 2015).

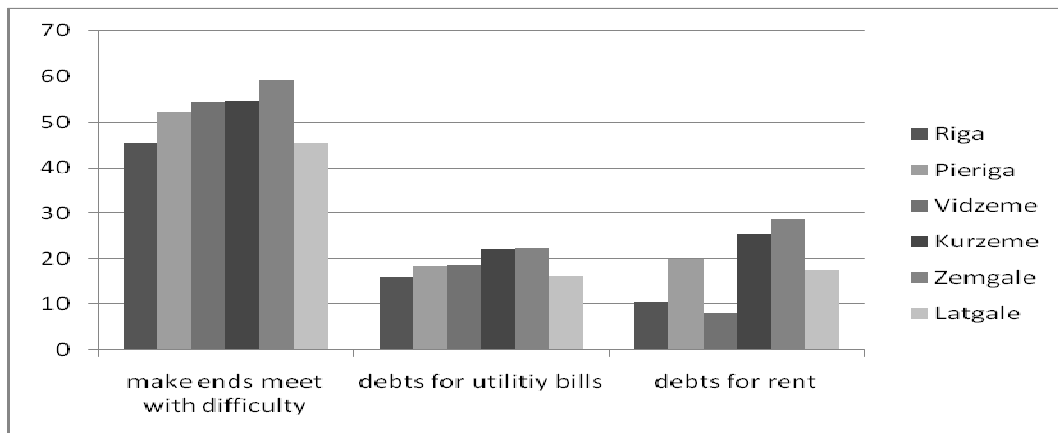
Housing costs and their influence on household budget 2014, %

Regions	Housing costs' share in household budget	Housing costs influence on household budget		
		A heavy burden	A slight burden	Not a burden at all
All households	16.4	40.0	45.5	14.5
Urban	17.3	41.8	44.4	13.8
Rural	13.9	35.6	48.2	16.3
Riga region	16.6	35.5	46.1	18.4
Pieriga region	16.6	42.1	46.4	11.5
Vidzeme region	14.1	39.1	52.3	8.6
Kurzeme region	14.9	31.4	51.5	17.0
Zemgale region	16.7	53.3	34.0	12.6
Latgale region	18.4	45.0	42.8	12.2

Source: Central Statistical Bureau of Latvia, 2015

Housing costs are relatively high, especially for low income households. Housing affordability means that income is sufficient to purchase other necessities after paying the housing costs (Gabriel et al., 2005). Data show that it is a problem for a great part of the population - about

a half of the population experiences difficulties to make ends meet (Figure 2), they have insufficient income to provide their living. Material deprivation is related to debts for rent and utility bills, and it reduces housing security.



Source: authors' construction based on the data of Central Statistical Bureau of Latvia, 2015.

Fig. 2. Characteristics of financial difficulties of households in regions (%)

Utility bills due to financial difficulties cannot pay in time 18.6% in urban and 17.1% in rural areas. Inability to pay the rent in time is more threatening for the housing security. Such situation is reported by 16% of households in urban and 18.9% in rural areas, and varies from 8.1% in Vidzeme region to 28.7% in Zemgale region (Central Statistical Bureau ..., 2015).

People cannot experience housing security if their income is not sufficient to cover bills. But

housing maintenance includes not only rent, heating, water and other payments related to dwelling etc. but also maintenance of decent environment, for example, ability to replace worn-out furniture, to renovate the household etc. The data show that more than a half of the population cannot afford it – 58.4% in urban and 62.2% in rural areas (Central Statistical Bureau..., 2015).

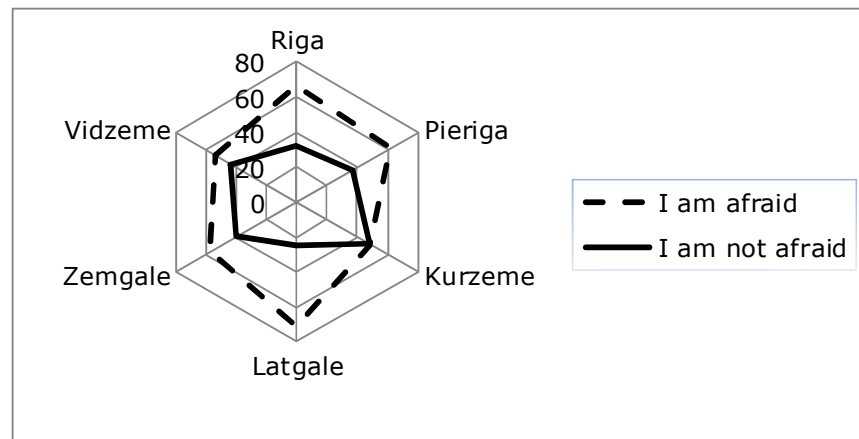
In general, the housing situation in Latvia is satisfactory, however, there are some problems related to housing security, especially to affordability, which is closely linked to comparatively low income and high poverty level in Latvia.

3. Subjective perception of housing security

Subjective perception of security is significant – it is an ability to maintain the housing (to pay the rent and cover the costs of the amenities – minimal demands); as well as ability to live in comfortable surroundings according to individual's needs and well-being standards (for example, to obtain necessary furniture and to renovate the household). The authors have

Jelgava, LLU ESAF, 21-22 April 2016, pp. 25-30 picked answers to the following questions as indicators of subjective perception: "Are you afraid of not being able to pay the rent and cover the costs of the amenities?" (Survey 2014) and "Can you afford to make necessary repairs/renovations in your housing?" (Survey 2015).

Answers related to the subjective perception of security, as ability to pay the rent and cover the costs of the amenities, characterise financial dimension of the ontological security. Respondents in all six statistical regions of Latvia are more frequently afraid of not being able to pay the rent and cover the costs of the amenities than feeling secure (answer: I am rather not afraid/I am not afraid at all) (Figure 3).

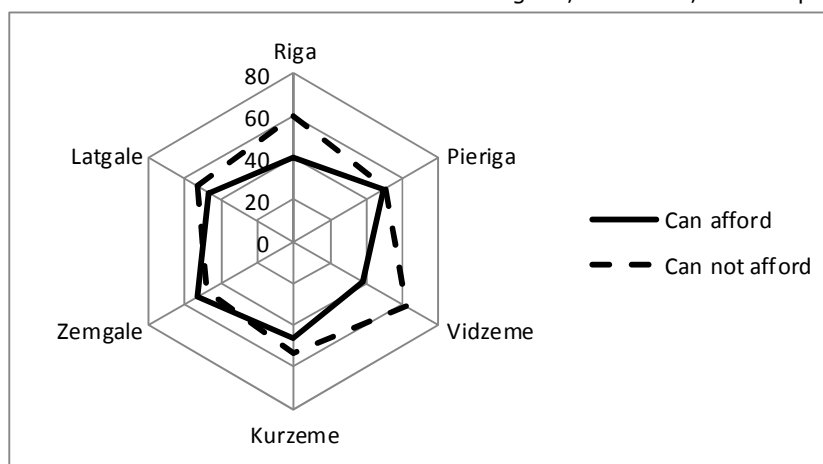


Source: authors' construction based on the data from the University of Latvia survey 2014

Fig. 3. Answers to the question "Are you afraid of not being able to pay the rent and cover the costs of the amenities?"

There is an exception – the respondents from Kurzeme region. The Chi-Square test is <0.05 , so differences between regions are statistically significant (Survey, 2015). Answers regarding subjective perception of security as ability to pay the rent and cover the costs of the amenities characterise financial dimension of the ontological security. Respondents in all six statistical regions of Latvia are more frequently concerned about their ability to pay the rent and cover the costs of the amenities than feel secure (answer: I am rather not afraid/ I am not afraid at all).

The succeeding figure shows answers to question regarding ability to make necessary housing renovation (Figure 4). Answers to this question characterise possibility to fulfil individual well-being needs. The respondents from Pieriga and Zemgale region feel able to do necessary renovation more frequently, while more than a half of the respondents in other regions (Riga, Vidzeme, Kurzeme and Latgale) provide the answer "cannot afford to do necessary repairs".



Source: authors' construction based on data from Latvia Population Survey, University of Latvia, 2015

Fig. 4. Answers to the question "Can you make renovation of your housing if necessary?"

Ability to pay the rent and cover the costs of the amenities as well as ability to do necessary renovation shows different levels of well-being and ontological housing security. The perception of insecurity is more frequently linked to the affordability dimension of the housing security but it can be intensified by unrealized need to live in renovated comfortable housing. The proportion of respondents who report having debt for amenities varies from 4.3% to 12.9%. The highest level of debts for amenities is in Zemgale region, while the lowest level of debts is found in Riga. The ability to make necessary renovation varies from 37.7% in Vidzeme region to 52.6% in Zemgale region. It refers not only to income level but also to skills and physical ability of household members. Subjective perception of the majority of the respondents does not reveal the sense of ontological security. The regional disparities in ontological housing security are statistically significant ($\chi^2 < 0.05$). The lack of ontological housing security reveals itself as a problem of affordability as well as an ability to maintain necessary comfort of housing.

Additional analyses of regional differences, including qualitative studies need to be implemented in order to disclose most important factors that influence subjective perception of security.

Conclusions, proposals, recommendations

- 1) Housing is one of the basic human needs and rights. It is a very significant resource and pre-requisite for obtaining other necessary resources. Housing security can be defined as confidence that housing will not be lost. Housing security refers to ontological security.
- 2) There are urban-rural and regional differences in housing situation and factors that contribute to housing security – habitability and affordability and their subcategories.
- 3) Although housing security depends on the income level to a great extent, this is not the most important factor affecting housing security. Not always a direct relationship between income level and ability to obtain and maintain housing can be found.
- 4) The subjective perception characterises ontological housing security. Most respondents subjectively feel insecure regarding their ability to pay the rent and cover the costs of services in all regions of Latvia. Failure to achieve the desired level of improvement is likely to reinforce the subjective housing insecurity in all regions.
- 5) Analysis of the housing situation and perception of housing security shows significant differences in urban-rural and

regional dimensions. To reveal the reasons for that and explain the differences, more

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detailed research with in-depth analysis would
be necessary.

Bibliography

1. Bela, B., Rasnaca, L. (2015). Social Sustainability and Social Security of Territories: Methodology of Analysis and Relevance for Development. In: *Economic Science for Rural Development*. No 38. Jelgava, pp.71-80.
2. Carter, T., Polevychok C. (2004). *Housing Is Good Social Policy. Research report*. Canadian Policy Research Networks Inc. Retrieved: http://cprn.org/documents/33525_en.pdf. Access: 28.12.2015.
3. Central Statistical Bureau of Latvia. (2015). *Income and Living Conditions in Latvia, 2014. Collection of Statistical Data*. Riga. Retrieved: <http://www.csb.gov.lv/dati/e-publikacijas/ienakumi-un-dzives-apstakli-latvija-2014gada-40578.html>. Access: 9.12.2015.
4. Central Statistical Bureau of Latvia. (2014). *Housing Conditions (EU-SILC Survey)*. Retrieved: <http://www.csb.gov.lv/en/statistikas-temas/metodologija/housing-conditions-eu-silc-survey-38999.html>. Access: 29.12.2015.
5. CSP databazes. Majokli. Retrieved: http://data.csb.gov.lv/pxweb/lv/rupnbuvn/rupnbuvn_ikgad_majokli/MA0071.px/table/tableViewLayout1/?rxid=cdbc978c-22b0-416a-aacc-aa650d3e2ce0. Access: 29.12.2015.
6. EU EC. (2014). *European Social Charter* (revised). Retrieved: <http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/163>. Access: 02.01.2016.
7. EUROSTAT. (2014). *Living Conditions in Europe*. Retrieved: http://ec.europa.eu/eurostat/documents/3217494/6303711/KS-DZ-14-001-EN_N.pdf/d867b24b-da98-427d-bca2-d8bc212ff7a8. Access: 29.12.2015.
8. EUROSTAT Statistics Explained. Glossary: Overcrowding rate. Retrieved: http://ec.europa.eu/eurostat/statisticsexplained/index.php/Glossary:Overcrowding_rate. Access: 29.12.2015.
9. Fahey, T., Norris, M. (2010). Housing. In: Castles, F., Leibfried, S., Lewis, J., Pierson, C. (eds.) *The Oxford Handbook of the Welfare State*. Oxford: Oxford University Press, 2010, pp. 479-494.
10. Gabriel, M., Jacobs, K., Arthurson, K., Burke, T., Yates, J. (2005). *Conceptualising and Measuring the Housing Affordability Problem*. National Research Venture 3: Housing Affordability for Lower Income Australians Research Paper 1. Retrieved: http://www.ahuri.edu.au/downloads/NRV3/NRV3_Research_Paper_1.pdf. Access: 28.12.2015.
11. Giddens, A. (1991). *Modernity and Self-Identity. Self and Society in the Late Modern Age*. Stanford: Stanford University Press.
12. Hohmann, J. (2013). *The Right to Housing: Law, Concepts, Possibilities*. Oxford and Portland: Hart Publishing.
13. LR Saeima. *The Constitution of the Republic of Latvia*. Retrieved: <http://www.saeima.lv/en/legislation/constitution>. Access: 4.01.2016.
14. *Monitoring Security of Tenure in Cities: People, Land and Policies*. (2011). United Nations Human Settlements Programme (UN-Habitat).
15. Payne, G., Durand-Lasserve, A. (2012). *Holding On: Security of Tenure - Types, Policies, Practices and Challenges*. Retrieved: <http://www.ohchr.org/Documents/Issues/Housing/SecurityTenure/Payne-Durand-Lasserve-BackgroundPaper-JAN2013.pdf>. Access: 30.12.2015.
16. Reeves, P. (2014). *Affordable and Social Housing: Policy and Practice*. London: Routledge.
17. *The Universal Declaration of Human Rights*. Retrieved: <http://www.un.org/en/universal-declaration-human-rights/>. Access: 4.01.2016.

OVERVIEW OF DEFENCE EXPENDITURE TRENDS: EVIDENCE FROM THE BALTIC STATES

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Abstract. In recent years, security is one of the most important issues in political arena. Every country must ensure internal and external security for its citizens. In this context, the policy-makers have to decide how much to spend on this hot issue. The aim of this paper is to provide empirical insights of defence spending trends and its structural changes over the period of 2007–2013. The authors have employed comparative approach in order to assess the trends of defence expenditure in the context of the Baltic States, such as Lithuania, Latvia and Estonia. To that end, the findings have suggested the following: 1) different trends of defence expenditure and economic growth have been detected within the Baltic States. Lithuania and Estonia have reported a negative association between these indicators, while Latvia has demonstrated a positive one; 2) on the basis of intensity rate, Lithuanian defence expenditure pattern could be characterized as shifting over the analyzed period. It have been some times greater than in Latvia and Estonia; 3) Latvia and Estonia have almost identical structures of defence expenditure, while Lithuania and Estonia have the most significant dissimilarity.

Key words: real gross domestic product, economic growth, defence expenditure.

JEL code: H50, H76, O47.

Introduction

Nowadays, security of each human is one of the most important and essential needs. The countries of the world have to ensure internal and external security (Danek, 2013). Defence expenditure is an inseparable part of the national budget. Defence spending has provided protection to the citizens. Over the last decade, defence expenditure has been cut across the Baltic States. They spent about 1.4 % of GDP on average in 2007–2013 (Eurostat, 2013). Recently, growing instability in the world has promoted debates of increase in defence expenditure.

The growth theories have suggested that government expenditure has an important impact on long-run economic growth. The influence depends on the size of government intervention and on the different components of public spending. Government has played a prominent role in financing the military sector. According to Compton and Paterson (2015), defence expenditure impact on growth could depend on the quality of political institutions that underlie this spending. Defence spending can be described by a situation where the country ensures its security for the inhabitants. From the economics

point of view, it means that defence spending has competed with other public goods the citizens may need (Mosikan, Matiwa, 2014; Dudzeviciute, Tamosiuniene, 2015).

This paper aims to describe the trends of defence expenditure and its structural changes in the Baltic States over the period of 2007–2013.

The authors have applied comparative approach and used research methods, such as correlation analysis and the rates of structural changes as well as Finger-Krein index in order to assess the dissimilarities of defence expenditure's patterns across the Baltic States.

Further the authors have highlighted prevailing theoretical insights and discussed research results.

1. Theoretical insights

In academic research, the defence expenditure impact on economic growth has been analyzed from different aspects. Opinions on the effects of defence spending have been divided among two groups, such as the "pro" and the "against" group (Dunne, Tian, 2015). The "pro" group has viewed defence spending as a guarantee of security, peace, and welfare. The

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investigations have revealed that the increase in defence expenditure promotes total demand by stimulating output. Also the increase in defence expenditure may lead to improvements of infrastructure, if some of the spending is used for the creation of socio-economic infrastructure like roads and airports etc. (Shahbaz et al., 2013). During the crisis times if the part of expenditure is allocated for revamping the economy, defence expenditure can improve productivity and generate welfare (Pradhan, 2010). The "against" group has treated such expenditure as a wasteful that influences the economy beyond the resources it takes up.

Duella (2014) has summarized previous research on defence expenditure – growth effects and distinguished three categories of empirical studies. The first category of studies has demonstrated positive impact of defence expenditure on economic growth. The second one has led to opposite conclusions describing negative effects. Finally, the third category of the investigations has revealed inconclusive results on the direction of defence spending effects on economic growth. The results of the research depend on the sample of countries, time period or empirical approach used for a study (Compton, Paterson, 2015). Although the effect of defence spending has been debated for about 40 years, the answer is almost always an empirical one (Dunne, Tian, 2015).

In the recent surveys (Hirnis, Baharom, 2009; Kollias, Paleologou, 2010; Pradhan, 2010; Yang et al., 2011; Feridun et al., 2011; Alptekin, Levine, 2012; Anwar et al., 2012; Danek, 2013; Chairil et al., 2013; Tiwari, Shahbaz, 2013; Duella, 2014; Farzanegan, 2014; Khalid, Mustapha, 2014; Mosikan, Matiwa, 2014; Topcu, Aras, 2015), the following hypotheses have been developed and tested: 1) defence expenditure reduces economic growth; 2) defence expenditure is detrimental to economic growth in less developed countries; 3) the effect of defence

Jelgava, LLU ESAF, 21-22 April 2016, pp. 33-34 expenditure on economic growth is positive; 4) the effect of defence expenditure on economic growth is non-linear. The first hypothesis has suggested that there is a trade-off between productive and unproductive government expenditure. The second one has implied the existing differences among countries. The third hypothesis has related with supply-side and aggregate demand effect. The last one has been due to the first three hypotheses. The empirical investigations have tested each of these hypotheses (Alptekin, Levine, 2012).

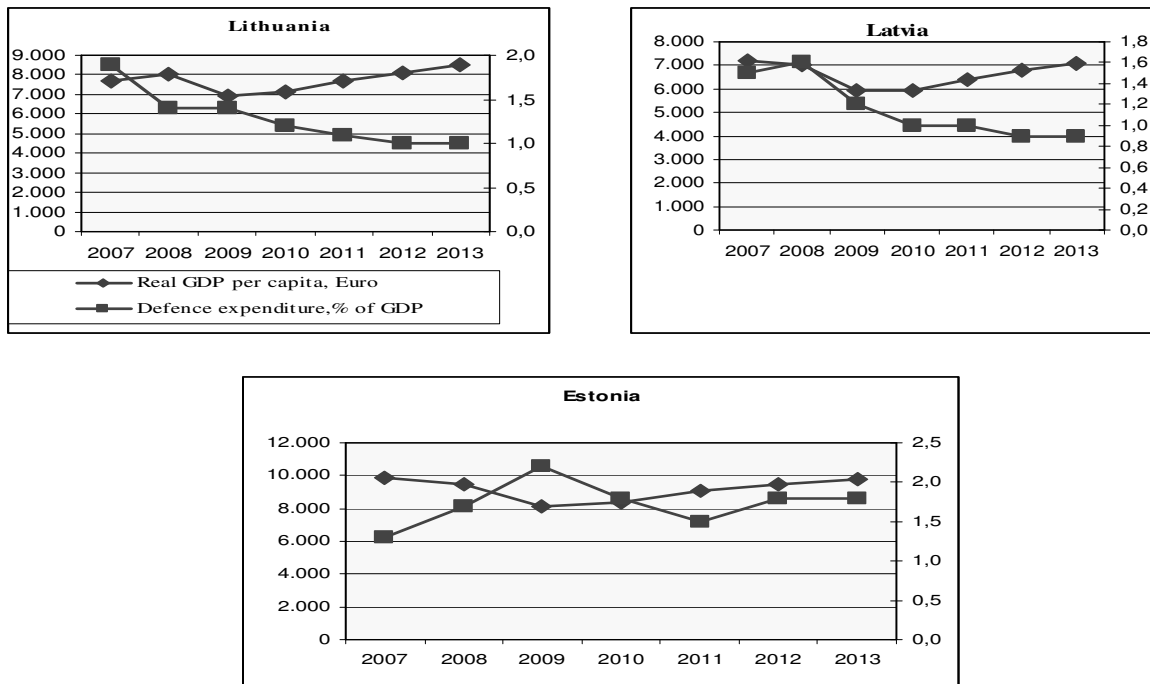
To sum up theoretical insights, it should be noted that in many cases the association between defence spending and economic growth has been evident, but the practices of different countries lead to different results.

2. Research results and discussion

The research has been guided by the assessment of defence spending tendencies in the Baltic States. The authors refer to methodology considered of different researchers (Domingo, Tonella, 2000; Gawlikowska-Hueckel, Uminski, 2008; Memedovic, Iapadre, 2010; Pradhan, 2010; Cortuk, Singh, 2010; Beeres et al., 2012; Dudzeviciute et al., 2014). To this end, the authors have applied absolute rate of structural change and intensity rate in the calculations.

Absolute rate has implied structural change of the defence pattern analysed. Positive rate value means that structural change accelerates the growth of the pattern; and negative rate diminishes. Intensity rate has informed about the intensity of changes in the structure of the pattern over the period. These two indicators give the general view about the tendencies of structural changes.

Over a period of 2007-2013, defence expenditure as percentage of GDP as well as GDP per capita have varied in the Baltic States, as Figure 1 shows.



Source: Eurostat, 2007-2013.

Fig. 1. Dynamics of defence expenditure and GDP per capita in the Baltic States

Within the Baltic States, there are clearly different variations in defence expenditure and economic growth. Estimating the general tendencies of two ratios, a negative association could be detected in Lithuania and Estonia. Over the examined period, Lithuania has demonstrated economic growth and at the same time defence expenditure reduction. In Estonia, GDP per capita has declined while the defence expenditure has been growing. Latvia has demonstrated a weak positive interrelationship between these two indicators. In the case of Latvia, as economy grows, the government tends to increase defence expenditure and conversely.

Further, in order to get a completed picture, the authors have carried out the analysis of structural change. According to classification of Eurostat (2013), defence expenditure consists of some activities, such as military defence, civil defence, research and development (R&D) defence and defence of network-enabled capability. The main insights have been provided over the period of 2007-2013.

In 2007 as well as 2013, spending for military defence dominated in the structure of total defence expenditure of the Baltic States (Table 1). In 2013, spending for military defence made 76.6 % in Lithuania. In Latvia and Estonia, this accounted to 91.7 % and 95.5 % respectively.

The patterns of defence expenditure in the Baltic States, %

Country / expenditures	2007	2013	Structural changes	
			Absolute rate, percentage point	Rate of intensity, percentage point
Lithuania				
Military defence	60.8	76.6	15.8	2.6
Civil defence	0.3	0.4	0.1	0.0
R&D defence	0.1	0.2	0.1	0.0
Defence of network-enabled capability	38.8	22.8	-16.0	2.7
Total	100.0	100.0	-	5.3
Latvia				
Military defence	88.6	91.7	3.1	0.5
Civil defence	3.8	1.7	-2.1	0.4
R&D defence	0.0	0.0	0.0	0.0
Defence of network-enabled capability	7.6	6.6	-1.0	0.2
Total	100.0	100.0	-	1.1
Estonia				
Military defence	92.4	95.5	3.1	0.5
Civil defence	0.0	0.0	0.0	0.0
R&D defence	0.5	0.2	-0.3	0.1
Defence of network-enabled capability	7.1	4.3	-2.8	0.4
Total	100.0	100.0	-	1.0

Source: authors' calculations based on Eurostat data 2007 and 2013

Over the period of 2007-2013, absolute rate of structural changes and intensity rate have varied across the Baltic States. The structural analysis of defence expenditure has revealed that the share of military defence has increased in all the Baltic States. It should be noted that the most significant growth has been in Lithuania, where military defence contribution to total defence expenditure has increased by 15.8 percentage points. In Latvia and Estonia, the growth has been the same and accounted to 3.1 percentage points. In Lithuania, the intensity rate of structure in defence pattern has been five times greater than in Latvia and Estonia. Therefore, the Lithuanian defence expenditure pattern could be characterized as shifting over

the analyzed period. Taking into consideration the results of analysis, the authors argue that increase in military defence has promoted growth of the defence expenditure as a percentage of GDP, while the drop in defence of network-enabled capability impacted on decline of total defence expenditure of the Baltic States.

Further, the authors have used Finger-Kreinin index in order to summarize how much a given distribution of defence expenditure differs across the Baltic States. Finger-Kreinin index can vary between 0 and 1 (Memedovic, Iapadre, 2010). If value is equal to 0, this shows identical structures of defence expenditure. The value accounted to 1 means maximum dissimilarity. Table 2 gives the Finger-Kreinin index of defence

patterns for the pairings of the Baltic States over

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the period of 2007 - 2013.

Table 2

Finger-Kreinin index of the defence expenditure's structure

Baltic States	Lithuania	Latvia	Estonia
Lithuania	1	0.19	0.21
Latvia	0.19	1	0.04
Estonia	0.21	0.04	1

Source: authors' calculations based on Eurostat data 2007 -2013.

According to the index value, the authors have identified some sightings. Finger-Kreinin index has varied in the interval of 0.04 – 0.21. It has informed about high degree of similarity. Assessing the pairs of the Baltic States, the most significant dissimilarity has been revealed between the defence expenditure's structures of Lithuania and Estonia. Latvia and Estonia have shown the most similar distribution of defence expenditure.

Finally, it should be noted that the Baltic States have similar structures of defence expenditure.

Next section summarizes the results of the research and provides the main conclusions.

Conclusions

Theoretical insights have shown that in academic studies, defence expenditure in the context of economic growth has been analyzed from different aspects. It should be noted that in

many cases the association between defence spending and economic growth has been evident, but the research of many countries lead to different results.

Within the Baltic States, there are different associations between defence expenditure and economic growth. Estimating the general tendencies of two ratios, Lithuania and Estonia have reported a negative association between these indicators, while Latvia has demonstrated a positive one. In 2007–2013, expenditure for military defence dominated in total defence pattern of the Baltic States. It is noticeable that the Lithuanian defence pattern's intensity rate has been significantly greater than the Latvian and Estonian.

Comparing the pairs of the Baltic States, Latvia and Estonia have almost identical structures of defence expenditure, while Lithuania and Estonia have the most significant dissimilarity.

Bibliography

1. Alptekin, A., Levine, P. (2012). Military Expenditure and Economic Growth: a Meta-Analysis. *European Journal of Political Economy*, Volume 28, p.p. 636-650.
2. Anwar, M.A., Rafique, Z., Joiya, S.A. (2012). Defense Spending-Economic Growth Nexus: a Case Study of Pakistan. *Pakistan Economical Social Review*, Volume 50, Issue 2, p.p.163-182.
3. Beeres, R., Bakker, E. J., Bollen, M., Westerink, E. (2012). Country Survey: an Economic Analysis of Military Expenditures in the Netherlands, 1990-2009. *Defence and Peace Economics*, Volume 23, Issue 4, p.p. 365–387.
4. Chairil, T., Sinaga, Dedy S., Febrianti, Annisa I. (2013). Relationship Between Military Expenditure and Economic Growth in ASEAN: Evidence from Indonesia. *Journal of ASEAN Studies*, Volume 1, Issue 2, p.p. 106-121.
5. Compton, R., Paterson, B. (2015). Military Spending and Growth: the Role of Institutions. *Defence and Peace Economics*, Volume 23. Retrieved: <http://dx.doi.org/10.1080/10242694.2015.1060022>. Access 10.11.2015
6. Cortuk, O., Singh, N. (2010) Structural Changes and Growth in India. *Economics Letters*, Volume 2, pp. 178-181.
7. Danek, T. (2013). Analysis of Relationship Between Military Expenditure and Economic Growth. *The Business and Management Review*, Volume 3, Issue 3, p.p. 51-57.
8. Dimitraki, O., Ali, F. M. (2013). The Long-Run Causal Relationship Between Military Expenditure and Economic Growth in China: Revisited. *Defence and Peace Economics*, Volume 24, p.p. 1-16. Retrieved: <http://dx.doi.org/10.1080/10242694.2013.810024>. Access 22.11.2015.
9. Domingo, C., Tonella, G. (2000). Towards a Theory of Structural Change. *Structural Change and Economic Dynamics*, Volume 11, Issue 1, p.p. 209-225.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 33-38

10. Dudzeviciute, G., Maciulis, A., Tvaronaviciene, M. (2014). Structural Changes of Economies: Lithuania in the Global Context. *Technological and Economic Development of Economy*, Volume 20, Issue 2, p.p. 339-356.
11. Dudzeviciute, G., Tamosiuniene, R. (2015). Tendencies of Defence Expenditure and its Structural Changes in the European Union Countries. *KSI Transactions on Knowledge Society*, Volume 8, Issue 1, p.p. 53-59.
12. Duella, A. (2014). Military Burden and Economic Growth: Evidence from a Multivariate Cointegration Analysis. *Journal of Global Economics*, Volume 2, Issue 3. Retrieved: <http://www.esciencecentral.org/journals/military-burden-and-economic-growth-evidence-from-a-multivariate-cointegration-analysis-2375-4389.1000119.pdf?aid=30159>. Access 05.12.2015
13. Dunne, J.P., Nikolaidou, E. (2012). Defense Spending and Economic Growth in the EU15. *Defense and Peace Economics*, Volume 23, Issue 6, p.p. 537-548.
14. Dunne, J.P., Tian, N. (2015). Military Expenditure, Economic Growth and Heterogeneity. *Defence and Peace Economics*, Volume 26, Issue 1, p.p. 15-31. Retrieved: <http://dx.doi.org/10.1080/10242694.2013.848575>. Access 05.12.2015
15. Eurostat Database on Economic Growth Indicators. (2013). Retrieved: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_aux_gph&lang=en. Access 05.12.2015
16. Eurostat Database on General Government Expenditure. (2013). Retrieved: <http://ec.europa.eu/eurostat/data/database>. Access 05.12.2015
17. Farzanegan, M. R. (2014). Military Spending and Economic Growth: the Case of Iran. *Defence and Peace Economics*, Volume 25, Issue 3, p.p. 247-269.
18. Feridun, M., Sawhney, B., Shahbaz, M. (2011). The Impact of Military Spending on Economic Growth: the Case of North Cyprus. *Defence and Peace Economics*, Volume 22, Issue 5, p.p. 555-562.
19. Gawlikowska-Hueckel, K., Uminski, S. (2008). Structural changes in the Economy of Polish Regions. *European Integration Studies*, Volume 2. p.p. 88-97.
20. Hirnissa, M.T., Baharom, A.H. (2009). Military Expenditure and Economic Growth in Asean-5 Countries. *Journal of Sustainable Development*, Volume 2, Issue 2, p.p.192-202.
21. Khalid, M.A., Mustapha, A.B. (2014). Long-Run Relationship and Causality Tests between Military Expenditure and Economic Growth in India. *The Economics and Finance Letters*, Volume 1, Issue 6, p.p. 49-58.
22. Kollias, C., Paleologou, S. (2010). Growth, Investment and Military Expenditure in the European Union-15. *Journal of Economic Studies*, Volume 37, Issue 2, p.p.228-240.
23. Memedovic, O., Iapadre, L. (2010). Structural Change in the World Economy: Main Features and Trends. *UNIDO: Working Paper*, Volume 24, p. 62.
24. Mosikan, T.J., Matiwa, K. (2014). An Analysis of Defence Expenditure and Economic Growth in South Africa. *Mediterranean Journal of Social Sciences*, Volume 5, Issue 20, p.p. 2769-2776.
25. Pradhan, Rudra P. (2010). Modelling the Nexus Between Defense Spending and Economic Growth in Asean- 5: Evidence from Cointegrated panel Analysis. *African Journal of Political Science and International Relations*, Volume 4, Issue 8, p.p. 297-307.
26. Shahbaz, M., Afza, T., Shabbir, M. S. (2013). Does Defence Spending Impede Economic Growth? Cointegration and Causality Analysis for Pakistan. *Defence and Peace Economics*, Volume 24, Issue 2, p.p. 105-120.
27. Tiwari, A.K., Shahbaz, M. (2013). Does Defence Spending Stimulate Economic Growth in India? A Revisit. *Defence and Peace Economics*, Volume 24, Issue 4, p.p. 371-395.
28. Topcu, M., Aras, I. (2015). Defense Spending and Economic Growth: Extended Empirical Analysis of the European Union Countries. *Defence and Peace Economics*, Volume 26, Issue 2, p.p. 233-246.
29. Yang, Albert J.F. Trumbull, William N., Yang, CH. W., Huang, Bwo-Nung. (2011). On the Relationship Between Military Expenditure, Threat, and Economic Growth: a Nonlinear Approach. *Defence and Peace Economics*, Volume 22, Issue 4, p.p. 449-45.

ECONOMIC PROBLEMS OF REAL ESTATE MARKET AND ITS INFLUENCE ON THE DEVELOPMENT OF BUSINESS ENVIRONMENT

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Abstract. Interconnection between macroeconomic development and company's management and entrepreneurship in general is especially important nowadays, as external factors have a great influence. The aim of the research is to analyse the key economic problems, special attention paying to business cycles and their importance for the development of business environment and entrepreneurship in real estate market. Problems of economics, social development and problems of business environment and management of the company are interconnected and are analyzed in the integrated approach. A detailed analysis of scientific literature and research articles as well as historical approach, induction, deduction and logical access methods have been used in the research. The results of the research show a high level of interconnection between business environment and entrepreneurship at the real estate market. Research defines key interrelation aspects and highlights importance of competitive business environment development. The future research directions have been identified as well.

Key words: real estate market, economic problems, business environment, entrepreneurship, regional development

JEL code: E3; R1; R3; N1

Introduction

Topicality of the research is determined by the fact that economic problems are affecting the development of the business environment and all society in general. The aim of the research is to analyze key economic problems, while paying special attention to business cycles and their importance for the development of business environment and entrepreneurship in real estate market, which is also an object of the research. Economic problems in general and problems of real estate market development have a great influence on the development of society, and at the same time, all these aspects have a great importance in business environment development as well. Tasks of the research are the following: to conduct a detailed analysis of scientific literature on economic development problems; to determine key influences on the real estate market development and development of business environment; to analyze related social aspects of researched question; to summarize results of the research and to develop recommendations for improvement of business environment.

Hypothesis of the research is – the resolution of economic problems in the existing economic system is crucial for the development of business

environment and has an impact on the entrepreneurship in real estate market. The paper employs a detailed analysis of the scientific literature, research articles and international experience on research problem. The research induction, deduction, logical access and historical approach methods have been used in order to achieve the aim of the research. Integrated approach of conducted research gives an opportunity of wider analysis on research question, emphasizes novelty of the research and is important for development of recommendations. One of the priorities of the Europe 2020 strategy is a sustainable and inclusive economic development, so the special attention should be paid to its improvement and resolution of the related problems (European Commission, 2015).

1. Socio-economic development problems and business cycle

Development of the society can be observed every day as well as it is possible to identify the areas and problems, which should be improved and resolved on a daily basis. The development history of the society includes several significant stages, and each stage has its pros and cons. The most significant directions of human development over the past 500 years are presented in Table 1.

The most significant directions of human development over the past 500 years

Year (approx.)	Direction of the Development	Typical Features of the Development
1600	Scientific revolution	Use of modern science and resources
1750	Enlightenment	Development, which is based on science and intellectual awareness
1775	Industrial revolution, urbanization	Mass production of various goods; extensive use of fossil fuels
1900	Socialism, democracy	Stronger civil society: development opportunities for each
1920	Marxism and capitalism (in the East and in the West)	New economic order
1950	Modernism	State and market, economic growth
1980	Neoliberal capitalism	Margaret Thatcher, Ronald Reagan, globalization
2000	We are looking for a new direction of development	Sustainable development

Source: Klavins and Zaloksnis, 2010, p.18

Development of society occurs cyclical. There are several types of cycles, they differ in a number of factors, such as duration, intensity. The causes and consequences of the cycles are also different. The following cycles are particularly important for the analysis of the economic problems:

- economic cycles, which are also called business cycles or trade cycles;
- cycles of financial and capital markets;
- real estate market cycles etc.

Arthur F. Burns and Wesley C. Mitchell (1946) define business cycles as *"a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises: a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one year to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own"*. However, Arthur F. Burns and Wesley C.

Mitchell (1946) criticized their own definition, because the following question was raised by the definition *"Does a large nation, such as the United States, have a single set of business cycles, or do the several geographical regions have substantially different cyclical movements?"*

David Begg (2013) defines the business cycle as *"a short-term fluctuation of output around its trend path"*. He considers cycles are likely when we recognize the limits imposed by supply and demand. Christina D. Romer (2008) points that the term *"business cycle"* is misleading, because the *"cycle"* seems to have some regularity in the timing and duration of expansion and recessions in economic activity but the most economists have another understanding: there have been three recessions in the USA over the time period between 1973 and 1982 but 1982 was followed by eight years of uninterrupted expansion. Many modern economists prefer using the term *"short-run economic fluctuations"* rather than *"business cycle"* in order to describe the changes in economic activity.

Irving Fisher (1933) emphasized that co-existing cycles could also aggravate or neutralize each other. Ludwig von Mises (1949) defined that *"the wavelike movement affecting the economic*

system, the recurrence of periods of boom which are followed by periods of depression, is the unavoidable outcome of the attempts, repeated again and again, to lower the gross market rate of interest by means of credit expansion". Ludwig von Mises (1949) also specified, that the one was free to demand an improvement in the quality and increase in the quantity of products but he mentioned that if somebody applied this formulation to various phases of the cyclical fluctuations of business activities, he should have called the boom retrogression and the depression should have been called a progress, because the boom produced impoverishment and moral ravages, and, the more optimistic people were under the illusory prosperity of the boom.

These ideas have a great influence also on the real estate market, because business cycle is affecting the real estate market and in some cases vice versa. Investment Property Databank (1999) notes that "property cycles are recurrent but irregular fluctuations on the rate of all property total return, which are also apparent in many other indicators of property activity but with varying leads and lags against the all-property cycle. Common features of three UK property crashes: 1973-4; 1989-91; 2007-9 (Jowsey, 2011):

- over-optimistic developments supported by borrowed funds;
- lenders borrowed short and lent long without adequate security;
- lenders were exposed to unforeseen shocks:
 - a. oil price rise in 1973;
 - b. inflation and subsequent interest rate rise in 1989;
 - c. US sub-prime crisis in 2007.

The government plays a key role in the real estate market regulation. Kate Barker (2004) in The Barker Review for UK defined the following objectives:

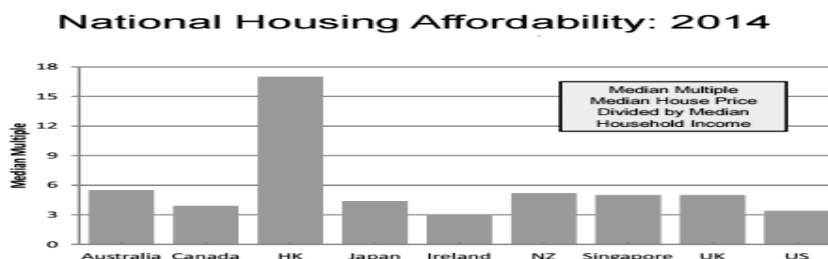
- to achieve improvements in housing affordability in the market sector;

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- a more stable housing market;
- location of housing supply which supports patterns of economic development;
- an adequate supply of publicly funded housing for those who need it.

Milton Friedman (1962) in his work Capitalism and Freedom emphasized that many government programmes were not coming into effect until passing of the recession, more often they were affecting total expenditures and were tending to exacerbate the succeeding expansion instead of mitigation of recession. He mentioned that there was often a lack of information in fiscal and monetary policy in order to be able to use changes in taxation or expenditures as sensitive stabilizing mechanism. Macroprudential policy is also very important nowadays, and its aim is the increase of the resilience of the financial system to shocks and moderation of the financial cycle (Committee on the Global Financial System, 2010). Antony Giddens (1984) believes that people in social life are straining after the certain stability, i.e. they have a need for security and confidence. Such economic indicator as income distribution is also very important for the development of society. Simon Kuznets (1955) in his work Economic growth and income inequality believed that economic growth in poor countries increased the income difference between rich and poor people. Simon Kuznets (1930) also analyzed the cyclical nature of production outcomes and prices in time period of fifteen to twenty years, and such trade cycles were often referred to "Kuznets cycles". Vilfredo Pareto (1961) was famous for his elite theory - he claimed that people were not equal either physically or intellectually as well as from the point of view of the morality, so he believed that inequality was completely natural, obvious and was a real phenomenon. It meant that people with higher indicators were composing elite and each of the spheres of human activity had its own specific elite. According to Vilfredo Pareto (1961), elite was divided into governmental and non-

governmental political elites, and he stressed that the exchange between the elite and the rest of the society was continuously taking place, and such circulation was necessary in order to ensure social balance.

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Human inequality is related to income inequality, which is one of the most important factors, defining the accessibility of housing for different social groups. The countries with the most inaccessible housing are presented in Figure 1.



Source: *Demographia, 2015, p.13*

Fig.1. **National Housing Affordability in 2014 according to data from 378 markets (Median Multiple - Median House Price Divided by Median Household Income)**

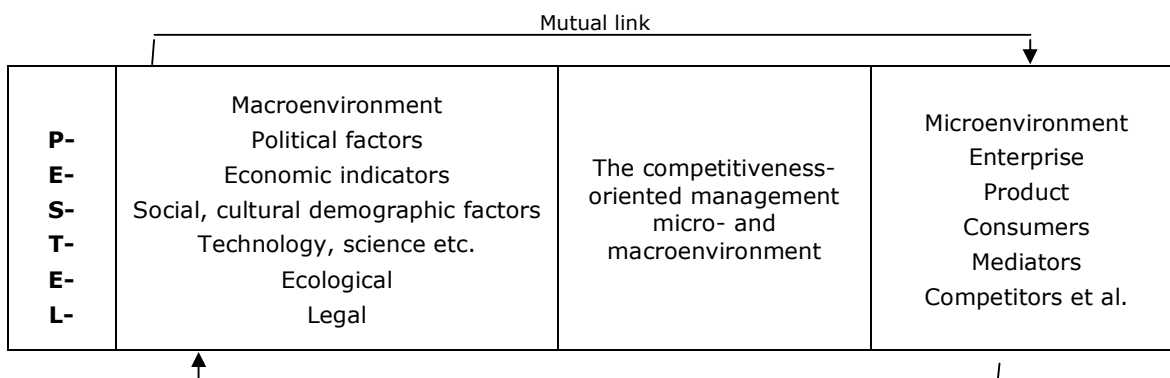
Housing affordability is a socio-economic aspect, which is affecting the life quality of society and also has high economic meaning. John Kenneth Galbraith (1958) was convinced that the economic imbalances were resulting also from the consumer society, because too many resources were driven to production of goods but not sufficient resources are driven to the public needs and infrastructure. There are several problems both in the economy and in the real estate market, and the development fluctuations make business environment uncertain, so it is necessary to understand how the entrepreneurs and market participants can reduce the impact of the negative factors.

2. Business environment and real estate market development problems

The main areas where increased levels of entrepreneurial activity can contribute significantly to specific policy outcomes are (OECD, 2004):

- 1) job creation;
- 2) economic growth, productivity improvement, and innovation;
- 3) poverty alleviation and social opportunities.

It is important to note that the company is affected by a number of micro and macro factors. The competitiveness-oriented management micro and macro factors are presented in Figure 2.



Source: *Fedotova, 2012. Figure updated by the authors*

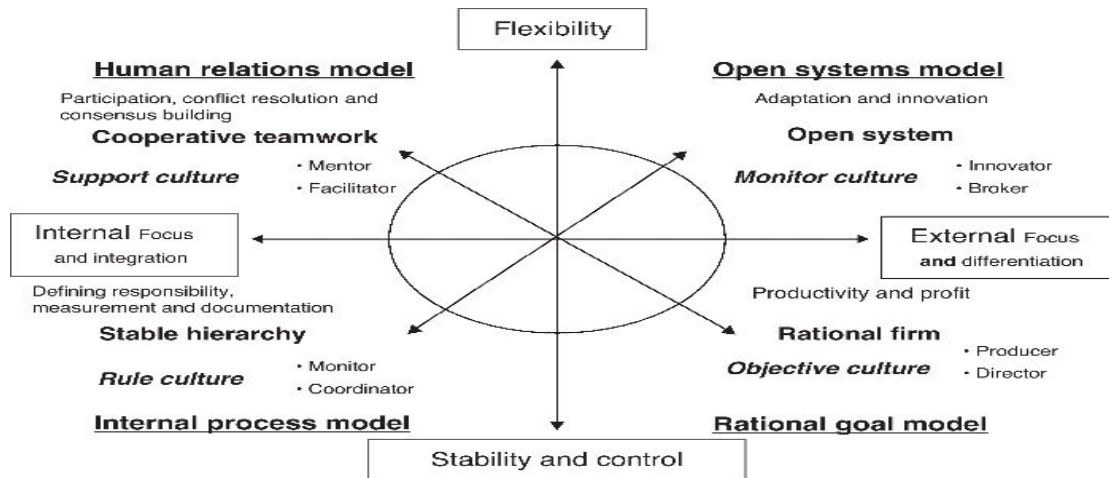
Fig.2. **The competitiveness-oriented management micro- and macro-environment**

All influencing micro- and macro-environmental factors have a significant impact

on business environment in general as well as the operation and competitiveness of any

company. Nowadays, external factors become more and more important for strategic management and development of business environment. The previous research (Kauskale and Geipele, 2015) has shown that, for example, in Latvia, in the period from 2004 to 2008, the number of mortgages secured in the Land Registry in Riga was bigger than the registered purchase agreements, which was one of the market overheat signals. After the crisis period, the situation has changed but this fact highlights

Jelgava, LLU ESAF, 21-22 April 2016, pp. 39-43 the significance of the mortgage system in the country and the availability of credits for real estate purchase on the local market. At the same time, the importance of influence of external and internal factors on the entrepreneurship highlights the Competing Values Framework. Influence of macroeconomic factors is especially important for open systems model, however, this factor influences all entrepreneurs. Competing values framework of Quinn is shown in Figure 3.



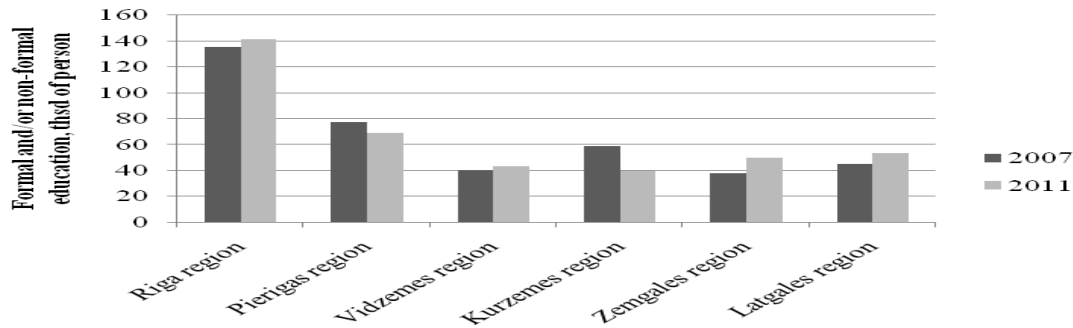
Source: Quinn, 1988

Fig.3. Competing values framework of Quinn

One of the studies reveals that environmental competitiveness positively moderates the link between business performance and process innovation but negatively moderates link between business performance and product innovation (Prajogo, 2016). Business environment in the country can also influence volumes of attracted foreign direct investments. For example, the taxation on FDI is quantitatively less relevant than the impact of other policies, as it makes a location attractive to international investors in terms of openness, regulatory hurdles and labour costs (Hajkova, Nicoletti, Vartia and Kwang-Yeol, 2006). OECD (2005) defined four criteria of business environment:

- access to skills;
- access to capital;
- access to opportunities;
- influencing the risk-reward trade-off.

The correlation of entrepreneurial performance and entrepreneurial education is one of the highest in OECD member countries (2005). Formal and non-formal education of citizens is very important for the development of each region. Formal and non-formal education of citizens of Latvia is presented in Figure 4. It is a positive tendency that the number of people who got education has increased in most Latvian regions in the period from 2004 to 2011.



Source: authors' construction based on the Central Statistical Bureau of Latvia

Fig.4. Formal and non-formal education in Latvia, thou. persons

El-hadj Bah and Lei Fang (2015) analyzed business environment in Sub-Saharan Africa by the following criteria – corruption, crime, infrastructure, regulation and access to finance indicators. Economy regulatory environment in some countries may be more business friendly than in others, for instance, in such areas: starting a business, ease of doing business, dealing with construction permits, getting

electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency (Doing Business, 2015b). Ease of doing business in general also shows a level of attractiveness of business environment. Country ranking of Doing business (2015a) is shown in Table 2.

Table 2

Ranking of countries*

Economy	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits
Singapore	1	10	1
New Zealand	2	1	3
Denmark	3	29	5
Korea, Rep.	4	23	28
Hong Kong SAR, China	5	4	7
United Kingdom	6	17	23
United States *	7	49	33
Sweden	8	16	19
Norway	9	24	26
Finland	10	33	27

*10 countries were chosen in accordance with Doing Business ranking

Source: authors' construction based on the Doing Business rankings, 2015

Each country has its own competitive advantage and strong and weaker points. External factors and global challenges are affecting entrepreneurship in general as well as the construction business and the development of

real estate market. For example, State Regional Development Agency (2015) focuses attention on economic, social and environmental spheres, and, in the opinion of the authors, influences the development of the business environment.

Business environment influencing factors

Business environment		
Economic sphere	Social sphere	Environmental sphere
Investments (private non-financial) Economic activity (economic performance of the company, number of companies, establishment, liquidation) Infrastructure (physical indicators) Workplaces Municipal budget revenues	Demography Education, qualification, creative potential Employment, unemployment Health (incl. social) of the inhabitants Security and public order Social security Income, consumption, housing sector Expenses of municipalities for education, social and cultural activities	Territory, its structure Resources Pollution, environmental quality Water supply, sewerage and waste management (physical indicators)

Source: authors' construction based on the State Regional Development Agency, 2015

For economic growth calculations, there are attempts to analyse characteristics such as economic diversity, international trade, real income of the population, the level of tax burden, the volume of savings, and economic infrastructure. In the group of indicators of social development, one can find social indicators reflecting income conditions of the population, level of poverty, income differentiation, employment and unemployment, minimum wage, extent of housework and volunteer activities, life expectancy, infant mortality, health status of the population, incidence of obesity, extent of crime, abuse and other factors (Zuzana Hajduova et al., 2014). There are many problems to be resolved in the development of the national economy and of the real estate market. The main problems are grouped and shown in Table 4. Resolution of these problems can positively influence the development of the business environment.

Social and economic problems influence real estate market. Interconnection between national economy, real estate market and construction industry is shown in Figure 5.

Economy, industry development and competitiveness of enterprises are interrelated indicators (Denisovs and Judrupa, 2008). At the same time, economic growth is affecting the real

estate market, and vice versa. Interconnection between government policies, national economy and real estate market is shown in Figure 6.

Purchasing power is affecting the demand in the real estate market but the recession in the real estate market can negatively affect GDP. The volumes of foreign direct real estate investments can increase GDP. The most important difficulty is the lack of information that is affecting the decision-making process of the market participants. Globally, there is a lot of information but the effect of external factors is crucial. The following factors may have an impact on the forecasts – political changes, sociological and cultural changes, economic influences, climate change, technological issues (Harris, McCaffer and Edum-Fotwe, 2013). Structure of national economy and real estate market is complicated and affects the business environment as well as such aspect of entrepreneurship as the company management, so all mentioned aspects are interconnected.

National economy development, real estate market and construction problems

National economy development problems	Real Estate Market problems	Construction problems
<ul style="list-style-type: none"> - Cyclical nature of development economic development fluctuations, demand and supply shocks, difficulties in forecasting. Development and price stability are required, but it is not always possible to achieve. - Economic growth in terms of GDP growth (which results in the increase in the number of produced goods and services) - Employment support, creation and stimulation of new jobs, labour market development, achievement of full employment - Unequal income distribution and need of achievement of effective use of resources - Optimal fiscal, monetary and macroprudential policy development and implementation - Successful regional policy - Impact of international factors - Net export, more value-added business, positive trade balance 	<ul style="list-style-type: none"> - The cyclical development nature of the real estate market - imbalance. need to achieve its sustainable development - Sensitivity of the real estate market and its participants to external factors and economic development - Real estate market overheat - Real estate market recession, stagnation - Financial market development, availability of mortgage loans - Insufficient information - Real estate return rates - Real estate market impact on the national economy - Behaviour of the real estate market participants in the market, short-term thinking - Insufficient demand - Housing affordability problems, that is affected by: <ul style="list-style-type: none"> - Purchasing power, salaries - Availability of mortgage - Real estate purchase price - Real estate rental rates - Other PESTEL factors 	<ul style="list-style-type: none"> - Significant impact of external factors - economic development and real estate market impact - Investment returns - Availability of financing - Construction costs - Environmental aspects, such as environmental protection, ecological construction - Construction quality - Compliance with deadlines - Company`s management problems - Legal and other PESTEL factors

Source: authors' construction

National economy -> business environment -> construction and real estate entrepreneurship

Source: authors' construction

Fig.5. Interconnection between the national economy, business environment, construction and real estate entrepreneurship



Source: authors' construction

Fig.6. Interconnection between government policies, national economy development and real estate market

Conclusions, proposals, recommendations

1) National economy and real estate market are of high social importance and face a variety of problems and situations that should be resolved and improved. The results of the research show that the following analyzed

factors are interrelated: cycles, entrepreneurship, macroeconomics, overall development of the country.

2) Level of attractiveness of business environment is affecting the economic

development of the country as well as social and environmental aspects. Human inequality results in income inequality, which is one of the most important factors for availability of housing for different social groups. Housing affordability is a socio-economic aspect that influences the life quality of the society and is also economically important, so the improvement of economic situation allows increasing the level of prosperity and the quality of life.

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3) Reducing negative impacts of real estate cycles can be favourable for society in general. Economic fluctuations make business environment unspecified, so it is necessary to reduce the impact of the negative factors. This aspect as well as analysis of business environment development within real estate market and business environment between different regions are planned to be future research directions.

Bibliography

1. Barker, K. (2004). *Barker Review of Land Use Planning*, Interim Report – Analysis. As cited in Jowsey, E. (2011). *Real Estate Economics*. New York: Palgrave Macmillan. p 498.
2. Begg, D. K.H. (2013). *Foundations of Economics*. 5th edition. London: McGraw-Hill Education. p.407
3. Burns, A.F., Mitchell, W.C. (1946). *Measuring Business Cycles*. NBER. ISBN: 0-870-14085-X. p.590. Retrieved: <http://www.nber.org/books/burn46-1> Access: 01.11.2015
4. Caune, J., Dziedons, A. (2009). *Strategiska vadisana (Strategic Management)*. Riga: „Lidojosa zivs”, 2nd edition, p. 384.
5. *Central Statistical Bureau of Latvia. Statistic database*. Retrieved: <http://www.csb.gov.lv/dati/statistikas-datubazes-28270.html>. Access: 01.12.2015
6. Committee on the Global Financial System (2010). *Macroprudential Instruments and Frameworks: a Stocktaking of Issues and Experiences*. CGFS Papers No 38. Retrieved <http://www.bis.org/publ/cgfs38.pdf> Access: 25.12.2015
7. Demographia. (2015). 11th Annual Demographia International Housing Affordability Survey: 2015 . *Ratings for Metropolitan Markets*. Retrieved: <http://www.demographia.com/dhi.pdf> Access: 15.11.2015
8. Denisovs, M., Judrupa, I. (2008). *Evaluation of Regional Development and Competitiveness*. Riga: RTU Publishing House, p. 72.
9. Doing Business (2015a). *Economy Rankings*. Retrieved: <http://www.doingbusiness.org/rankings> Access: 20.11.2015
10. Doing Business (2015b). *Methodology*. Retrieved: <http://www.doingbusiness.org/methodology> Access: 20.11.2015
11. European Commission (2015). *Europe 2020*. Retrieved: http://ec.europa.eu/europe2020/index_en.htm Access: 25.11.2015
12. Fedotova, K. (2012). *Konkuretspejigas uzņēmējdarbības vadīšanas nodrošināšana koksnes produktu ražošanā Latvijā (Ensuring Competitive Entrepreneurship Management for Manufacturing Wood Products in Latvia)*. Riga: RTU Publishing House. p. 46.
13. Fisher, I. (1933). *The Debt-Deflation Theory of Great Depressions*. Retrieved: <https://fraser.stlouisfed.org/docs/meltzer/fisdeb33.pdf> Access: 01.11.2015
14. Friedman, M. (1962). *Capitalism and Freedom*. Retrieved: <http://www.pdf-archive.com/2011/12/28/friedman-milton-capitalism-and-freedom/friedman-milton-capitalism-and-freedom.pdf> Access: 14.11.2015
15. Galbraith, J.K. (1958) *The Affluent Society*. as cited in Vilks, A. (2007). *Pasaules Sociologi (World Sociologists)*. Rīga: „Drukātava”. p. 156.
16. Giddens, A. (1984). *The Constitution of Society. Outline of the Theory of Structuration*. Retrieved: <http://bookfi.net/book/1041322> Access: 14.11.2015
17. Hajduova, Z., Andrejovsky, P., Beslerova, S. (2014) Development of Quality of Life Economic Indicators with Regard to the Environment. *Procedia - Social and Behavioral Sciences*. Volume 110. pp. 47 – 754, doi: 10.1016/j.sbspro.2013.12.919
18. Hajkova, D., Nicoletti, G., Vartia, L. Kwang-Yeol, Y. (2006). *Taxation, Business Environment and FDI Location in OECD Countries*. Retrieved: <http://www.oecd.org/eco/public-finance/37002820.pdf>. Access: 09.11.2015
19. Harris, F. McCaffer R., Edum-Fotwe, F. (2013). *Modern Construction Management*. Seventh edition. UK: Chichester, West Sussex, UK, Wiley-Blackwell. p.377
20. Investment Property Databank (1999). As cited in *Evidence of Cycles in European Commercial Real Estate Markets – and Some Hypotheses*. Baum, A. Retrieved: <http://centaur.reading.ac.uk/27213/1/0500.pdf> Access: 12.11.2015
21. Jowsey, E. (2011). *Real Estate Economics*. New York: Palgrave Macmillan. p 498.
22. Kauskale, L., Geipele, I. (2015). *Construction Management - Challenges, Influencing Factors and Importance of Investment Climate*. Proceedings of 5th International Conference on Industrial Engineering and Operations Management, United Arab Emirates, Dubai, 3-5 March, 2015. Dubai: IEOM Society, 2015, pp.522-531. ISBN 978-0-9855497-2-5. ISSN 2169-8767. DOI: 10.1109/IEOM.2015.7093803

Jelgava, LLU ESAF, 21-22 April 2016, pp. 39-48

23. Kuznets, S. (1930). *Secular Movements in Production and Prices; their Nature and their Bearing upon Cyclical Fluctuations*. Boston: Houghton Mifflin. Retrieved: <http://www.worldcat.org/title/secular-movements-in-production-and-prices-their-nature-and-their-bearing-upon-cyclical-fluctuations/oclc/1134102> Access: 15.11.2015
24. Kuznets, S. (1955). *Economic Growth and Income Inequality*. The American Economic Review. VOLUME XLV (1). Retrieved: <https://www.aeaweb.org/aer/top20/45.1.1-28.pdf> Access: 14.11.2015
25. Mises, L. (1949). *Human Action: A Treatise on Economics*. Retrieved: <http://www.econlib.org/library/Mises/HmA/msHmA20.html> Access: 10.11.2015
26. OECD (2004). *Fostering Entrepreneurship and Firm Creation as a Driver of Growth in a Global Economy*. Retrieved: http://www.brokertecnologico.it/attachments/article/42/Fostering_Entrepreneurship.pdf Access: 15.11.2015
27. OECD (2005). *Micro-Policies for Growth and Productivity: Final Report*. Retrieved: <http://www.oecd.org/sti/ind/34941809.pdf> Access: 15.11.2015
28. Pareto, V. (1961). "The Circulation of Elites," In Talcott Parsons, *Theories of Society; Foundations of Modern Sociological Theory*, 2 Vol., The Free Press of Glencoe, Inc., 1961. (English translation) pp. 551–557. As cited in Vilks, A. (2007). *Pasaules Sociologi [World Sociologists]*. Riga: „Drukātava”. p. 156.
29. Prajogo, D.I. (2016). *The Strategic Fit between Innovation Strategies and Business Environment in Delivering Business Performance*. Innovative Service and Manufacturing Design. Volume 171 (2), pp. 241–249. doi:10.1016/j.ijpe.2015.07.037
30. Quinn, R., E. *Beyond Rational Management: Mastering Paradoxes and Competing Demands of high effectiveness*. San Francisco: Jossey-Bass; 1988. As cited in Moraes, Luis F.; Graça, Luis M. (2013). A glance at the competing values framework of Quinn and the Miles & Snow strategic models: Case studies in health organizations. Retrieved: <http://www.elsevier.pt/en/revistas/revista-portuguesa-saude-publica-323/artigo/a-glance-at-the-competing-values-framework-of-90259646>. Access: 09.11.2015
31. Romer, C.D. (2008). *Business Cycles*. The Concise Encyclopedia of Economics. Retrieved: <http://econlib.org/library/Enc/BusinessCycles.html> Access: 10.11.2015
32. State Regional Development Agency of Latvia (2015). *Ekonomikas sfēra (Economic Sphere)*. Retrieved: <http://www.vraa.gov.lv/lv/publikacijas/statistika/econom/> Access: 01.12.2015
33. *Vide un ilgtspējīga attīstība (Environment and Sustainable Development)*. Eds. Klavins, M. Zaloksnis. Riga : LU Academic Publishing House, 2010. P. 334 lpp
34. Vilks, A. (2007). *Pasaules Sociologi (World Sociologist)*. Riga: „Drukātava”. p. 156.

WOMEN'S PARTICIPATION IN DECISION-MAKING

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Abstract. Gender equality is one of the factors that promotes social progress and economic growth of the country. Gender equality means equal recognition of women and men despite the differences they possess and different roles they play in the society. Although a progress of participation of women in social and economic life has already been achieved, women are still insufficiently using their opportunities to participate in decision-making process in political, economic and business areas. The aim of the research: to study the tendencies of women participation in decision-making process in political, economic and business areas. The following tasks were set in order to reach the goals of the research: 1) to reveal the essence of implementation of gender equality; 2) to research the key trends in women's participation in decision-making. The analysis of scientific literature shows that despite a huge variety of people, which is conditioned by many aspects (including gender aspect), individuals must have equal opportunities to realise their human potential, and equality in decision-making is one of the priorities of the EU. The analysis of statistics reveals that changes are necessary in order to change the situation of political representation of women. In most Member States, women continue to be under-represented in decision-making processes and positions, in particular at the highest levels. Men dominate in the private sector, while the sector of private business includes much less women as key managers than men.

Key words: women, gender equality, decision-making, participation.

JEL code: J16, D79.

Introduction

Although discrimination with regard to gender is still frequent around the world, it should be noted that the results achieved in gender equality field are impressive. The perception of the need of gender equality and promotion of gender equality is the main achievement in the field of gender equality. Various countries establish relevant institutions, which focus on gender equality: they prepare and implement gender equality policy, pay attention to the existing problems of women.

Fast progress of women participation in social and economic life is one more significant achievement as more and more women acquire education, participate actively in the labour market, political and public life. The increase of women activity in various fields not only within the country but also globally, leads to the implementation of the policy of equal opportunities. Scientists of various fields research gender equality, including their provisions, strategy, problems and solutions (Hafner-Burton E., Pollack M. A., 2002; Rubery J., 2002; Woodward A. E., 2003; Stratigaki M., 2005; Lombardo E., Meier P., 2006; Geciene I., 2008;

Rakauskiene O. G., Krinickiene E., 2009; Zvinkliene A., 2012; Kiausiene I., Streimikiene D., 2013; Rakauskiene. O. G. et al., 2014 and others). Despite a huge interest in gender equality, inequality still exists: works which require similar skills, qualification or experience are often remunerated worse and evaluated insufficiently if they are performed by women but not men. In addition, due to greater responsibilities of a woman in a family (usually women are responsible for housework and childcare), the opportunities of women in professional occupation, financial safety, career and self-expression on the whole are still limited. Therefore, women do not have a possibility to earn sufficiently and are financially dependent on men.

Women are still insufficiently using a possibility to participate in decision-making process in political, economic and business areas. Women remain under-represented in positions of power in all work areas in the EU. Addressing this deficit plays an important role in improving democratic accountability and prosperity in Europe (European Commission, 2014). Therefore, the article emphasizes the problem of insufficient

representation of women in decision-making process.

The object of the research: participation of women in decision-making process.

The objective of the research: to study the tendencies of women participation in decision-making process in political, economic and business areas.

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

- 1) to reveal the essence of implementation of gender equality;
- 2) to research the key trends in women's participation in decision-making.

Research methods: analysis of scientific literature, synthesis, the analysis and summary of statistic data.

Research Results and Discussion

1. The Essence of Gender Equality

Implementation

According to Rakauskiene et al. (2014), gender equality is a holistic concept, which is directly related to all fields of economic, social, political and family life, which includes participation of a human being. The concept of gender equality is dynamic and directly depends on historical, political and cultural society development as well as economic, social and gender equality policy and measures applied by the countries.

Gender equality is both an essential development goal in its own right and a driver of human development. Gender equality is one of the European Union's founding values, dating back to the beginnings of the European Community (the EEC) in 1957 when the principle of equal pay for equal work became a provision of the Treaty of Rome (Article 119) (European Commission, 2015). Equality between women and men is a fundamental right and a precondition for effective democracy and lasting economic growth. Gender equality contributes to

Jelgava, LLU ESAF, 21-22 April 2016, pp. 49-50 jobs, growth, fairness and democratic change (European Commission, 2014).

According to Terjesen et al. (2015), countries with more progressive social policies, larger public sectors, and greater benefits in terms of family policies have higher participation of women in the labour market. Therefore, the equality of women and men is a significant condition for economic and social welfare. Promotion of gender equality can lead to tangible and well perceptible changes in living conditions of people as it increases public life quality, improves economic and social situation of people and provides equal opportunities for women and men to realise their skills and expectations. "Gender equality means that women and men have equal rights to participate in any social activities and have equal political, economic and cultural rights and responsibilities" (Zvinkliene A., 2012). The strategy of gender mainstreaming is one of the methods to fulfil the provisions related to gender equality. According to Rakauskiene and Krinickiene (2009), gender mainstreaming means that gender component should be included in all fields of politics.

The strategy of gender mainstreaming is the attitude towards gender equality. It means equal evaluation of women and men considering differences they possess (Hafner-Burton E., Pollack M. A., 2002). The strategy of gender mainstreaming is an innovative strategy and its global distribution is special. The aim of this strategy is to allow the country to fulfil a sensitive gender policy and rearrange gender relations (Woodward A. E., 2003). The strategy of gender mainstreaming does not limit itself to only the questions related to women but also includes gender problems and requires taking relations between women and men into consideration. The strategy of gender mainstreaming is associated with people related to politics as well as organization, re-organization, development and evaluation of political processes in order to include all fields of

politics at all levels and stages (Rubery J., 2002; Stratigaki M., 2005; Lombardo E., Meier P., 2006).

The strategy of gender mainstreaming emphasizes that "both genders must have equal powers and equal possibilities to participate in all fields of public and private life" (Rakauskiene O. G., Lisauskaite V., 2005) and does not only mean a guarantee of equal opportunities (Woodward, 2008). The starting point of the gender mainstreaming strategy is as follows: "the need to distribute structural roots of gender inequality and integrate the thought of equal opportunities into political processes at various levels" (Geciene I., 2008).

The EU pays special attention to the preparation and implementation of the policy of gender equality through the establishment of institutions responsible for gender equality policy. The issue of the equality of rights of men and women is presented in the agreement of the European Community and the European Union, a lot of legal documents, standard legislation and directives (Kiausiene I., Streimikiene D., 2013). The EU legislation strategic documents promote others to support gender equality (Table 1).

The Beijing Declaration and Platform for Action is the fundamental document, which shall have a strategic meaning in the future (Table 1). The main task of the Fourth World Conference on Women, which took place in Beijing in 1995, is as follows: all women should be provided with more powers and should have an opportunity to fully participate in all fields of public life. Equality in decision-making is one of the priorities addressed by the EU. The Women's Charter and the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 49-51 European Commission's Strategy for Equality between Women and Men 2010-2015 have among their priorities the promotion of equality in decision-making.

To conclude, gender equality means that both genders should have equal powers and should have a possibility to equally participate in all fields of public and private life. The concept of gender equality is dynamic. The implementation of gender equality is a long process, which requires huge efforts; it depends on historic, political and cultural society development conditions as well on economic, social and gender equality principles and measures applied by the countries.

2. Key Trends in Women's Participation in Political Decision-Making

Women's talents are currently being underutilised at decision-making levels, in particular at the top level. Change is necessary in both the political and corporate world to strengthen Europe's competitiveness, combat the current economic crisis and create a sustainable future in which all talents are used to the full, and all voices are heard in decisions shaping Europe's future (Terjesen et al., 2015).

International law recognizes that everyone has a right to participate in public life but it remains an ongoing challenge to achieve women's equal participation, especially in decision-making. The importance of advancing women's leadership in politics has continued to gain traction. Although much remains to be done, advances are being made slowly but surely. (United Nations Development Programme, 2014).

Some documents defining the principles of gender equality

Legislation and strategic documents	The purpose of the document
The Charter of the United Nations (1945) and the Universal Declaration of Human Rights (1948).	Equality of women and men is defined as fundamental human right.
The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) adopted in 1979.	The Convention defines women discrimination and sets out the agenda for national actions in order to eliminate this particular discrimination.
Beijing Declaration and Platform for Action (adopted in September 1995).	The document identifies 12 problematic fields revealing obvious obstacles for women progress and defines the need for action. Beijing Declaration and Platform for Action pay special attention to economic situation of women.
The European Convention on Human Rights (1950) and the European Social Charter (amended in 1996) prohibiting discrimination of gender.	Fundamental documents of the European Council governing human and social rights.
Treaty Establishing the European Economic Community (1957).	The Rome Treaty includes the provision regarding equal salary paid for the same work performed by women and men.
Article 13 of the Treaty Establishing the European Community (Treaty of Amsterdam) regarding discrimination (adopted in 1977).	The Treaty emphasises the importance of the promotion of gender equality and defines the obligation to comply with the principle of equal gender integration, to expand the powers and competences of the European Community in the field of gender equality.
The Women's Charter (adopted in March 2010)	The Charter emphasizes the obligation to promote gender equality and strengthen the aspect of gender equality in all fields of politics.
The Strategy for equality between women and men represents the European Commission's work programme on gender equality for the period 2010-2015 (adopted in September 2010)	It provides a coordinated framework for promoting gender equality in all policies of the Union, with five priority areas: 1) equal economic independence for women and men; 2) equal pay for work of equal value; 3) equality in decision-making; 4) dignity, integrity and an end to gender-based violence and 5) promoting gender equality beyond the EU.
The European Pact for Gender Equality for the period 2011-2020.	The Pact once again emphasizes the obligation of the EU to eliminate gender inequality in occupancy, education and social care, to promote a better balance of women and men professional and personal life and fight against all forms of violence against women.

Source: author's construction based on Rakauskienė, O. G. et al., 2014; Grybaite V., 2006; European Commission, 2010; European Commission, 2015

Changes are necessary in order to change the situation of political representation of women. In most Member States, women continue to be under-represented in decision-making processes and positions, in particular at the highest levels, despite the fact that they make up nearly half the workforce and more than half of new university graduates in the EU. While adopting political decisions, only every fourth member of the national parliament and governments is a woman. On the average, women made 28.0% in the national parliaments in the EU in 2014, i.e. 4.0 p.p. less if compared with 2010. More than 35.0% women in national parliaments were in Germany, the Netherlands, Slovenia, Belgium and Denmark, and more than 40.0% in Spain, Finland and Sweden. The number of women in the national parliaments was less than 15.0% in

Cyprus, Romania, Malta and Hungary (European Commission, 2014). The analysis of the changes in 2010 and 2014 reveals that the number of women in the national parliaments in 2014 grew in Slovenia by 22.0 p.p. and by 10.0 p.p. in Italy if compared with 2010. However, the number of women in the national parliaments in some Member States (the Netherlands, Estonia, Belgium, Bulgaria, the Czech Republic, Sweden and Latvia) decreased from 4.0 to 1.0 p.p.

Besides, women presided governments in three EU countries (Germany, Finland and Slovakia) in 2010, while the number of women in the governments increased from 26.0% in 2010 to 28.0% in 2014. In the EU, women ministers and top government employees are generally occupying functions in ministries with socio-cultural functions. In contrast, the economic

sector has the lowest participation of women in the top two levels of civil servants (United Nations Development Programme, 2014).

According to statistics in 2012, women make up almost a quarter of Seimas members (23.4%) in Lithuania – 33 women were elected to the Seimas (Parliament) of the Republic of Lithuania. Four women chair Seimas committees. There are four (29.0%) female ministers in the sixteenth Government of the Republic of Lithuania; out of 32 vice-ministers, eight (25%), out of 14 ministry chancellors – 6 (43%) are women. In the Government of the Republic of Lithuania, female ministers, vice-ministers and advisors to ministers make up about 30% of all ministers, vice-ministers and advisors to ministers (Statistics Lithuania, 2015b).

3. The Gender Differences in Economic Decision-Making

Gender gaps also continue to exist at decision-making levels in the private sector. Despite gains in education and labour force participation, considerable inequality remains in terms of career progression (United Nations Development Programme, 2014).

In the last decades, gender diversity has been a widely debated subject, especially within the corporate sphere and on corporate boardrooms (Francis T., Lublin J. S., 2014). Arguments are frequently stating that gender diversity is a key to enhance firm performance and that gender equality and gender balance within organizations is essential to ensure economic growth (Almond S., 2013).

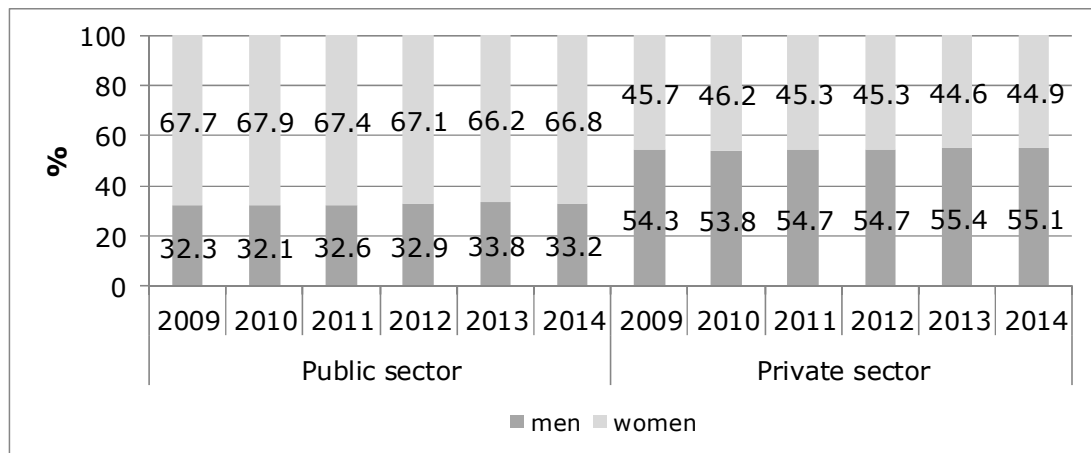
According to Rakauskiene et al. (2014), gender inequality in various public and governing sectors is already perceived as economically ineffective. It requires more expenditures and

Jelgava, LLU ESAF, 21-22 April 2016, pp. 49-53 results in lower production efficiency, constrained development of human resources, shorter leisure time and worse public welfare. On the contrary, full economic power of women would make opportunities to seek for greater production efficiency, improve quality of human resources, reduce social tension and increase public welfare.

Therefore, the European Commission in 2012 undertook relevant actions in order to eliminate obstacles for women to be in the highest positions in the largest European enterprises. The initiative was introduced to encourage public listed enterprises within the EU to a voluntary agreement of targets to increase women representation in the boardrooms to 30.0% by 2015 and 40% by 2020. The initiative was supported by several member states where national listed enterprises were encouraged to sign the voluntary commitment (Landfors M., Berglund V., 2015).

Yet, fewer women at all management levels participate in economic decision-making process if compared with men. The key indicator of gender representation on corporate boards in the EU shows that the proportion of women involved in top-level business decision-making remains very low, although there are small signs of progress. In January 2012, women occupied on average just 13.7% of board seats of the largest publicly listed enterprises in EU Member States (European Commission, 2012). In October 2014, the proportion of women on the boards of the largest publicly listed enterprises in the Member States reached 20.2%.

The analysis of distribution of women and men in state and private sectors in Lithuania reveals a dominance of men in the private sector (in 2014, they amounted to 55.1% of all persons involved in this sector) (Figure 1).



Source: author's construction based on Statistics Lithuania, 2015a

Fig. 1. Involvement of women and men in public and private sectors in Lithuania (%)

According to statistics (Figure 1), women dominate in public sector. In 2014, the number of women amounted to 66.8% of all persons involved in this sector. In the opinion of Rakauskiene et al. (2014), a favourable tendency is noticed in public sector with regard to genders: the number of women as key managers exceeds the number of men as key managers (e.g. in 2012, this number was 57.0% and 43.0%, respectively). Meanwhile, the number of women as key managers in private business is much less if compared with men. According to the data of Statistics Lithuania (2012), there were more than 83 thousand economic entities in Lithuania in January 1, 2012 and the number of women as key managers amounted to only 28%. The number of private enterprises exceeded 12 thousand and the number of women as key managers amounted to only 33%. This suggests that women have better opportunities in public

sector to combine work and their obligations in a family and realise their professional aims.

According to Rakauskiene et al. (2014), weak development of business established and developed by women in Lithuania is still conditioned by the stereotypes of roles performed by gender: women are still perceived as the ones who are responsible for children and housework, while men are perceived as the ones who have to provide financial maintenance to a family and comprehensively realise their intellectual potential at work. Following the approach by Startiene and Remeikiene (2008), "the field of business was for a long time reserved to men, thus, despite of an increasing number of female entrepreneurs during last decade, the number of female entrepreneurs in Europe, including Lithuania, remains lower than the one of male entrepreneurs". Statistic data state that share of self-employed women in Lithuania was lower than men (Table 2).

Self-employed persons by gender, %

Situation	2012		2014	
	Women	Men	Women	Men
Lithuania	39.6	60.3	41.8	58.2
EU28	10.3	19.3	9.7	17.7
Best	Greece (23.7)	Greece (37.5)	Greece (22.6)	Greece (35.7)
Worst	Estonia (4,8)	Luxembourg (9.2)	Denmark (4.8)	Luxembourg (8.8)

Source: author's calculations based on Eurostat, 2015

The statistical data analysis shows (Table 2) that almost two times more men in the EU are engaged in business if compared with women. In the EU-28, a higher proportion of men (14.1%) were self-employed than women (9.7%). Among Member States the proportion of those self-employed women in 2014, was highest in Greece (22.6%), Italy (15.8%) and Poland (12.8%), and lowest in Denmark (4.8%), Estonia (5.1%) and Sweden (5.3%). The largest relative differences are observed in Ireland (self-employed men was higher than women 14.7 p.p.), Greece (self-employed men was higher than women 13.1 p.p.) and Romania (self-employed men was higher than women 12.0 p.p.) (Eurostat, 2015).

While speaking about the opportunities of women and men to participate in political and economic decision-making process, the following conclusion can be made: women must have better skills, competence and deeper knowledge than men if they want to receive the same recognition in the professional area from others. To speak about gender equality in decision-making process is difficult: currently men dominate in business management. Therefore, the EU countries are invited to create and establish national strategies for women development with a focus on the raise of the number of women as key managers in the enterprises.

Conclusions

1) Equality of women and men is an important condition for economic development and social welfare. Striving for gender equality

can lead to tangible and well perceptible changes in living conditions of people as it increases public life quality, improves economic and social situation of people and provides equal opportunities for women and men to realize their skills and expectations.

2) International law recognizes that everyone has a right to participate in public life but it remains an ongoing challenge to achieve women's equal participation, especially in decision-making. Yet, the statistical data analysis shows that in most Member States, women continue to be under-represented in decision-making processes and positions, in particular at the highest levels, despite the fact that they make up nearly half the workforce and more than half of new university graduates in the EU.

3) Fewer women at all management levels participate in economic decision-making process if compared with men. Gender gaps also continue to exist at decision-making levels in the private sector. This situation is partially a result of the following fact: business area was reserved only for men for a long time. Statistic data state that women dominate in public sector, meanwhile, the number of men in private business is much bigger: almost two times more men in the European Union are engaged in business if compared with women.

References

1. Almond, S. (2013). *Gender Diversity in Leadership is Key to Business Success*. The Guardian. Retrieved: <http://www.theguardian.com/>. Access: 05.01.2016.
2. European Commission. (2015). *Special Eurobarometer 428 Gender Equality*, European Union. p. 101.
3. European Commission. (2010). *Strategy for Equality between Women and Men 2010-2015*. Brussels, 21.9.2010 COM(2010) 491 final. Retrieved: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0491:FIN:en:PDF>. Access: 29.12.2015.
4. European Commission. (2012). *Women in Economic Decision-Making in the EU: Progress report*, Luxembourg: Publications Office of the European Union. p. 24.
5. European Commission. (2014). *Report on Equality between Women and Men 2014*. Retrieved: http://ec.europa.eu/justice/gender-equality/files/annual_reports/... Access: 29.12.2015.
6. Eurostat. (2015). *Eurostat Database, Population and Social Conditions*. Retrieved: <http://ec.europa.eu/eurostat/data/database>. Access: 30.12.2015.
7. Francis, T. and Lublin, J. S. (2014). *U.S. Boards of Directors Lag Behind in Naming Women Ranks of Female Directors Are Growing Faster Overseas*. The Wall Street Journal. Retrieved: <http://www.wsj.com/>. Access: 05.01.2016
8. Geciene, I. (2008). *Lyčių vaidmenų stereotipai užimtumo srityje (Gender Role Stereotypes in the Area of Employment)*. Vilnius: Vilniaus universiteto Lyčių studijų centras. p. 39.
9. Grybaite, V. (2006). *Lyčių lygybė darbo rinkoje: moterų ir vyrų darbo užmokesčio skirtumai (Gender Equality in the Labour Market: Women and Men Wage Differentials)*. Verslas: teorija ir praktika, VII t., Nr. 3, pp. 168-173.
10. Hafner-Burton, E. & Pollack, M. A. (2002). *Mainstreaming Gender in Global Governance*. *European Journal of International Relations*, Vol. 8 (3), pp. 339-373. Retrieved: <http://ejw.sagepub.com>. Access: 30.12.2015.
11. Kiausienė, I. and Streimikienė, D. (2013). *Significance of Institutional Factors for the Implementation of Gender Equality in the Labour Market*. *Transformations in business and economics*, Vol. 12, No. 3, pp. 61-71.
12. Landfors, M. and Berglund, V. (2015). *Gender Balance on Corporate Boards. The Development Amongst the European Member States*. p. 57.
13. Lombardo, E. & Meier, P. (2006). *Gender Mainstreaming in the EU: Incorporating a Feminist Reading*. *European Journal of Women's Studies*, Vol. 13 (2), pp. 151-166. Retrieved: <http://web.ebscohost.com/ehost/>. Access: 25.11.2015.
14. Rakauskienė, O. G. & Krinickienė, E. (2009). *Lyčiai jautraus biudžeto koncepcija ir jo formavimo prielaidos Lietuvoje (Concept of Gender Responsive Budget and Assumptions of its Formation in Lithuania)*. Socialinių mokslų studijos, Nr. 1 (1), pp. 223-243.
15. Rakauskienė, O. G. & Lisauskaite, V. (2005). *Lyčių lygių galimybių modelis Švedijos ekonomikoje: gairės Lietuvai (The Model of Equal Opportunities of Sweden – Guidelines for Lithuania)*. Viešojo politika ir administravimas, Nr. 12, pp. 46-68.
16. Rakauskienė, O. G., Streimikienė, D., Zalienienė, I., Kiausienė, I., Servetkienė, V. & Krinickienė, E. (2014). *Lyčių ekonomika (Gender Economics)*. Vilnius: Baltijos kopija. p. 762.
17. Rubery, J. (2002). *Gender Mainstreaming and Gender Equality in the EU: the Impact of the EU Employment Strategy*. *Industrial Relations Journal Studies*, Vol. 33 (5), pp. 500-522. Retrieved: <http://web.ebscohost.com/ehost/>. Access: 25.11.2015.
18. Startienė, G., Remeikienė, R. (2008). *Gender Gap in Entrepreneurship, Engineering Economics – Inžinerinė ekonomika*, No. 5 (60), pp. 95-103.
19. Statistics Lithuania. (2012). *Official Statistics Portal, Business Statistics*. Retrieved: <http://osp.stat.gov.lt/rodikliai>. Access: 29.12.2015.
20. Statistics Lithuania. (2015a). *Official Statistics Portal, Population and Social Statistics*. Retrieved: <http://osp.stat.gov.lt/rodikliai>. Access: 29.12.2015.
21. Statistics Lithuania. (2015b). *Women and Men in Lithuania 2014*. Statistical publication, 111 p. Retrieved: <http://osp.stat.gov.lt/>. Access: 10.01.2016.
22. Stratigaki, M. (2005). *Gender Mainstreaming vs Positive Action: An Ongoing Conflict in EU Gender Equality Policy*. *European Journal of Women's Studies*, Vol. 12 (2), pp. 165-186. Retrieved: <http://ejw.sagepub.com>. Access: 03.01.2016.
23. Terjesen, S., Aguilera, R. V. & Lorenz, R. (2015). *Legislating a Woman's Seat on the Board: Institutional Factors Driving Gender Quotas for Boards of Directors*. *Journal of Business Ethics*, No. 128, pp. 233-251. Retrieved: <http://link.springer.com/article/>. Access: 06.01.2016.
24. United Nations Development Programme (UNDP). (2014). *Gender Equality in Public Administration*. p. 83. Retrieved: www.undp.org/. Access: 15.12.2015.
25. Woodward, A. E. (2003). *European Gender Mainstreaming: Promises and Pitfalls of Transformative Policy*. *Review of Policy Research*, Vol. 20 (1), pp. 65-88. Retrieved: <http://ejw.sagepub.com>. Access: 03.01.2016.
26. Woodward, A. E. (2008). *Too late for Gender Mainstreaming? Taking Stock in Brussels*. *Journal of European Social Policy*, Vol. 18 (3), pp. 289-302. Retrieved: <http://ejw.sagepub.com>. Access: 25.11.2015.
27. Zvinkienė, A. (2012). *Socialinė lygių galimybių kontrolieriaus tarnybos refleksija: Lietuvos „Web 2.0 bendruomenės“ atvejis (Social Reflection on the Office of the Equal Opportunities Ombudsperson: Case of Lithuanian Web 2.0 Community)*, Lyčių studijos ir tyrimai, No. 10, pp. 60-70.

CULTURAL ENVIRONMENT AS A POTENTIAL FOR SOCIETY RENEWAL

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Abstract. The renewal of society is a wide term in its original sense but in the context of the article, it is linked with issues of depopulation, territorial polarization and shrinking processes in Latvia. One of the "hot points" for local governments has been finding ways to attract people and promote development of rural territories for the past decades. Both theoretical and practical solutions for maintaining rural society and promoting renewal of society are the development of cultural environment. Cultural activities directly affect public participation, cooperation among the population, the development of creativity, and promotion of inclusive society, health and society renewal. As recent investigations show, cultural environment is broadly developing in rural territories of Latvia. The research of cultural environment as a potential for the renewal of society of Latvia is a novelty due to the beginning of the National Research Programme for the period 2014–2017 funded by the Government of Latvia (EKOSOC LV projects 5.2.4., 5.2.8.).

The aim of the article is to analyze cultural environment as a potential for renewal of society in rural territories of Latvia. The research object is planning and development documents of local governments, different agents of rural territories. The research questions are the following: How do local governments link development of cultural environment to settlement patterns, population attraction, place development and renewal of society? How are these links reflected in planning and development documents of local governments and in point of view of different social agents in rural territories?

The results of the study reveal development of cultural environment in rural territories in Latvia. However, these practices are fragile yet and need support. They can bring forth new social and economic structures and serve as promoters of smart development of rural territories in Latvia. For this reason, local governments should create their own strategies in order to appreciate and support cultural activities as their potential for renewal of rural society.

Key words: cultural environment, renewal of society, smart development of territory.

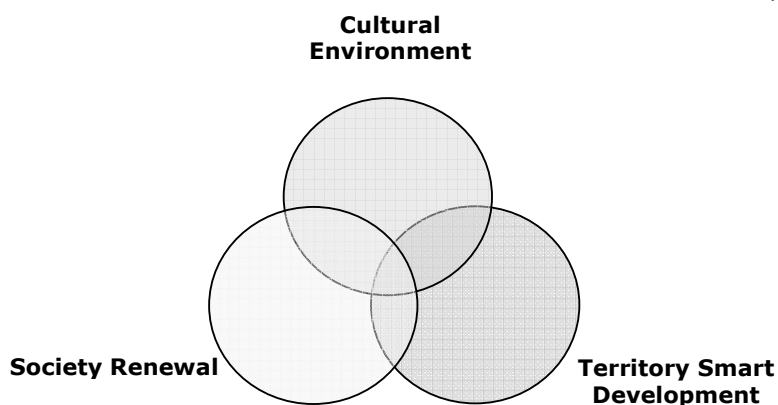
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Introduction

Society renewal is a pressing need of Western societies determined by demographic processes (aging, negative natural growth, migration, depopulation) that cause the loss of population in certain areas. Consequently, the essential goal of territorial development is to fight the depopulation. The indirect, secondary activities which are more focused on social renewal are not less important than the primary, direct activities which concern demographic renewal of society. Social renewal includes a variety of dimensions – rising of human and social capital, housing, health, living and working environment etc. The renewal of society is also determined by cultural environment that includes both tangible and

intangible cultural phenomena as well as various social aspects. Cultural activities are linked to public participation, cooperation among the population, creativity and inclusive society.

A number of scholars point out strong statistical associations between life expectancy and cultural development, strong association between cultural environment and psychological wellbeing (Konlaan et al., 2000; Grossi et al. 2011, 2013; Crociata, Agovino and Sacco, 2014; Raud, 2009). It is related to the smart development of territory that means systemic vision to the development of territory, integration, decentralized public management, inclusion and participation, innovations, knowledge and relational capital (Smart Territorial Development, 2014) (see Figure 1).



Source: authors' construction based on theoretical statements

Fig. 1. Interaction among population, cultural environment, smart development of territory

Authors of the paper are seeking links between cultural activities and renewal of society in Latvia both in development strategies of local governments and in real practices of local inhabitants. Authors assume that cultural environment has a significant potential of renewal processes.

Authors base this assumption on idea by Rudolf Steiner that the basic values of renewal of society are free cultural activities, individual responsibility and freedom to perform individual aims: "the only way to renewal, to a really healthy economy and healthy system of justice, is to create free space for the good impulses and aspirations living in humans to come to the surface" (Steiner, 2000; Williams, 2008; Matherne, 2005 et al.). Renewal of society includes creation of new social practices that inspire and maintain individual and collective ability to cope with current local problems. It includes developing the capacities of what will be most needed in society and the new economy — creativity, adaptability, critical thinking and the ability to communicate and collaborate (Institute for Social Renewal, 2013).

The renewal of society is also linked with the cultural environment preservation and development as one of its affecting dimensions. Cultural heritage is environmentally creative (Concept Study..., 2012).

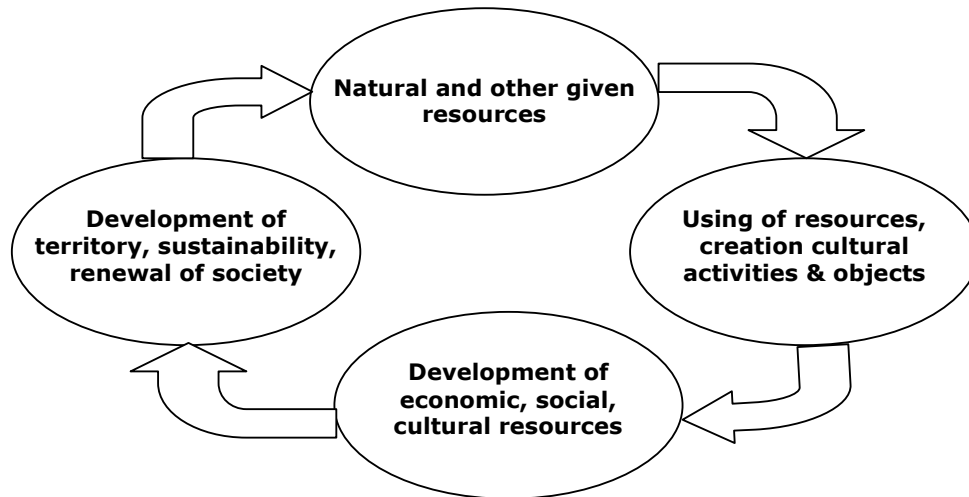
Special attention to significance of cultural environment in development process started in 2000. Through differentiating of cultural development from social development, focusing on local development scientists have considered culture to be a factor of sustainable development at both national and international levels (Duxbury, Jeannotte, 2012).

Cultural environment has been defined in theoretical literature as a set of interdependent and interconnected systems and resources. As with openness applied to resources, openness with regard to a community describes capacity to relate to that community as a contributor or user of resources that partially comprise the cultural commons. Theoretical focus on constructed cultural commons emerges from the proposition that cultural production is an inherently social phenomenon, taking place over a wide range of scales and within a complex, overlapping variety of formal and informal institutional structures (Madison, Frischmann and Strandburg, 2010). Therefore, cultural environment refers to an environment created by human activity and through interaction between humans and the natural environment.

Innovation and creativity are matters of governance of a highly social cultural environment. Natural resources, typically, are given. Although the natural environment is given and not made by humans, it is continuously and

unavoidably affected by humans and, in a sense, made and remade and unmade with irreversible consequences through those interactions. And although the cultural environment is always made by humans, it is inherited, subject to considerable path dependencies that can have irreversible consequences and contingent on

Jelgava, LLU ESAF, 21-22 April 2016, pp. 57-59 human interactions with the physical environment (Madison, Frischmann and Strandburg, 2010). That way local governments and local people are responsible for using of natural and other given resources as well as for creation other economic, social, cultural resources (see Figure 2).



Source: authors' construction based on theoretical statements

Fig. 2. Cycle of development of cultural environment and its links with renewal of society

In the context of cultural environment, the sharing/exclusion and cooperation/competition dichotomies present especially interesting and challenging puzzles to a functionalist approach. It is so for three reasons. First, those who create, invent, innovate, and participate in similar intellectually driven, productive activities necessarily borrow from or share with others. It is impossible to divest oneself of that to which one has been exposed. Inevitably, the intellectual products of past and contemporary "producers" (refers to creators, inventors, innovators, thinkers, and the like) serve as inputs into productive activities. Second, the resources that shape the cultural environment are by their nature naturally nonrivalrous and no excludable, meaning that knowledge resources are not naturally defined by boundaries that permit exclusion of users. Third, unlike resources in the natural world, resources of information and expression must be created before they can be shared. Because of the public goods character of

these resources, a cultural commons must manage both use and production of cultural resources (Madison, Frischmann and Strandburg, 2010).

Consequently, the creation of culture includes different local actors and everyone is invited in creation and using of cultural and social benefits.

Therefore, the question for public policy becomes how best to use legal and other tools to encourage the growth and persistence of creative, sustainable, and equitable cultural environments (Madison, Frischmann and Strandburg, 2010). In order to strengthen society, to promote renewal of society in the context of balanced and sustainable development, the policy-makers develop strategies of cultural environment. For instance, the Cultural Environment Strategy 2014-2020 of Finland practically emphasises the same points as theorists: "The goals of the cultural environment strategy have been crystallized into three points of view: an important resource, sustainable

development, and good administration. A well-managed and vital cultural environment will enhance the well-being of people, and it is an important aspect of developing business activities and creating an attractive living environment. Systematic maintenance and enhancement of the cultural environment increase the vitality and attractiveness of areas, help to implement sustainable development and sustain the values of the national heritage (Cultural Environment Strategy..., 2014).

In the post-socialist countries, growth of interest in the significance of cultural environment for the socio-economic development of local communities/local areas has been noticed only in recent years. Renewal of society is also a crucial point of reality of Latvia because of depopulation, territorial polarization and shrinking processes during last decades.

Cultural Policy Guidelines 2014–2020 "Creative Latvia" mention that cultural diversity, richness and accessibility, participation of active and creative individuals in its development determine not only the quality of an individual's personality and his/her life but also the growth of society and nation. Cultural environment is an environment that has been created as a result of human activities and retains their traces: both material and non-material values. Cultural heritage and cultural diversity are important conditions of sustainable and balanced development of national territory. Each individual has a right to quality living environment (cultural environment) and obligation to care for its sustainability (Cultural Policy Guidelines..., 2014, Development of Democratic..., 2013). The significance of cultural environment in the development of territory is also confirmed by studies on this topic in Latvia: "Undeveloped or weak regional and local cultural policies and actions that are not able to incorporate the use of resources and opportunities of cultural environment in local development plans can be another reason for economically and socially

Jelgava, LLU ESAF, 21-22 April 2016, pp. 57-60 active population to migrate away from the regions choosing traditionally strongest cultural centres as their residence" (Promotion of Diversity..., 2008).

The aim of the article is to analyze cultural environment as a potential for renewal of society in rural territories of Latvia. The research tasks are related with theoretical explanation of cultural environment and renewal of society and analysis of empirical materials collected by document analysis and semi-structured interviews. Research object is planning and development documents of local governments, different social agents of rural territories. The research questions are the following: How do local governments link development of cultural environment to settlement patterns, population attraction, place development and renewal of society? How are these links reflected in planning and development documents of local governments and in point of view of different social agents in rural territories?

Authors use qualitative approach to investigate the mentioned issues. Qualitative way of document analysis was done by analyzing current development strategies of four local governments and interviewing 45 different agents of local governments – local government officials, museum and tourist information centre employees, small entrepreneurs, owners of farms and various service providers who in their activities use the natural and cultural heritage resources. This article analyzes the context of the following case study areas – Mazsalaca district, Kandava district, Sabile town, and Engure district. Main purposes of sampling were connected with territories of national importance (NATURA 2000, national parks), and territories with rich natural and cultural heritage in different regions of Latvia. The study was conducted during the period from March 2015 to August 2015.

Research results and discussion

Document analysis

Qualitative analysis of development strategies of local governments discovers resources that local governments consider as their main foundation and property for development. Typically, local governments highlight natural resources, popular objects of tourism, and historical buildings in their territory. Description of these resources varies from general statements as "to preserve traditional cultural landscape and only county-specific special living environment" to particular characteristics of existing resources. At the same time, emphasis is put both on tangible and intangible cultural resources of local territory and community, for example, amateur art groups, various leisure activities, „environment characteristic to Latvia only", traditions and celebrations of local community, hospitality and strong families etc. The awareness of existing resources is pretty high in analyzed documents but not every local government appreciates their inhabitants as creators and maintainers of cultural environment. Sometimes the list of cultural values seems "empty" because it is delimited from actual doers; there is no visible responsibility of any agent on maintaining of cultural and natural resources in policy documents. The opposite situation is seen in cases when local governments are aware of their inhabitants as a specific value (they are patriotic, able to cooperate, creative, active, family-oriented, hospitable, educated, spiritually rich, loving their region, strong, resilient, responsive), perceive them as creators of development and supports their initiatives. Moreover, local governments present themselves as a formal institution that is responsible for organizing and giving opportunities for creating cultural life and claim that the basis of further development is "residence and work shared and jointly created by entrepreneurs, institutes, farms and fellowships" thus confirming cooperation and joint creation of their common living space.

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Also, there are different levels of awareness of formal goals in local municipalities. Sometimes goals are general and even contradictory (e.g. a local municipality is proud of its current geographic and social apartness but in the future it would be a transit corridor); sometimes goals are clear and based on real situation, real needs and specific values. The above mentioned difference in policy documents correlates with results found in interviews. Hypothetically, it means that awareness of local people as active agents in creation of local community's life and awareness of clear aims serve as promoter of the development of the territory. Such way local government can create free space for private initiatives, social and cultural activities.

The interview results show different levels of understanding of the significance of cultural development in the development of territories, population attraction, population development and social renewal. Although, despite the distinct features, the interview results show that different activities creating cultural environment take place in all regions: cleaning of the area, preservation of natural and cultural heritage and promotion of new economic activities by creating new products using the natural resources, creation of new tourism services etc.

The interview results point out a problem that is linked to insufficient cooperation, lack of trust among social agents in counties and lack of understanding of common goals. The local government tries to implement a variety of initiatives but they are not consistent with and based on local people's needs and interests, so they do not gain public support. So, representatives of municipality discover: „we wanted to put together a catalogue of vacant apartments... it does not work here... people do not want". In this case local government views the passivity and seclusion of its population as hindrance for development but in essence it reveals deeper problems linked to insufficiencies in the dialogue between local government and

community, supporting initiatives of local people and learning their interests.

A vital prerequisite for public activation and promotion of trust is improving of communication. A positive example is found in Seli (Mazsalaca district), where local administration specialists understand the mechanism of communication with the local population; they understand that people in rural areas must be addressed individually: „the hardest thing is finding contact, afterwards people spread the word without pushing“, as a result people's activity sometimes exceeds all expectations, events are well attended. Such way people feel that they are welcome, that they are a vital part of the cultural environment of Seli.

Contrary experience is revealed by a public relations specialist of another district; she emphasizes low activity of local population but at the same time not even trying to find contact with more passive local residents: „information can be found and read, it is open for everybody“. Public discussions are poorly attended: „counties demonstrate lack of responsiveness; we have 7-8 local officials and 3-4 inhabitants in the meeting...“ This specialist repeatedly shows unwillingness to make additional effort: „Do we really have to go around and pin notes on each door?“ This example demonstrates that public administration operates in isolation from the local community, which is considered as an obstacle to smart development of territory.

In the context of the study authors highlight the narration of the head of Sabile Municipal Administration about the targeted actions of Talsi district officials to attract population, creating an attractive living environment not only for local residents but also visitors from Riga and other places purchasing a vacation home or entertain the idea of making a permanent residence in Sabile. He points out the necessity of creative thinking as crucial prerequisite of any type of development: „We must think of how to attract people. People must be creative, otherwise there

Jelgava, LLU ESAF, 21-22 April 2016, pp. 57-62 is no production“. Simultaneously, representatives of local government think of new products and services for both tourists and second home owners. Flats and houses are purchased by residents of Riga that want to have a second home, silent place, closeness to nature; also pensioners buy apartment avoiding city life. Currently local government is working hard to build a new pre-school in Sabile to make the environment attractive to families with children, because potential residents want their children to have good life: „If my child feels good, we choose this place for permanent residence“. This example reveals sound and purposeful operation of the local administration to grow local population attraction.

Municipal staff is largely the ones who inspire local people to look for new solutions to economic and social problems. Even though the district head admits that „it was hard for me to accept that there will not be large production/factories in the area“, he calls the locals not to despair but to take action: „through the craft associations, we offer the opportunity to produce and sell products. There are still lots of barriers in peoples mind, but they slowly overcome them. One of them is lack of motivation to work more and more productively“.

The results of interviews show that local governments change their focus from economic determinism to social and cultural determinism gradually. Mostly it is caused by economic recession and depopulation processes in rural areas. The supply of free time activities is very wide and massive in Latvia. Hypothetically, cultural activities play the main role in the processes of renewal of society of Latvia, especially in places and territories where other resources (employment, access to different services) are lower. Quite often cultural activities are a way of surviving because of lack of working places. Rural people develop cultural and educational activities in order to attract tourists and to earn money, and it brings some changes

in their lifestyle and also in the structure of the labour market in rural territories. Creation of culture is a certain way of surviving through which people quite often develop their small entrepreneurship (revitalizing of old traditions, celebrations, teaching of new skills) that confirms existing of new social practices, social and economic innovations.

A successful example which represents private initiative is a family business "Maurini" that produces dried fish and offer the product tastings. It is located in the territory of Kemerī National Park. Members of this family implemented the idea of the renewal of Ragaciems sedums (cultural-historical facility for all the ancient fishing accessories) with their private resources, attracting local residents and using existing natural resources, such as reeds from the Lake Kanieris. Other three young men from this village learned skills of thatched roof tiling. This is an example of how private initiative serves of creation new products without seeking out assistance of local government but utilizing private funds and promoting activity of local population. Now the renewed facility in Ragaciems hosts various events that are organized by the active part of community. It is a good example of endogenous development as social and cultural aspects are more sustainable in long term perspective as they come from "bottom-up".

The analyzed local governments both in their development strategies and interviews confirm the importance of cultural environment as a potential of further development; they relate it to development of settlement and population attraction. The difference is seen in their awareness of it and readiness to carry out these ideas practically and purposefully. Local governments need to find balance between social, cultural, natural and economic issues of the territory. It is insufficient to highlight clean air, historical buildings, and silence if it does not come together with adequate infrastructure.

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Results show that developed cultural environment is like a catalyst that releases "free space" for local initiatives (according to Rudolf Steiner), quality of dialogue between public governance and local people, and participation of local people. However, it is not a fully evaluated and exploited potential. The development of cultural environment is important for every local government as it is a way how to activate local people, involve everyone and gradually develop social and economic structures. Local governments should play the main role in this process through developing of strategies and practical tools in order to support current local cultural initiatives and promote activity and participation of local people. Development of cultural environment can bring eventual changes in rural communities in social and economic sense but they are pretty fragile now. Therefore, they need support from local governments and national government.

Conclusions, proposals, recommendations

1) Development of cultural environment now plays an important role both in the national and local development documents and local municipalities and citizens' daily life. Cultural activities generated and implemented in rural areas are an extremely important resource for maintaining and attraction of local inhabitants, increasing of social capital and, as a result, renewal of society. The open question is – what balance will be found between social, cultural, economic and environmental dimensions?

2) Massive development of cultural activities have both positive and negative connotations – on the one hand, cultural activities often are like desperation strategies for rural inhabitants, on the other hand – they can bring new social practices, innovations and serve as a transition to new social and economic structures.

3) The quantitative paradigm (economic growth, demographic increasing of population) is gradually changing to qualitative paradigm (developing of human and social capital, assuming people as creating agents) in formal strategies and practical actions of local governments. As a result of local activities, local governments tend to consider their inhabitants not so much as taxpayers, producers of goods or impersonal fillers but as a creative resource for innovative actions.

4) In general, local governments see cultural environment as a potential for development of territory. However, there are different levels

Jelgava, LLU ESAF, 21-22 April 2016, pp. 57-64 of awareness and practical action to promote and support local initiatives. Cultural activities have created original resources in rural territories of Latvia. The main task of local governments and inhabitants is to make cultural activities stronger, share them and make them available for everyone. Considering ideas of endogenous and smart development of territory, local governments should develop their own, unique strategy for development.

Bibliography

1. Concept Study on the Role of Cultural Heritage as the Fourth Pillar of Sustainable Development (2012). 73 pp. Retrieved: <file:///E:/My%20Documents/Downloads/Study+on+the+role+of+cultural+heritage+as+a+sustainable+development+pillar-2.pdf>, Access: 2.01.2016.
2. Cultural Environment Strategy 2014-2020 of Finland (2014). Ministry of Education and Culture Ministry of the Environment, Helsinki. Retrieved: https://helda.helsinki.fi/bitstream/handle/10138/135508/Cultural%20Environment%20Strategy_2014.pdf?sequence=1, Access: 30.11.2015.
3. Demokratiska kulturpolitikas veidosana: kultura ka ilgtspejigas attistibas faktors *Metodiskais materials kulturas organizacijam, pasvaldibu un valsts instituciju lemmu pienemejiem un sabiedribai*, (2013). Development of Democratic Cultural Policies: Culture as a Factor in Sustainable Development. *Methodological Material for Cultural Organizations, Local Government and State Institutions Decision-Makers and the Public*. Vidzemes kulturas un maksas biedriba "Haritas". Vidzeme Cultural and Art Association "Haritas". Retrieved: https://culturelatlv.files.wordpress.com/2009/04/metodiskaismaterials_final.pdf, Access: 30.11.2015.
4. Duxbury, N., Jeannotte, M.S., (2012). Cities, culture and Sustainable Development, Portugal. Retrieved: https://www.ces.uc.pt/myces/UserFiles/encontros/1097_DUXBURY_Torres_Vedras_05.09.2012.pdf, Access: 21.12.2015.
5. Grossi, E., Sacco, P.L., Blessi, G.T., Cerutti, R. (2011). The Impact of Culture on the Individual Subjective Well-Being of the Italian Population: An Exploratory Study. *Applied Research in Quality of Life*, Volume 6, Issue 4, pp 387-410.
6. Institute for Social Renewal, (2013). Retrieved: <http://socialrenewal.com/what-we-do/>, Access: 21.12.2015.
7. Kulturvides daudzveidibas veicinasana un parvaldiba: nevalstiskas un privatas kulturas iniciativas (2008). Promotion and Management of the Diversity of Cultural Environment: Non-governmental and Private Cultural Initiatives. Rīga, LU SPPI, 188 lpp.
8. Madison, M.J., Frischmann, B.M., Strandburg, K.J., (2010). Constructing Commons in the Cultural Environment. *Cornell Law Review*, Vol. 95, p. 657, U. of Pittsburgh Legal Studies Research Paper No. 2008-26. Retrieved: <http://ssrn.com/abstract=1265793>, Access: 9.12.2015.
9. Matherne, B., et al. (2005). A Book Review in A Reader's Journal Vol.2, Retrieved: <http://www.doyletics.com/arj/towardss.shtml>, Access: 28.12.2015.
10. Smart Territorial Development, (2014). Investment Days. FAO. Retrieved: http://webcache.googleusercontent.com/search?q=cache:WGHNJDJLMbccJ:www.fao.org/fileadmin/templates/tci/pdf/Investment_Days_2014/16_December/Smart_territorial_development_C._Ga%25C3%25B1%25C3%25A1n_de_Molina.ppsx&cd=1&hl=en&ct=clnk&gl=lv, Access: 28.12.2015.
11. Steiner, R. (2000). Towards Social Renewal, Rethinking the Basis of Society. Retrieved: <http://www.threefolding.org/archiv/800.html>, Access: 28.12.2015.
12. Valsts kulturpolitikas pamatnostadnes 2014.-2020.gadam Radosa Latvija (2014) Cultural Policy Guidelines 2014-2020. Creative Latvia. Retrieved: http://www.km.gov.lv/lv/ministrija/radosa_latvija.html, Access: 30.11.2015.
13. Williams, N. (2008). The Source of Social Renewal. Retrieved: http://www.thinkoutword.org/pdfs/nathaniel_williams_essay.pdf, Access: 28.12.2015.

LATVIAN, LITHUANIAN AND POLISH URBAN YOUTH PERCEPTIONS OF OCCUPATIONAL PRESTIGE OF FARMER

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Abstract. The aim of the paper is to investigate Latvian, Lithuanian and Polish urban youth perceptions of occupational prestige of farmer and to analyze factors determining farmer occupational prestige. The paper highlights the theoretical approach of the term "occupation" and "occupational prestige" in the context of farmer profession. Empirical data were obtained - urban youth survey and expert interviews to define and analyse the perceptions of occupational prestige of farmer profession.

The paper examines the difference of characteristics of occupational prestige reflecting theoretical approach described by Treiman D.J., Hodge R.W., Goyder J., Sorokin P. and Duncan O.D. in order to analyse farmer occupational prestige factors. As such, the term is seldom encountered in the sociological or economic papers dealing with farmer, farming and the EU Common Agriculture Policy.

The research findings present unequal character of occupations along dimensions – work conditions, salaries, aging, educational prerequisites. Changes of industrialization and information technologies shapes the way people percept farmer profession while still in urban youth view farmer occupational prestige is low. There are disparities as regards perception of different occupations, while the current paper will examine theoretical discussions of farmer occupational factors that determine farmer place in the occupational ranking and reveal urban youth perceptions and views on occupational prestige of farmer in Latvia, Lithuania and Poland.

Key words: occupation, occupational prestige, urban youth.

JEL code: Q18

Introduction

The EU Common Agriculture Policy (CAP) reform modernizes sector and offers a new perspective through its response to the new economic, social, environmental, climate-related and technological challenges facing society (European Commission, DG AGRI). However, there exist challenges that are linked with farm structures; economic development (like difficulty to compete in terms of entrepreneurship; powerlessness in the food chain); environmental and social and demographic challenges (aging, inter-generational succession) in the EU Member States. The CAP seeks to encourage knowledge, innovation and greater competitiveness in order to reveal the potential of agriculture and food industry, while there are many indications that young people might not seek a career in agriculture due to many reasons among them concerns as regards labour income in farming. Due to the EU Agricultural Economics Briefs (2013/No 8) in 2010 there were 12 million farms in the European Union but most data sources tend to agree in saying that around 10 million

persons (in full-time equivalents) are employed in agriculture in the European Union (which represents less than 1 full time worker per farm). These 10 million persons working on the EU farms represent 5% of total employment (Agricultural Economics Brief). Apart from labour income in farming, there are some other factors that influence youth perception of agriculture as potential occupation, like poor living conditions in many rural areas and labour income in farming that lags behind incomes in non-agricultural sectors. All these factors are important in order to discuss the occupation prestige of the farmer and even more important it is to raise understanding within society as regards significant role of agriculture for economic development.

The paper discovers sociological concern of occupational prestige in the context of farmer profession in social thought (by Treiman D.J., Hodge R.W., Goyder J., Sorokin P. and Duncan O.D.) and the specific concerns how occupational

prestige is reflected by urban youths. Overall tasks of the paper are as follows:

- to discover theoretical aspects of term "occupation" and "occupational prestige";
- to reveal Latvian, Lithuanian and Polish urban youth perceptions of farmer and agriculture;
- to analyze expert views of agriculture sector issues and to verify urban youth perceptions.

This paper represents a part of the results derived from the main findings of the research "Urban Youth Perceptions on Farmer Portrait", which was carried out in 2013. The both qualitative and quantitative research methods are applied to identify Latvian, Lithuanian and Polish urban youth perceptions of farmer and agriculture. The research concerned quantitative research approach based on the urban youth survey to define and analyze the research results - identification of Latvian, Lithuanian and Polish urban youth perceptions of farmer and agriculture.

The urban youth survey is carried out in the secondary schools and universities of the cities in Latvia, Lithuania and Poland (950 urban youth from Latvia; 908 from Lithuania and 1051 urban youth from Poland). An availability sample is used since elements are selected for availability sampling due to available and easy reach of respondents in the classes of the secondary schools and the first and the second year students at university. Expert views derived from COPA, COGECA network (European agricultural cooperative organisations representing institutions dealing with agriculture sector - Latvia, Estonia, Lithuania, Poland, Austria, Germany, the UK, Spain, Portugal, Italy, the Czech Republic and Slovenia).

The authors of the paper seek to find answers to the following research questions:

- what constitutes terms "occupation" and "occupational prestige" within theoretical discussion?

Jelgava, LLU ESAF, 21-22 April 2016, pp. 65-66

- what factors determine farmer profession perception in urban youth view?

Research results and discussion

1. Understanding occupational prestige and farmer profession

Sociologists have studied occupational prestige for many years since 1965 (Goyder J. updates on Pineo P. and Porter J. works) as well as theoretical contribution by Hodge R.W, Treiman D.J. and Sorokin. Overall occupational prestige study results accepted view that prestige ratings are constant over time and across societies. There are different scientific views about occupational prestige ratings and characterising trends as regards prestige of occupation, while there are few studies dedicated to occupational prestige and farmers perspective.

Duncan's Socioeconomic Index of Occupations (Duncan O.D., 1961) has become one of the widely used occupational statuses in research of sociological studies. Duncan agreed that occupational status is one component of socioeconomic status, summarizing the power, income and educational requirements associated with various positions in the occupational structure. Duncan turns attention to farmer's occupational prestige through correlation between father's and sons' occupational status. He argues that farmers (including owners and tenants) have average prestige but very low socioeconomic status. Even more, Treiman concludes that sons of farmers who leave agriculture move into unskilled and semiskilled manual jobs, which have relatively low prestige. Thus from a prestige standpoint farmers' sons tend to experience downward mobility; however, in terms of socioeconomic status, they experience upward mobility (Treiman D.J., 1977). While this can hardly be considered an artefact since modern change of agriculture developments, such as information technology, modern agricultural production methods might attract urban people to agriculture. As Jongman

argues, agricultural landscapes are related to the new urban-rural relationships, where a growing proportion of people (including a growing number of farms owners) living in agricultural landscapes are urban employees (Jongman R.H.G., 2004).

One of the leading authors of the sociological theory that has contributed to the study of social mobility is a Russian scholar Pitirim Sorokin. Sorokin used the concept of social stratification in his studies of mobility. Social stratification, which he considered to be a permanent characteristic of a social system, can be seen in three distinct forms: 1) economic stratification, which is based on differences between the rich and the poor; 2) political stratification related to authority and power; and 3) occupational stratification, in which a system recognizes some occupations to be more respectable than others (Odekun M., 2006).

In accordance with Sorokin, the stratification is based on two main factors:

- 1) importance of the occupation group survival and integrity for preservation purposes;
- 2) intellectual level that is needed for professional duties (Sorokin P., 2005).

Those professions that are related to the group organization and control functions are socially important. They are located in the core of society and have a variety of privileges and power.

This is well reflected in the hierarchy of occupations by professor Tausig classification:

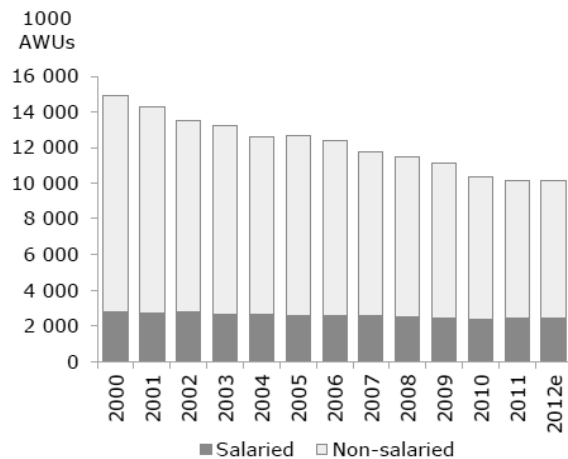
- 1) senior officials and large entrepreneurs are at the bottom of the pyramid;
- 2) medium and small entrepreneurs, well-paid civil servants group;
- 3) skilled workers group;
- 4) unskilled workers or black workers (Sorokin P., 2005).

It is obvious that this classification is based on the intellectual potential and control of power loss, accompanied by wage reduction. Furthermore, Goyder argues that changes in occupational prestige are a sign of the shifting

Jelgava, LLU ESAF, 21-22 April 2016, pp. 65-67 nature of values in a meritocratic society since income inequality is a growing reality (Goyder J., 2009). The changes of industrialization shapes the way people see many occupations. The meaning of post-industrial society was referred to the information society. The post-industrial society is largely due to the shift in the kinds of work and the processing of information technology. There is much emphasis on information processing and therefore, sometimes the emerging post-industrial society is also called information society. There is a lot of innovation in the information technology and energy production that have the potential to make a huge impact on the farm.

According to the Goyder, occupation prestige navigates individuals in society and it is one of the ways how individuals identify themselves. Furthermore, Goyder finds that prestige as such concerns not only subjective aspect of occupations but also culturally and socially constructed, in relation to collective behaviour. Occupational prestige reflects culture and proceeds to exert consequences (Goyder J., 2009). Sometimes prestige can be referred to fashion aspect that relates with individual status in a society.

Occupations differs and are unequal along many dimensions - work conditions, salaries, wages, educational prerequisites. Work conditions might differ in a way of arrangement of workplaces, some take place in clean, safe and comfortable work, others in surroundings of dirt, danger and discomfort. It has never been more important than today that salaries and wages differ and are unequal (Goyder J., 2009). From the perspective of evolution of agricultural labour input in the European Union, in 2012 there were 10.1 million of full-time equivalent jobs in the agricultural sector, of which 76% were carried out by non-salaried (family) workers. Figure 1 reflects proportion of salaried and non-salaried workers in the EU



Source: Eurostat, 2013

Fig.1. Difference of salaried and non-salaried workers in the EU

Consequently, prestige shift is related to income shift, since income is one of the several criteria in measuring prestige.

Goyder recognizes that development of technologies might rank farmer profession higher, while important factor is technological skills and content of jobs (Goyder J., 2009). This also means agriculture professionals need to use technological development and attract young people. However, Europe's farmers are getting older because of fundamental economic and demographic factors. The ageing of the agricultural population results from a combination of two things: a reduced rate of entry by new young recruits, and a reduced rate of retirement or exit by older farmers (CAP Reform, 2012). Age is not necessarily related in a negative way to higher productivity in agriculture but it might be obstacle of the further development of farms.

In the context of the importance of agriculture, it is essential to raise understanding within society that agriculture is particularly significant for economic development.

Age structure of agricultural employment and especially the ageing of farm holders, is the result of a complex set of factors, among which the most notable are the persisting low level of factor productivity in agriculture and the presence of inter-sectoral labour force movement

Jelgava, LLU ESAF, 21-22 April 2016, pp. 65-68 in the intermediate age classes (CAP Reform, 2012).

This last phenomenon, in turn, is the result of migration from urban to rural areas of retirement age persons, in search for cheap housing and/or a more relaxed and country-like lifestyle (Brown J., 1992).

As described previously in the paper, belonging to certain occupational group is used to categorize a group of people in the social mobility. However, new technology can provide additional rural employment and productivity but there are always countervailing pressures to reduce labour input and lower its costs due to exploitation of technology.

2. Urban youth perceptions of occupational prestige of farmer in Latvia, Lithuania and Poland

The common characteristic of Latvian and Lithuanian farms was focus on small family farms, as this farm type constituted the majority of agricultural enterprises. The reestablishment of private farms was determined by different factors:

First, privatization had been recommended by the EU and the World Bank, as the smaller, privately owned farms were the only way to secure sustainable development in the future.

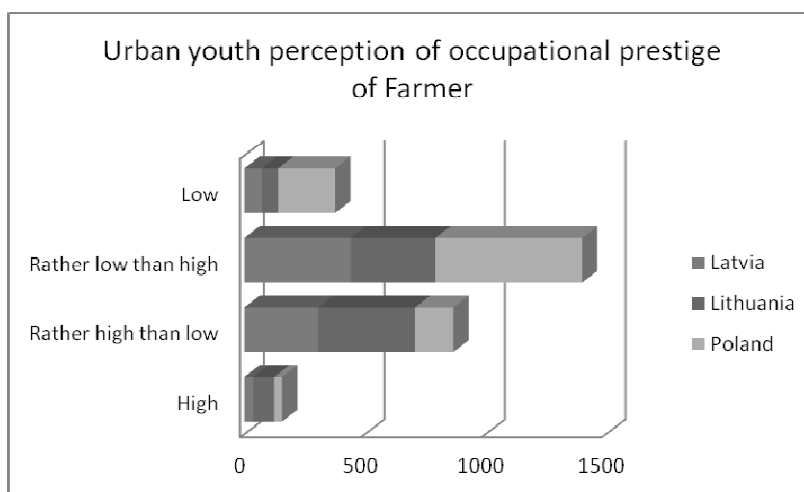
Second, privatization was driven by strong political and economic motives, signalling Western Europe that Lithuania was ready to undergo a rapid de-Sovietization and adapt to liberal democracy and market economy.

And *third*, the reestablishment of family farms was perceived as a solution to the immanent problem of environmental pollution in Lithuania – a result of Soviet industrialization and the giant collective farms in the countryside (Knudsen, 2013). Obviously, Europeanization processes leads to changes in patterns that affect family structures and relations between genders and generations. Cimdina A., Raubisko I., Priedite A. agree that many farmers choose to remain in

agriculture because they like the lifestyle and have an attachment to a home which may have been in the family for many generations (Cimdina, Raubisko, 2012).

Survey in Latvia, Lithuania and Poland (Urban Youth Perceptions, 2013) revealed the urban youth opinions and perceptions of farmer (general perceptions, most visible stereotypes, view on occupational prestige). Urban youth did indicate existing stereotypes about farmers and agriculture and reflected their view as regards occupation prestige of farmer profession in Latvia, Lithuania and Poland. In general, urban

Jelgava, LLU ESAF, 21-22 April 2016, pp. 65-69 youth are rather sceptical as regards farmer occupational prestige; only 3% (Poland), 4% (Latvia) and 10% in Lithuania respond that occupational prestige is high. The majority of respondents agree that farmer occupational prestige is rather low than high – 59% (Poland), 51% (Latvia), 39% (Lithuania). Lithuanian respondents are more optimistic as regards farmer prestige since they tend to say that farmer occupational prestige is rather high than low 44% (Lithuania), 36% in Latvia, 15% in Poland.



Source: Urban Youth Perceptions, 2013

Fig.2. Occupational prestige of farmers in Latvia, Lithuania and Poland

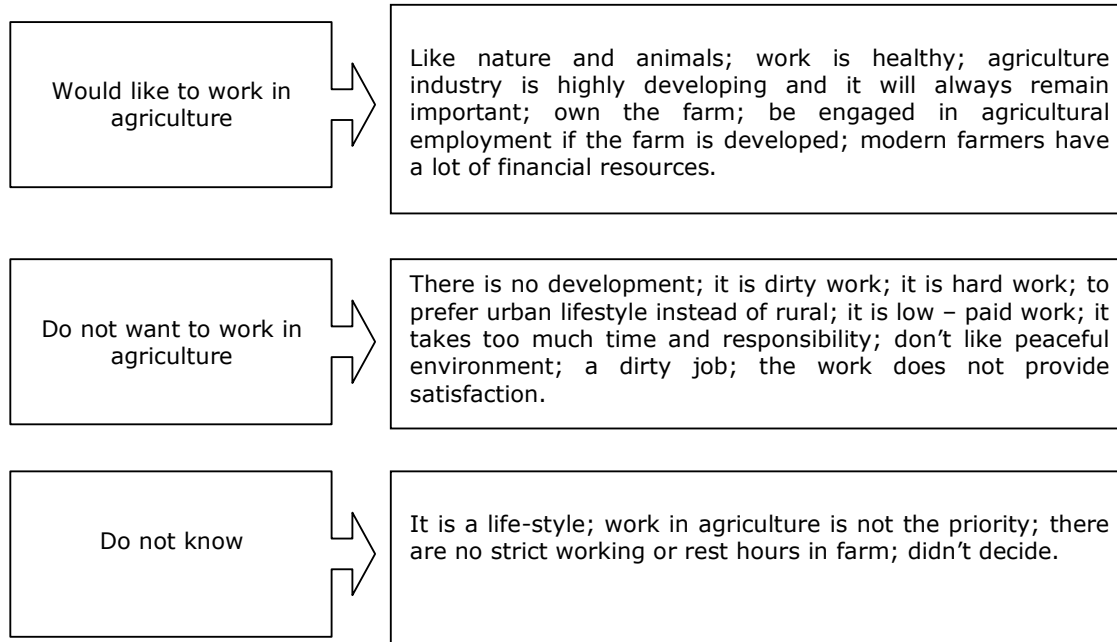
Apart from the quantitative approach, respondents did describe their perceptions of the farmer and farming. Urban youth reflected their views as regards employment in the field of agriculture. Youth reflect reality from the perspective of their personal experience.

Overall, youth think that farming is hard, physical labour and stressful because of machinery breakage, weather uncertainties, and price changes of agriculture production. Youth think that work in agriculture is unstable and unpredictable. While some respondents described advantages that agriculture might bring like - working outside is healthy, there are animals and nature in the farm, agriculture industry is highly developing and it will always remain important. Some of the respondents mention that modern

farmers have a lot of financial resources. However, regarding potential further professions youth mentioned the following professions and occupations in agriculture: agronomist, veterinarian, gardener, manager (for example, manager of the organic farm), book-keeper, researcher, engineer, financial manager, tractor driver. While some other respondents describe that they are not very much interested in working in the agriculture sector because they do not see much prospect in the future of agriculture, they do not see agriculture as an active profession in the long term.

There are no strict working or rest hours, it is work that never ends and people who work as farmers need to like what they do, otherwise

they will not feel satisfied. Respondents agree



Source: *Urban Youth Perceptions, 2013*

Fig. 3. **Individual motivation to work in the field of Agriculture**

In accordance with experts view - the EU Common Agriculture Policy (CAP) face many reforms, while it also brings many benefits to farmers (for example, direct payments). It is clear that the CAP absorb around 40% of the EU budget. The availability of the EU financing results in development of better working conditions, use of technologies and development of farms in Latvia, Lithuania and Poland. It is obvious that some of the youth find not only negative aspects of farmer portrait but also potential benefits.

Some other expert from Slovenia mention that farmer profession prestige is quite critical since there is a lack of respect of profession among farmers, lack of education and low-paid occupation in general.

Lithuanian expert continued that from youth perspective - youth parents and relatives worked hard for all their life in agriculture, thus youth do not want to sacrifice their lives and not ready to take over the parents farm.

Some experts described the role of journalists, mass media that affect youth perceptions of farmer occupation.

There is some perspective in the expert view, like development of agrotourism or organic farming becoming increasingly popular. These sectors are among the most popular since people realize that low quality of food will affect their health and tend to choose better quality food and think what they eat and where they buy their food.

Conclusions, proposals, recommendations

- 1) In accordance with theoretical discussion, occupational prestige study results reflect view that occupational prestige is constant over time and across societies.
- 2) Changes of industrialization and information technologies shapes the way how youth percept farmer profession in the future.
- 3) Agriculture, for decades, had been associated with the production of food. Therefore, agriculture plays a crucial role in the life of an economy. It is the core element of the EU economics.
- 4) Agriculture not only provides food and resources but offers employment opportunities to a very large proportion of population.

- 5) Occupations differ in work conditions, some taking place in clean, safe, and comfortable work places, others in surroundings of dirt, danger, and discomfort that stimulates to see occupations from different aspects.
- 6) Encouraging more young farmers into the EU agriculture is important since gender change in agriculture is slow. Many older farmers choose to remain in agriculture because they like the lifestyle and have an attachment to a home which may have been in the family for many generations while it does not mean that younger generation will remain in the country side.
- 7) Young people might not seek a career in agriculture since work in agriculture are hard, low prestige of occupation, poor living conditions, low labour income in farming.

- Jelgava, LLU ESAF, 21-22 April 2016, pp. 65-71
- 8) In general, urban youth are rather sceptical as regards farmer occupational prestige. Youth tend to think that profession is rather low than high. Youth think that work in agriculture is low paid and takes too much time and responsibility.
- 9) Farmer profession perception is determined by the work conditions, salaries, aging, educational prerequisites.
- 10) On the basis of the research data and analysis - Polish, Lithuanian and Latvian urban youth develop stereotyped view of the farmer and agriculture.
- 11) In accordance with experts view, youth perception of agriculture might change if developing better working conditions, using technologies in the farm and developing agrotourism and organic farming.

Bibliography

1. Agricultural Economics Briefs (2013/No 8). European Commission. Retrieved: http://ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/08_en.pdf Access: 08.01.2016.
2. Brown, J. (1992). Definition of a Profession: The Authority of Metaphor in the History of Intelligence Testing. The USA: Princeton University Press, 1992, p.6.
3. Duncan, O.D. (1961). A Socioeconomic Index For All Occupations. In Reiss, A., editor, Occupations and Social Status. New York: Free Press, pp. 109-138.
4. European Commission (2009). Why Do We Need Common Agriculture Policy? Discussion paper by DG AGRI. Retrieved: http://ec.europa.eu/agriculture/cap-post-2013/reports/why_en.pdf Access: 08.01.2016.
5. Eurostat, EAA, Agricultural Labour Input Statistics, 2013, Retrieved: <http://appsso.eurostat.ec.europa.eu/nui/show.do> Access: 08.01.2016.
6. Goyden, J. (2009). The Prestige Squeeze: Occupational Prestige in Canada Since 1965. Montreal: MQUP, ISBN 9780773535824, p.3.
7. Hogg, M. A., & Reid, S. A. (2006). Social Identity, Self-categorization, And The Communication Of Group Norms. Communication Theory, p.16.
8. Jongman, R.H.G. (2004). The New Dimensions of the European Landscapes. Netherlands: Springer, p.116.
9. Karklina, R. (2012). Lauku kopienu, pasvaldību un valsts iestāžu sadarbības attīstības plānosana (Cooperation of Communities, Municipalities and State Authorities in Developmental Planning). No: Cimdirina, A., Raubisko, I. (sast.) *Dzīve, attīstība, labbutība Latvijas laukos*. Rīga: Zinātne, 255.lpp.
10. Knudsen, I.H. (2013). New Lithuania in Old Hands: Effects and Outcomes of Europeanization in Rural Lithuania. UK; Anthem Press, p.2.
11. Matthews, A. (2012). The Greying of Europe's Farmers. CAP Reform. Retrieved: http://ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/08_en.pdf Access: 08.02.2016.
12. Odekon, M. ed. (2006). Encyclopedia of World Poverty. Gerald R. Pitzl, chapter "Social Mobility". US: Sage Publications Inc., p.400.
13. Sorokin, P. (2005) Social Mobility. Moscow: Academia.
14. Sorrentino, A. ed. (2011). The Common Agricultural Policy after the Fischler Reform. National Implementations, Impact Assessment and the Agenda for Future Reforms. UK: Ashgate Publishing.
15. Treiman, D.J. (1977). Occupational Prestige in Comparative Perspective. University of California, Los Angeles: Academic press. p.211.
16. UN Social and Human Sciences. Retrieved: <http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/> Access: 08.01.2016.
17. *Young Farmers Statistics. European Council of Young Farmers*. Retrieved: <http://www.ceja.eu/en/policy-and-publications/statistics-on-young-farmers/young-farmers-statistics> Access: 08.01.2016.
18. Zemgale NGO Centre (2013) research - Urban Youth Perceptions on Farmer Portrait. In accordance with EC CAP project „CAP-Back to Countryside” AGRI-2013-0086. Retrieved: www.zemgalei.lv Access: 08.01.2016

IMPROVING MANAGERIAL DECISION MAKING THROUGH INDIVIDUAL BEHAVIOURAL FACTORS MANAGEMENT

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Abstract. Recently decision making is analyzed in the context of uncertainty, thus, successful decision making more often is related with personality of decision maker and other decision making participants. In rural sector, where small organizations – farms dominate, farmer as managerial decision maker is the most important person. Welfare of farm as well as welfare of people working on the farm depends on farmer's as decision maker's capabilities to make right decisions, to adapt successfully in changing environment. Therefore, it is very important to understand, what behavioural factors of farmer as a manager can influence decision making. The problem "what individual behavioural factors and how they affect decision maker" is analyzed in this paper. The aim of the paper is to determine individual behavioural factors of managerial decision making and discuss their management. Analysis of scientific literature and content analysis are used for identification of factors. The authors' contribution to this paper is the analysis of behavioural factors in a context of their impact on decision making. Individual behavioural factors are analyzed in subcategories as negative, positive and both negative and positive impact making factors. At the end of the paper proposals and recommendations for behavioural factors management is presented.

Key words: decision making, behavioural factors, management.

JEL code: D23, L29, M10.

Introduction

According to the report of the 17th session of the United Nations Commission on Sustainable Development (2009), a healthy and dynamic agricultural sector is an important foundation of rural development, generating strong linkages to other economic sectors. It is necessary to strengthen the human capabilities of the rural people improving access rural people to information, education, learning resources, knowledge and training to support sustainable development planning and decision making. Decision making gets topical for rural sector and can help develop rural communities through strengthening management of rural organizations.

In scientific and academic literature, decision making as an object of research is not new. Analysis of management literature reveals that in discussing decision making, it is common to focus on one or more of these aspects (Harrison F. E., 1999; Harrison F. E., Pelletier M.A., 2000; Cooke S., Slack N., 1991; Jennings D., Wattam S., 1998; Nutt P.C., Wilson D.C., 2010 etc.): the decision making process; the decision itself; the decision maker; the decision making context.

Often researchers analyse decision making in context of uncertainty (Mowles C., 2015; Catalani M.S., Clerico G.F., 2012; Gigerenzer G., 2010 etc.), successful decision making more often is related with personality of decision maker and other decision making participants, their capabilities to adapt successfully in changing environment.

For rural sector, where small organizations – farms dominate, farmer as management decision maker is the most important person. Welfare of farm as well as welfare of people working at the farm depends on farmer's as decision maker's capabilities to make right decisions. It is very important to understand what behavioural factors of farmer as a manager can influence decision making as well having in mind that the same behavioural factors can be topical for other decision making participants. The common managerial decision making principles can be applied in organizations of rural sector, because these organizations as well have managers who make decisions, subordinates – other participants of decision making process.

Though behavioural factors are discussed in scientific and academic literature, there is a lack of wider summarized study on individual behaviour factors. Mostly discussions are focused

on separate personality features and factors influencing it but there is little discussed the entire list of individual factors, how they influence decision making process and how managers should manage them, if their management is possible in general. Based on these shortcomings scientific problem is identified: what individual behavioural factors and how they affect decision maker?

The object of the paper – individual behavioural factors of managerial decision making.

The aim of the paper is to determine individual behavioural factors of managerial decision making and discuss their management.

These objectives are set to achieve the aim:

- 1) to define individual behavioural factors of managerial decision making;
- 2) to explain how individual behavioural factors affect decision making;
- 3) to discuss individual behavioural factors management in order to reduce their negative and maximize their positive impact.

The methods of research: analysis of scientific literature, content analysis.

Theoretical background

The greatest contribution to development of behavioural theories was made by H. Simon, creating bounded rationality theory (Sechi D., 2010). He first noticed that people are only partly rational, what may lead to irrational decisions. Bounded rationality is one of the widest analyzed factors (Janis I., Mann L., 1977). As a result of bounded rationality, people are influenced by satisficing factor (Cooke S., Slack N., 1991). Later on interest on behavioural factors increased and theoretical area of decision making got widely explored from many perspectives. Escalation of commitment was analyzed by Hi, X., Mittal, V. (2007); Mullins, J. W. (2007); Lunenberg, F. C. (2010). A considerable amount of literature has been published on intuition issue (Isenberg, D., 1984;

Jelgava, LLU ESAF, 21-22 April 2016, pp. 72-73 Lee, D. et al., 1999; Khatri, N., Alvin, Nh. H., 2000; Robbins, S. P. et al., 2009; Matzler, K. et al. 2014). Dror, I. E. et al. (1998); Sanz de Acedo Lizarraga M. L. et al. (2007); Chen Y., Sun Y. (2003) widely discussed about age influence on decision making. A number of research have reported about gender role on decision making (Crow S. M. et al., 1991; Hawkins K., Power Ch. B., 1999; Venkatesh V. et al., 2000; Gill S. et al., 1987; Wood J. T., 2013; Sanz de Acedo Lizarraga M. L. et al., 2007. Emotions were analyzed by Weber, E., Johnson E. J. (2009); Damasio A. (2006); Tran V. (2004); Lakomski G., Evers. C. V. (2010); Bachkirov, A. A. (2015); Brundin, E., Gustafsson, V. (2013). Emotional intelligence is comprehensively analyzed by Hess, J. D., Bacigalupo, A. C. (2011); Huy, Q. N. (1999).

Generalizing theoretical aspects of behavioural decision making the main provisions are as follows:

- people are irrational by their nature and that irrationality is an obstacle to make logical, objective decisions;
- managerial decisions are taken in organizations created by people, every person has its own irrationality;
- managers are never absolutely rational and logic, so they make decisions that are most appropriate to their beliefs and interests.

According to this, managerial decision making is influenced by both manager's and other managerial decision making participants behaviour. Each person is personality, with its own characteristics, features each person makes different, individual influence on managerial decisions. This kind of influence is inevitable. Personality uniqueness of manager and other managerial decision making process participants, their behavioural peculiarities can be defined as individual behaviour factors (Bakanauskiene I., Kyguoliene A., 2013). Individual behaviour factors lead to decision's uniqueness and variety,

this way inspiring to analyze them upon the influence on decision making context.

Methodological background for identification of individual behavioural factors

Achieving to define behavioural factors affecting managerial decision making, the authors have analyzed secondary data, which covered 142 scientific literature sources in scientific journals, reference books. Content analysis was used as a method for categorisation behavioural factors. Though according to Robson C. (2011), it becomes less important to distinguish differences between quantitative and qualitative methods, both quantitative and qualitative content analysis were used in this research. Quantitative analysis refers to visible, countable elements in different texts, thematic content analysis allows evaluate what content and definitions appear in texts and how often they repeat. Qualitative content analysis allowed to make interpretation of the behavioural factors in decision making context, because research covered both management and organizational behaviour literature sources.

As a result of scientific literature analysis, list of individual behavioural factors have been made. Analysing text the authors identified statements how factors relate to decision making. Each of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 72-74 the factor was considered in a way how it affected decision making, so 3 subcategories have been defined: behavioural factors which made positive impact on decision making, negative impact or factors which could make both positive and negative impact depending on different circumstances. Subcategories were grouped into categories depending on a level they appeared. In this paper just one category – individual behavioural factors is covered revealing their main features.

Individual behavioural factors of decision making

The results of content analysis revealed the most often repeated individual behaviour factors: intuition, bounded rationality, satisficing, escalation of commitment, personal features, age, gender, emotional intelligence, emotions. Repeatability of each factor in analyzed literature is given in Table 1. Mostly individual behaviour factors are reflected as negative factors, though according to Hammond, J. S. et al. (2002), for example, good decision maker takes into account feelings, opinions, beliefs and advice, what points to positive impact of behavioural factors. Subcategories of these factors in a context of their impact on decision making process were created and presented below.

Table 1

Individual behaviour factors

Category	Subcategory	Behavioural factors	Repeatability in analyzed literature
Individual behaviour factors	Factors which make positive impact on decision making	<ul style="list-style-type: none"> • Intuition 	35/142, 24.6%
	Factors which make negative impact on decision making	<ul style="list-style-type: none"> • Bounded rationality • Satisficing • Escalation of commitment 	44/142, 30.9% 31/142, 21.8% 22/142, 15.5%
	Factors which can make both positive and negative impact on decision making	<ul style="list-style-type: none"> • Personal features • Age • Gender • Emotional intelligence • Emotions 	24/142, 16.9% 18/142, 12.7% 16/142, 11.3% 9/142, 6.3% 28/142, 19.7%

Source: authors' construction based on the research

As it could be seen from Table 1, intuition is considered to be the only factor which mostly makes positive impact on decision making. It is often stated that managers, who have intuition make successful decisions (Lee D., Newman P., Price R., 1999). Successful managers who make decisions according to intuition, don't need much information, they do not analyze situation deeply, they achieve good results even if they don't behave according to ration model, they can skip some jobs or even stages from rational decision making model (Isenberg D., 1984). Analysis revealed that intuition is essential when there is no time, when decisions are taken in undefined, dynamic environment for taking strategic, global decisions (Khatri N., Alvin Ng. H., 2000). According to Robbins S. P. et al. (2009); Matzler, K. et al. (2014) rational decision making has to be combined with intuition and without it, decision making can be rather ineffective.

The results of research allowed define bounded rationality, satisficing and escalation of commitment as factors mostly mentioned making negative impact on decision making. Bounded rationality, identified by H. A. Simon (Sechi D., 2010), probably is the most commonly used term related to manager's mistakes, analyzing manager's irrationality in decision making process. It was identified that managers often took decisions in accordance with the amount of information available, according to their preferences what was right what was not, relied on emotions, their subjective experience and knowledge. Bounded rationality is explained in different management styles, when manager gets irrational (Janis I., Mann L., 1977).

Satisficing, understood as individual's desire to survive the feeling of achieved goal as soon as possible (Cooke S., Slack N., 1991), does negative impact on decision making. It was distinguished that in accordance to satisficing manager didn't look at the best option, didn't solve optimization task, alternatives were not compared with each other. Manager only tries to

Jelgava, LLU ESAF, 21-22 April 2016, pp. 72-75 determine if alternatives meet requirements, he chooses the first alternative, which meets or exceeds his requirements or expectations. Decisions get irrational because alternatives are not evaluated equally.

Research revealed that escalation of commitment – the human tendency to continue to follow a failing course of action, was one of the major errors in decision making (Lunenberg, F.C., 2010; Mullins, 2007; Hi & Mittal, 2007). Analysis showed that facing this factor manager didn't change the decision, though it became clear that mistake was done and decision was not suitable, it wouldn't solve the problem, manager protected his beliefs about himself being rational (Lunenberg, F.C., 2010). Manager, who is committed to made decision, will not be inclined to change decision, even it is not correct. Escalation of commitment is the most evident when managerial decision is being implemented.

As it could be seen from Table 1, the biggest part of the factors can have both positive and negative impact on decision making. The authors of this paper consider that personal features, age, gender, emotional intelligence and emotions have an impact on individual behaviour in decision making process through system of values, attitudes, competence level, motivation. There is no single attitude if decision making depends on individual's personal characteristics or a person behaves differently in different situations. More often it is assumed that individuals with different personal characteristics behave different in decision making process.

The results concerning age are not ambiguous. There are differences in decision making depending on age (Dror, I. E. et al., 1998). Individual's competence and experience takes special place in decision making, so age, reflecting competence and experience do positive impact on decision making: the elder person is, the better decisions he makes (Sanz de Acedo Lizarraga M. L. et al., 2007). Chen Y., Sun Y. (2003) argue that age don't impact decision

quality and decision making speed, both young and elder managers can make successful decisions.

There is no common attitude to gender. Men and women have their own advantages in decision making but none of them are obviously better decision makers (Crow S. M. et al., 1991; Hawkins K., Power Ch. B., 1999, Venkatesh V. et al., 2000). Women spend more time to make decision, gather more information, are more influenced by environment (Gill S. et al., 1987), men are more realistic and objective (Wood J. T., 2013). Both men and women thoroughly process information, evaluate alternatives logically, retrieve the relevant decision-related data from their memories, categorize the data if they are very diverse, predict results, evaluate the consequences, solve the problems posed by the situation, and monitor all the decision stages (Sanz de Acedo Lizarraga M. L. et al., 2007).

One of the latest features analyzed in literature is emotional intelligence. According to Hess, J. D., Bacigalupo, A. C. (2011), emotional intelligence skills can assist in enhancing the quality of decision making. In the decision-making process, the acknowledgment of individual emotions is critical in determining not only the motivations behind decisions but also the impact of those decisions on others. Decision makers who understand the emotions of others may utilize that perceptivity to head off potential negative outcomes by addressing those emotional issues in advance of the decision (Huy, Q. N., 1999). Likewise, decision makers who perceive and understand their own emotions will be much more effective in managing those emotions in the decision-making process (Hess, J. D., Bacigalupo, A. C., 2011).

Emotions affect the efficiency of managerial decision making process (Weber, E., Johnson, E. J., 2009). Content analysis showed that if there is no clear rational basis to make a decision, emotions are the main factor affecting decision making (Damasio A., 2006). Positive emotions

Jelgava, LLU ESAF, 21-22 April 2016, pp. 72-76 enhance creativity, labour productivity, encourage evaluate alternatives more deeply, gather more information but they can interfere decision making process by ignoring important information, overestimating positive results of decision, distracting decision makers from the process. Negative emotions can encourage constructivism, objectivity but can reduce creativity (Tran V., 2004).

Content analysis also revealed individual behavioural factors, which were mentioned less often: overconfidence bias, availability bias or novelty effect, confirmation bias, hindsight bias, anchoring bias, wishful thinking. These factors were left behind this paper cause require deeper analysis.

Conclusions, proposals, recommendations

1) In this paper, the aim was to determine individual behavioural factors of managerial decision making and discuss their management. Identification of individual behavioural factors itself would not be useful unless they are managed. Management of individual behavioural factors should be understood as manager's abilities to recognize and identify behavioural factors in his own and/or other decision making participant behaviour, to understand how these factors affect decision making, to take actions and choose necessary means in order to reduce negative and maximize positive impact of each of the factors on decision making (Bakanauskiene I., Kyguoliene A., 2013).

2) The research has identified intuition, bounded rationality, satisficing, escalation of commitment, personal features, age, gender, emotional intelligence, emotions as the most often repeated behavioural factors in scientific and academic literature. Knowledge about the content of each factor could help rural managers recognize these factors during decision making process.

3) Content analysis revealed that intuition had mostly positive impact on decision making. Though managers should account on intuition more often and train it. The results of research allowed to define bounded rationality, satisficing and escalation of commitment as factors mostly mentioned making negative impact on decision making. On purpose to reduce negative and maximize positive impact of individual behaviour factors, successful manager needs to increase his and his subordinates competence level. Competence can be increased through finding out what knowledge, skills, abilities and experience are necessary for manager or his subordinates and how it can be gained. Increasing competence is essential for bounded rationality management. Application on rational decision making principles, when manager separates the identification and evaluation of alternatives (Bakanauskiene I., Kyguoliene A., 2013) can help manager manage satisficing. Manager should first of all identify all alternatives and don't stick to the first one which meets requirements. Escalation of commitment is managed by self-consciousness. If mistakes were made, better

Jelgava, LLU ESAF, 21-22 April 2016, pp. 72-77 to change the decision, trying to avoid escalation of commitment. According to research results, personal features, age, gender, emotional intelligence, emotions can have both positive and negative impact, manager should maximize positive influence and manage negative aspects. Motivation is a common mean which can be used to manage individual behaviour (Bakanauskiene I., Kyguoliene A., 2013). Manager should choose among different motivation means, according to situation, personal characteristics of decision making participants, their expectations. Through right motivation manager can change people attitude to work, so he can change subordinates behaviour.

4) Findings of the research extends rural manager's knowledge about individual behavioural factors and their management. The most often repeated factors and their impact are summarized in one paper, so it can be used in practise for rural managers as a short guide. Research results about individual behaviour factors can serve strengthening the human capabilities of rural people to make better decisions what may lead to sustainable development of agriculture.

Bibliography

1. Bachkirov, A. A. (2015). Managerial Decision Making Under Specific Emotions. *Journal of Management Psychology*. Vol. 30, No 7., pp. 861-874.
2. Bakanauskiene, I., Kyguoliene, A. (2013). *Vadybiniai Sprendimai: Priemimas ir Igyvendinimas*. Vytautas Magnus University, p. 240.
3. Brundin, E., Gustafsson, V. (2013). Entrepreneurs' Decision Making Under Different Levels of Uncertainty: the Role of Emotions. *International Journal of Entrepreneurial Behaviour & Research*. Vol. 19, No 6, pp. 568 – 591.
4. Catalani, M. S., Clerico, G. F. (2012). *Decision Making Structures: Dealing with Uncertainty within Organizations*. Springer Science & Business Media, p. 167.
5. Chen, Y., Sun, Y. (2003). Age Differences in Financial Decision Making: Using Simple Heuristics. *Educational Gerontology*, Vol. 28, pp. 627-635.
6. Cooke, S., Slack, N. (1991). *Making Management Decisions*. Prentice Hall (UK), p.329.
7. Crow, S. M., Fok, L. Y., Hartman, S. J., Payne, D. M. (1991). Gender and Values: What Is the Impact on Decision Making? *Sex Roles*, Vol. 25, Issue 3, pp. 255-268.
8. Damasio, A. (2006). *Descartes' Error: Emotion, Reason, and the Human Brain*. Vintage (UK), p. 352.
9. Dror, I. E., Katona, M., Mungur, K. (1998). Age Difference in Decision Making: To Take a Risk or Not? *Gerontology*, Vol. 44, No 2, pp. 67-71.
10. Gigerenzer, G. (2010) *Rationality for Mortals: How People Cope with Uncertainty*. Oxford University Press, p. 256.
11. Gill, S., Stockard, J., Johnson, M., Williams, S. (1987). Measuring Gender Differences: the Expressive Dimension and Critique of Androgyny Scales. *Sex Roles*, Vol. 17, Issue 7, pp. 375-400.
12. Hammond, J. S., Keeney, R. L., Raiffa, H. (2002). *Smart Choices: A Practical Guide to Making Better Decisions*. The Crown Publishing Group, p. 256.
13. Harrison F. E. (1999). *The Managerial Decision-Making Process*. Houghton Mifflin Co, p.555.

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14. Harrison, F. E., Pelletier M. A. (2000). The Essence of Management Decision. *Management decision*, Vol. 38, Issue 7, pp.462-469.
15. Hawkins, K., Power, C. B. (1999). Gender Differences in Questions Asked During Small Decision Making Group Discussions. *Small Group Research*, Vol. 30, No 2, pp. 235-256.
16. Hess, J. D., Bacigalupo, A. C. (2011). Enhancing Decisions and Decision Making Processes Through the Application of Emotional Intelligence Skills. *Management decision*, Vol. 49, No. 5, pp. 710-721.
17. Hi, X., Mittal, V. (2007). The Effect of Decision Risk and Project Stage on Escalation of Commitment. *Organizational Behaviour and Human Decision Processes*, Vol. 103, No. 2, pp. 225-237.
18. Huy, Q. N. (1999). Emotional Capability, Emotional Intelligence and Radical Change. *Academy of Management Review*, Vol. 24, No. 2, pp. 325-45.
19. Isenberg, D. (1984). How Senior Managers Think? *Harvard Business Review*, Vol. 62, Issue 6, pp. 81-90.
20. Janis, I., Mann, L. (1977). *Decision Making: A Psychological Analysis of Conflict, Choice and Commitment*. NY: The Free Press, p.488.
21. Jennings, D., Wattam, S. (1998). *Decision Making: An Integrated Approach*. Pearson education, p.364.
22. Khatri, N., Alvin, H. Ng. (2000). Role of Intuition in Strategic Decision Making. *Human relations*, Vol. 53, No. 1, pp.57-86.
23. Lakomski, G.; Evers, C. W. (2010). Passionate Rationalism: the Role of Emotion in Decision Making. *Journal of Educational Administration*. Vol. 48, No. 4, pp. 438-450.
24. Lee, D., Newman, P., Price, R. (1999). *Decision Making in Organisations*. London: Financial times Pitman Publishing, p. 262.
25. Lunenburg, F. C. (2010). Escalation of Commitment: Patterns of Retrospective Rationality. *International Journal of Management, Business and Administration*, Vol. 13, No. 1, pp. 1-5.
26. Matzler, K.; Uzelac, B.; Bauer, F. (2014). Intuition: the Missing Ingredient for Good Managerial Decision Making. *Journal of Business Strategy*. Vol. 35, No. 6, pp. 31-40.
27. Mowles, C. (2015). *Managing in Uncertainty: Complexity and the Paradoxes of Everyday Organizational Life*. Routledge, p. 188.
28. Mullins, J. W. (2007). Good Money After Bad. *Harvard Business Review*, Vol. 85, pp. 37-48.
29. Nutt, P. C. Wilson, D.C. (2010). *Handbook of Decision Making*. John Wiley & Sons, p.720.
30. Robbins, S. P., Judge, T. A., Odendall, A., Roodt, G. (2005). *Organizational Behaviour. Global and Southern African Perspectives*. Cape Town: Pearson Education South Africa, p. 496.
31. Robson, C. (2011). *Real World Research*. 3rd edition. John Wiley & Sons, p. 608.
32. Sanz de Acedo Lizarraga, M. L., Sanz de Acedo Baquedano, M. T., Cardelle-Elawar, M. (2007). Factors that Affect Decision Making: Gender and Age Differences. *International Journal of Psychology and Psychological Therapy*, Vol. 7, No. 3, pp. 381-391.
33. Secchi D. (2010). *Extendable Rationality: Understanding Decision Making in Organizations*. Springer Science & Business Media, p.180.
34. Tran, V. (2004). *The Influence of Emotions on Decision Making Processes in Management Teams: Doctoral thesis*. Geneva: University de Geneve. Retrieved: <http://staff.maxwell.syr.edu/cgerard/Fundamentals%20of%20Conflict%20Resolution/The%20Impact%20of%20Emotions%20on%20Decision%20Making%20Processes%20in%20Management%20Teams.pdf>. Access: 16.12.2015
35. United Nations. Commission on Sustainable Development. (2009). Report on the 17th session. Retrieved: [http://www.un.org/ga/search/view_doc.asp?symbol=E/CN.17/2009/19\(SUPP\)&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=E/CN.17/2009/19(SUPP)&Lang=E). Access: 07.01.2016.
36. Venkatesh, V., Morris, M. G., Ackerman, P. L. (2000). A Longitudinal Field Investigation of Gender Differences in Individual Technology Adoption Decision Making Processes. *Organizational Behaviour and Human Decision Processes*, Vol. 83, pp.33-60.
37. Weber, E.; Johnson, E. J. (2009). Mindful Judgment and Decision Making. *Annual Review of Psychology*, Vol. 60, pp.53-85.
38. Wood, J. T. (2013). *Gendered lives: Communication, Gender, and Culture*. 10th edition. Cengage Learning, p. 416.

DIGITAL TOOLS FOR SOCIETY DEVELOPMENT AND ENGAGEMENT

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Abstract. The aim of the study is to analyze potential use of digital - Information Communication Technology (ICT) - tools for engagement and development of society particularly in remote areas. The study is based on a review of literature, case studies, surveys and analyses of statistical data from both developed and developing countries. Special attention is devoted to the use of learning management systems. The scope is limited to IT solutions and applications and supporting ICT infrastructure requirements. The main conclusion of the study is that, despite relatively high initial investment benefits brought from use of ICT in society, its engagement has proved to be successful. Nevertheless, it is not enough to develop digital tools. Key success factors are potential user awareness of the systems and knowledge (training) on how to use them.

Key words: ICT, development, society.

JEL code: O1, O4

Introduction

It is globally accepted that ICT solutions and tools drive economic development and are becoming more and more widely accepted, used and enhanced in the public, commercial, education and healthcare sectors as well as society in general (WEF, INSEAD, 2013). Research supports that in any industry, commercial or public sectors, the benefits from implementation of ICT solutions supporting their business processes result in annual productivity rate increases 3 to 10 times (Atkinson, 2015). *Organization for Economic Co-operation and Development* (OECD) data confirm that from 1995 to 2008, ICT development supported 37% GDP growth in the USA and 32% GDP growth in Germany (Miller, Atkinson, 2014). Eighty two percent of Latvian companies admit that ICT solutions and services significantly increase business process efficiency by time saving (53%), cost saving (34%), more secure information storage (28%) and new know-how (26-27%). Top management at 84% of Latvian companies acknowledge that technology helps promoting their production and services, and is one of key resources to ensure competitiveness (BiSMART / TNS Latvija, 2015).

In past years, many countries - both developing and developed see ICT as a tool for developing rural areas as it is costly in terms of time and other resources to provide a physical

presence and interaction at different levels. Authors claim that more effective ICT use in Latvia, particularly in rural areas, would facilitate the development and engagement of society in those areas and that in Latvia preconditions for implementation of ICT tools are more favourable than in several other countries that have implemented ICT projects for faster development of rural communities. Extensive literature review has been completed to learn other countries' experience in ICT projects for rural areas, including the benefits of project implementations, shortages and lessons learned. Onsite interviews with project managers responsible for project implementations in Azerbaijan, Georgia and Kazakhstan have been conducted as well. Survey on use of learning management systems at the University of Latvia was completed recently by the authors.

Research results and discussion

1. Analyses of statistical data

Significant aspects of a country's economic prosperity and development include ICT infrastructure. Global statistics show that investment in broad band development ensures 0.3-1.4% GDP growth on every 10% of market share growth (EC, 2013). Investment in ICT brings not only direct economic investment but additional employment as well. In Germany, investment in broadband communication network development through 2020 is estimated to create

968 000 new working places (accumulated amount) and every year will benefit the country's GDP growth in the amount of EUR 170 000 000 (0.6% of GDP growth) (WEF, 2009). The internet economy, which requires high quality and availability of infrastructure, is estimated to contribute 5.7% of EU Member States' GDP (EC, 2013).

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Countrywide well developed ICT infrastructure is a main precondition for successful ICT penetration in rural areas. Being a small country with flat landscape, 3G coverage and fast internet connections, Latvia qualifies for that precondition very well. The data below in Table 1 and Table 2 confirm this:

Table 1

Estonia, Finland, Latvia and Lithuania in international rating related to ICT infrastructure

No	Indexes	Latvia	Lithuania	Estonia	Finland
1.	<i>Global Competitiveness Index</i> 2014 / 2015 (144 countries in total)	42	41	29	4
2.	<i>Doing Business Index</i> 2015 (189 countries in total)	23	24	17	9
3.	<i>Network Readiness Index</i> 2015 (143 countries in total)	33	31	22	2
4.	<i>ICT Development Index</i> 2014 (166 countries in total)	33	40	21	8
5.	<i>IT Industry Competitiveness Report</i> 2011 (66 countries in total)	34	41	29	2
6.	<i>World e-government rankings</i> 2012 (193 countries in total)	42	29	20	9
7.	<i>Global Innovation Index</i> 2014 (143 countries in total)	34	39	24	4
	Index	Latvia			
8.	<i>Internet Speed and Connectivity Rankings</i> 2015	Average speed of connection: 7 th position globally			
		Average speed of connection during maximum workload: 10 th position globally			
		Broadband (>10 Mbps) connection: 8th position globally			
9.	<i>Net Index</i> 2014	Household download index: 12 / 188			
		Household upload index: 10 / 188			
		Household quality index: 28/46			
		Household value index: 36 / 64			

Table 2

Most used ICT solutions in Latvian companies

No	ICT solution	Percentage of use
1.	Corporate email	90%
2.	Accounting and financial management systems	81%
3.	Data storage solutions	49%
4.	Document management systems	38.5%
5.	Remote work systems	31%
6.	Cloud services for data storage	28%

Source: BiSMART / TNS Latvija

Current investment in telecommunication infrastructure in Latvia has placed it well in global competitiveness rankings, as shown in Table 3:

Latvia's position among 144 countries

No	Measurement	Position
1.	Mobile phone subscription on 100 inhabitants	35
2.	Fixed broadband subscriptions on 100 inhabitants	28
3.	Proportional internet users	28
4.	International internet data transmission speed kb/s per user	38

Source: World economic forum

The data above show that Latvia has a solid platform for development of internet penetration and e-commerce that facilitates the customer to customer (C2C) trade playing an important role in the development of rural areas. E-commerce is the fastest developing type of commerce globally, and its share has increased 5 times in past 10 years. Economic development, growth of e-commerce and prosperity of the country in general, to some extent, is impacted by e-readiness (the poorer the country, the lower e-readiness within the country). The Economist Intelligence Unit (EIU) ranks countries e-readiness based on the following 6 aspects: connectivity and technology infrastructure (e.g. broadband), business environment (e.g. regulations), social and cultural environment (e.g. education, innovations), legal environment (e.g. laws covering internet), government policy and vision (e.g. online public services), customer and business adoption (e.g. consumer internet usage) (Shenkar, Luo, Chi, 2015). The EIU follows 70 countries and Latvia was ranked in the 37th position in 2010 (EIU, 2010). Countries like China, India and Pakistan, in implementing ICT solutions to facilitate development of rural areas, face much more challenges to ensure proper infrastructure supporting those solutions than Latvia as their e-readiness index is much lower (EIU, 2010).

Learning management systems to facilitate development of societies in rural areas

Much academic research has been conducted analyzing and recommending proper implementation of ICT solutions to promote rural

development. The largest focus of that research is on ICT's role in delivery of high quality education for schoolchildren and students in rural areas. In general, e-learning has established its role as a part of methodology in the field of education thanks to wider access to personal computers, laptops and fast internet connections. Universities and other education institutions use e-learning to deliver study content (reading materials, lecture presentations, online lectures, and video recorded lectures) to students in different locations and in the most suitable timeframe for the individuals. Furthermore, e-learning methods are used to ensure communication between lecturer and student (Kanwar, 2010). Unlike traditional education, here students and lecturers can be physically separated. Study materials are distributed through electronic form (Rosenberg, 2001). The term *Learning Management System* (LMS) is explained as an integrated set of network based, computerized tools that support online learning. Traditional instructional activities such as presenting study materials, managing course content, and collecting and evaluating student work can be completed online using an LMS (Yueh, 2008).

The three key types of teaching in distance education are: *synchronous*, *asynchronous* and *mixed*. If lecturer and students communicate at the same time, it is *synchronous*. If the lecturer provides course materials and students can use them without communication with the lecturer at the same time, it is *asynchronous*. If synchronous and asynchronous types are combined by a university or other education

institution, it is *mixed*. The typical building blocks of LMS are: study materials, quizzes and assignments, grading and feedback, blogging, forums, personnel matters, mailing, contact database, e-Library and alumni (Tambovceva, Ivanovs, 2014). The authors of this article recently conducted a survey among students and lecturers of Bachelor of Business Administration (BBA) study programme at RTU Riga Business School (RBS). Each year, RBS increases its international student enrolment. For international students, the same as for students from rural areas, it is important to have access to LMS and, from time to time, use the benefit of distance learning as 100% presence in class for them is not possible. In such cases, LMS is highly appreciated by lecturers utilizing the following models: course content management, assignments and quizzes and options to provide individual feedback to students. From the students (111 students interviewed) perspective, the highest rated areas of LMS are course content availability and ability to access e-Library. Students also rated positively the following models: grading, assignments, finances, feedback and notifications and email synchronization.

Additional research emphasizes the role of blogs, wikis and social networking as a tool for optimizing learning processes, particularly for rural areas (Lourdes, Perez, Esther, 2015).

Several large scale initiatives to implement ICT tools for better education in rural areas are completed in China, in an effort trying to reduce differences between learners and learning communities (Schulte, 2015). The *Distance Education Project for Rural Schools* (DEPRS) was implemented by the Chinese government between 2003 and 2007 to improve the quality of basic education in rural areas of China, and is referred to as "the largest ICT project in the world up to now" as "it serves a larger population than any other similar projects..." (McQuoid, 2009).

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Research conducted in Kenya confirms that in areas of limited financial resources the DVD based content is the most appropriate method of executing lecture style lessons (Tabira, Otieno, 2014).

The European Union (EU) is implementing lifelong learning strategies and policies to encourage the development of ICT skills for teachers. A report in Romania shows that teachers from rural areas are developing more and more ICT skills by attending online courses; using eTwinning portals for continuous professional development and putting more accent on using ICT support tools in their teaching (Scoda, 2013).

To implement ICT tools for education, it is not enough to have an idea and commitment. Specialists and subject matter experts who can deliver the implementation are one of the key success factors, e.g. provincial Government of Gilgit-Baltistan, under the federal administration Government of Pakistan views information and communication technology as an emerging tool for development of mountainous areas. The implementation of emerging technologies in education institutions in mountainous, remote, rural and less developed areas is delayed due to a lack of relevant experts (Sabit, SunTie, Afsana, 2011).

Access to the technologies and know-how in rural areas

One of the authors of the paper participated as a project supervisor in a United States Agency for International Development (USAID) funded ICT project implementation within the scope of the USAID program-Good Governance in Georgia (3G), 2012–2014. The project was a pilot implementation in Ajara Autonomous Republic (South – West region of Georgia) before going launching a countrywide implementation. A precondition for project implementation was reliable 3G coverage and sufficient broadband availability in the region, a mountainous region of

Georgia. After a detailed ICT infrastructure and knowledge level assessment and evaluation of 3 potential development strategies for Ajara, it was decided that centralization of ICT infrastructure across the governmental agencies in the region, and development of a citizen portal ensuring remote interaction among regional citizens and government institutions was the preferred strategy. More than 200 000 citizens gained secure access to online interaction with governmental bodies, and the portal was created so that specific online services provided by the regional government can be added in order to replicate those offered by the central government. Implementation was followed by a public relations campaign, and public training and seminars to encourage potential users and generate awareness of the revealed possibilities. Another enabler for the access to the created services was the Ministry of Education project of delivering free portable computers (inexpensive, locally assembled in Georgia) to each and every schoolchild, which ensured that many households received at least one device. A similar initiative by delivering portable computers via schools has been initiated in Kazakhstan. The pilot project works through several selected schools (Department of Educational solutions, *Microsoft Kazakhstan*).

Latvia has insured access to computers, other ICT devices and internet through project *Tresais Teva Dels*, where each library was ensured with relevant ICT equipment accessible to library visitors. Training was provided to library staff and some libraries continued to provide basic training for library visitors (Department of Educational solutions, *Microsoft Latvia*).

Azerbaijan devotes its funds gained from oil reserves to develop ICT particularly focusing on provision of remote services. These projects are relatively new and results are not available yet, thus, it is not possible to evaluate the benefits gained from those projects. It is acknowledged that creation of awareness and increases in

Jelgava, LLU ESAF, 21-22 April 2016, pp. 79-83 literacy / computer literacy are important to facilitate widespread use of the services provided. Currently, the most utilized service is a fully equipped bus – one stop agency, which travels through rural areas and provides access to the online and onsite services, including the possibility of applying for and receiving a passport (Tahir Mirkishili, Advisor of Minister of Economy of Republic of Azerbaijan).

The necessity for such initiatives is also supported in India. Until the costs of the *last mile* of basic IT devices and of local language software are brought down, the goal of *wiring India* will remain unachieved, noting that there is a need to develop training programmes in rural areas to teach basic infrastructure maintenance skills required for ICT use (Tiwari, Phand, Sharma, 2010).

In countries where broadband internet and computer access is still a challenge, most efforts focus on delivery of services and the ability to connect through mobile communications. The National University of Lesotho initiated a project to establish and setup a prototype towards improving ICT infrastructure access for rural communities in Lesotho by implementing and integrating a mobile messaging gateway for services development, aiming to break communication barriers in rural areas where the population faced lack of resources. Analyses of the project confirmed the potential benefit to the targeted areas (Chabalala, Lerato, Sekese, 2013)

Similar initiatives happen in South Africa (author study visit to Stellenbosch University, RSA).

ICT as business driver in rural areas

There have been ICT initiatives implemented that not only help delivering learning content, facilitate communication but as well serve as a business for populations living in rural areas, e.g. rural Business Process Outsourcing (BPO) which is an emerging and rapidly growing business sector in India. Rural BPO companies have

internet enabled delivery centres in villages or semi-urban areas, where trained employees handle document and information driven tasks such as data entry, localization etc. (Shourya, Lakshmi, Sankar, 2012).

Bringing proper ICT tools to ensure high quality education and the ability to train ICT skills in rural areas ensures, among other benefits, the ability to be competitive in job market for people living in these areas. Existing strategies, such as improving skills on adult education centres is not appropriated for the rural population because of e. g. travel costs. Resolving discrimination resulting from this circumstance is the main goal of the RURALeNTER project. The project aims to develop a new approach on how advanced education can be provided to the rural population using modern technologies over internet. The effective use of internet tools tailored specifically for use by rural populations enables even beginners the possibility to be similarly effective as urban users who have received more advanced, traditional training. Countries included in the project are Spain, Austria and Romania (Burkhardt, Frossard, Barajas, 2011).

Research conducted in Finland, Norway, Sweden and Ireland on regionally generated visions of ICT utilization and E-Government and e-business solutions which foster economic and social development in rural regions demonstrates the influence of such interventions in promoting economic and social development which results in better connected individuals and communities, more competitive businesses and more effective public services (Quinn, 2010).

Elderly population and ICT in rural areas

Many can claim that a large proportion of the population living in rural areas are elderly people who are not accepting use of ICT, and thus, will not generate benefits provided by ICT tools. Research on acceptance of e-government systems by elderly users demonstrates that improvements achieved with a structured design

Jelgava, LLU ESAF, 21-22 April 2016, pp. 79-84 process in the interface make e-government applications useful and easy to use by all users, including the elderly (Molnar, 2015).

Research of 255 respondents living in outlying villages in Finnish Lapland, among which elderly people (age group 65–79) were interviewed, shows that those people had a strong confidence in the possibilities of IT to ease everyday life. However, older people with no internet access are excluded from the local communality (Kilpeläinen, Seppänen, 2014).

Conclusions, proposals, recommendations

1) ICT is viewed as a facilitator of the development and engagement for rural areas globally. Most of the recent projects focus on delivering modern, high quality education to the population living in rural areas. Other focus areas are providing remote e-government services, communication and networking abilities.

2) To successfully implement ICT projects in rural areas and to reach sufficient levels of users and use, it is important not to underestimate user awareness, training and access to devices that utilize ICT solutions.

3) Overall, Latvia has positive ICT infrastructure preconditions for implementation of more dedicated ICT solutions for the populations in rural areas. However, implementation alone is not sufficient. It should come together with initiatives to expand user awareness, training and device accessibility. The core focus should be on replicating e-learning systems that already function well in the largest universities of Latvia to provide learning content and delivery of online services, including e-government services.

4) As overall business is going in the direction of e-commerce, online services etc., bringing access and user knowledge of ICT solutions to rural areas is of particular importance, e.g. commercial banks in Latvia tend to close

majority of their onsite branches in smaller towns so the only option to retain access to

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the services without additional costs and time consumption is through online systems.

Bibliography

1. Atkinson R. (2015). Growth and Innovation in the Digital Era. ITIF. Retrieved: http://www2.itif.org/2015-mexico-presentation.pdf?_ga=1.57462698.1040684553.1440493922. Access: 28.08.2015
2. BiSMART / TNS Latvija (2015). Tehnologiju toni Latvija nosaka uzņēmuma vadītājs (In Latvia Technologies Used in the Companies Are Decided by Top Management). *Kapitāls. Biznesa Tehnoloģijas (Capital. Business Technologies)*. Rīga.
3. Burkhardt D., Frossard Fr., Barajas M. (2011). Rural enter: Capacity Building Through ICT in Rural Areas. 4th *International Conference of Education, Research and Innovation (ICERI)*, pp. 1348-1354.
4. Chabalala S., Lerato L., Sekese M. (2013). Mobile Messaging for Service Integration in Marginalised Communities in Lesotho. *IST-Africa Conference and Exhibition*.
5. Economic Intelligence Unit. (2010). Digital Economy Ranking. Retrieved: http://graphics.eiu.com/upload/EIU_Digital_economy_rankings_2010_FINAL_WEB.pdf. Access: 30.12.2015
6. European Commission. (2013). Unlocking the ICT Growth Potential in Europe: Enabling People and Businesses. Retrieved: <http://ec.europa.eu/digital-agenda/en/news/new-study-unlocking-ict-growth-potential-europe-enabling-people-and-businesses>. Access: 28.08.2015
7. Jayawardena L. N. A. Ch. (2011). Role of Telecentres and Their Sustainability in Bridging the Digital Divide in Sri Lanka. *Innovation and Knowledge Management: A Global Competitive Advantage*, Volume 1-4, pp. 1176-1183.
8. Kanwar, A. S., Daniel, J. (2010). *International Encyclopaedia of Education* (3rd Edition), pp. 404-410.
9. Kilpeläinen A., Seppänen M. (2014). Information Technology and Everyday Life in Ageing Rural Villages. *Journal of Rural Studies*, Volume 33, pp. 1-8.
10. Lourdes V. M., Perez M., Esther M. (2015). Gamification: Strategies to Optimize Learning Process and the Acquisition of Skills in University Contexts. *Digital Education Review*, Issue 27, pp. 21-39.
11. McQuaide Sh. (2009). Making Education Equitable in Rural China through Distance Learning. *International Review of Research in Open and Distance Learning*, Volume 10, Issue 1.
12. Miller B., Atkinson R. (2014). Raising European Productivity Growth through ICT. Retrieved: <http://www2.itif.org/2014-raising-eu-productivity-growth-ict.pdf>. Access: 28.08.2015
13. Molnar T. (2015). Improving Usability of e-Government for the Elderly. *Proceedings of the 15th European Conference on E-government*. pp. 180-186.
14. Quinn B. (2010). Digital Dividend or Digital Divide? E-Government, ICT and Social and Economic Development in Rural Areas. *Proceedings of the 10th European Conference on E-government*, pp. 329-338.
15. Rosenberg, M. (2001). *E-learning Strategies for Delivering Knowledge in the Digital Age*, McGraw-Hill.
16. Sabit R., SunTie, Afsana B. (2011). ICTs in Education for the Mountainous Area Development: an Application Based Study of Gilgit (Pakistan). Education and Educational Technology. *Advances in Intelligent and Soft Computing*, Volume 108, pp. 73-79.
17. Schulte B. (2015). (Dis)Empowering Technologies: ICT for Education (ICT4E) in China, Past and Present. *Chinese Journal of Communication*, Volume 8, Issue 1, pp. 59-77.
18. Scoda A. D. (2013). The Impact of Implicating Teachers from the Rural Area in Using ICT Skills and Tools - a Milestone. *Quality and Efficiency in E-Learning*, Volume 1, pp. 51-58.
19. Shenkar O., Luo Y., Chi T. (2015). *International Business*. New York: Routledge, p.596-603.
20. Shourya R., Lakshmi V., Sankar P. B. (2012). Enabling Rural BPOs Move up the Value Chain: Secure Distribution of Office Documents. *International Conference on Advances in ICT for Emerging Regions*, pp. 220-220.
21. Tabira Y., Otieno Fr. (2014). *How to Implement and Diffuse ICT Based Education in Areas with Limited Resources in Developing Countries: Lessons from Rural Kenya*. Book Series.
22. Tamboveceva T., Ivanovs A. (2014). *Development of Moodle: Case of Riga Technical University*. Rīga: RTU.
23. Tiwari R., Phand Sh., Sharma M.C. (2010). Status and Scope of Information and Communication Technology for Livestock and Poultry Production in India - a Review. *Indian Journal of Animal Sciences*, Volume 80, Issue 12, pp. 1235-1242.
24. Yueh, H., Hsu. S. (2008). Designing a Learning Management System to Support Instruction. *Communications of the ACM*, Volume 51, Issue 4, pp. 59- 63.
25. World Economic Forum (2009). ICT for Economic Growth. Retrieved: http://www3.weforum.org/docs/WEF_IT_DynamicEcosystem_Report_2009.pdf, Access: 28.08.2015
26. World Economic Forum, INSEAD (2013). The Global Information Technology Report 2013. Geneva. Retrieved: http://www3.weforum.org/docs/WEF_GITR_Report_2013.pdf. Access: 28.08.2015

CHOSEN INFORMATION SYSTEMS FOR AGRICULTURE IN POLAND AND FRANCE

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Abstract. The paper presents general overview of the importance of information and information systems in agricultural sector. The aim of the paper is characteristics of the role of information in agriculture and its impact on the agricultural sector from European, particularly Polish and French perspectives. The authors underline that it is a crucial issue for the situation in the European Union agriculture. In the research paper the descriptive and comparative methods were used.

Key words: information systems, agricultural sector, big data.

JEL code: G14, Q13

Introduction

"Information, Information Systems and Economics of Information" are the notions that mean different things to different groups of scientists. Information plays a crucial role in all markets. People cannot buy and sell anything without information: who is willing to sell or to buy, on what terms, what is the quality of the goods or services offered, how these things are likely to change in the future. The simplest kind of supply and demand theory may be applicable, in case when information on these things is plentiful, public or easy to get, and reliable. On the one hand, in cases when information on these things is limited, unreliable, and more easily available to some people than to others, the simplest kind of market theory does not apply, and markets may not be as effective. On the other hand, some organizations and enterprises exist mainly for the purpose of supplying information goods and services. The following article is mainly concerned with the economics of information mainly from the point of view of economic analysis of information suppliers. When the information is in trade, it makes sense to suppose that information can be limited, more easily available to some people than to others and in some cases unreliable. That is why the organizations, which have information, they also have possibility to sell this information. This article is looking at the economics of information suppliers from the point of view of the principles of economics, leaving the

integration of the two kinds of economics of information for a more advanced study.

A study of information industries is concerned with the typical questions of microeconomics like:

- 1) Have information products any special characteristics that set them apart, economically, from other kinds of products and services?
- 2) What sort of markets are markets for information goods? Are they "competitive," in the sense of economic theory, or are there elements of monopoly?
- 3) Do information markets correspond to an efficient output, or would it be more efficient if the output were increased (or decreased) by comparison with the market equilibrium?
- 4) How to manage the information markets?

Economic characteristics of information products

This definition and these examples of information products point toward some of the distinctive economic and organizational characteristics of information products:

- *media of transmission*

Information products cannot be bought or sold alone. While it is the arrangement of symbols that gives utility, the symbols have to be recorded or expressed in some material form. Information products cannot be bought, sold, given away or even preserved except in conjunction with some medium.

- *uniqueness*

On the ideal competitive markets discussed in economic textbooks, the goods traded are assumed to be "homogenous". Since it is the specific arrangement of symbols in an information product that gives utility, information products cannot be "homogenous." For example, even if computer spreadsheets differ only a little in "look and feel," computer spreadsheets are not a "homogenous product". This means that there always is an element of monopoly on markets for information products.

- *high fixed costs*

Since the information product is not sold alone but in conjunction with some medium, the costs of the information product itself are largely independent of the number of copies sold in the various appropriate media. That is, from the viewpoint of the seller, the costs of the information product itself are fixed costs, and the only variable costs are those of the media (Cordella, 2006). Information producers have this cost structure in common with public utilities and "natural monopolies" of all kinds, and as the phrase indicates, high fixed costs have some tendency to give rise to monopoly (though the term "natural monopoly" is probably usually an exaggeration). Of course, this reinforces the tendency toward monopoly created by uniqueness.

- *incentive problem*

Since it is the arrangement of the symbols that gives utility, it may be very easy and cheap to duplicate the information product. For example, once an inventor has worked out plans for a valuable invention, others can use the plans to produce the machine without sharing the cost of developing the invention. In general, a valuable arrangement of symbols can be imitated. That is, imitators can arrange symbols in the same way in the same or another suitable medium. Imitation is less costly than original work, and thus the imitators can undersell the originator. In effect, the imitators need not bear

Jelgava, LLU ESAF, 21-22 April 2016, pp. 86-87 any of the fixed cost of the original information product but only the variable cost of the media. Other examples are those who "pirate" software and recordings by making unauthorized copies. This may make it very difficult for originators of information products to recover the cost of their work, let alone profit by it. If this is so, then there will be little incentive to originate information products, and this would be inefficient. This is the "incentive problem."

- *intellectual property*

As a means of remedying the incentive problem, the law may give the originator of an information product some exclusive right to control use, or sell the information product, regardless of the media in which it is expressed. Rights of this kind are called rights of "intellectual property." Patents for new inventions and copyright on new written or artistic work are examples of intellectual property.

In general, the characteristics of information products differ in important ways from those of goods traded on "perfect" competitive markets. Since modern economics associates "perfect" markets with efficient allocation of resources, the question arises whether "enough" resources will be allocated to the production of information products in the absence of government intervention. The incentive problem suggests that "too little" resources may be allocated to the production of information products, in the absence of some special provision. But "intellectual property" is a special provision designed to respond to the incentive problem. Let us take a more detailed look at a specific, well-established form of intellectual property: information systems in agriculture.

Information on the Polish agricultural market; research results and discussion

Many institutions on the Polish market are involved in delivering the information for agriculture. The most important public institution is the *Ministry of Agriculture and Rural*

Development, which publishes the Integrated Agricultural Market Information System. Data on the level of prices of agro-food products are collected by employees of: the Ministry of Agriculture and Rural Development, agricultural counselling centres, agricultural chambers, wholesale markets and exchanges. The test results are published in newsletters of the system prepared by the Ministry of Agriculture and Rural Development. Currently, there is industry newsletter for: poultry, eggs, market for organic eggs, milk market, oilseeds market, market for fresh fruit and vegetables, pork and beef market, grain market, sheep meat market, flower market, sugar market, feed and hops market, tobacco market. The newsletters contain information about the level of prices which characterize the various categories of industry.

The Agricultural Market Agency –AMA (in Polish language: Agencja Rynku Rolnego - ARR) is a state organizational unit which was established in June 1990. The main task of the agency is to deal with some issues of the Common Agricultural Policy (CAP). The seat of the Agency is based in Warsaw. The Agency has comprised an office called "Central" and 16 branch offices operating in the provinces. President of the Agency is appointed by the Prime Minister at the request of the minister responsible for agricultural markets in consultation with the minister responsible for public finances. Website of the Agricultural Market Agency contains a lot of useful information, especially for those interested in agriculture. On the basis of the links in the menu on the right, one can learn the current exchange rate in Euro, co-funding for certain crops or purchase of machinery and campaigns such as "Fruits at School" and "Glass of Milk". In the section "About Us", one can search law regulations under which the Agency was created as well as the law regulations defining the scope of the Agency's activities. A lot of useful information for farmers can be found in the menu "Frequently Asked Questions", where

Jelgava, LLU ESAF, 21-22 April 2016, pp. 86-88 the telephones numbers and e-mail addresses are given. Interested parties can send their concerns relating to the Common Agricultural Policy, and also a large number of responses to questions about various fields of agriculture. In the same part of the portal, one can find out where the headquarters of the Agency are situated or links to websites of institutions that deal with agricultural matters, and information to institutions in the various countries of the European Union engaged in agriculture. One can also find information about certificates issued by the Agency, means to improve the quality of agricultural products and even research on the quality of services provided by the Agency.

The Agricultural Market Agency provides every year a large number of newsletters which contain statistical data. It provides also information about the various subsidies. Unfortunately, most of the information contained in the bulletins is typically written in the legal language, to farmers they may be incomprehensible. Similarly, the data represented in tables or graphs may be difficult to understand. However, thanks to those graphical presentations it is an insight into the activities of regional branches. One can learn, for example, how many requests for subsidies have been made, which seed have been certified in area for commercial use throughout the country, information about buying or selling agricultural products, etc. These data are extremely important, especially when one is interested in statistics. The Agricultural Market Agency also provides its own e-books that can help all interested in developing their agricultural activity or conduct trade on the European scale. In those books such statistics are more understandable to farmers and traders than those in newsletters. In the Agency's websites one can review the laws referring to almost all areas of agriculture. What is important they do not relate only to buying, selling and manufacturing but also to the modernization of the products processing, what has a positive effect on the development of

enterprises. There are brochures saying what conditions must be met in order to obtain payment for the product. Unfortunately, one can also observe the complexity of the legislation and proposals which the producer must complete in order to get funding.

A separate section on the Agency website is foreign trade, where the CN (The Combined Nomenclature) codes of the product can be found, what the legal conditions trader should comply with in order to be able to start trade and even what to do in case the permission to export/import goods has been revoked. Each market is discussed separately, there is a distinction made between acts, brochures, export refunds, and some conclusions. It is also possible to view information in English for foreigners. Undoubtedly, the Agency website is one containing a huge amount of information. Assessing this page aesthetically and functionally, it should be noted, that it is possible at the first contact with the website, due to the enormity of the message, one can lose orientation.

The Warsaw Agricultural and Foodstuffs Wholesale Market in Bronisze was established thanks to the Wholesale Markets and Commodity Exchanges Development Programme, which was prepared by the Ministry of Agriculture and Food Economy in 1994. Five years later, the government of the Republic of Poland has adopted the programme which has started operate as the Government Programme for Wholesale Markets and Commodity Exchanges development. Wholesale would cause a sales enlargement of agricultural products and foods and lowering of the number of the distributors what influences the rise of producer income (Parlinska, 2008).

The location of the largest wholesale market in Poland was chosen to provide convenient conditions for supplying the capital city and to offer the best possible transport facilities for sellers and buyers from the South, North, East and West of Poland. Comprehensive services

Jelgava, LLU ESAF, 21-22 April 2016, pp. 86-89 related to all the issues connected with trading in fruit, vegetables, flowers and foodstuffs are provided to users of the Wholesale Market in Bronisze .

It should be kept in mind that also other institutions collect data and deliver information like, for example, GUS - Polish Statistical Office as well as many other state and private institutions.

Information on the French agricultural market; research results and discussion

Agriculture information "Agreste" (<http://agreste.agriculture.gouv.fr>) is available in spreadsheet file with tables, graphs, charts accessible from website of the French Ministry of Agriculture, Food and Forestry.

The Service of Statistics and Forecasting (SSP) offers publications formats and different information as: reference documents, commented and illustrated tables, graphs and maps, collections of business and economic conditions, brief analysis by sector, overview and annual review on the economy. Also it delivers statistical studies in the 'Agreste Primeur' collection of problems, internal or external evaluations in journals and socio-economic studies, works with the working groups animated by the Centre for Studies and Strategic Foresight.

The "FranceAgriMer" is a national institution of agricultural products, linked to the Ministry of Agriculture, Agri-Food and Forestry. It promotes mainly the organization of producers, the organization of relations between the various occupations of each sector, marketing for the national and international trade, ensures the development and implementation of measures for the improvement of consumer information.

The Wholesale Market in France (MIN - Marché d'Intérêt Général) was created in 1953.

The 'Fédération Française des Marchés d'Intérêt National' (FFMIN), dating from the 1960s, symbolized the network of public wholesale markets. However, there have been

many changes and a diversification occurred in the last years.

The new name the Federation of Wholesale Markets of France (Fédération des Marchés de Gros de France¹) refers to the place of the nineteen wholesale markets in food sectors and in supplying towns. The Federation of Wholesale Markets of France explains and demonstrates economic and social role of wholesale markets, emphasises their importance in regional development, maintains an independent local retail trade, and underlines their local, regional and national economic weight. To sum up, it is about uniting the nineteen Wholesale Markets under one mark in order to communicate a unifying image to the various bodies and parties concerned.

All the Wholesale Markets in France are public services and belong to the Federation of Wholesale Markets of France (FMGF). In January 2015, the market of Brussels (MABRU) also joined the FMGF. The Federation of Wholesale Markets of France is a national network of 19 platforms spread throughout the country, organizes the supply of fresh produce to independent shops and they are active partners of the catering trade and mass distribution. Daily the French Wholesale Markets supply goods for 45 million consumers. Those 19 Wholesale Markets represent 560 hectares, area of 1.8 million m², 2 280 operators, EUR 12 billion turnover, 26 000 permanent jobs, 4 150 producers trading, 62 500 buyers, 50000 vehicles/day. The Wholesale Markets of France are important centres of business and development; they are dedicated to the sale of fresh agricultural and horticultural products and play a major role in modern distribution channels because they group all the actors in one place.

The most famous wholesale market is the Rungis International Market, supplying the capital Paris and its region. Users of the market buy and sell fruits and vegetables, meat, fish and seafood, dairy and delicatessen, flowers and plants.

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Complete information about all products is provided on the Rungis website. Rungis International Market is the largest market for fresh produce in the world, a central player in French and international food industry sectors. It provides real value added at every stage, from producer to consumer.

The wholesale markets are sites for competition and transparency for the benefit of local retailers and independent producers. They are also food industry centres, logistic parks and multimodal hubs with a regional, national and international calling to supply food to cities. It should be kept in mind, that the wholesale markets are the actors of urban logistics and they play a very important role in organizing goods transport and the food supply of cities.

The purpose of all Wholesale Markets of France is to meet the needs of all the commercial channels for fresh food products and to guarantee their variety, to participate in maintaining traditional sectors, to bring production and distribution together, to actively contribute to regional development and the organization of urban areas and to preserve the environment and sustainable development. The fact of grouping different types of operators in one place encourages the greatest possible diversity in terms of the choice of products and services. It helps maintain strong competition and keep prices down, while optimizing synergies through common infrastructures and services.

Positioned between upstream and downstream sectors, the wholesale markets are the essential "reference link" between production and final distribution, whether in trade or catering. The Wholesale markets play a significant role in the necessary plurality of distribution channels because this is where hypermarkets rub shoulders with independent shopkeepers specialised in certain area or even street market stallholders.

At the Rungis Wholesale Market of Paris, sustainable development also means ultra-

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modern railway terminal with a capacity to handle 400 000 tons of fruit and vegetables. For example, there are nearly 170 producers with a permanent base at Rungis Market; this allows them to sell their productions to many different customers, including for export. Some of them work with the Market's international customers and this cooperation can represent up to 40% of their turnover.

The SNM, the Market's News Service (<http://www.rungisinternational.com/>) is a public service with an office at Rungis and it has the task of collecting and publishing data on agricultural transactions, with the goal of ensuring maximum transparency. Every day, thanks to its network of investigators and experts, the SNM collates the rates applying at each stage in the chain, wherever may take place transactions that ultimately determine prices.

This diversity of formats is the strength of French distribution, it is different from European neighbours, which have a more limited and standardized offer and range. The wholesale

Jelgava, LLU ESAF, 21-22 April 2016, pp. 86-91 markets also help preserve green belts by promoting the consumption of local produce and short channels. In fact, local producers of fruit, vegetables, flowers and plants in particular benefit from a privileged access to the wholesale markets' trading floors, where they have a base to sell their produce to shopkeepers and restaurants directly.

Conclusions

In this paper, the authors have investigated two different agricultural wholesale markets, Polish and French. One can see the heterogeneity between the systems of information but furthermore the complexity of finding the simple information for a consumer.

The management of information systems is going to be more difficult in future because of the unstructured Big Data and the multiplicity of information network. Then the perspective is to build a mathematical nonparametric model (Hardle and Kirman, 2011) for description of the behaviour on the Agricultural Wholesale Market in France and Poland.

Bibliography

1. Cordella, A. (2006). Transaction Costs and Information Systems: Does It Add Up?. *Journal of Information Technology*, 21 (3). pp. 195-202.
2. Giulioni, G., Bucciarelli, E. (2011). Agents' Ability to Manage Information in Centralized Markets : Comparing Two Wholesale Fish Market. *Journal of Economic Behaviour & Organization*, Vol. 80, n°1, 2011, pp. 34-49.
3. Härdle, W., Kirman, A. (1998). Nonclassical Demand a Model-free Examination of Price-Quantity Relations in the Marseille Fish Market. *Journal of Econometrics*, Vol 67, pp. 227-257.
4. Ministère de L'Agriculture, de L'Agroalimentaire et de la Forêt. *La statistique, l'évaluation et la prospective Agricole*. Retrieved: <http://www.rungisinternational.com/>. Access: 07.01.2016.
5. Parlinska, M. (2008). Rola Informacji w Gospodarce Rynkowej na Podstawie Wybranych Rynków Rolnych (The Role of Information in the Market Economy on the Base of Chosen Agricultural Wholesale Markets). *Wydawnictwo SGGW*, Warszawa. p.117-120.
6. Rungis International Market. Actualites Produits. Retrieved: <http://agreste.agriculture.gouv.fr>. Access: 05.01.2016.

DESCRIBING THE COLLABORATIVE ECONOMY: FORMS OF FOOD SHARING INITIATIVES

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Abstract. The sharing economy has become the slogan used to define a universe practices and collaborative consumption economy based on sharing. Beyond new idea and the new technologies, users tend to be motivated by economic, environmental, and social factors.

This paper discusses food, which relates to the collaborative consumption model that is based on sharing, with some modern assistance by the internet. Following an overview of the sharing economy, the paper delineates food sharing initiatives that are taking the social activity of dining to new levels to study the strategic choices operated. The author will present a case study analysis of food sharing platform. The article concludes by outlining how collaborative initiatives among private and citizen-consumers, provides a means to test and evaluate the promising practices developed. The paper discusses the significant strengths and potential limitations of food sharing.

Key words: e-business, sharing economy, social eating, community.

JEL code: O35; Q13

Introduction

The sharing economy has become the term used to define a universe of practices and a collaborative consumption economy based on sharing. The sharing economy mechanism is also related to social networking, with consumers actively participating in online communities to share information, knowledge and suggestions concerning new initiatives and/or brands.

Belk (2007) defines sharing as "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use". Sharing tends to be a communal act that links us to other people. As Botsman and Rogers (2010) put it, a new form of consumerism derives from the possibilities of mass collaboration and communication offered by new technologies. A solid definition of the sharing economy that reflects common usage is nearly impossible (Schor, 2015). The European Parliament (2015) defines it as: "a new socio-economic model that has taken off thanks to the technological revolution, with the internet connecting people through online platforms on which transactions involving goods and services can be conducted securely and transparently". Others prefer the term collaborative economy to describe the activity of obtaining, giving, or sharing access to goods and services, coordinated through

community-based online services (Hamari et al., 2013). However, there is significant debate concerning conceptions of sharing within the fields of economy and the practices of social life (Eckhardt, Bardhi, 2015). Social sharing initiatives can concern any group of individuals – not necessarily located in proximity to each other – who feel that they share something in common, be that a connection through interests, place, lifestyle, culture or practice, and who self-organize to engage in socially innovative activities by committing their time and/or sharing their resources and/or implementing projects which serve the community (Celata, Sanna, 2013). These initiatives may be not-for-profit as well as for profit but the aim should serve relationships with the community towards a more sustainable future (Buczynski, 2013).

Many of the web platforms in the sharing economy began in the United States. They are dominated by the peer-to-peer marketplace but the business-to-business sector is increasing. Sharing has become a global phenomenon, both because of the expansion of platforms to other countries with the diffusion of ICT and because the idea of sharing has caught on around the world, helped by the economic crisis. In terms of global investment in the sharing economy, there are 7,500 sharing platforms, with 37% of sharing economy startups venture capital invested and

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80% of sharing economy startups viewing crowdfunding as the best way to raise capital (Matofska, 2015).

Beyond the new technologies, participants tend to be motivated by economic, environmental and social factors, a mixture of internal motivation and a response to increased external pressure to prove impact. Within a few years, the phenomenon of the sharing economy has allowed the transformation of the traditional practices once considered a business, thus capturing attention from the public, operators and policymakers and stimulating a growing debate. The sharing frequently found in such societies improves the efficiency of resource use, increases security by the sowing seeds of reciprocal obligations, or enhances the status or breeding opportunities of those who share (Eckhardt, Bardhi, 2015). Critics denounce such practices as being about economic self-interest rather than the sharing of social aspects (Schor, 2014).

Food has been identified as a key area for consideration in the challenge of sustainable consumption due to increasing evidence of the impact of the prevailing food system on the environment, local communities and social justice (OECD, 2001). Also, social eating is a good activity in terms of respecting sustainability and developing new food systems.

This paper discusses food, which relates directly to the collaborative consumption model that is based on sharing, with some modern assistance from the internet. Then, given the novelty of the phenomenon and the exploratory nature of the study, the author discusses one case study developed to examine food-sharing platforms. However, there are as yet no rigorous methodologies or functions determining success, and thus further studies are needed. This is a first step in exploring the field by providing a review of the relevant literature on the topic and also providing a starting point for future studies.

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1. Describing food sharing

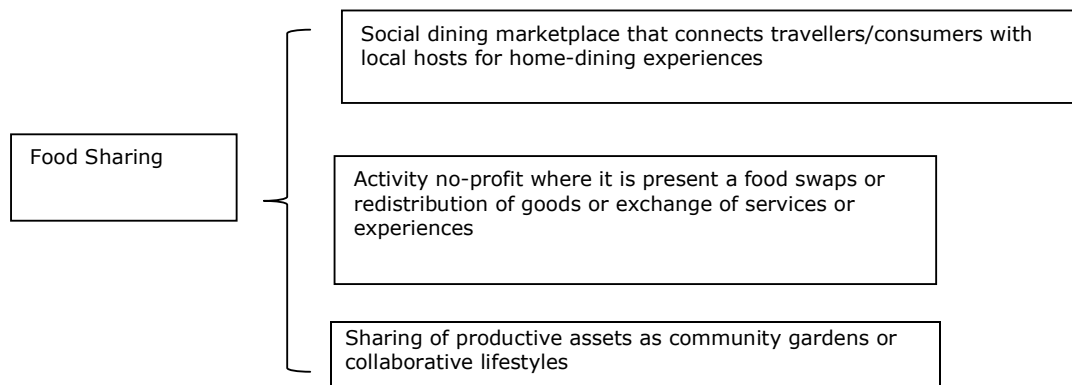
There is a central concern for the culture of food among consumers and the media, with cooks and chefs being acclaimed as "heroes of the kitchen". Food is the subject of programmes, films, social networking, sharing in social networks and images. The centrality of food in waste reduction is the topic of discussion in terms of the social sustainability of food. More than 1.3 billion tons of solid waste are produced annually, of which 47–61% is organic waste that is mostly food (Hoornweg, Bhada-Tata, 2012). Every year in Europe, 180 kg of food per person are wasted (EC, 2010), largely still fit for consumption. This is just one example of the many imbalances in the current global context. Many actors are playing different roles in creating or changing the models of consumption and developing new life styles or different food networks. Consumption can bind the web society together and the preference is to favour different solutions, in particular creating new entertainment options.

There are many social associations that are playing a key role in raising awareness of reuse and virtuous behaviour, recalling that food is a basic need. It is not a commodity like other commodities, and thus preventing food waste is the highest priority (*French regulation obliges supermarkets to donate unsold food rather than destroying it or throwing it away. With the enactment of the French law, the country became the first in Europe to put in place a national regulation aimed at avoiding the wasting of good quality food, saving energy on post-processing and raising awareness of sustainable consumption. The law is part of a wider national policy initiative to halve food waste in France by 2025 in line with the European Commission, which has adopted a Circular Economy Package to help European businesses and consumers make the transition to a stronger and more circular economy in which resources are used in a more sustainable way.*), followed by reuse (e.g. through donations) and recycling (through animal feed, anaerobic digestion, composting and related means). Sharing food saves food products and services,

with the use being more important than the possession and the value of the asset having a value different from the traditional concept. The financial crisis has changed consumption patterns and there is the rise of a new organization of food purchases and consumption (e.g. zero km, purchases of solidarity groups and shared gardens). Food sharing presupposes a mechanism in line with the creation of sustainable food (Heinrichs, 2013), in particular including: reducing consumption; resource conservation; waste prevention to reduce waste; the creation of new forms of socio-economic relationships.

In terms of literature, it is evident that there is a scarcity of studies and surveys concerning the food-sharing marketplace. The development of scenarios that illustrate different degrees of organizational, technological and social change for more sustainable eating includes community eating and contains more social and communal elements, encompassing pronounced ethical and moral dimensions (such as mindfulness and collaborative grassroots activity). Primarily, it is distinguished by "slow lifestyles" with low technological change, high lifestyle change and medium organizational change. Social innovations (for example, slow-food events and online food-distribution communities) are

Jelgava, LLU ESAF, 21-22 April 2016, pp. 92-94 organized and initiated through bottom-up, citizen-led approaches (Davies, 2013). The impacts of web platforms are shaped by both their market orientation (for-profit vs non-profit) and market structure (peer-to-peer vs. business-to-peer). These dimensions shape the platforms' business models, logics of exchange and potential for disrupting conventional businesses. While all sharing economy platforms effectively create "collaborative markets" by facilitating exchange, the imperative for a platform to generate a profit influences how sharing takes place and how much revenue devolves to management and owners. Sharing platforms, particularly non-profit structures that are operating to provide a public benefit, can also function as "public goods" (Schor, 2014). However, food-sharing practices can be viewed within the classification of "alternative food initiatives", demonstrating practical and varied connections to food. The established dimension of food sharing is that of "facilitating access": that is the part played by practices that encourage experiential learning through participation in the initiative, argued to have more enduring or transformational impacts on participants than other modes of learning (Sharp et al., 2015). The principal forms of food sharing are summarized in Figure 2.



Source: author's construction based on Davies, Doyle, 2015

Fig. 1. Forms of food sharing initiatives

The most diffused models of food sharing are donation-based, especially the distribution marketplace in which food is swapped, in some

cases aiming to empower communities to transform food waste, surpluses and losses into new value, conferring resource efficiency. Foods

are required globally and the aim is to prevent overconsumption, food loss and wastage and ultimately to provide sustainable eating solutions (Davies, Doyle, 2015).

Sharing models now exist at all stages of production and distribution, from the land to the plate. Examples include the following:

- platforms, such as *Landshare* (www.landshare.net) that bring together people who have a passion for home-grown food, connecting those who have land to share with those who need land for cultivating food;
- popup restaurant platforms, such as *Grub Club* (<http://grubclub.com>), which connect food lovers and creative gourmet chefs in temporary home/restaurant settings;
- supper clubs and meal-sharing platforms, such as *Casserole Club* (www.casseroleclub.com), aimed at helping tackle the growing social problems of loneliness and malnutrition among older people and at the same time helping connect people with their neighbours;
- an imprint marked for its solidarity is *I Food Share* (www.ifoodshare.org), a web platform that allows users, retailers or manufacturers to offer free food surpluses. The forms in which swaps are manifest are based on the organizers' motivations and target participants' interests (Albinsson, Perera, 2009);
- *VizEat* (<https://vizeat.com>) is a social dining platform that allows people to organize meals and gastronomic events at home;
- *BonAppetour* (<http://bonappetour.com>) is a social dining marketplace that connects travellers with local hosts for home-dining experiences, including dinner parties, cooking classes etc. Potential diners can see the menu in advance and read details of the venue and the host.

While new platforms represent substitutes for existing platforms, others are likely to cover

Jelgava, LLU ESAF, 21-22 April 2016, pp. 92-95 sectors, geographical settings and consumer groups for which the reach of the food sharing is limited. They are all examples of creating relationships inside the community, not only to sell services; rather, in many cases the goal is to build something completely new and separate from existing systems as an alternative (DiVito Wilson, 2013). Indeed, the aim is also to help people create walkable, healthy, economically vibrant neighbourhoods through the development of local food systems and to aggregate and market foods. However, businesses in the sector are likely to face regulatory challenges in the short to long term as they scale up their operations, particularly in relation to health, licensing laws and city zoning, which determines whether and how property can be used for commercial purposes.

2. Some empirical evidence from a case study

Given the novelty of the phenomenon under investigation and the inductive nature of research questions, the author employed a qualitative, case-based approach. Illustrative cases studies are used to discuss the concept in detail. The case-study approach is especially appropriate for addressing "how" and "why" questions (Yin, 2003). Its usefulness is increased when the research objective is to achieve deeper understanding of a novel phenomenon, the concepts and contexts pertaining to which are ill-defined because of a deficiency of previous theory (Eisenhardt, 1989) and when the phenomenon has not yet received adequate coverage in the extant literature (Yin, 2003). Food sharing exhibits the above features, and thus the author considered the case-based approach to be suitable for its investigation. The aim of the exploration of the case study is to provide sufficient robustness to capture the distinct characteristics of the observational units of analysis (i.e. the different food-sharing platforms) and the explanatory units of analysis

(i.e. the drivers and activities of the service organizations).

VizEat is a platform for connecting people who want to make the meal a moment of sharing, conviviality and discovery. They connect hosts and guests from all over the world to experience new flavours and meet new people, whether visiting a foreign country or local and looking to get off the beaten path. This is for those looking to enjoy new cuisine, perhaps even a new culture and all its associated dishes. It is the place for travellers who want to find a new way of exploring countries and for hosts willing to promote their food culture: when "the exchange is at the heart of the experience, it becomes unique and authentic".

Founded in 2014, Vizeat has now extended to 50 countries. It is a start-up in the booming sharing economy with an international team working on it. Accelerating its growth, VizEat acquired Cookening, the French pioneer of social dining, founded in 2012. Cookening joins the VizEat community, which now makes VizEat the European leader of the meal-sharing sector. The two parties to a VizEat exchange – hosts and guests – must register on the website. Hosts list their available menus and detailed profiles, where they tell guests about themselves, their cooking styles, their preferred places to travel and things to do. Guests can then browse and book these meals.

VizEat allows access to meals within every price range. VizEat takes a 15% guest service fee every time the VizEat invitation is booked and receives remuneration in the form of a commission in exchange for its contact service.

As with the majority of sharing economy platforms, VizEat does not own any of the "spaces", it acts as a facilitator in matching hosts with guests. Therefore, the VizEat website serves as a platform for listings and the exchange of information. The focus is on the excess capacity of resources as meals. The platform has a

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number of safety-related advantages built in, including:

- no handling of cash – payment is transferred under the terms and conditions for use of Mangopay e-money drawn up by the Leetchi Corp. S.A. company, a société anonyme under the law of Luxembourg;
- profiles are attached to a reputational mechanism;
- guests and hosts both verify their identity by connecting to social networks, scanning their official User Account, or confirming personal details;
- hosts also have the option of requiring a fixed amount payable before the VizEat Invitation to cover costs;
- hosts are covered by up to EUR 100,000 damages for each and every meal through the VizEat Host Guarantee;
- all online transactions are secure and data are protected;
- hosts receive the payment for their meals directly to their bank account the day after the meal;
- a message system.

Conclusions

Sharing has the potential to change many traditional business models. To ignore sharing could mean failure to believe in the importance of the virtual community. There have been significant innovations in the marketplace but these have not transformed – except for the strategic marketing components – the infrastructure of companies, professional services and logistics, given that the holders of the products/services (and content) remain independent and are not integrated within the value chain. As a benefit, users can earn and work more flexibly and operators can complete existing services through sharing models, learn new skills and support ethical causes. The barriers to development are issues of trust, privacy, and security, arising due to insufficient

knowledge and sharing of regulatory aspects. At the same time, sharing as an economic phenomenon is technology dependent, which is an obstacle. Operating in an uncertain and fluid environment, they are further challenged by incomplete information systems and knowledge management processes that do not meet their local destination needs.

Case study gives empirical evidence of the theoretical background analysed by many scholars with reference to the dynamics of the system. Case study shows that the valorisation of resources through coordination between consumers and businesses throughout the platform has the main factor in determining the credibility of the quality and the success of the product in the market. The propensity to relationships represents the strengths of this system. Food sharing has two arguments against it: first, home restaurants are part of the informal economy; second, hygiene and safety rules are being flouted. Although food sharing does not constitute competition for restaurants, it is a new market that is opening up and there is

Jelgava, LLU ESAF, 21-22 April 2016, pp. 92-97 also no doubting the appeal for young people (and not only them) of the shared economy and its opportunities for doing things that would otherwise be unaffordable.

Currently, research on sharing business models is still in its infancy but without doubt, certain sectors (e.g. mobility, tourism) have already shown changes. It is also important to recognize the existence of different economic practices in the marketplace. It is a chance to rethink and re-create new economic and social realities. Future research could explore, for instance, how to study different consumption lifestyle communities, such as those related to green consumption, determining whether practices can be refined further. It is important to note the limitations of the analysis. All the findings should be viewed in light of the qualitative and exploratory nature of inquiry. Although there is a clear rationale for the selected case study, the author can only offer an inductive discussion of and preliminary insights into the phenomenon.

Bibliography

1. Albinsson, P. A., Yasanthi Perera, B. (2012). Alternative Marketplaces in the 21st century: Building Community through Sharing Events. *Journal of Consumer Behaviour*, Volume 11, Issue 4, pp. 303-315.
2. Belk, R. (2010). Sharing. *The Journal of Consumer Research*, Volume 36, Issue 5, pp. 715-734.
3. Belk, R. (2007). Why not Share rather than Own? *Annals of the American Academy of Political and Social Science*, Volume 611, Issue 1, pp. 126-140.
4. Benkler, Y. (2004). Sharing Nicely: On Shareable Goods And The Emergence Of Sharing As A Modality Of Economic Production. *The Yale Law Journal*, Volume 114, pp. 273-358. Retrieved: http://provost.ucdavis.edu/local_resources/docs/Benkler-Sharing_Nicely.pdf. Access: 16.12.2015.
5. Botsman, R., Rogers, R. (2010). *What's Mine Is Yours: The Rise of Collaborative Consumption*, New York: Harper Collins Business.
6. Buczynski, B. (2013). *Sharing is Good. How to Save Money, Time and Resources through Collaborative Consumption*. New York: New Society Publishers. P. 123-124.
7. Celata, F., Sanna, V. (2014). Community Activism And Sustainability: A Multi-Dimensional Assessment. *Working paper*, 137. Retrieved: http://eprints.bice.rm.cnr.it/10270/1/Celata-Sanna_CBIs_Assessment_WP.pdf. Access: 18.1.2016.
8. Davies, A. (2013). Food Futures: Co-designing Sustainable Eating Practices for 2050. *EuroChoices*, Volume 12, Issue 2, pp. 4-11.
9. Davies, A., Doyle, R. (2015). Transforming Household Consumption: From Backcasting to HomeLabs Experiments. *Annals of the Association of American Geographers*, Volume 105, Issue 2, pp. 425-436.
10. DiVito Wilson, A. (2013). Beyond Alternative: Exploring The Potential For Autonomous Food Spaces. *Antipode*, Volume 45, Issue 3, pp. 719-737.
11. Eckhardt, G. M., Bardhi, F. (2015). The Sharing Economy Isn't About Sharing at All. *Harvard Business Review*, pp. 1-28. Retrieved: <http://bit.ly/1EWNdmb>. Access: 10.1.2016.
12. EC, Commission for Economic Policy (2015). The Local And Regional Dimension Of The Sharing Economy. *ECON-VI/005*. Retrieved: <https://webapi.cor.europa.eu/.../COR-2015-02698-00>.
13. European Parliament (2015). *The Sharing Economy And Tourism, Tourist Accommodation, Briefing*. Retrieved: [www.europarl.europa.eu/RegData/etudes/BRIE/2015/568345/EPRS_BRI\(2015\)568345_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/568345/EPRS_BRI(2015)568345_EN.pdf). Access: 01.11.2015.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 92-98

14. Eisenhardt, K.M. (1989). Building Theories From Case Study Research. *Academy of Management Review*, Volume 14, Issue 4, pp. 532-550.
15. Hamari, J., Ukkonen, A. (2013). The Sharing Economy: Why People Participate in Collaborative Consumption. *SSRN Electronic Journal*. Retrieved: http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2271971. Access: 10.12.2015.
16. Heinrichs, H. (2013). Sharing Economy: A Potential New Pathway To Sustainability. *Gaia*, Volume 22, Issue 4, pp. 228-231.
17. Hoornweg, D., Bhada-Tata, P. (2012). *What a Waste: A Global Review of Solid Waste Management*. Washington: World Bank.
18. Matofska, B. (2015). What We Know About The Global Sharing Economy. *Report 2015*. Retrieved: www.compareandshare.com. Access: 18.12.2015.
19. Schor, J. (2014). *Debating the sharing economy*. Retrieved: <http://www.greattransition.org/publication/debating-the-sharing-economy>. Access: 17.1.2016.
20. Schor, J. B. (2015). Getting Sharing Right. *Contexts*, Volume 14, Issue 1, pp. 12-19.
21. Sharp E., Wardlow F.W., Lewis N. (2015). Alternative Framings Of Alternative Food: A Typology Of Practice, *New Zealand Geographer*, Volume 71, pp. 6-17.
22. Yin, Robert K. (2003). *Applications Of Case Study Research*. CA: Sage Publications Thousand Oaks.

DEINSTITUTIONALIZATION: CHALLENGES FOR POLICY-MAKERS IN LATVIA

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Abstract. Deinstitutionalization (DI) means moving from institutional to community based services. The DI Action Plan with the EU funding has been issued for 2015-2020. Implementation of it has started through seminars, conferences, meetings, involving professional community of the state social care centres, municipal social services and NGO representatives. However, the mental health issues should be tackled not only among professionals but in strong connection with the whole society. Till now institutional care for persons with mental disorders is predominant and has been strongly supported by the society. Limited visibility of people with mental disorders combined with low tolerance level and poor education creates ground for misinformation through media, creating additional tension and fear. Under conditions of scarce resources, it is crucial that efforts of local authorities, existing mental health institutions and educational establishments for children with special needs are joined to ensure effective integration of people with mental disorders into the society by providing necessary training process, which would foster their social inclusion and integration in the labour market. The article is based on an analysis of legislative acts, existing institutional system, statistics and interviews with social workers, experts and representatives of NGO's and local governments.

Key words: deinstitutionalization, mental health disorders, community based services, public awareness.

JEL code: H75

Introduction

The World Health Organization (WHO) in 2002 did an assessment on Mental Health System in Latvia (published in 2006) and concluded: "On the whole mental hospitals still are predominant in the mental health system of Latvia and there are no community residential facilities available in the country. The consumer associations and the family associations are small in size (respectively 2 users/consumers and 15 family members). The government did not provide economic support for these associations. There is no coordinating body to oversee public education and awareness campaigns on mental health and mental disorders. Agencies, institutions or mental health services have not promoted educational campaigns in the last five years" (World Health Organization, 2006).

Concluding remark of this report was that "from a larger point of view, the mental health issues should be tackled not only among professionals but in strong connection with the whole society. Downsizing the mental hospitals, promoting campaigns against stigma, and increasing the participation of users and families implies not only technical choices, but also a large participation of the stakeholders and of

large sectors of the society to these choices" (World Health Organization, 2006). Authors consider that changing the attitude of society towards persons with mental disorders and the dominating opinion that institutionalization is a better and more secure solution for those persons still remains among the largest challenges of the deinstitutionalization (DI) policy. It is a serious challenge – to accept something different, unusual and hardly predictable in our daily life. It also partly explains the strong bias towards refugees, despite of rather small figures. The numbers of persons that should leave institutions during the DI process is rather similar (700) and additional 1400 persons should be prevented of being institutionalized. There are ongoing public debates concerning refugee integration and no public discussions concerning the DI process. However, the DI process affects not only persons with mental disorders and their families, but also authorities on local, regional and national level, social workers, primary health doctors, psychiatrists. It requires high level of coordination and cooperation among many different institutions: the Ministry of Health, the Ministry of Education and Science, the Ministry of Welfare, the Ministry

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of Justice, the Ministry of Regional Development and Environment, the Ombudsman and various NGO's.

Currently a large scale European Funded project to facilitate the DI process in Latvia has begun and it is reasonable to evaluate how the WHO recommendations concerning public education and raising of public awareness have been taken into account in the DI policy implementation.

The article is based on an analysis of the existing legislative framework, the institutional system, available statistics, interviews with social workers, experts and representatives of NGO's, state and local government authorities. The DI process is in its initial stage, thereby early monitoring and assessment is important for policy quality.

1. World Experience of Deinstitutionalization

Deinstitutionalization is a long-term trend wherein fewer people reside as patients in mental hospitals and fewer mental health treatments are delivered in public hospitals. This trend is directly due to the process of closing public hospitals and the ensuing transfers of patients to community-based services in the late twentieth century (Encyclopaedia of Mental Disorders, 2015). The DI process implies independent living in the community for clients of the state social care institutions and development of community based services. DI means radical shift in disability policy from passive medical approach to human rights and inclusion, it is person oriented, shifting from disability to functionality. In general, DI is valued as a more humanistic approach and a positive alternative to the institutional care. However, an important shortcoming of DI is the fact that people, who have been long-term clients in social care institutions, find it difficult to adapt themselves to independent life. As evidenced by the fact that 30-50 % of homeless people are

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-100 persons with mental disorders (Encyclopaedia of Mental Disorders, 2015).

The USA implemented a project, during which chronically mentally ill people were trained and involved in labour relations. The project started in 1970 and was still effective in 1990. Special social care employees were trained to be able to cooperate with unemployed persons, to motivate them, to help with daily chores, to meet employers to persuade them to train and employ mentally ill persons. The project was successful and viable; monthly on average 40-50 people were trained for simple jobs (Forte, 1991).

A research in Australia was carried out to study the impact of DI on clients who had resided in regional municipal alternative social care institutions from 1996 until 2007. Their quality of life had improved due to a friendly living environment; there were fewer cases of relapses when they were sent back to a psychiatric care institution. At the same time, it was concluded that further improvement of living conditions for the target group should be achieved by putting more emphasis on their social inclusion and integration into the labour market. It was recommended to pay more attention to clients who were not accepted in the municipal alternative care institutions, as for the person it meant a higher risk of becoming homeless or drug addict. Furthermore, increased attention should be paid to people who did not qualify for municipal care facilities, but were actually mentally ill, as it would reduce the risks of disease relapses and prevent disability (Hamden, Netwon, Cauley-Elsom, Cross, 2011).

In the Scandinavian countries, the DI process started in the 1990-ies. States allocated resources to ensure successful implementation of this policy via specialist training, provision of assistants, education of the community, starting from pre-school institutions, creation of work places for the target groups etc. Mentally disabled young people could acquire job skills in special workshops. These children acquire

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education together with other children in general schools, they only have special supportive training programmes and methods. Children study together in pre-school institutions as well. Lately in Norway, a new trend has appeared to abandon individual care and to return to group homes or group apartments, as it is becoming too expensive (Silina, 2015). In 2010 a research was carried out in Norway on living conditions and quality of life for individuals with mental disorders. It was based on surveys from 1989, 1994, 2001 and 2010. The research was done 20 years after the introduction of a nationwide social care reform in Norway. The target groups were persons with mental disorders, aged 20-67. The data of the research were compared with the data obtained before the reform in 1989. In the period of 2001-2010 people's self-determination possibilities had slightly increased, however, the organizational shortcomings had doubled. The reform was successful in the introductory stage. After 1994 there was certain stability in alternative services, but gradually various organizational shortcomings appeared, and in 2010 the situation became critical. The municipalities had returned to large community homes that were twice as big as recommended by the guidelines recommended. Daily activities were quite opposite to the idea of normalization. Possibility to plan their daily life was minimal. It was a great challenge for Norway to return to the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-101 original path of the reform, and to prevent the identified negative trends (Soderstro, Tossebro, 2011). Furthermore, it should be outlined, that in 2003 in Sweden, where the DI process begun in 1995, intensive debates were provoked by the increasing number of criminal offences done by persons with mental disorders, therefore causing severe doubts about the successfulness of the DI reform.

Many researchers underlines, that if dominant view in society is in favour of institutional care, it hinders introduction of alternative social care of person with mental disorder. Especially strong such attitude has been noticed in post-socialist countries (Dagg, Morrow, Pederson, 2008).

2. Overview of the development of the DI process in Latvia

Latvia already has some DI experience (Table 1): group houses, day care centres for persons with mental disabilities, half-way houses. Every year clients move from institutions to community-based services. In 2014, there were 82 day care centres, of which 23 in cities and 59 in municipalities. Recently day care centres for people with dementia are becoming more popular. Several municipalities have developed new services based on ICT, i.e. security buttons. Also mobile care teams are used to provide more differentiated services. However, coverage of these services is low and territorially uneven.

Table 1

Community based care in Latvia in 2013 - 2014

	The number of clients	The number of institutions	The number of municipalities
Group houses	206 / 273	14/13	9/9 (8%)
Day care centres for person with mental disabilities	782 /811	26 / 29	22/23 (19%)

Source: Jasjko, 2015

Nevertheless, institutional care in Latvia has always been the dominant type of care for people with mental disorders, already since the interwar period. Its content had only slightly changed during the years of soviet rule. People with

mental disorders or physical defects and orphans staying at specialized institutions were perceived as a normal phenomenon. In the first half of the 1990s, centres for mentally disabled were closed institutions with a hospital regime, where

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inmates lived practically isolated from the surrounding environment. Reforms of social services in Latvia started in the mid-1990s when the Law on Social Assistance entered into force in 1996.

In 2002, there still were no alternative community based social care services for mentally disabled persons in Latvia (World Health Organization, 2006). In 2006, there were 36 social care centres for adults with severe mental disorders able to accommodate 10118 persons. Although, the number of clients at the social care institutions increases year by year; yet demand for this type of service has not been fully met. The Ministry of Welfare explains that it is due to the fact that the decision-making lies upon the local government, not foreseeing any financial obligations for its decision. As a result, persons with various degrees of disturbances live at social care centres, including persons who might have lived outside institutions if adequate community based services would be provided (The Ministry of Welfare, 2006).

On January 15, 2005 Latvia joined the WHO Mental Health Declaration for Europe and introduced the Action plan of the Mental Health Declaration 2005-2010, therefore agreeing to further on develop mental health policy in which institutionalization would be allowed only in cases when important personal or societal security would be endangered. Although also previously several policy planning documents indicated the need for a gradual move towards DI, first group houses in Latvia were established only in 2005 and first halfway houses only in 2007. Furthermore it should be outlined that at that time there were coordinating problems between the Ministry of Health and the Ministry of Welfare. As a clear evidence of that were two content-wise similar policy documents (Guidelines for improvement of public mental health 2009-2014 by the Ministry of Health and Programme for development of social care and social rehabilitation services for people with mental

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-102 disorders 2009-2013 by the Ministry of Welfare) issued by the two ministries tackling the same issues, yet highlighting different desirable outputs and outcomes (Stavausis, 2011).

As for the moment, DI tasks in Latvia are set by the "Guidelines on Development of Social Services 2014-2020". They envisage assessment of individual needs of clients in social care institutions and development of infrastructure, and services according to individual needs in municipalities, closing of state social care institutions and training of professionals for provision of new services. The guidelines foresee activities to prevent further institutionalization if there is a possibility to receive alternative services (Cabinet Regulation No 589, 04.12.2013). Furthermore, a methodology was elaborated for client grouping and assessment and in 2013 primary assessment of functional disabilities was carried out. Persons with relatively mild health and behavioural disorders were put in categories 1 and 2, while with categories 3 and 4 people who need serious social and health care were identified. It was concluded that 43% of clients could be assigned in group 1 or 2 (The Ministry of Welfare, 2014). It means that at least part of them should withdraw from institutional care.

Currently, the DI process in Latvia focuses on the society's most vulnerable groups of people. There are three DI target groups in the planning period 2014-2020: 1) adults with mental disabilities, living in municipality or state social care institution; 2) children in out-of-familial care, up to 18 years old, living in child care institutions; 3) children with disabilities, living in families.

The Government of Latvia has approved the Operational Program "Growth and Employment" objective of the 9.2.2 "Increase quality alternative to institutional care of social services at home and in a family environment closer to services for persons with disabilities and children" on June 16, 2015. This programme defines the

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use of available funding (EUR 47 209 260), requirements to EU Project applicants and cooperation partners and conditions of implementation until 2023 etc. Planning regions will execute the funding allocation (Cabinet Regulations No 313, 01.07.2015.).

On July 15, 2015 the Ministry for Welfare issued the Directions on Implementation of the DI Action Plan 2015-2020. The Action Plan explains DI as a service system that provides person who has limited ability to take care of him or her, the necessary support to be able to live at home or in a family environment. DI is focused on promotion of independent living, self-determination, participation and inclusion opportunities to people with disabilities. The plan includes implementation schedule of the DI measures, indicating responsibilities of all parties and time allocated for each activity (The Ministry of Welfare, 2015).

Introduction of DI requires essential behaviour change for target group persons. The person needs assistance after leaving the institutional care centre where everything was provided, and now they start living an independent life where they will obtain freedom, but they will also face other restrictions and duties. It is even more difficult for long-term clients of State Social Care Centres (SSCC). Recent survey of halfway home residents showed that most of the clients wish to go on living in a halfway home (88%), while 38% said they would not like to live anywhere else but 7% expressed a wish to return to a social care institution (Mikelsone-Slava, 2015). Due to the low demand for the DI services from the target group the number of halfway houses in 2015 has remained unchanged. Furthermore, there are no waiting queues for these services (Silina, 2015).

The DI guidelines indicate that the institutional culture and its negative consequences are not automatically eliminated with dismantling of large long-term care centres, institutional culture maybe transferred to community-based services. Therefore, frequent

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-103 and regular client satisfaction evaluations are necessary in order to monitor services and adapt them in case of necessity. In this regard, the key factor is training of the personnel according to the principles of the UN Convention on the Rights of Persons with Disabilities (EASPD, 2013). It is the right time to start evaluating individual needs and resources and join efforts of policy makers, local authorities, service providers, institutions, NGOs and the society. Involvement of professionals and representatives of target groups has been activated during 2014-2015 extensively through seminars, conferences, meetings and discussions on local, regional and national level organized by the Ministry of Welfare. However, very little has been done to introduce and involve the general society in the decision making and policy implementation process, therefore it is reasonable to ask, what role and at what level should (if at all) they be involved in the overall DI process. As interviews with experts have explicitly outlined, there is no consensus on this issue among professionals.

3. Discussion

"I would evaluate the available information as poor, very little has been done to involve specialists and the society in the DI process," acknowledges Gunta Anca, the chairperson of the Latvian Umbrella Body for Disability Organisations "Sustento". She believes there is a great need for wide-spread informative campaigns to introduce locals with the service receivers, so they would understand that "they" are just like "us" and there is no need to be afraid. Also the director of a group house Tamara Vahlina is disappointed with the way how the DI implementation process has been carried out: "It seems that this information is a secret. We were asked by the Ministry of Welfare to give our opinion during the drafting process; however we know nothing about its implementation. And it is not the first time the Ministry acts in this manner. As we are members of the European Association,

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frequently we receive information about the situation in Latvia from them faster than from Latvia itself." The director of a SSCC Modris Karselis admits that information is given by theoreticians and acting professionals and it more resembles a directive. However, he thinks that it should be aimed at explaining the situation and must involve broader society, including and respecting local governments, which, after all, make the foundation of the state.

Different opinion is given by Maris Gravis, chairman of the Board of the Society "Riga City Caring for Kids with Special Needs", project development group member for DI introduction in Latvia, who thinks that a broad scale information campaign about DI does not correspond with the interests of customers and policy makers. He believes that the DI process will not change the structure of the society; hence, people who do not know about this issue will not be informed further ahead as well. It tackles very particular group of people and only their private life. Before anything concrete has been initiated within the DI process, it would be unreasonable to involve broader society as it could escalate unwanted negative emotions. Only when it will be clear what actions will be implemented people living in the vicinity should be informed on what and how is planned and will be done. Santa Ravica, the Deputy Head of Burtnieki County Social Care Service, is confident, that within the DI process "the greatest challenge for the society will be to accept that their neighbours are people with mental disorders, to accept the differences in their daily life, to help, but not to condemn or gossip".

Such reserved approach to broader scale information campaign can be understandable and some researchers have pointed out to problems it may lead to. Dagg, Morrow and Pederson outline that "how society cares for people with mental illness reflects its social and economic tensions and highlights that care occurs, not only in a

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-104 medical, but also a political context. Thus, there have consistently been ebbs and flows regarding society's tolerance for deinstitutionalization and the visibility of people with mental illnesses. Calls to re-institutionalize people are rarely based on research evidence and instead garner support through editorials and sensationalized media reports of people with mental illnesses as violence and unpredictable" (Dagg, Morrow, Pederson, 2008).

However, other interviewed experts have explicitly stressed the necessity for a broader involvement of the society, as it would facilitate debate on the speed of the reform process and it could lead to better decisions on how to use the available resources to improve the service quality and make the adaptation process easier. For example, little discussions have been initiated, whether the reform process should be gradual or radical. Interviewed experts lean towards a more gradual reform approach to avoid destruction of effectively functioning good things. M. Karselis suggests: "Is it worth destroying one infrastructure to make a new one? Why not build a multifunctional service on the basis of the existing one with financing from the state, municipalities and private persons, who can provide long-term care and leisure activities? By joining all resources, the service quality would improve. The process should be gradual to prepare a maximum number of clients for independent life in the society but not by any price push unprepared people onto the streets."

Another issue mentioned by many experts was the restrictive legislation which does not allow SSCC clients to do paid work, as they are in a full state care, thus it is impossible to train real job skills for life outside the institution. Clients are allowed to work in workrooms and fulfil self-catering services, but they cannot do jobs for which paid staff members are legally provided, like caretakers, kitchen workers, janitors etc. This prevents them from understanding the real situation on the labour market. Local

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governments alone are not capable to ensure employability; therefore all ministries should be involved in this process. The formula is simple: without appropriate work places, the reform will not bring the desired outcomes. Already existing half-way houses and group houses operate idling. M. Karselis offers a practical solution, approved abroad, how to prepare the SSCC clients for life in the society: Legislation should provide a basis for practical employment where the client could learn work skills working together with a staff member, e.g. by cleaning premises. In current situation the Ombudsman may arrive and declare that a client is employed illegally. A client who is able to do many things should be allowed to work, and then things will happen. Law should guarantee community-based care, so that entrepreneurs might be competitive and feel the state support.

Almost all interviewed people also point out the confusing mechanism of the DI financing as a significant risk factor. Gunta Anca says: "I am afraid that a lot of money will be provided. But shall we be competent enough to use it wisely, knowing that it is European money? When the project is over, there will be no money." Many sub-activities of the community based services (95 projects in total) were carried out in 2010-2013, receiving support worth EUR 11.8 million. In total 18,464 persons benefited from these projects. Within these projects 131 provider of social services were involved. Despite impressive figures this experience was not evaluated positively. Maris Gravis claims that "the previous negative experience with management of European funds has led to negative stress. Support to clients was insufficient regarding the half-way and group houses in municipalities; as a result, people were left in worse conditions than they were before. This created an apprehension that after the DI most of the clients would be homeless".

Services, which were initiated with the financial support of the European Funds, were

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-105 closed down because of the lack of available resources. This is particularly true with day care centres in smaller local governments. As a result in future it leads to distrust and suspicion. M. Gravis explains that "changes would require large cross-financing mechanisms, amendments in legislation and political decisions... We have pointed out in our plan that the Ministry of Welfare should strictly keep to the idea that 'money follows the client'. We have listed it as a mandatory issue which should be developed by the beginning of 2016 when the municipalities will have a clear vision of what will come after the project termination. One scenario could foresee continuous state financing, another – that the government and the Latvian Association of Local and Regional Governments conclude an agreement of redistribution of personal income tax, provided that municipalities continue to fund the service. Definitely the existing system must be changed". Available financing is, thus, another important reason outlining the need for a broader society involvement and debate on how the available resources should be spent.

Conclusions, proposals, recommendations

- 1) Society in Latvia still prefers traditional institutional care for persons with mental disorders, caused by limited information and lack of any awareness campaigns on mental health, mental disorders and the DI process. Limited visibility of people with mental disorders combined with low tolerance level and poor education creates ground for misinformation through media, creating additional tension and fear.
- 2) Previous unsuccessful experience has approved that the DI process lacks clear long-term financial perspective and planning, when ongoing projects had to be cancelled due to the lack of available resources, especially affecting small and poor municipalities.
- 3) The DI process requires constant and ongoing cooperation and coordination among

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all stakeholders (the Ministry of Welfare, the Ministry of Health, the Ministry of Education and Science, the Ministry of Justice, local governments, social workers, NGO's), not only in the policy planning process but also in the policy implementation phase.

4) On conditions of scarce resources, it is crucial that efforts of local authorities, existing mental health institutions and educational establishments for children with special needs are joined to ensure effective integration of people with mental health issues into the society by providing necessary training process, which would foster their social inclusion and integration in the labour market. Pre-emptive actions as such not only would make the transition from institutions to community based services easier, but also

Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-106 would prevent institutionalization of 1400 people who, according to the programme, have mild mental disorders and are capable of living independent lives within the community. 5) The target group of DI is among the most vulnerable in society, which cannot protect itself. To ascertain the real situation, it is necessary to carry out regular monitoring and independent research to explore the target group's satisfaction with the living conditions, opportunities to be employed in line with their needs and abilities. Once the DI process is started, the possibility to return to institution will be limited in case clients cannot adapt to life outside the institution. It is difficult to assess the independent life skills of clients while they are institutionalized.

Bibliography

1. Cabinet Regulation No 313 (30.06.2015). Operational Programme "Growth and Employment" objective of the 9.2.2 "Increase quality alternative to institutional care of social services at home and in a family environment closer to services for persons with disabilities and children" Retrieved: <http://likumi.lv/doc.php?id=278154>. Access: 31.01.2016.
2. Cabinet Regulation No 589 (04.12.2013). Guidelines on Development of Social Services 2014-2020. Retrieved: <http://likumi.lv/doc.php?id=262647>. Access: 31.01.2016.
3. Dagg, P.K.B., Morrow, M., Pederson, A. (2008). Is Deinstitutionalization a Failed Experiment? The Ethics of Re-Institutionalization. *Journal of Ethics in Mental Health*, Volume 3, Number 2, p. 4.
4. Encyclopaedia of mental disorders (2015). Deinstitutionalization. Retrieved. <http://www.minddisorders.com/Br-Del/Deinstitutionalization.html>. Access: 31.01.2016.
5. European Association of Service providers for Persons with Disabilities (EASPD). Retrieved www.easpd.eu. Access: 31.01.2016.
6. Forte, J.A. (1991). Operating a Member-Employing Therapeutic Business as Part of an Alternative Mental Health Centre. *Health & Social Work*, Volume 16, Number 3, pp. 2-12.
7. Hamden, A., Netwon, R., Cauley-Elsom, K., Cross, W. (2011). Is Deinstitutionalization Working in our Community? *International Journal of Mental Health Nursing* © Australian College of Mental Health Nurses, pp. 274-283.
8. Jasjko, D. (2015). Deinstitutionalization in Latvia: Several Principles of Policy-Making. Retrieved: http://www.lm.gov.lv/upload/prezentacija2/p1_lm_-_danute_jasjko.pdf. Access: 31.01.2016.
9. Mikelsons-Slava, S. (2015). Deinstitutionalization – a Possibility for Adults with Mental Disorders to live an Independent Life in the Society. *Zinasanu parneses sociala darba prakse*, Number 2, pp. 31-33.
10. Silina, G. (2015). Deinstitutionalization Policy in Latvia: its Development and Implementation for the Adult Persons with Mental Disorders (Deinstitutionalizācijas politikas attīstība un ieviešana Latvijā (pilngadīgam personam ar garīga rakstura traucējumiem)). Master thesis, Vidzeme University of Applied Sciences.
11. Soderstro, S., Tossebro, J. (2011). Redeemed Goals or Broken Visions? (Innfridde mal eller brutte visjoner?). Retrieved: <http://www.nfunorge.org/Global/Nyheter%20NFU%20sentral/Dokumenter/Innfridde%20m%C3%A5l.pdf>. Access: 31.01.2016.
12. Stavausis, D. (2011). Development of Community Based Mental Health Services in Latvia (Ar pacienta dzīvesvietu saistītu alternatīvo pakalpojumu attīstība Latvijā). *Human Security in Latvia: risks and affecting factors*. Riga: LU, pp. 108-125.
13. The Ministry of Welfare (2006). Social Report for 2006. Retrieved: www.lm.gov.lv/upload/socialais_zinojums/soczin_2006_1.pdf. Access: 31.01.2016.
14. The Ministry of Welfare (2014). List of Documents. Retrieved: <http://www.lm.gov.lv/text/1789>. Access: 12.04.2015.
15. The Ministry of Welfare (2015). Directions on Implementation of the DI Action Plan 2015-2020 (Rīcības plāns deinstitutionalizācijas īstenošanai 2015-2020). Retrieved: http://www.lm.gov.lv/upload/aktualitates/null/2015_15_07_ricplans_final.pdf. Access: 31.01.2016.

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Jelgava, LLU ESAF, 21-22 April 2016, pp. 99-107

16. World Health Organization (2006). WHO-AIMS Report on Mental Health System in Latvia. Retrieved:
http://www.who.int/mental_health/evidence/Latvia_WHO_AIMS_Report.pdf. Access: 08.01.2016.

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SUSTAINABLE DEVELOPMENT IN ENERGY SECTOR IN THE EUROPEAN UNION COUNTRIES

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Abstract. The hereby paper includes the issues related to sustainable development in the energy sector based on the European Union countries. Use of energy from the renewable sources is one of the methods of such development. The aim of the research was to determine the importance of renewable energy depending on the macroeconomic situation in the countries of the European Union. The source materials consisted of the subject literature and the numerical information from EUROSTAT database. The research covered the period from 2005 to 2013. The analysis included all Member States of the European Union (in total 28 countries). Correlation between participation of renewable energy in total energy production process and the various parameters was established as well. The Pearson linear correlation coefficients applied for this purpose. The paper presents the analysis of participation of renewable energy in the total energy consumption. It was found that participation of renewable energy in the total energy balance continues to increase, differs in each country and is not dependent on the macroeconomic situation. Strong positive correlation between participation of renewable energy and afforestation rate was found, which is caused by largely involvement of biomass in renewable energy. The research indicates that the economic aspect for sustainable energy development is of low importance.

Key words: energy, sustainable development, renewable sources of energy, development of societies

JEL code: O-13

Introduction

Energy is an essential element in development of civilization (Kowalak, 2005). Due to sources of its acquisition, energy is divided into conventional and unconventional. Conventional energy uses non-renewable sources such as coal, lignite, natural gas, crude oil (Piekarski et al., 2006). Unconventional energy uses renewable (inexhaustible) source, including the natural, recurring natural processes. It includes wind, water, the sun, geothermal resources, solid biomass, biogas from agricultural production and liquid biofuels (Rokicki, 2015; Wysokinski et al., 2015; Wysokinski and Dziwulski, 2013). Renewable energy often concerns small generating units located near the recipient. For this reason increases the local energy security and decreases the transmission losses. Acquisition of renewable energy involves very low (or no) emissions of contamination and contributes to development of less developed regions (Czyzewski and Wroclawski, 2012; Baran and Rokicki, 2015). Increased use of renewable energy sources, along with energy savings and increased energy efficiency are necessary to

reduce greenhouse gas emissions and meet the provisions of the Kyoto Protocol to the UN Framework Convention on Climate Change. This approach also allows meeting other EU and international commitments to reduce greenhouse gas emissions (Directive 2009/28/EC). The world's increased interest in renewable energy sources occurred in the 1990s. Then special emphasis was put on solar and wind energy (Borgosz-Koczwara and Herlender, 2008). In the European Union, the internal electricity market has been created since the late 1990s. Its aim is to ensure competition and supply of energy at the most competitive price in all Member States (Directive 2009/72/EC). The problem in developing renewable energy involves the energy production costs, which are significantly higher compared to conventional sources. The initial investment is higher as well (Motowidlak, 2012; Rokicki and Baran, 2015). Despite the above, the research confirms large influence of numerous programmes for promotion of renewable energy sources on the energy balance and greenhouse gas emissions (Baran, 2015).

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Materials and methods

The aim of the research was to determine importance of renewable energy depending on the macroeconomic situation in the countries of the European Union. Individual countries differed in terms of the macroeconomic situation. In the paper, the author attempted to determine the relationship between importance of renewable energy measured with participation of energy produced in this way in the total energy production process and the various measures of economic, demographic and environmental situations. The paper involved the following research hypothesis: importance of renewable energy in the European Union does not depend on the macroeconomic factors. The source materials consisted of the subject literature and the numerical information from EUROSTAT database. The research covered the period from 2005 to 2013. The analysis included all Member States of the European Union (in total 28 countries). Individual countries varied in terms of prosperity of the population, economic development, and population number. Correlation between participation of renewable energy in total energy production process and the various parameters was established as well. The Pearson linear correlation coefficients applied for this purpose.

Research results

The first legislation on renewable energy emerged in the European Union at the end of the 20th century. It assumed any obligation to purchase electricity and heat by the distribution companies from unconventional sources. In the first years of using new regulations, the energy market was unstable and the prices were varied (Gieremek and Włodarczyk, 2005).

The Green Paper of 1996 was the first document, which set the main policy aims related to safety of the environment in the energy sector. The following were important: security of supply, improving competitiveness of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 108-109 energy companies and taking into account the environmental aspects associated with influence of the sector on climate change. The document highlighted importance of renewable energy sources and the need to support research, implement facilitates (e.g. in terms of taxes) in this regard (Energy ..., 1996). The White Paper of 1997 included the status of the renewable energy market in Europe and presented strategies and action plan to promote this energy. In 1996, consumption of energy from renewable sources amounted to 6%. It assumed an ambitious plan to double its production to 12% in the overall balance in 2010 (Energy ..., 1997). In the next Green Paper of 2000, attention was paid on controlling energy demand, energy consumption with greater respect for the environment, fighting against global warming, inter alia, through greater participation of renewable energy (European ..., 2000). The strategy towards sustainable, competitive and secure energy formulated in the document of 2006. The main threat to the European Union was becoming dependency on imports, which in 2006 was 50%, and due to no remedies, it can achieve the level of 70% in the next 20 years (Green .., 2006). The status of using renewable energy and the assumptions for the future presented in a document of 2007. In 2005, renewable energy sources in the EU were: biomass (66.1%), water (22.2%), wind, and geothermal energy (5.5% each) and the sun (0.7%). The previously assumed target of 10% participation of renewable energy in total consumption balance in 2010 became impossible to be achieved. For this reason, new targets were established, namely to achieve 20% participation of renewable energy in gross inland consumption and 10% participation of energy from renewable sources (biofuels) in transport by 2020. Achieving these targets will be allowed due to reduction of CO₂ from 600 to 900 million tonnes per year, which means EUR 150 to 200

billion in savings if the price of one tonne of CO₂ is EUR 25 (Renewable ..., 2007).

The research carried out at the beginning of the 21st century shows that there is low influence of the macroeconomic situation on the energy prices in the European Union countries. For this reason, there were large disparities in the electricity cost of the citizens of individual Member States. In order to prevent from the monopolistic practices, the European Union recommended each Member State to establish the energy supervising units (Cherubi, 2005; Baran et al., 2016). For example, in Poland in the early 21st century, the electricity costs accounted for 10-11% of expenditures of families. The highest participation of these expenditures was in Slovakia (14.5%), Hungary and Romania (12%) and the Czech Republic (11%). In Western Europe, the energy costs accounted for less than 5% of expenditure of families (Kurkowski, 2012). Energy is also consumed in many activities related to production and services. One of them is transport, which reports high demand for fuels (Rokicki, 2013; Gorecka and Rokicki, 2014; Baran, 2014).

Sustainable development is possible through increased use of energy that comes from renewable sources. The European Union policy assumes gradual increase of this kind of energy in the total energy balance. In the years 2005-2013, significant changes in this area in the various Member States of the EU occurred (Table 1).

On average, in the EU, participation of renewable energy in the total consumption increased from 8.7% in 2005 to 15% in 2013. However, it should be noted that there were large disparities. Sweden was a strong leader, with over 50% participation of renewable energy in 2013. High proportion was also reported for Latvia (37.1%), Finland (36.8) and Austria (32.6%). In turn, the lowest use of renewable sources of energy was in Luxembourg (3.6%),

Jelgava, LLU ESAF, 21-22 April 2016, pp. 108-110 Malta (3.8%), the Netherlands (4.5%) and the United Kingdom (5.1%). Still growing participation of renewable energy in all countries during the period is a positive phenomenon.

Participation of individual sources in production of renewable energy was different. On average, in the EU in 2013, 16.2% represented hydro energy, 10.3% wind energy, 1.9% solar energy, and 3.5% photovoltaic energy (Table 2). Hydro energy accounted for the largest participation of renewable energy in Croatia (54.3%), Austria, Slovenia and Sweden (over 30%). The largest participation of wind energy was in Ireland (45.9%), Spain, the United Kingdom and Denmark (over 20%). Solar energy was the dominant source in Cyprus (48.9%) and Malta (32.5%). Photovoltaic energy was an important part of renewable energy in Malta (21.7%) and Greece (12.0%). Use of specified energy source depended on natural predisposition and internal policies of the individual Member States in development of renewable energy. In the case of the most important sources of renewable energy, generally, for the years 2005-2013 there was increase in its production and consumption.

Implementation of renewable energy sources in different countries is often hampered due to dependence on raw materials occurring in the country. However, keep in mind natural resources are non-renewable. Therefore, it is important to reduce energy consumption and use it rationally. In the years 2005-2013, total energy consumption in most EU countries decreased. Increase was only observed in Estonia (by 18.4%), Poland (7.5%) and Austria (1.4%). The largest reduction in energy consumption was recorded in Lithuania (by 27.6%) and Greece (by 21%). Energy consumption across the European Union in 2013 accounted for 91.7% of the level of 2005. Sources of energy in various countries were very diverse.

Share of renewable energy in gross final energy consumption in 2005-2013

Countries	Share of renewable energy in gross final energy consumption (%)								
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	2.3	2.7	3.4	3.8	5.2	5.7	6.1	7.4	7.9
Bulgaria	9.4	9.6	9.2	10.5	12.2	14.1	14.3	16.0	19.0
Czech Republic	6.0	6.4	7.4	7.6	8.5	9.5	9.5	11.4	12.4
Denmark	15.6	15.9	17.8	18.6	20.0	22.0	23.4	25.6	27.2
Germany	6.7	7.7	9.0	8.5	9.9	10.4	11.4	12.1	12.4
Estonia	17.5	16.1	17.1	18.9	23.0	24.6	25.5	25.8	25.6
Ireland	2.9	3.1	3.6	4.1	5.1	5.6	6.6	7.3	7.8
Greece	7.0	7.2	8.2	8.0	8.5	9.8	10.9	13.4	15.0
Spain	8.4	9.2	9.7	10.8	13.0	13.8	13.2	14.3	15.4
France	9.6	9.5	10.3	11.2	12.3	12.8	11.2	13.6	14.2
Croatia	12.8	12.8	12.1	12.1	13.1	14.3	15.4	16.8	18.0
Italy	5.8	6.4	6.4	7.3	9.1	10.5	12.1	15.4	16.7
Cyprus	3.1	3.3	4.0	5.1	5.6	6.0	6.0	6.8	8.1
Latvia	32.3	31.1	29.6	29.8	34.3	30.4	33.5	35.8	37.1
Lithuania	17.0	17.0	16.7	18.0	20.0	19.8	20.2	21.7	23.0
Luxembourg	1.4	1.5	2.7	2.8	2.9	2.9	2.9	3.1	3.6
Hungary	4.5	5.1	5.9	6.5	8.0	8.6	9.1	9.5	9.8
Malta	0.2	0.2	0.2	0.2	0.2	1.0	1.4	2.7	3.8
Netherlands	2.3	2.6	3.1	3.4	4.1	3.7	4.3	4.5	4.5
Austria	23.9	25.5	27.5	28.4	30.3	30.8	30.9	32.1	32.6
Poland	6.9	6.9	6.9	7.7	8.7	9.2	10.3	10.9	11.3
Portugal	19.5	20.8	21.9	23.0	24.4	24.2	24.7	25.0	25.7
Romania	17.6	17.1	18.3	20.5	22.7	23.4	21.4	22.8	23.9
Slovenia	16.0	15.6	15.6	15.0	19.0	19.3	19.4	20.2	21.5
Slovakia	5.9	6.3	7.6	7.7	9.3	9.0	10.3	10.4	9.8
Finland	28.8	30.0	29.6	31.4	31.5	32.5	32.9	34.5	36.8
Sweden	40.5	42.6	44.1	45.2	48.2	47.2	48.9	51.1	52.1
United Kingdom	1.4	1.6	1.8	2.4	3.0	3.3	3.8	4.2	5.1

Source: EUROSTAT

Sources of renewable energy in total consumption of this energy in 2013

Countries	Sources of renewable energy (%)			
	Hydro power	Wind power	Solar thermal	Solar photovoltaic
Belgium	0.94	8.96	0.54	6.51
Bulgaria	19.34	6.51	1.05	6.45
Czech Republic	6.59	1.16	0.40	4.90
Denmark	0.03	21.85	0.56	1.02
Germany	5.92	13.31	1.75	7.98
Estonia	0.26	5.34	0.00	0.00
Ireland	5.84	45.91	1.33	0.00
Greece	20.86	13.61	7.15	11.99
Spain	18.17	26.62	11.28	4.10
France	26.01	5.92	0.37	1.72
Croatia	54.25	3.51	0.64	0.08
Italy	17.21	4.86	0.64	7.04
Cyprus	0.00	14.79	48.92	3.02
Latvia	15.54	0.64	0.00	0.00
Lithuania	3.69	4.28	0.00	0.32
Luxembourg	6.54	4.56	1.59	4.05
Hungary	0.97	3.27	0.32	0.11
Malta	0.00	0.00	32.52	21.70
Netherlands	0.29	14.35	0.77	1.32
Austria	36.12	2.71	1.78	0.50
Poland	2.45	6.03	0.18	0.00
Portugal	22.22	19.44	1.37	0.78
Romania	23.17	7.00	0.00	0.65
Slovenia	35.07	0.03	0.85	1.63
Slovakia	29.58	0.04	0.40	3.59
Finland	11.13	0.67	0.01	0.01
Sweden	30.89	4.95	0.07	0.02
United Kingdom	4.00	24.21	1.88	1.73

Source: EUROSTAT

Pearson correlation coefficients between the share of renewable energy in total consumption and selected parameters, source: own research

Parameters	Pearson correlation coefficients									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2005-2013
The coefficients of correlation between the share of energy from renewable sources in gross final energy consumption and										
GDP per capita	-0.110	-0.080	-0.040	-0.043	-0.102	-0.073	-0.050	-0.041	-0.037	-0.049
p value	0.578	0.684	0.841	0.827	0.607	0.711	0.801	0.835	0.850	0.417
Household consumption per capita	-0.142	-0.098	-0.063	-0.067	-0.109	-0.056	-0.016	0.004	0.024	-0.038
p value	0.472	0.619	0.749	0.734	0.581	0.777	0.934	0.983	0.903	0.529
Population	-0.250	-0.235	-0.231	-0.230	-0.229	-0.226	-0.236	-0.221	-0.225	-0.225
p value	0.199	0.228	0.237	0.239	0.241	0.248	0.226	0.259	0.249	0.001
Area of country	-	-	-	-	-	-	-	-	0.134	-
p value									0.190	
Forest cover in %	-	-	-	-	-	-	-	-	0.696	-
p value									0.001	
The coefficients of correlation between the share of renewable energy in transport and										
GDP per capita	0.103	0.067	0.209	0.150	0.159	0.100	0.228	0.276	0.350	0.208
p value	0.600	0.733	0.287	0.447	0.420	0.612	0.243	0.156	0.068	0.001
Household consumption per capita	0.143	0.128	0.218	0.181	0.217	0.201	0.246	0.317	0.382	0.251
p value	0.468	0.515	0.266	0.357	0.268	0.306	0.207	0.100	0.068	0.001
Population	0.427	0.371	0.351	0.388	0.369	0.419	0.149	0.295	0.098	0.251
p value	0.023	0.052	0.067	0.042	0.053	0.027	0.449	0.127	0.068	0.001
Area of country	-	-	-	-	-	-	-	-	0.435	-
p value									0.021	
Forest cover in %	-	-	-	-	-	-	-	-	0.175	-
p value									0.372	
The coefficients of correlation between the share of renewable energy in electricity and										
GDP per capita	0.037	0.042	0.057	0.064	0.046	0.045	0.061	0.054	0.050	0.061
p value	0.853	0.831	0.773	0.747	0.817	0.819	0.756	0.786	0.799	0.306
Household consumption per capita	0.045	0.063	0.078	0.082	0.081	0.110	0.148	0.143	0.158	0.115
p value	0.820	0.751	0.695	0.676	0.681	0.579	0.453	0.469	0.421	0.054
Population	-0.125	-0.115	-0.100	-0.094	-0.088	-0.093	-0.074	-0.055	-0.040	-0.084
p value	0.525	0.561	0.614	0.633	0.655	0.639	0.706	0.783	0.842	0.163
Area of country	-	-	-	-	-	-	-	-	0.239	-
p value									0.220	
Forest cover in %	-	-	-	-	-	-	-	-	0.528	-
p value									0.004	

	Pearson correlation coefficients									
The coefficients of correlation between the share of renewable energy in heating and cooling and										
GDP per capita	-0.144	-0.115	-0.086	-0.098	-0.162	-0.139	-0.122	-0.125	-0.118	-0.108
p value	0.465	0.562	0.662	0.620	0.411	0.481	0.536	0.528	0.551	0.070
Household consumption per capita	-0.183	-0.142	-0.115	-0.126	-0.177	-0.137	-0.103	-0.094	-0.075	-0.108
p value	0.351	0.471	0.561	0.522	0.367	0.488	0.602	0.635	0.706	0.072
Population	-0.323	-0.313	-0.323	-0.329	-0.327	-0.345	-0.349	-0.363	-0.372	-0.332
p value	0.093	0.105	0.093	0.088	0.090	0.073	0.068	0.058	0.051	0.001
Area of country	-	-	-	-	-	-	-	-	0.115	-
p value									0.560	
Forest cover in %	-	-	-	-	-	-	-	-	0.652	-
p value									0.001	

Source: author's calculations

In the article, the Pearson linear correlation coefficient was used to specify the relationship between participation of renewable energy in total consumption of energy and certain measures of the economic, demographic and environmental situations. Importance of renewable energy in the energy balance was presented as participation of energy from renewable sources in the final gross energy consumption, participation of renewable energy in transport, participation of renewable energy in electricity, participation of energy from renewable sources in heating and cooling. Table 3 summarizes the results of correlation. Value $p=0.05$ assumed as the limit value of the importance level. Important dependencies were marked with grey background in the text. Correlation coefficients were calculated individually for each of the years and in total for the entire period, i.e. the years 2005-2013. Correlation coefficients for 2013 were only calculated in the event of the country area and afforestation rate. These parameters unchanged for a specified period of the years 2005-2013. Significant relationship was not specified in most cases. Relationship was found in the case of relationship between participation of renewable energy in the total consumption and population number for the years 2005-2013 (correlation $r = -$

0.225, $p = 0.001$) and afforestation rate (correlation $r = 0.696$, $p = 0.001$). As far as the afforestation rate, relationship was strong and positive. This is due to the fact that in many countries biomass from forests was the major source of renewable energy.

In case share of renewable energies in energy consumption in transport was found for the years 2005-2013 weak positive relationship with the level of the GDP per person (correlation $r = 0.208$, $p = 0.001$), with household consumption per person (correlation $r = 0.251$, $p = 0.001$) and with population number (correlation $r = 0.251$, $p = 0.001$). In the case of population number, in the early years of the period 2005-2013 relationships were stronger. In the subsequent years, participation of renewable energy in transport was no longer correlated with population number. Transport is closely related to the economy, it develops the fastest in the world's richest countries, where biofuels are introduced faster. In addition, moderate positive relationship was found between participation of renewable energy in transport and the area of the country (correlation $r = 0.435$, $p = 0.021$).

Participation of renewable energy in electricity production was weakly positively correlated with household consumption per person in the years 2005-2013 (correlation $r = 0.115$, $p = 0.054$)

and strongly positively correlated with afforestation rate (correlation $r = 0.528$, $p = 0.004$). In the case of participation of renewable energy in heating and cooling, weak negative correlation with population in 2013 (correlation $r = -0.372$, $p = 0.051$), and in the years 2005-2013 (correlation $r = -.332$, $p = 0.001$) was found, and strong with afforestation rate (correlation $r = 0.652$, $p = 0.001$).

Conclusions

- 1) Energy is the basis for development of civilization. The ethical dilemma arises in terms of its correct use and keeping its sources for future generations. This approach is associated with eco-philosophy. Use of renewable energy sources is one of the methods to assure sustainable development. The European Union policy aims to reduction energy consumption and increase use of renewable sources of energy in the economy.
- 2) The carried out research showed that general energy consumption in most EU countries decreases, while participation of renewable energy increases. There are disparities between the countries. There are also sources of renewable energy, which tend to be based on natural properties of the nature and depend on the policies of the country concerned to a large extent. A number of countries are heavily addicted from conventional energy, such as coal or crude oil, which is not conducive to development of renewable energy.
- 3) The calculated correlation coefficients between participation of renewable energy in

Jelgava, LLU ESAF, 21-22 April 2016, pp. 108-115 energy consumption confirm the hypothesis.

It can be concluded that importance of renewable energy in the European Union is not dependent on the macro-economic indicators. Significant positive relationship with the GDP and household consumption per person found only in the case of participation of renewable energy in transport. Strong correlation was found in the case of participation of renewable energy in total energy consumption and afforestation rate. This result was due to use of biomass, as the main source of renewable energy in the majority of the EU countries.

- 4) There is still a dilemma and a choice between the use of non-renewable energy resources for the current development and saving them for future generations. The presented research suggests large diversity of the EU countries in terms of energy sources. Implementation of the concept of sustainable development in the energy sector is a positive phenomenon, which is manifested by gradual reduction of energy consumption and increase in participation of renewable energy. The carried out research confirms that development of energy, using renewable sources, is the right direction. The economic considerations in this respect are becoming less important, since the ethical field and human-human and human-nature relationships are more and more important. Undoubtedly, technological and political fields are important for renewable energy, because they make it easier to implement ideas to action.

Bibliography

1. Baran, J. (2014). Economic Development Versus Transportation Development in Poland. CLC 2013: *Carpathian Logistics Congress - Congress Proceedings*, pp. 343-350.
2. Baran, J. (2015). Regional Differentiation of Financial Support from the European Union and its Impact on Agricultural Efficiency in Poland, *Economic Science for Rural Development, Economic Science for Rural Development: Production and Cooperation in Agriculture / Bioeconomy / Finance and Taxes. Proceedings of the International Scientific Conference*, No. 38, pp. 227-238.
3. Baran, J., Rokicki, T. (2015). Productivity and Efficiency of US Metal Industry in 2006-2014, *In Metal 2015: 24th International Conference on Metallurgy and Materials. Conference Proceedings*. Ostrava: TANGER, 2015, pp. 1841-1846.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 108-116

4. Baran J., Wysokiński M., Stas D., Samolejova A., Lenort R., (2016). Efficiency of Polish metallurgical industry based on data Envelopment Analysis, *Metalurgija*, No 55(2), pp. 245-248.
5. Borgosz-Koczwara, M., Herlender, K., (2008). Bezpieczeństwo energetyczne a rozwój odnawialnych źródeł energii (Energy Security and the Development of Renewable Energy Sources). *Energetyka*, no 3, pp. 194-197.
6. Cherubin, W., (2005). Problemy ustalania cen i rozliczeń za ciepło w krajach Europy Środkowej i Wschodniej (Problems Pricing and Billing for Warmth in the Countries of Central and Eastern Europe). *Biuletyn Urzędu Regulacji Energetyki*, no 1, pp. 17-26.
7. Czyzewski, R., Wrocławski, M., (2012). Koncepcja funkcjonowania sieci dystrybucyjnych, opartych na lokalnych obszarach bilansowania, czynnikiem wspierającym rozwój generacji rozproszonej i poprawie efektywności energetycznej (The Concept of the Distribution Networks, Based on Local Areas Balancing, Factor Supporting the Development of Distributed Generation and Improving Energy Efficiency). *Biuletyn Urzędu Regulacji Energetyki*, no 1, pp. 41-46.
8. Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, in: *Official Journal of the European Union* L 140, 5 June 2009, pp. 16-47.
9. Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity, and repealing Directive 2009/54/EC (2nd energy directive), which repealed Directive 96/92/EC, in: *Official Journal of the European Union* L 211, 14 August 2009, pp. 55-93.
10. Energy for the Future: Renewable Sources of Energy – Green Paper for a Community Strategy COM(96) 576, 1996.
11. Energy for the Future: Renewable Sources of Energy. White Paper for a Community Strategy and Action Plan. COM(97) 599 final (26/11/1997).
12. European Commission, Green Paper – Towards a European strategy for the security of energy supply, COM(2000) 769, November 2000.
13. Gieremek, K., Włodarczyk, W., (2005). Rozwój odnawialnych źródeł energii w latach 1999-2004-ocena mechanizmów wspierania (The Development of Renewable Energy Sources in the Years 1999-2004 - Assessment of Mechanisms to Support). *Biuletyn Urzędu Regulacji Energetyki*, no 1, pp. 32-33.
14. Gorecka, A., Rokicki, T. (2014). The Significance of Transportation in Agribusiness Companies. CLC 2013: *Carpathian Logistics Congress-Congress Proceedings*, pp. 24-30.
15. Green paper. A European Strategy for Sustainable, Competitive and Secure Energy, Commission of the European Communities, {SEC(2006) 317}, Brussels, 8.03.2006, COM(2006) 105 final.
16. Kowalak, T., (2005). Tworzenie rynku energii elektrycznej i restrukturyzacja sektora energetycznego – spojrzenie regulatora (Creating Electricity Market and Restructuring of the Energy Sector). *Biuletyn Urzędu Regulacji Energetyki*, no 1, pp. 11-16.
17. Kurkowski, P., (2012). Zagrożenie ubóstwem energetycznym. Próba ustalenia zjawiska (na podstawie danych GUS) (The Threat of Fuel Poverty. Trying to Determine the Phenomenon - Based on Data from the Central Statistical Office). *Biuletyn Urzędu Regulacji Energetyki*, no 1, pp. 3-8.
18. Motowidlak, T., (2012). Wpływ kryzysu finansowego strefy euro na rozwój sektora energii odnawialnej UE (The Impact of the Euro Area Financial Crisis on the Development of the Renewable Energy Sector EU). *Acta Universitatis Lodzensis, Folia Oeconomica*, no 273, pp. 287-299.
19. Piekarski, W., Zajac, G., Szyszlak, J., (2006). Odnawialne źródła energii jako alternatywa paliw konwencjonalnych w pojazdach samochodowych i ciągnikach (Renewable Energy Sources as an Alternative for Conventional Fuels in Motor Vehicles and Tractors). *Inżynieria Rolnicza*, vol. 10, pp. 91-96.
20. Renewable Energy Road Map. Renewable Energies in the 21st Century: Building a More Sustainable Future. Commission Communication of 10 January 2007, COM(2006) 848 final.
21. Rokicki, T., (2013). The Importance of Logistics in Agribusiness Sector Companies in Poland. *Economic Science for Rural Development: Production and Cooperation in Agriculture / Finance and Taxes. Proceedings of the International Scientific Conference*, Issue 30, pp. 116-120.
22. Rokicki, T. (2015). Economic Results of Sheep Farms in Poland, *Economic Science for Rural Development, Economic Science for Rural Development: Production and Cooperation in Agriculture / Bioeconomy / Finance and Taxes. Proceedings of the International Scientific Conference*, No 37, pp. 86-92.
23. Rokicki, T., Baran, J. (2015). Situation of the Steel Industry in Poland, *In Metal 2015: 24th International Conference on Metallurgy and Materials. Conference Proceedings*. Ostrava: TANGER, 2015, pp. 2044-2049..
24. Wysokiński, M., Baran, J., Florkowski W. J. (2015). Concentration of Milk Production in Poland, *Economic Science for Rural Development, Economic Science for Rural Development: Production and Cooperation in Agriculture / Bioeconomy / Finance and Taxes. Proceedings of the International Scientific Conference*, No 37, pp. 93-104.
25. Wysokiński, M., Dziwulski, M. (2013). Land as Main Production Factor on Dairy Farms in Poland. *Economic Science for Rural Development: Production and Cooperation in Agriculture / Finance and Taxes. Proceedings of the International Scientific Conference*, Issue 30, pp. 128-133.

USE OF SOCIAL NETWORK SITES FOR THE EMPLOYMENT SEEKING PROCESS

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Abstract. The paper examines the opinions of individuals to use social network sites (SNS) for the employment seeking process. The aim of the paper is to focus on the difference between private and business SNSs to evaluate the behaviour of individuals and mechanism of SNSs under consideration of the employment seeking process. Companies and individuals do not use the potential of SNSs to support the recruiting process and the employment seeking process. There exist many opportunities to make SNSs more effective and efficient for employment seeking relevant issues. For empirical research used data of survey with 250 participants. The results are divided in business SNS and private SNS members. The result support companies and individuals to use SNS more successful for employment relevant topics.

Key words: social network sites, recruiting, employment advertisement, social capital.

JEL code: M1, M5, J6, D85

Introduction

Companies need new channels to identify new employees. The demographic change and economic situation in Germany changes the labour market. The power of the participants at the labour market is changing. Individuals have more chances to collect, share and exchange information about employer and employment opportunities. Well educated candidates obtain more opportunities to get an employment and companies have few applicants. That gives the power for the labour market in the candidate scope (Sander T., 2013, Bauernschuster et al., 2011). The identification of potential candidates for employment and to receive applications from candidates with interesting skills is difficult. SNSs are a tool to support the employment seeking process. For example, employees can fast and easy exchange information about employment opportunities to their SNSs contacts anywhere at any time or they can present their skills and experience with their profile to a large audience. The aim of the paper is to identify the use of private and business SNSs for the employment seeking process to provide an answer on the question if companies should use SNSs to identify potential employees or to attract individuals to apply for job positions. The statement for this paper is that companies can use SNSs for the employment seeking process. The second statement is that the use of SNSs influences the

behaviour of SNSs users regarding their employment seeking. The social capital theory could be used to explain mechanism at SNSs for the employment seeking process.

Theoretical findings and organisation of empirical research

The employment seeking process is related with the human resources management (HRM) and describes the process to identify employment opportunities and information about employer. The HRM department is responsible to find suitable candidates and needs to know how individuals search for new employment opportunities and consider how the HRM can use suitable channels and provide attractive information for potential candidates. HRM is an important part of companies because HRM organizes and provides the employees which have to be competitive. One of the main tasks of HRM is the recruiting and identifying of superior employees needed for respective company taking into account that the company reach their targets (Orpen, 2008, Stone et al., 2015). The HRM department has to react on technological and social changes, e.g. new channels to reach and identify potential candidates. The employment seeking process starts with the awareness of the individual that a company is searching for employees. The employer branding provides advertisement to the individuals about job

opportunities and attract them to apply. The information about the company has to be transferred to the potential candidate so that the candidate is keen to apply for the advertised position and to prepare the application to the company. The company can attract people with the culture, spirit or offered packages for employees. Companies with interesting products or service have the advantage that the information and emotions together with their products are transferred to potential candidates and increases the level of interest by potential candidates for the job position. SNSs are becoming more and more attractive channel to present the company and the employer brand to individuals. There is the opportunity to exchange information as a video or audio file for example (Sander, Teh & Majláth, 2015, Brady, 2015). Further an individual communication with the candidate is possible. The communication provides an interaction and exchange of experience which helps the individuals collect information and use the information to make a decision. The employment seeking process starts with the search of a new employment opportunity. The search could be done active or passive. That means: person looking active for new job is searching active with different tools. The passive searching individual is not active looking and reacts on requests at SNS or randomly anticipated job advertisements. For both search techniques are social networks and SNSs could be useful for companies to identify employees: the companies could scan SNSs profiles to find potential candidates (Caers & Castelyns, 2010, Wyld, 2009). Individuals can use SNS to find a new position and get information from a contact at SNS or ask a contact for support the application. Companies would not get an application if individuals do not find their offer. It means the companies have to identify the best place to reach their target group and that can be SNS, job boards, career homepage of companies or other useful

Jelgava, LLU ESAF, 21-22 April 2016, pp. 117-118 communication channels (Spence, 1973). The next step is to forward applications to the companies. Some companies are offering possibilities that applicants can forward their SNSs profile, send their application by e-mail or the company has a selection algorithm for applicants. After the application arrives at the company the selection process starts. If companies get in touch via SNSs then the first selection process is done by the recruiter as the recruiter decides who is an interesting candidate for the company. On next step candidate gets a message from the recruiter about employment opportunities. If the candidate apply personally then a recruiter checks the application and gets in touch with the applicant: inviting for interviews, psychological online tests, asking for references. Some companies use SNS to get more information about the candidate. They are reviewing SNSs profiles to evaluate candidates (Zide et al., 2014, Sander, Teh, Sloka, 2015). Then candidates are invited for interviews, assessment centre to evaluate candidate deeper and get more information about the candidate. Companies can use the interview to present their company and position. It is possible that the companies combine the tools to evaluate candidates with interview and psychological test. The number of interviews and tests depends on the involved internal responsible manager and traditions in the company. There are large differences in the selection process between companies. The last step for the recruiting process is to negotiate the contract. Some companies increase the recruiting process with the program done by the recruiter. Relevant popular and large SNSs started mainly after 2002. The SNSs are tools in the internet to exchange information and share information and provide information or knowledge to a large audience who are members in the SNSs. SNS are becoming more and more popular. The information at SNSs depends on the members of the SNSs. What kind of information is suitable

and presentable under consideration of legal issues is the responsibility and decision of the user. SNSs provide the opportunity to get in touch with other members and to present a profile to an audience. SNSs have different aims and tasks for their members. The private SNSs present private related information and have the task to maintain friendship among the members of the network. A famous private SNS is *Facebook*. The business SNSs are business related with the task to present professional information at profiles for example. Famous business SNSs are *Xing* or *LinkedIn* (Steinfeld et al., 2008, Boyd & Ellison, 2007). Business SNSs have higher relevance for the employment seeking process than private SNSs. The advantage is the fast and easy exchange of information and the information can be written, audio, picture or video for example. The main task of SNSs is to share information and to maintain friendship. The exchange of information is an important benefit of SNSs. The SNS creates ties between members. The difference between SNSs and social networks is the permanent operation – people can get in touch with their network anytime from anywhere in the world. The number of recipients of information about employer or employment seeking individuals is increased and possible for individuals with SNSs (Teh et al., 2014). There could be discussions and reactions on information about companies and employment opportunities. This information is visible for a large audience if the information flow is not controlled. Companies can use groups or information of SNS profiles to select interesting candidates and to lead relevant information to them. Companies can pay money to employees if they use their social network ties to attract potential candidates to apply. The SNSs provide candidates the opportunity to get in touch with employees and to ask questions about leadership, culture or other relevant topics. That is only possible because it is easy to identify individuals with the needed information via SNSs.

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The social capital theory explains the exchange of information and resources in social networks. The social capital theory has many different interpretations. This paper uses the interpretation that individuals exchange and share information because they create their information with reciprocity (Lin, 2004). The exchange of information depends on the knowledge about each other. That can be described with strong and weak ties. Strong ties mean that the individual has a long history, frequently contacts and knows other friends of the contact. The density of a strong tie network is high with many knots having with each other a relationship. Weak ties are a bridge in another network. This tie can provide new information and access to resources which are not available in the network of strong ties (Granovetter, 1973). Academic research results show that private SNS members are more open for this opportunity than business SNSs member (Zide et al., 2014). Individuals who are members of business SNSs are more open and more frequently using SNSs for the employment seeking process (Caers, Castelyns, 2010). Academic research has found that both groups not very often use SNSs to get in touch with employees of potential employers (Chiang, Suen, 2015). Research in other countries is performed on questions how individuals can use SNSs for the employment seeking process and for what individuals can use SNS for the employment seeking process (Melanthiou et al., 2015) and people have an advantage because they have a tie to a popular person (Chiang, Suen, 2015) and the use of business SNSs is more accepted by the individuals that companies advertise employment opportunities there (Sander, Sloka, Pauzuoliene, 2015) and those participants who have experience with private SNS and they are using regularly private SNSs (Carrillat et al., 2014) have different approach in employment seeking process. That means individuals would not use the potential of SNSs for their employment seeking process and they

are not using possible advantages of their SNS membership for the employment seeking process.

Results on use of social network sites for employment seeking process

The empirical research was done with a survey: the online questionnaire was used within student project at University of Ludwigshafen (Germany) in April 2015. It was used scale 1-6 for evaluations of different statements in the questionnaire. Scale is corresponding with the grading system in German schools. German individuals are experienced with this scale and can easily evaluate statements and answer questions. The scale starts with one for "full agreement" to six for "full disagreement". The survey has been done in Germany and the language of the questionnaire is German. All participants have access to the internet and they have to be member of private, business SNS or private and business SNSs to be under consideration for this research. That excludes people who are not able to use the internet or do not have access to the internet. This paper uses the information of respondents on use of SNSs in minutes, duration of memberships in years and number of contacts to describe the kind of network and to find out if the use of SNSs

Jelgava, LLU ESAF, 21-22 April 2016, pp. 117-120 influences the behaviour and mechanism at SNSs. Among 250 respondents participating in survey share of male persons was 35.6% and female respondents were 64.4%. The paper presents the results of the survey regarding the use of SNSs for the employment seeking process. The age distribution of the survey respondents shows that the main group of the participants is between 21 and 30 years. That is a typical age of SNS user. The social status provides the information that the participants are mainly students or employees. The research investigated the use of SNS for job advertisement and asks why people use SNS for the employment seeking process. The survey data have been analysed with median, mean, mode, standard deviation and correlation. The results are analysed by user of private SNSs and the business SNSs. The experience of the participants with SNSs is important to evaluate the SNSs e.g. mechanism or behaviour of user. The expectation is that the membership at different SNS leads to different results based on the gained knowledge and experience of the individual. The answer of all participants is the basis to compare with other results to find out differences between the groups. The main statistical indicators of responses are included in Table 1.

Table 1

Main statistical indicators on use of private SNSs and business SNSs for the employment seeking process

	Job advertisements are suitable for private SNSs	Content and information at private SNSs are suitable and relevant for employment opportunities	Job advertisements are suitable for business SNSs	Content and information at business SNSs are suitable and relevant for employment opportunities
Amount	247	250	240	240
Mean	3.81	3.56	2.31	2.44
Median	4	3	2	2
Mode	3	2	2	2
Std. Dev.	1.576	1.676	1.246	1.259

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 250

The data of Table 1 indicate that private SNSs are not suitable for job advertisement in the

opinion of the participants. The content relevance for private SNSs for employment seeking process

gets the median three and the arithmetic mean 3.56. The results compared with private SNSs are that the business SNSs are more suitable for the employment seeking process. The use of business SNS for employment advertisements has the median two. The relevance and suitability of business SNSs is evaluated with the median two too. Both findings for business SNS say that this kind of SNS is more suitable for the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 117-121 employment seeking process. The value of arithmetic mean supports the results and provides similar information about the use of SNSs for the employment seeking process. Main results for questions how individuals can use SNSs for the employment seeking process and possibility for individuals to use SNS for the employment seeking process are reflected in Table 2.

Table 2

Main statistical indicators on use of SNS to get an employment

	Applications with SNS profiles are more easily and faster	SNS provides the opportunity to get a direct contact with manager who are responsible for placements	The applicants personality are more present at profiles at SNS	Contacts at SNSs can be used as a reference	Members of SNSs can recommend me
Amount	239	238	240	240	239
Mean	3.62	3.69	4.26	4.11	3.77
Median	4	4	4	4	4
Mode	2	5	4	4	3
Std. Dev.	1.648	1.629	1.542	1.600	1.519

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 250

The use of SNSs profiles for applications is not under consideration of the respondents. The individuals do not think that it would be more easily and faster if they could use their profile for the application. They are frightened that disadvantageous information is transferred with the profile. The median is four (it means that half of respondents gave evaluations less than 4 and half of respondents gave evaluations more than 4) and arithmetic mean is 3.62. The chance to use SNS to get in touch with involved manager who decides about the placement has the median four. That means the chance to influence a decision maker or to get in touch with a decision maker is not very appreciated in Germany. The participants are not aware that they can use their SNS contacts for their advantage. The

opportunity to be recommended by another member is not expected. References and recommendations are not suitable or used at SNSs. That SNSs profiles are used by recruiters to evaluate candidate's personality deeper is not under consideration. The median and mean provides a clear tendency that SNSs are not suitable to gain more information about candidates that SNS profiles provide additional information to companies than they get with the application. The difference between the result all participants and participants who use private SNS actively is only a few: the median is the same. The mean is more or less similar without any large differences compared with all users (Table 3). The table 4 provides indicators which are similar with the answers of all participants.

Main statistical indicators of private SNS users and their opinion about the use of SNSs for the employment seeking process

	Job advertisements are suitable for private SNSs	Content and information at private SNSs are suitable and relevant for employment opportunities	Job advertisements are suitable for business SNSs	Content and information at business SNSs are suitable and relevant for employment opportunities
Amount	172	173	172	172
Mean	3.87	3.57	2.23	2.41
Median	4	3	2	2
Mode	6	3	1	1
Std. Dev.	1.589	1.661	1.216	1.227

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 173

Table 4

Main statistical indicators on anticipation of private SNS members about the usefulness of SNS for the employment seeking process

	Applications with SNS profiles are more easily and faster	SNS provides the opportunity to get a direct contact with manager who are responsible for placements	The applicants personality are more present at Profiles at SNS	Contacts at SNS can be used as a reference	Members of SNS can recommend me
Amount	173	172	173	173	172
Mean	3.60	3.72	4.23	4.18	3.74
Median	3	4	4	4	4
Mode	2	3	6	6	3
Std. Dev.	1.638	1.595	1.523	1.580	1.481

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 173

Users of private SNSs are not aware that they can use their private SNS to obtain information or advantages for the employment seeking process. The increase of their knowledge about the company is not under consideration. They are not aware that they can use their reputation at private SNSs or power at SNSs to influence decision makers, it is not anticipated by private SNS user. Members of private SNSs do not have SNSs under consideration to use their profile or social network. The result provides the

assumption that the aim of private SNSs is for individuals not employment seeking related. They do not use private SNSs for the employment seeking process. Business SNSs have the aim to be professional and useful for the application to present professional skills and experience to be interesting for employer. The idea of those networks is to exchange business relevant information and the profile content at business SNS is relevant for job (Table 5).

Main statistical indicators of business SNS user's opinion about the use of SNSs for the employment seeking process

	Job advertisements are suitable for private SNSs	Content and information at private SNSs are suitable and relevant for employment	Job advertisements are suitable for business SNSs	Content and information at business SNSs are suitable and relevant for employment
Amount	73	74	76	77
Mean	3.81	3.61	2.21	2.36
Median	4	3	2	2
Mode	3	2	2	2
Std. Dev.	1.543	1.687	1.158	1.256

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 77

There is only a small difference between business SNSs and private SNSs. The data provide the results about the user of business SNS for the employment seeking (Table 6).

Table 6

Main statistical indicators on anticipation of private SNS members about the usefulness of SNS for the employment seeking process

	Applications with SNS profiles are more easily and faster	SNS provides the opportunity to get a direct contact with manager responsible for placements	The applicants personality are more present at profiles of SNS	Contacts at SNS can be used as a reference	Members of SNS can recommend me
Amount	76	76	76	77	76
Mean	3.62	3.74	4.39	4.10	3.79
Median	3.5	4	4.5	4	4
Mode	2	5 and 6	6	6	3
Std. Dev.	1.657	1.684	1.497	1.578	1.508

Source: authors construction based on Tom Sander conducted survey, evaluation scale 1 – 6, where 1- full agreement; 6 –full disagreement; n = 77.

The anticipation of business SNS user about information of personality of the profile is less informative - the information at business SNSs is less private and more business relevant. Information about individuals at business SNS is not as deep as it is at private SNSs.

Conclusions, proposals, recommendations

- 1) The business SNSs are more suitable for the employment seeking relevant issues than private SNSs. The information about employment opportunities and information about companies is more relevant and suitable at business SNS.
- 2) There exists only a small difference between business and private SNS regarding the estimation of the suitability of advertisement for employment opportunities and content about companies regarding employer branding and content about companies. Business SNSs are more relevant for the employment seeking than private SNSs.
- 3) The opinion to use contacts for the employment seeking process is not under consideration and participants would not use their contacts to get a reference or recommendation.
- 4) Private information about individuals to evaluate the personality, to get deeper information about individuals is provided at private SNSs. Private social network sites content is more private and business SNS are more formal and business related.

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5) Difference between private and business SNSs user is the use of SNSs profiles to substitute the application. That has to be researched deeper in the future and at the moment could be explained that the experience with this opportunity is different between those both groups.

6) The identification of correlations between demographic data and the opinions of the participants does not provide statistical relevant results. The results have not been significant and the significant correlation coefficients have been too weak to be relevant for a reliable conclusion. The use of SNS duration of membership, number of contacts or daily use do not influence the behaviour of individuals or mechanism at SNS. The investment in SNS as social capital does not have an influence on the member behaviour for the employment seeking. The social capital theory needs further investigation for the employment seeking at SNSs.

7) The research needs to identify more explanations for the use or none use of SNSs for the employment seeking to get deeper information on mechanism and behaviour of individuals at SNS - individuals and companies can use full potentials of SNS for the employment seeking.

Bibliography

1. Bauernschuster, S., Falck, O. & Woessmann, L. (2011). Surfing Alone? The Internet and Social Capital: Evidence from an Unforeseeable Technological Mistake. *NEP New Economics Papers Social Norms and Social Capital*, (5747).
2. Boyd, D.M. & Ellison, N.B. (2007). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, Volume 13, Issue 1, pp. 210–230.
3. Brady, G. (2015). Network Social Capital and Labour Market Outcomes: Evidence For Ireland. *The Economic and Social Review*, Volume 46, Issue 2, pp. 163–195.
4. Caers, R. & Castelyns, V. (2010). LinkedIn and Facebook in Belgium: The Influences and Biases of Social Network Sites in Recruitment and Selection Procedures. *Social Science Computer Review*, Volume 29, Issue 4, pp. 437–448.
5. Carrillat, F.A., D'Astous, A. & Gregoire, E.M. (2014). Leveraging Social Media to Enhance Recruitment Effectiveness A Facebook Experiment. *Internet Research*, Volume 24, Issue 4, pp. 474 – 495.
6. Chiang, J.K.-H. & Suen, H.-Y. (2015). Self-presentation and Hiring Recommendations in Online Communities: Lessons from LinkedIn. *Computers in Human Behavior*, Volume 48, pp. 516–524.
7. Granovetter, M.S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, Volume 78, Issue 6, pp. 1360 – 1380.
8. Lin, N. (2004). Social Capital. In J. Beckert & R. Zagiroski, eds. *The Encyclopaedia of Economic Sociology*. pp. 1–15.
9. Melanthiou, Y., Pavlou, F. & Constantinou, E. (2015). The Use of Social Network Sites as an E-Recruitment Tool. *Journal of Transnational Management*, Volume 20, Issue 1, pp. 31–49.
10. Orpen, C. (2008). Managing Human Resources Strategically. *Work Study*, Volume 42, Issue 5, pp. 15 – 17.
11. Sander, T. (2013). New Circumstances for the Labour Market under the Consideration of Social Media. *Communications of Global Information Technology*, Volume 5, pp. 41 – 52.
12. Sander, T., Sloka, B. & Pauzuoliene, J. (2015). The Difference of Social Network Sites Explained with the Employment Seeking Process. *Regional Formation and Development Studies*, Issue 17, pp. 145 – 153.
13. Sander, T., Teh, P.L. & Majlath, M. (2015). User Preference and Channels Use in the Employment Seeking Process. In P. Michelberrger, ed. *Management, Enterprise and Benchmarking in the 21st Century II*. Budapest: Obuda University, pp. 239–248.
14. Sander, T., Teh, P.L. & Sloka, B. (2015). Use of Social Network Site's Profile for the Employment Seeking Process. In A. Rocha et al., eds. *New Contributions in Information Systems and Technologies - Volume 1*. Springer Berlin Heidelberg, pp. 1023 – 1032.
15. Spence, M. (1973). Job Market Signalling. *The Quarterly Journal of Economics*, 355 – 374.
16. Steinfield, C., Ellison, N.B. & Lampe, C. (2008). Social Capital, Self-Esteem, and Use of Online Social Network Sites: A Longitudinal Analysis. *Journal of Applied Developmental Psychology*, Volume 29, Issue 6, pp. 434–445.
17. Stone, D.L., Deadrick, D.L., Lukaszewski, K.M., Johnson, R. (2015). The Influence of Technology on the Future of Human Resource Management. *Human Resource Management Review*, Volume 25, Issue 2, pp. 216–231.
18. Teh, P., Huah, L.P., Si, Y. (2014). The Intention to Share and Reshare among the Young Adults Towards a Posting at Social Networking Sites. In A. Rocha et al., eds. *New Perspectives in Information Systems and Technologies, Volume 1*. Advances in Intelligent Systems and Computing. Cham: Springer International Publishing, pp. 13–21.
19. Wyld, D.C. (2009). The Internet and the Future of Corporate Recruiting. *Equal Opportunities International*, Volume 16, Issue 2, pp. 15 – 24.
20. Zide, J., Elman, B., Shahani-Denning, C. (2014). LinkedIn and Recruitment: How Profiles Differ Across Occupations. *Employee Relations*, Volume 36, Issue 5, pp. 583–604.

SOCIO-DEMOGRAPHIC FACTORS OF ELDERLY SUBJECTIVE WELLBEING IN LITHUANIA

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Abstract. The aging of population is a complicated phenomenon which highlights various social and economic challenges for both the oldest generation and the whole society. The increasing share of the elderly in the context of all the society highlights the interest in the subjective wellbeing of the elderly. The understanding of the subjective wellbeing of the elderly and its interrelation with socio-demographic characteristics enables to familiarize with the opportunities of the physical and social functioning, need for self-realization and limitations of this group and the factors which influence the wellbeing of their life. The aim set in this article has been to establish the links of socio-demographic factors with the subjective wellbeing of the elderly. The object of the research has been the socio-demographic factors of the subjective wellbeing of the elderly. The socio-demographic factors of the subjective wellbeing of the elderly have been analysed by employing the method of the questionnaire survey. The questions were formulated following the examples of international questionnaires of wellbeing research which were realised in various countries and following the good experience of various scientists in investigating these problems. The sample of research was 602 elderly people older than 60. Average points of evaluation of subjective wellbeing are domineering; men evaluate the wellbeing worse than women; the respondents who were sixty-sixty nine were distinguished for better wellbeing and most often the representatives of seventy-seventy nine evaluated the wellbeing as bad; there are more less happy than really happy persons, and women are happier than men; men are also less satisfied with the present life than women; the characteristics of wellbeing of economically active elderly population are better.

Key words: wellbeing, subjective wellbeing, elderly, socio-demographic factors.

JEL code: I31, I39, J14.

Introduction

The research of the subjective wellbeing of elderly conducted in Lithuania most often reveals the factors influencing the subjective wellbeing of the elderly related with health, however, still limited research of elderly wellbeing (especially emphasizing the situation of rural population) has been conducted in social sciences. Subjective opportunities of theoretical and methodological evaluation of the elderly wellbeing in Lithuania have been analysed insufficiently and the conducted separate research for the revelation of versatile subjective wellbeing of elderly people is rather limited. Lithuanian researchers interested in the subjective wellbeing of the elderly state (Vazoniene, 2011; Butenaite, Bulotaite, 2011; Orlova, 2013; Kuliesis, Pareigiene, 2014), whereas the structure of the society changes, it is expedient to monitor and evaluate the subjective wellbeing of the elderly, as that creates opportunities for the evaluation of the problems appearing for this social group, their existing needs, life changes, aims and that is

important for both elderly people and the whole society. S.Ventegodt, J.Merrick (2003) distinguished several factor groups influencing the subjective wellbeing of the elders among which objective factors (age, income, status and similar) are mentioned, as they form and influence the present human lifestyle, opportunities of choice and functioning. Growing number of the elderly of retirement age is associated with a rather unattractive view of future society, although everybody understands and acknowledges in the context of the policy of active aging (Adomaitiene et al., 2007) that elderly must have an opportunity to make use of the human rights and opportunities of life as well and that influences their wellbeing. The aging of the society induces to review and apply the existing public resources for the new needs in the spheres of economic, policy, social safety, health care, human ecology and other spheres.

The object of the research is the socio-demographic factors of the subjective wellbeing of elderly population.

The aim of the research has been to establish the interrelations of socio-demographic factors with the subjective wellbeing of elderly population.

To reach the aim of the research the following research tasks are set:

- 1) to reveal the peculiarities of the subjective wellbeing of elderly population;
- 2) to analyse the interrelations of the socio-demographic factors with the subjective wellbeing of elderly population.

The methods employed in the research are as follows: literature analysis and synthesis, questionnaire survey, methods of statistical analysis, Chaid function, graphic modelling and comparative analysis.

The structure of the paper is as follows: at first features of elderly subjective wellbeing are presented, also methodological aspects of research are revealed and finally the interrelations of socio-demographic characteristics of elderly with their subjective wellbeing were discussed.

Research results and discussion

1. Features of elderly subjective wellbeing

The aging of population is one of the problems of modern society. The essence of the problem lies in the fact that the elderly number and their share in the general number of population increases. Although the elderly wellbeing is an inseparable part of the general wellbeing of our society, as the aging of the society progresses, various demographic, social, economic, political consequences for the whole society appear. The ratio of the young and elderly age population in the society induces to adapt the existing resources for new needs and the resources are limited. Although the threshold of the population senility (the attributing of people to the category of elderly) is a matter of agreement, according to the senility criteria confirmed by the United Nations it is 60 years (UN). In most European countries the retirement age reaches 65 years,

Jelgava, LLU ESAF, 21-22 April 2016, pp. 125-126 whereas in another it is gradually increased – this is the case in Lithuania. According to the data of Lithuanian statistics of 2014 (Demographic Yearbook, 2014), the retirement-age population in Lithuania made 22.4 % of all the population, the retirement-age of the women has reached 60 years and 8 months and that of men 62 years 10 months. Intense growth of the elderly in society essentially changes the demographic and social structure of the society, the systems of distribution and consumption and for the system of health care provokes the challenges of ensuring of financing, balanced development of high quality services and their accessibility for everyone, also promotion of wellbeing as well. If the society does not adequately react to the increase of the share of elderly and their special needs in senility, a danger for the wellbeing of the population of this group appears.

Various scientists (Hoff, 2008; Stula, 2012; Orlova, 2013; Kuliesis, Pareigiene, 2014) analyse different aging causes and their impact on the population senility, the wellbeing of their life. Traditional definition of wellbeing (Diener, Diener, 2000; Kahneman, 2003; Hird, 2003; McAllister, 2005; Veenhoven, 2009) is related with an opportunity to acquire certain income which should guarantee at least minimal needs. At present the conception of wellbeing is expanded (Well-being in 2030, 2011; Measuring Well-being for..., 2013; Vaznoniene, 2014) and covers not only the conditions according to which the people live and distribute material resources – subjective evaluation of one's own wellbeing covering various components: the physical health, spiritual state, experience, life priorities etc. So the wellbeing of the elderly is understood as versatile satisfaction of life in various spheres of life covering subjective experience and objective events of life.

Following the experience of foreign surveys (e.g. Eurobarometer surveys, European social survey, SHARE), it is expedient to draw attention to the surveys of subjective elderly wellbeing:

1) the society of Lithuania (and especially separate regions) just as that of the world is rapidly aging;

2) elderly people are one of the most potential social groups who are able to become socially excluded, as with age the risk of vulnerability increases;

3) the voice of the very elderly people can add to the reduction of their social exclusion;

4) elderly people are often discriminated within other social groups (e.g. in comparison with younger generations);

5) elderly people can have wise, suitable offers how their wellbeing could be improved;

6) the research of the subjective elderly wellbeing would markedly add to the present rather limited informational basis on the reality of their lives, as the subjective wellbeing of this social group within the context of Lithuania research has been poorly analysed. Besides certain foreign scientists (Hoff, 2008; Veenhoven, 2009) acknowledge that the research of the subjective elderly wellbeing is a particular innovation, as attention is often focused on other vulnerable groups (e.g., children, women, risk families) and others.

2. Research methodology

The research was implemented using the method of questionnaire survey. The questionnaire has been drawn up following the examples of international wellbeing (subjective wellbeing) survey questionnaires which are realised in various countries or within separate countries, i.e. national, regional, local levels. In the questionnaire seven question blocks describing elderly wellbeing were formulated. In the article the attention is focused on the interrelation of socio-demographic characteristics (sex, age, social status, marital status, education, place of residence) with the subjective elderly wellbeing. The formulations of the questions on subjective wellbeing are presented following already performed empiric surveys of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 125-127 various international research and authors (Diener, Diener, 2000; Veenhoven, 2009 etc.). The essential questions the aim of which has been to elucidate the subjective opinion on how a person values his wellbeing are defined as follows:

- How would you evaluate your wellbeing?
- If you evaluate in general, are you satisfied with your present life?
- If you say in general, are you happy?

As M. Grasso, L. Canova (2008) state, the approaches of the wellbeing research following both theoretic and methodological aspects must be examined empirically, first of all drawing special attention to socio-demographic aspects of subjective wellbeing. The identification of social demographic and social economic characteristics in the research of subjective wellbeing is one of the principal variables in the research of this sphere. The individual changes of a person related with age often mark other peculiarities typical of subjective wellbeing in the elderly age (Ventegodt, Merrick, 2003; Veenhoven, 2004). These changes can be understood as appearing inconveniences after reaching retirement age or, on the contrary, the positive sides of the retirement-age period show up.

During the research, 602 persons took part in questionnaire. Such characteristics of the elderly were important in forming the sample: distribution of the respondents according to sex and to the age groups (60-69 years, 70-79 years, 80 years and older). For establishing the sample unprobabilistic selection was used. The respondents were achieved in the research by the convenience principal, also using Third age universities. The sample was calculated considering the general number of elderly in Lithuania and the statistical error which is important in the evaluation of the respondent answers. Striving towards questionnaire reciprocity and result reliability 650 questionnaires were distributed from which 602

were returned (i.e. the reciprocity of the questionnaires was 93 %).

The data of the research were processed with the help of software SPSS 15.0 and MS Excel. For the processing of the data CHAID (Chi-Square Automatic Interaction Detector) method (or Chaid algorithm), or otherwise named Decision Tree, was used. The essence of this method can be defined as follows - it enables to classify the present data according to groups and forecast dependent variables according to known independent variables (Pukenas, 2009). In every stage this method defines the independent variable which is most of all related with the dependent variable. For distinguishing of factors Chi square criterion which indicates if the difference between the compared groups is statistically important was used. The risk of this method was 40 %, i.e. the probability to correctly classify the people according to their subjective wellbeing evaluations employing the model depending on the fact to what socio-demographic group they belong is 60 %. That is not a high result, however, as the goal of the research is not to pass a decision but to identify the investigated according to their possible dependency to a certain classification group. The model can be employed (it would be 100 % if in every final shoot (branch of the tree) only the respondents belonging to one category (bad or good or medium) would be. That the result of modelling depends on what variables and in what scales are measured. In the present paper taking into consideration the specific character of Chaid method the following model criteria were used: number of decision tree level – 5, the least number of respondents belonging to mother component – 50, the least number belonging to a shoot – 30. The dependent variable – rating scale, independent variables – name scale; depending variable – evaluation of subjective wellbeing, independent variables – socio-demographic variables (sex, age, marital status, education, residential locality, present status).

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The variables were reorganized in such a way that one category would encompass more than 5 % of the respondents. After choosing such criteria the influence of the socio-demographic respondents' characteristics on their subjective wellbeing were evaluated.

Interrelations of socio-demographic characteristics of elderly with their subjective wellbeing

Subjective interrelations of elderly wellbeing with socio-demographic characteristics were analysed in various sections and due to the abundance of the results only certain relevant remarks are presented. The number of women in the survey was – 69 %, and that of men – 31 %. The average of the elderly age who participated in the research was 70.3 years, moda was 68, the minimum of the age was 60 and the oldest respondent was 93 years. The age of the respondents in the whole age variation row fluctuated by 6.7 years. The distribution of the elderly according to the indicated age groups indicates how much respondents represented "young" old (60-69 years – 51 %), "medium" old (70-79 years – 38 %) or "old" old (80 and more years – 11 %) persons. It is natural that most respondents represented the age group of 60-69 years and these persons had already reached the retirement age.

In distinguishing the social demographic respondent characteristics which are important for the evaluations of subjective wellbeing they are: a) with aging the number of widows increases, as the mortality of men is bigger; b) the characteristics of respondent social status disclose their present life and opportunities of social functioning; c) respondent distribution according to marital state is similar, both men and women in elderly age considered marriage as a value; d) the life of elderly people with children/grandchildren is of ambivalent significance: it is the result of unfavourable social economic life conditions, also that is the need for mutual benefit/support; e) the elderly people are

distributed variously according to the place of residence, however, more "young" old and "medium" old respondents live in the city/borough, and more "old" old people have indicated that they live in the village; f) the characteristics of education reveal that it is not very high and has been influenced by the circumstances of life /opportunities/needs "of previous time" and as a result of that, it can be a factor of present life elderly people social and lower wellbeing.

The research has established that the correlation coefficients between subjective wellbeing, satisfaction with the present life and feeling of happiness are statistically important, as

Jelgava, LLU ESAF, 21-22 April 2016, pp. 125-129 p everywhere was less than 0.05 and relations of medium strength exist among the mentioned questions. The opinion of elderly people about their subjective wellbeing has revealed that most (56 %) respondents evaluated their wellbeing as average, 26 % stated that it was "very bad or bad" and 16 % – "very good or good" (2 % were difficult to evaluate). In the aspect of sex the data we see (Figure 1) that women and men evaluated their wellbeing as "very good or good" in a similar way. A difference can be distinguished taking into consideration that 33 % of men and 23 % of women indicated that the wellbeing is "very bad or bad".

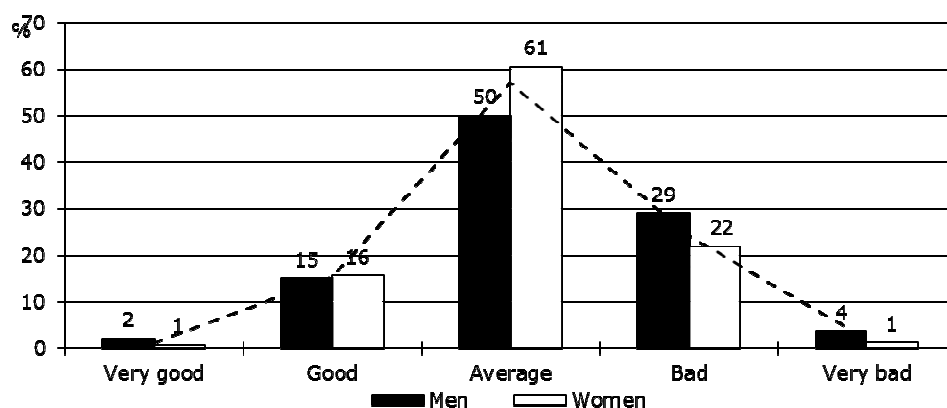


Fig. 1 Evaluation of respondents' subjective wellbeing according to their gender, percentage

It has been established that according to their age the wellbeing was evaluated as bad (26.1 %) and not good (16.6 %) by more respondents (9.5 %). Higher evaluations of subjective wellbeing were more typical of the age group of 60-69 years and most (34 %) of the representatives of 70-79 age group indicated their subjective wellbeing as bad. Such evaluations can be explained by the fact that part of "young" elderly were working and healthier than other older age groups. Namely age determines that people move from one social economic status to another

or from one social group to another. That is reflected in the evaluation of the satisfaction of the elderly people with present life (Figure 2).

More than one third of all the elderly participants of the research evaluated their present life by 5 points (i.e. medium satisfaction), however, already twice less indicated 4 or 6 points that means that the respondents are satisfied/dissatisfied with the present life rather differently, as that is influenced by many factors.

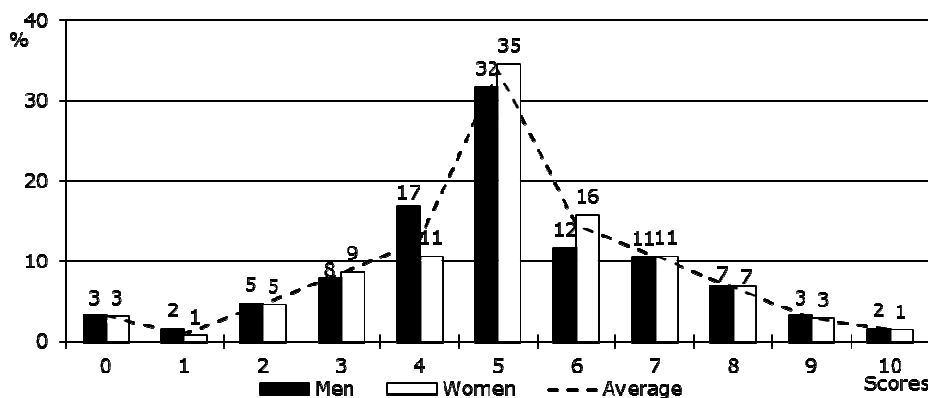


Fig. 2. **Evaluation of respondents' satisfaction with their present life according to their gender, percentage** (Remark: 0 – extremely unsatisfied; 10 – extremely satisfied)

In the figure it is seen that women were more satisfied in their present life than men, i.e. even 38 % of women indicated 6-10 points. The following opinion of elderly people was clarified: in general, wellbeing, present life and happiness understanding had similar evaluation tendencies, however, their variations are distinguished while analysing other components, factors related with subjective wellbeing.

Another important question which is included into the research of subjective wellbeing is the personal perception of happiness (Figure 3).

Although the majority of respondents value their happiness in 5 points (average evaluation), it is obvious that separate life experience, suffering, present social economic status influence their present understanding of happiness. Quite a big part of respondents indicated that they were not very happy, i.e. 51 % of men and 41 % of women indicated 6-10 points. That enables to state that there are less happy than really happy persons (only 18 % of men and 23 % of women indicated 0-4 points).

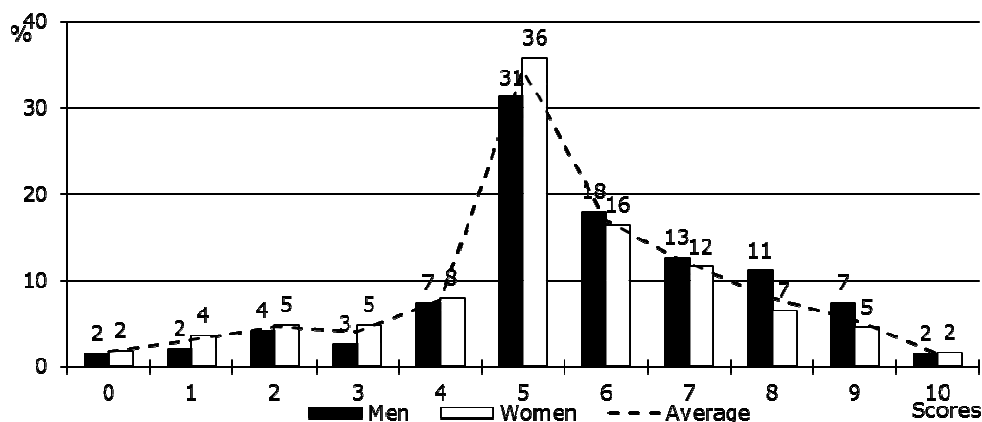


Fig. 3. **Evaluation of respondents' happiness according to their gender, percentage** (Remark: 0 – extremely happy; 10 – extremely unhappy)

Chaid method revealed interesting results of influence of socio-demographic indicators for the elderly wellbeing (Figure 4). Among all independent variables one factor influencing the

wellbeing most of all was highlighted – disablement of elderly people. The wellbeing of even 42 % of respondents suffering from disablement is either bad or very bad.

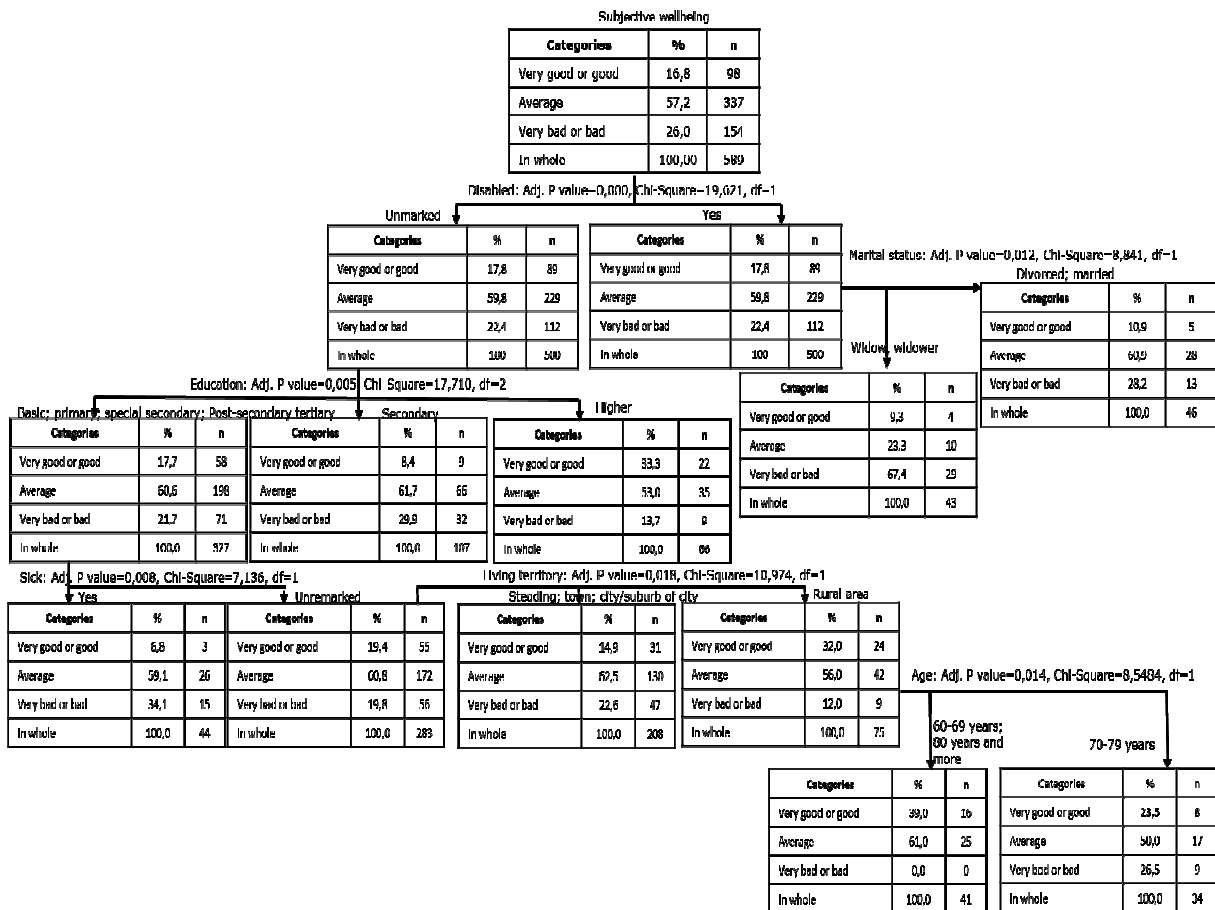


Fig. 4. Impact of respondents socio-demographic characteristics to their subjective wellbeing (results from Decision Trees or Chaid method)

Whereas, among the respondents who do not suffer from disablement there are 22 % of whom the wellbeing is bad or very bad. Further highlighted respondent groups: the disabled and those who were not disabled. The wellbeing of the disabled is mostly influenced by marital status, the group of widows/widowers is distinguished in which 67 % have evaluated their wellbeing as very bad or bad. The groups of divorced and married do not differ here 29 % evaluated their wellbeing as very bad or bad. Among the people do not suffering from disablement, the factor of education has been of largest importance. Persons having secondary education (nearly 30 %) are distinguished: they evaluated their wellbeing worst of all, whereas those having higher education - best of all. The wellbeing of lower than secondary education persons first of all depends on the fact if that person is ill. Even 34 % of ill people have

indicated that their wellbeing is bad or very bad. However, the wellbeing of those who are not ill was also influenced by the locality of their residence, especially living in rural localities. The wellbeing of the latter persons has been influenced by age as well, i.e. persons aged 60-69 and 80 and more are apt to evaluate it better than the group aged 70-79 (nearly 30 % stated that their wellbeing was bad or very bad).

Conclusions, proposals, recommendations

1) Elderly subjective wellbeing is one of the most discussed issues in aging society not only in Europe but also in Lithuania. Subjective wellbeing of elderly disclose their perception about overall wellbeing, it gives wider understanding of a certain life components like the physical health, spiritual state, experience, life priorities. Accordingly the wellbeing of the elderly is understood as

versatile satisfaction in life in various domains of life covering subjective experience and objective events of life.

2) Socio-demographic characteristics of elderly revealed that: age not always was the primary factor of their wellbeing but it worsened with the years; sex (gender) showed that women often evaluated their wellbeing, present living and happiness higher than men; effects were seen from marital status changes (being a widow raises unhappy feelings etc.) and transition from being employed to retirement age also mostly

Jelgava, LLU ESAF, 21-22 April 2016, pp. 125-132 negatively influenced their wellbeing. From Chaid results it was found that the biggest challenge was to be disabled because with the age functioning and capabilities decrease.

3) Research enabled to confirm that these research are important from scientific and practical sides. It supplements existing data about elderly wellbeing because there are no many research in Lithuania's level about this issue, also it explores real life situation and knowledge about elderly subjective wellbeing perception related to different life domains.

Bibliography:

1. Adomaitiene, R., Vozbutas, S., Juozulynas, J. A., Alekna, V., Prapiestis, J. (2007). Lietuvos zmoniu aktyvaus senėjimo politikos socialine sistema strukturinio funkcionalizmo aspektais (The National Social System of Active Ageing Policy in the Context of Theory of Structural Functionalism). *Gerontologija*, 8(1), pp. 7-16.
2. Butenaite, J., Bulotaite, L. (2011). Vyresnio amžiaus moteru gyvenimo prasmės išgyvenimas (Meaning of Life in Elderly Women). *Gerontologija* 2011; 12(4), pp. 240–249.
3. Demographic Yearbook 2013. (2014). Statistics Lithuania. Vilnius: Statistics Lithuania, p. 167.
4. Diener, Ed, Diener, B. (2000). New directions in subjective well-being research: the cutting edge. *Indian Journal of Clinical Psychology*, Vol. 27 pp.21-33.
5. Hird, S. (2003). *What is wellbeing? A brief review of current literature and concepts*. NHS Health Scotland, April. Retrieved: <http://www.phis.org.uk/doc.pl?file=pdf/What%20is%20wellbeing%202.doc>. Access: 21.12.2015
6. Hoff, A. (2008). *Tackling Poverty and Social Exclusion of Older People – Lessons from Europe*. Working paper 308. Oxford Institute of Ageing, October, p. 76.
7. Grasso, M., Canova, L. (2008). An Assessment of the Quality of Life in the European Union Based on the Social Indicators Approach. *Soc Indic Res*. 87, pp. 1–25.
8. Kahneman, D. (2003). *Puzzles of Well-being*. Paper presented at the annual meeting of the American Economic Association. Washington, DC.
9. Kuliesis, G., Pareigienė, L. (2014). Demografinių veiksnių poveikis kaimo gyvybingumui (Impact of Demographic Factors to Rural Vitality). *Management Theory and Studies for Rural Business and Infrastructure Development*. Vol. 36. No. 1, pp. 66-73.
10. Measuring Well-being for Development. (2013). 2013 *OECD Global Forum on Development*. Discussion Paper for Session 3.1. Retrieved: www.oecd.org/site/oecdgfd/. Access: 06.12.2015
11. McAllister, F. (2005). *Wellbeing Concepts and Challenges*. Discussion paper prepared for the Sustainable Development Research Network. Sponsored by DEFRA. December, p. 22.
12. Orlova U. L. (2013). Socialiai globojamų vyresnio amžiaus asmenų gyvenimo kokybės veiksniai (The Quality of Life Factors of Assisted Elderly People). *Gerontologija* 2013; 14(2), pp. 96-105.
13. Pukenas, K. (2009). *Kokybinių duomenų analizė SPSS programa: mokomoji knyga* (Qualitative data analysis using SPSS programme: teaching book). Lietuvos kuno kultūros akademija. Kaunas: LKKA. p. 93.
14. Stula S. (2012). Living in Old Age in Europe - Current Developments and Challenges. *Working Paper No. 7 of the Observatory for Sociopolitical Developments in Europe*.
15. Vaznonienė, G. (2011). *Subjektyvi gerovė ir socialinė atskirtis: pagyvenusiu žmonių atvejais*. Daktaro disertacija (Subjective Wellbeing and Social Exclusion: a Case of Elderly People, Phd Thesis). Kaunas: Kauno technologijos universitetas, p. 214.
16. Vaznonienė, G. (2014). *Wellbeing Research for Rural Development. Research for Rural development 2014: annual 20th international scientific conference proceedings*, Jelgava, Latvia. Vol. 2 Jelgava. ISSN 1691-4031. pp. 244-251.
17. Well-being in 2030. (2011). *Aggregate report. Eurobarometer Qualitative studies*. Retrieved: http://ec.europa.eu/public_opinion/archives/quali/wellbeing_aggregate_en.pdf. Access: 15.11.2015
18. Veenhoven, R. (2004). *Subjective Measures of Well-being*. Discussion Paper No. 2004/07. Retrieved: <http://website1.wider.unu.edu/publications/dps/dps2004/dp2004-007.pdf>. Access: 05.10.2015
19. Veenhoven, R. (2009). Well-Being in Nations and Well-Being of Nations. Is There a Conflict Between Individual and Society? *Soc Indic Res*. 91, pp. 5–21.
20. Ventegodt, S., Merrick, J. (2003). Lifestyle, Quality of Life, and Health. *The Scientific World Journal*, 3, pp. 811–825.

MARKETING AND SUSTAINABLE CONSUMPTION

MARKETING HELLIM / HALLOUMI CHEESE: A COMPARATIVE STUDY OF NORTHERN AND SOUTHERN CYPRUS

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Abstract. Traditional Cyprus cheese, known as hellim in the Northern part of Cyprus (the Turkish Republic of Northern Cyprus) and halloumi in the Southern part of Cyprus (the Republic of Cyprus) is a unique cheese product known for centuries. Nowadays, as the industrial production of hellim / halloumi cheese is developing, and the product starts to gain its popularity on external markets, ongoing issues of obtaining geographical indications are taking place. The aim of the study is to compare approaches used both by the Northern and Southern Cyprus producers to market their traditional cheese on export markets. The results show that both parts of the island have agreed on the recipe of the hellim / halloumi cheese. Currently, the Southern Cyprus has double the capacity to produce, and the price on the export markets is 40% higher. The main export markets and marketing strategies used by the two parts of the divided island are very different, thus, the author concludes that the Southern and the Northern Cyprus are not direct competitors when it comes to exporting and marketing their traditional cheese and can obtain geographical indications together, as it would benefit both.

Key words: marketing, export, Cyprus, country of origin.

JEL code: M31, E23, F14

Introduction

The island of Cyprus has a long history of being divided into two parts - South and North Cyprus but one thing Cypriots from both sides share is their love for their traditional delicacy-halloumi cheese, as it is known in Southern Cyprus and hellim cheese in Northern Cyprus. Hellim / halloumi cheese is a white rindless semi-hard cheese having a compact elastic texture with no holes which has been manufactured on the island of Cyprus from time immemorial (Raphaelides et al., 2006; Kaminarides, Stamou, Massouras, 2007), and its main feature is a high melting point, which allows to process it in multiple ways - eat raw, fry, grill and oven cook. Hellim / halloumi cheese is not only consumed by locals in excessive amounts but also exported to numerous countries. Recent attempts to obtain geographical indications for the hellim / halloumi cheese in the USA, the EU and Turkey by both governments of the divided island have led to political and social pressure on the island. The hypothesis of the study is set as follows: *there is no direct relationship between export markets and marketing strategies used by Southern Cyprus and Northern Cyprus hellim / halloumi producers*. By proving this hypothesis the author aims to conclude that focus and approach used

by each country are different and Southern Cyprus and Northern Cyprus are not direct market competitors and should not consider each other as one. There is an export market for each, and obtaining geographical indications together by two sides of the divided island is the most beneficial strategy for both. The following tasks are set to reach the aim of the study:

- 1) to describe the history of hellim / halloumi cheese and its varieties;
- 2) to summarize the main outcomes of the efforts to obtain geographical indications for hellim / halloumi cheese;
- 3) to compare and contrast ways of production and marketing of the hellim / halloumi cheese from Southern and Northern Cyprus.

The method used to show differences between Southern and Northern Cyprus hellim / halloumi export markets and strategies is a comparative study. Comparative study is used in social sciences (Hantrais, 1999) to identify and illuminate similarities and differences, not only in the observed characteristics of particular institutions, systems or practices but also in the search for possible explanations in terms of national likeness and unlikeness. Following the methodology suggested by Lor (2011), first, the

author has chosen the level of analysis, which are two parts of divided country- Southern and Northern Cyprus. Then, units of analysis are set, which helps to study the phenomenon in more detail. In the current paper, the aim is to study the differences between producing and exporting hellim / halloumi cheese by two parts of the country, thus, the author has chosen units of analysis to reflect the aim of the study as follows: producers, the amounts produced, local consumption, export, main exporters, main export markets, export strategies. In order to achieve the set aim of the study, the author has used academic articles and other scientific information as well as available information from Trade Service of the Ministry of Energy, Commerce, Industry and Tourism and the Republic of Cyprus Statistical Service in Southern Cyprus. Northern Cyprus has less information provided on hellim / halloumi issues as well as limited statistics but the author has approached the Cyprus Turkish Chamber of Industry, which is currently working on hellim / halloumi issues and geographical indications, to obtain the necessary information.

Research results and discussion

1. Traditional hellim / halloumi cheese

Hellim / halloumi nowadays is known as a traditional Cypriot cheese, and what is unique is that it has multiple variations on how it can be produced, packed, marketed and served. It can be made from sheep or goat milk or a mixture of both. It can also be made from cow milk (Ozturk et. al., 2014). When it comes to the historical roots and origins of hellim / halloumi cheese, there is no consensus on the issue. While some insist it is exclusively Greek or Turkish Cypriot delicacy, etymologically, the term halloumi points to an Arabic root and cultural historians insist on Venetian sources that had encountered halloumi in the pre-Ottoman period (Patapiou, 2006). Osam and Kasapoglu (2010) have undertaken a study and concluded that within the framework of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-135 historical and archeological studies, the origin of Hallumi goes to Egyptian and Roman civilizations. Whatever is the case, multiple authors have concluded that hellim / halloumi cheese was known well before ethnic communities of Greek and Turkish Cypriots have formed.

Both communities - Greek and Turkish Cypriots have agreed on the quality and attributes of hellim / halloumi cheese. According to 'Χαλλουμί' (Halloumi)/'Hellim' food scheme (Publication of an Application..., 2015), there are two types of hellim / halloumi- fresh and mature. It is prepared from sheep, goat or cow's milk and proportion of sheep or goat's milk or the mixture must always be greater than the proportion of cow's milk.

2. Dispute over geographical indications for the hellim / halloumi cheese

Consumers' attitudes toward quality and desire for cultural identification have generated a growing demand for agricultural products that carry a strong identification with a particular geographical region (Loureiro, McCluskey, 2000). Foods that carry geographical indications issued in the EU are French Champagne and Morbier cheese and Italian Neapolitan pizza and Bra cheese to name some, allowing the production to take place exclusively in these geographic regions by following strict regulations and quality control (EU Agricultural Product..., 2016). If used properly, these identifications can become a powerful marketing tool and lead to greater economic value (Addor, Grazioli, 2005). In the European Union, three types of geographical indications (GI) are used, namely Protected Designation of Origin (PDO) that covers agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognized know-how; Protected Geographical Indication (PGI) that covers agricultural products and foodstuffs closely linked to the geographical area, and at least one of the stages of production, processing

or preparation takes place in the area; and Traditional Speciality Guaranteed (TSG) that aims to highlight traditional character, either in the composition or means of production (Geographical Indications and..., 2016).

Hellim / halloumi cheese has a complex historical background dating back to Egyptian, and Roman civilizations and proving that it exclusively belongs to some country or nation is very difficult. In 2005, a German based enterprise Garmo AG filed an application for registration of a Community trade mark at the Office for Harmonisation (Judgement of the General Court, 2012), as they are producing hellim under brand Gazi Hellim in Germany. This resulted in case in the Court of Justice, where an organization protecting rights of halloumi producers based in South Cyprus had filed an opposition case against the registration, as earlier they have registered a "halloumi" as a collective community work mark (Welz, 2013), and hellim trademark would confuse consumers. As the final court decision in 2012 was to allow the German based company to use trademark hellim (Judgement of the General Court, 2012), the South Cyprus administration decided to register halloumi as a Protected Designation of Origin. PDO was the choice of the producers and association to secure that the traditional delicacy is produced only by Cypriots, as the trademark or collective community work mark does not secure that halloumi can only be produced in Cyprus following the strict quality requirements.

In 2009, the Republic of Cyprus launched an application for origin protection to the European Union (Welz, 2013), claiming halloumi cheese production belongs exclusively to Greek Cypriots, while Turkish Cypriot producers claimed that traditionally both communities are producing the cheese and awarding the right to produce it only to Southern Cyprus producers would discriminate the ones in the Northern part of the island. Finally, on 17 July 2014, the Commission received the official application for the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-136 registration of the names 'Χαλλουμι' (Halloumi)/'Hellim' as a Protected Designation of Origin for a cheese made predominantly from ewes' and/or goat milk under the Quality Regulation (EU) No 1151/2012. The application covers producers from the whole island and foresees the protection of the name in the two languages, Greek and Turkish (Cyprus 'Χαλλουμι' (Halloumi)/'Hellim'..., 2015). This is a huge step and an improvement in the relationship between both communities, though the PDO process is not finalized yet in the beginning of 2016, as there are multiple objections filed against the case from businesses based in the UK, the USA and other countries.

3. Similarities and differences between production and marketing of Cyprus hellim / halloumi cheese

Author summarizes the main findings of a comparative study under sub-topics.

Producers

The majority of Cypriot cheese manufacturers in Southern Cyprus focus predominantly on the production and marketing of the traditional halloumi cheese (Cheese products, 2016). The sector is operated by large industrial companies that focus on export and many small producers dealing with local demand. According to statistics provided by the Cyprus Embassy Trade Centre in Berlin (2016), there are 53 halloumi producers in Southern Cyprus, distributed in all the regions.

Similarly, in the Northern part of Cyprus the hellim / halloumi is produced in large amounts and production sector is diverse- there are large industrial companies focusing mainly on export and very small, traditional producers dealing with local consumption. According to the Cyprus Turkish Chamber of Industry, there are 37 producers of milk and milk products, out of which 34 are producing hellim. A number of the companies dealing with hellim production is less than in Southern part of the Cyprus, however,

similar to Southern part, in Northern part hellim is the main product of the dairy industry.

The amounts produced

According to Ioannou and Theocharides (2009), around 62% of the milk produced within

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-137 the Southern Cyprus is used for halloumi production. Table 1 shows the author's summary on the sales of industrial commodities by type in Southern Cyprus.

Table 1

Sales of halloumi cheese from manufacturing units (including exports), 2011-2013

Commodity	Year							
	2010		2011		2012		2013	
	Quantity (tonnes)	Value (thou EUR)	Quantity (tonnes)	Value (thou EUR)	Quantity (tonnes)	Value (thou EUR)	Quantity (tonnes)	Value (thou EUR)
Halloumi	11.230	75.108	12.987	81.431	12.840	86.187	14.727	98.613
Operation of dairies and cheese making (total)	100.027	213.224	103.370	218.514	99.222	220.667	94.932	227.454

Source: Statistical Service of the Republic of Cyprus (2016)

Sold quantities and value of halloumi cheese in Southern Cyprus have increased dramatically (Table 1). In 2013, the quantity has increased by 31% compared with 2010, while the value of halloumi cheese production has increased by 32%. Interestingly, in 2010 halloumi cheese amounts accounted for 11% of all operations of dairies and cheese making amounts, while in 2013 it has already increased to 16%, showing the growing importance of halloumi cheese production in the country.

In Northern Cyprus, according to the Cyprus Turkish Chamber of Industry, around 6000 tonnes of hellim are produced per year, which is less than half of the halloumi amount produced in the South. The importance of hellim in the local economy can be also shown by the following statistics- hellim accounts for over 20% of all the exports from Northern Cyprus, other dairy products account for 15%.

Local consumption

The excessive amount of halloumi in Southern Cyprus is consumed locally. Cypriots consume around 9 kg of halloumi per year (Ioannou, Theocharides, 2009), which accounts for around one third of all cheese consumption per capita per year.

In Northern Cyprus, even more fresh and mature hellim is consumed, reaching 12 kg per person per year (More than just..., 2012), which is 3 kg per capita more than in Southern Cyprus.

Export

According to statistics (Trade in Goods, 2014), Southern Cyprus domestic exports in 2013 were dominated by pharmaceuticals (28% of all domestic exports) and halloumi cheese, which accounted for 11% of all domestic exports. The total amounts and value of exported halloumi from Southern Cyprus is summarized in Table 2.

Table 2

Halloumi cheese export amounts and value from Southern Cyprus, 2012-2014

Product	Year					
	2012		2013		2014	
	Net mass (kg)	Value (EUR)	Net mass (kg)	Value (EUR)	Net mass (kg)	Value (EUR)
Halloumi	9.777.668	61.530.114	11.363.224	75.810.789	13.569.381	91.260.901

Source: Statistical Service of the Republic of Cyprus (2016)

During the analyzed period of time, exported halloumi amounts have increased by 39%, reaching an amount of 13.6 million kg exported worldwide (Table 2). The value of exported cheese has increased more dramatically, reaching 48% increase in 2014 compared with 2012. This

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-138 allows the author to conclude that halloumi cheese demand on the external markets has increased during the recent years despite the price increase.

Statistics from the Northern part of the island is summarized in Table 3.

Table 3

Hellim cheese export amounts and value from Northern Cyprus, 2012-2014

Product	Year					
	2012		2013		2014	
	Net mass (kg)	Value (EUR)	Net mass (kg)	Value (EUR)	Net mass (kg)	Value (EUR)
Hellim	-	17.517.877	-	26.262.795	5.797.510	26.844.819

Source: Cyprus Turkish Chamber of Industry (2016)

In 2014, the exported amount of cheese from Northern Cyprus reached 5.8 tonnes of hellim (Table 3), which is less than half of the amounts that Southern Cyprus exported the same year. Obviously, the capacity of the Southern part of the island is double the Northern part. Interestingly, the value of exported cheese is more than three times less than the value of the cheese exported from Southern Cyprus. This allows to conclude that the value of 1 kg of halloumi from the South Cyprus in 2014 is EUR 6.7, while 1 kg of hellim value is EUR 4.6. Northern Cyprus producers are selling their cheese for much lower price, both because of the competitiveness and purchasing power on the export markets.

Main exporters

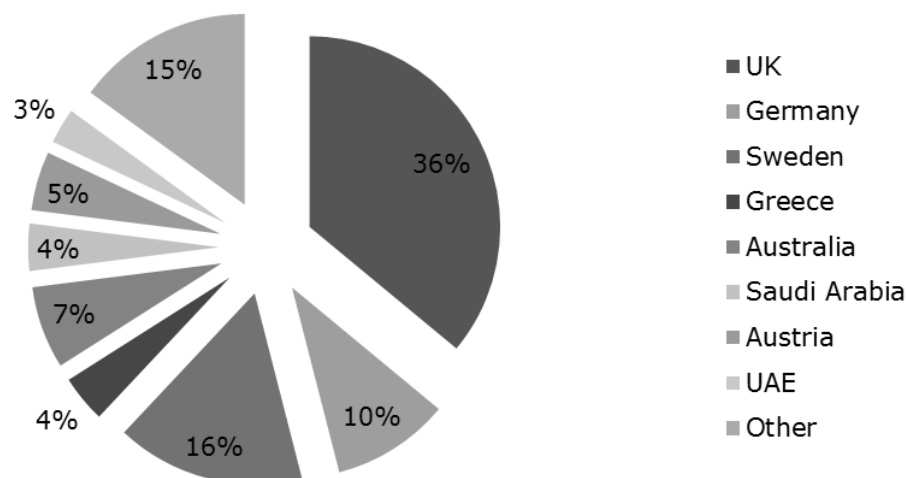
The Trade Service of Ministry of Energy, Commerce, Industry and Tourism (2016) has provided a list of the main exporters of halloumi cheese from Southern Cyprus. According to the available information, 15 halloumi producers currently export their products, the largest exporter being Charalambides Christis. Charalambides Christis (2016) exports its

products to 30 countries and stands as the largest exporter of dairy and cheese products, with the main export product being the traditional Cyprus halloumi. Products are distributed within most EU countries, the Gulf and Middle East, Russia, Australia and the USA as well as the South Korea and Taiwan. Other exporters are Dairy Products M. Loizou Ltd, Dairy Products Demetriou Ltd, Chrysostomos Elia & Sons Ltd and others.

Depending on the year, 10 or 11 companies from Northern Cyprus export hellim cheese. The biggest exporters from the Northern Cyprus are Koop Sut (Koop Dairy) (Koop Sut, 2016), which is the largest milk product producer processing 25% of all the milk in the North; Meric Sut Urunleri (Meric Milk Products), Reha, Buluc Milk Products and others.

Main export markets

In 2014, halloumi cheese was exported to 41 different countries from Southern Cyprus. The main export markets of halloumi cheese exported from Southern Cyprus are summarized in Figure 1.



Source: author's construction based on Trade in Goods, 2014

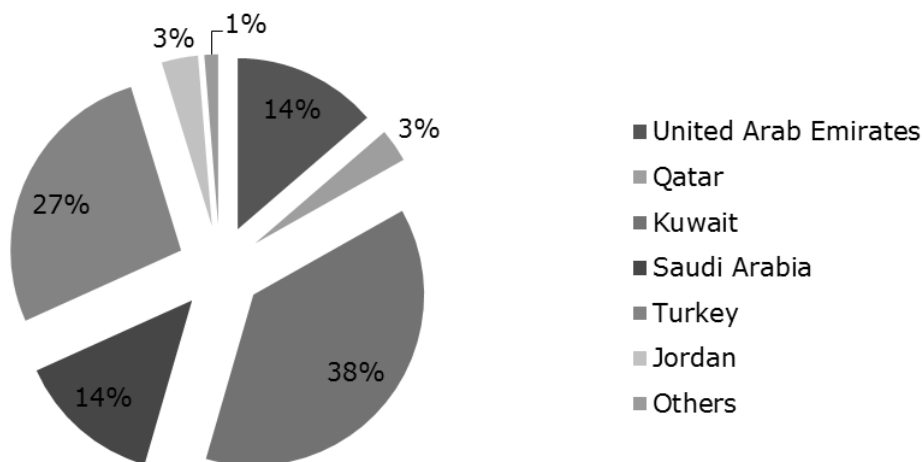
Fig. 1. Export markets of halloumi cheese from Southern Cyprus, 2013

The main export market of the halloumi cheese from Southern Cyprus in 2013 is the UK (Figure 1), accounting for 36% of all halloumi exports due to the high number of Cypriots living in the UK as well as celebrity chefs using the product and adventurous taste experiments by locals. Currently, the UK is the country consuming the highest number of halloumi cheese outside of Cyprus. Mainly Southern Cyprus halloumi exports highly depend on consumption by Cypriots living abroad in countries like Australia, the UK, Germany and others, rather than local consumers. Increasing amounts of exported cheese show that the consumers of halloumi cheese are not only Cypriots living abroad, but also local people. For example, Sweden is currently the country with high consumption of halloumi cheese, but low number of Cypriots living there. According to the Fontana company (Fontana, 2016), the largest halloumi importer from Southern Cyprus, Cypriot Halloumi cheese was introduced in Sweden by Fontana company in 1984. Back then, it was an

exotic delicacy that few had heard of. Today it belongs to one of the most popular cheeses, and is a given feature at barbecues across the country. Another countries halloumi cheese is exported includes Australia, Greece and other countries.

The main export markets of hellim cheese exported from Northern Cyprus are summarized in Figure 2.

In 2015 hellim cheese from Northern Cyprus is exported to 11 different countries. The main export market of hellim cheese is Kuwait, accounting for 38% of total hellim export as well as Saudi Arabia and Turkey. Other countries include America, Japan, Australia, Bahrain and Oman, where little amounts of hellim are exported. Compared with Southern Cyprus, the main target market of hellim cheese is different, and the focus of the producers from Northern Cyprus is not to introduce the hellim cheese to nations that do not know it but sell it to the Middle East and Western Asia countries, which originally are familiar with the cheese.



Source: author's construction based on Cyprus Turkish Chamber of Industry, 2016

Fig. 2. Export markets of halloumi cheese from Northern Cyprus, 2015

Export strategies

Southern Cyprus, with its efforts of obtaining geographical indications in the USA and Europe, is selling halloumi cheese as a pure Cypriot product. This is supported by Gibbs, Morphetou and Savva (2004), concluding that halloumi is promoted as the national branded product of Cyprus. Consumption in Cyprus is mediated through tourism that acts both to increase consumption and as a conduit to create export demand. This leads to conclude that Southern Cyprus producers are relying on extension strategy and country of origin as brand element. Extension strategy is used when products like halloumi cheese are offered unchanged on its export markets, and country of origin branding is a strong signal for product quality and attributes (Suh, Hur, Davies, 2015). One of the concerns using country of origin strategy is that "foreignness" of a product makes it less favourable to the customers (Balabanis, Diamantopoulos, 2014), especially when the opposite of preferences- consumer ethnocentrism- is showing increasing popularity amongst consumers. But as Adina, Gabriela and Denisa conclude (2015), a brand's country-of-origin can influence the brand's perceived positioning by reducing perceived risks, acting as

a guarantee and enhancer for the positioning strategy. Therefore, it can influence consumer buying decision process and offer a significant competitive advantage.

Contrary, Northern Cyprus is not relying on country-of-origin strategy, offering hellim cheese on the export markets while adapting to the local tastes, trying to make use of the fact that hellim cheese originally is known on its main export markets, though it is not widely popular. As Welz (2013) concludes, even in Turkey, which is the main export market of hellim cheese from Northern Cyprus, and the only country recognizing and approving hellim / halloumi trademark of Northern Cyprus, hellim is not explicitly marketed as a Cypriot product.

Conclusions, proposals, recommendations

- 1) The historical background of the hellim / halloumi cheese is complex and can be dated back to various ethnic groups and historical times. Nowadays, it is considered as a local delicacy in the island of Cyprus.
- 2) Hellim / halloumi cheese is a product with unique attributes, and due to its high melting point it can be very diverse when it comes to cooking and serving it. Interestingly, both communities of Turkish and Greek Cypriots agree on a recipe and features of it, as it is

prepared in the same way in both parts of the divided island.

3) To protect local producers and boost the economy of Cyprus, several applications to gain geographical indication for the hellim / halloumi have been submitted to the EU. The most recent application submitted in 2014 is unique, because it is the first time it is acknowledged that the right to produce hellim / halloumi cheese belongs to both communities living on the island- Greeks and Turks.

4) Southern Cyprus is characterized by larger production and export of halloumi cheese, and over the last decades the cheese has been successfully introduced in export markets mainly in the EU as a true Cypriot delicacy. Hellim producers from Northern Cyprus are

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-141 producing and exporting much less quantity, and focusing on selling the familiar taste to the Middle East and Western Asia countries.

5) The author undertakes comparative study to prove the hypothesis that there is no direct relationship between export markets and marketing strategies used by Southern Cyprus and Northern Cyprus hellim / halloumi producers. There are significant differences showed in the study, and it can be concluded that Northern Cyprus and Southern Cyprus are not direct competitors on export markets and it is suggested to obtain PDO together, as it would benefit both communities and the economy of the island.

Bibliography

1. Addor, F., Grazioli, A. (2005). Geographical Indications Beyond Wines and Spirits. *The Journal of World Intellectual Property*, Volume 5, Issue 6, pp. 865-897.
2. Adina, C., Gabriela, C., Denisa, S.R. (2015). Country-of-Origin Effects on Perceived Brand Positioning. *Procedia Economics and Finance*, Volume 23, pp. 422-427.
3. Balabanis, G., Diamantopoulos, A. (2014). Domestic Country Bias, Country-of-Origin Effects and Consumer Ethnocentrism: An Integrative Approach. *Developments in Marketing Science: Proceedings of the Academy of Marketing Science*, pp. 48-58.
4. Charalambides Christis (2016). Retrieved: <http://charalambideschristis.com.cy/en/exports/international-presence/>. Access: 21.01.2016
5. Cyprus 'Χαλλουμι' (Halloumi)/'Hellim' Cheese Set to Receive Protected Designation of Origin status (2015). European Commission. Retrieved: http://europa.eu/rapid/press-release_IP-15-5448_en.htm. Access: 24.01.2016
6. Cyprus Turkish Chamber of Industry (2016). Retrieved: <http://www.kktcsanayiodasi.org/index.php/tr/>. Access: 28.01.2016
7. EU Agricultural Product Quality Policy (2016). European Commission. Retrieved: http://ec.europa.eu/agriculture/quality/index_en.htm. Access: 23.01.2016
8. Fontana Milk Products (2016). Retrieved: <http://fontana.se/product/halloumi-original-2/?lang=en>. Access: 19.01.2016
9. Geographical Indications and Traditional Specialities (2016). European Commission. Retrieved: http://ec.europa.eu/agriculture/quality/schemes/index_en.htm. Access: 23.01.2016
10. Gibbs, P., Morphetou, R., Savva, G. (2004). Halloumi: Exporting to Retain Traditional Food Products. *British Food Journal*, Vol. 106, Issue 7, pp. 569- 576.
11. Halloumi producers (2016). Cyprus Embassy Trade Centre in Berlin. Retrieved: <http://www.zypern.com/cmsdrupal/sites/cyprus/files/downloads/Halloumi%20EN.pdf>. Access: 19.01.2016
12. Hantrais, L. (1999). Contextualization in Cross- National Comparative Research. *International Journal Social Research Methodology*, Volume 2, Issue 2, pp. 98-108.
13. Ioannou, T., Theodorides, D. (2009). An Assessment of the Competitiveness of the Dairy Food Chain in Cyprus. *AgriPolicy*, WP2 Studies, 35 p.
14. Judgement of the General Court (2012). Case Law of the Court of Justice. Retrieved: <http://curia.europa.eu/juris/document/document.jsf?text=&docid=123786&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=4802343>. Access: 24.01.2016
15. Kaminarides, S., Stamou, P., Massouras, T. (2007). Changes of Organic Acids, Volatile Aroma Compounds and Sensory Characteristics of Halloumi Cheese Kept in Brine. *Food Chemistry*, Volume 100, pp. 219-225.
16. Koop Dairy Products (2016). Retrieved: <http://www.koopsut.com/en/about-us/>. Access: 28.01.2016
17. Lor, P.J. (2011). Methodology in Comparative Studies. Retrieved: <https://pjl.files.wordpress.com/2010/06/chapter-4-draft-2011-04-20.pdf>. Access: 21.01.2016

Jelgava, LLU ESAF, 21-22 April 2016, pp. 134-142

18. Loureiro, M.L., McCluskey, J.J. (2000). Assessing Consumer Response to Protected Geographical Identification Labeling. *Agribusiness*, Volume 16, Issue 3, pp. 309-320.
19. More Thank Just Cheese (2012). KKTC Sanayi Odasi (Chamber of Industry). Retrieved: www.kktcsanayiodasi.org/index.php/tr/2012-05/125.html. Access: 26.01.2016
20. Osam, N., Kasapoglu, U.M.K. (2010). Hallumi: The Origin Analysis of a Cultural Entity. *Milli Folklor*, Issue 87, pp. 170-180.
21. Ozturk, B., Celik, F., Celik, Y., Kabaran, S., Ziver, T. (2014). To Determine the Occurrence of Aflatoxin M1 (AFM1) in Samples of Cyprus Traditional Cheese (Halloumi): A Cross-Sectional Study. *Journal of the Faculty of Veterinary Medicine, Kafkas University*, Volume 20, Issue 5, pp. 773-778.
22. Patapiou, N. (2006). Leonardo Donà in Cyprus. A Future Doge in the Karpas Peninsula (1557). *Cyprus Today: A Quarterly Cultural Review of the Ministry of Education and Culture*, April-June 2006, pp. 3-18.
23. Publication of an application pursuant to Article 50(2)(a) of Regulation (EU) No 1151/2012 of the European Parliament and of the Council on quality schemes for agricultural products and foodstuffs (2015). Official Journal of the European Union. Retrieved: [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015XC0728\(07\)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015XC0728(07)). Access: 24.01.2016
24. Raphaelides, S.N., Antoniou, K.D., Vassiliadou, S., Georgaki, C., Gravanis, A. (2006). Ripening Effects on the Rheological Behaviour of Halloumi Cheese. *Journal of Food Engineering*, Volume 76, pp. 321-326.
25. Republic of Cyprus Statistical Service (2016). Retrieved: http://www.mof.gov.cy/mof/cystat/statistics.nsf/industry_construction_61main_en/industry_construction_61main_en?OpenForm&sub=1&sel=2. Access: 19.01.2016
26. Suh, Y.G., Hur, J.Y., Davies, G. (2015). Cultural Appropriation and the Country of Origin Effect. *Journal of Business Research*, 11(07), 10 p.
27. Trade in Goods (2014). Ministry of Energy, Commerce, Industry and Tourism. Retrieved: [http://www.mcit.gov.cy/mcit/trade/ts.nsf/All/38650B7387ADCDF4C2257D480046E68C/\\$file/2014%20-%20Trade%20in%20Goods%202013.pdf?OpenElement](http://www.mcit.gov.cy/mcit/trade/ts.nsf/All/38650B7387ADCDF4C2257D480046E68C/$file/2014%20-%20Trade%20in%20Goods%202013.pdf?OpenElement). Access: 19.01.2016
28. Trade Service of Ministry of Energy, Commerce, Industry and Tourism (2016). Retrieved: <http://www.mcit.gov.cy/mcit/trade/ts.nsf/All/4FA10D0C3F02B68BC2257BE10030AD6A?OpenDocument>. Access: 21.01.2016
29. Welz, G. (2013). Halloumi/Hellim: Global Markets, European Union Regulation, and Ethnicised Cultural Property. *The Cyprus Review*, Volume 25, Number 1, pp. 37-54.

ENGAGEMENT OF THE POPULATION OF JURMALA CITY IN PROMOTING THE SUSTAINABLE DEVELOPMENT OF THE RESORT

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Abstract. For any urban population, it is important to feel the sense of belonging to the city. Jurmala city needs to position itself not only as a seaside resort and a place of residence closely located to Riga but also as a territory with its unique culture. As one of the priorities that is determined by the Jurmala City Cultural Development Strategy 2008–2020 is to involve Jurmala residents in Jurmala city's cultural life. In order to preserve the historical heritage of the resort, the Jurmala City Council is seeking opportunities to create innovative souvenirs that would represent the most typical culture elements of Jurmala in an original way. The aim of the research study was to evaluate Jurmala residents' readiness to get engaged in the promotion of Jurmala cultural life. In the scope of the research, the authors used the following research methods: the monographic, logical construction and graphic methods, and a social survey. The data were processed by using statistical analysis and synthesis methods. The research results confirmed the authors' assumption that Jurmala residents support the idea of creating original and socially innovative souvenirs for Jurmala cultural events, yet not all of the residents were ready to actively get involved in the creation of such souvenirs. The research results show that there are opportunities how Jurmala city could promote its resort offerings by means of original souvenirs created by its residents, which feature not only artistic but also socio-innovative values.

Key words: social innovation, promotion, population engagement

JEL code: M37, R11

Introduction

It is important for any urban population to feel the sense of belonging to their city. The social and cultural life of the city as well as the active participation of residents in it are opportunities how to enhance the feeling of belonging to the particular territory.

In terms of area and population, Jurmala is the largest resort on the Baltic Sea. The image of the city in the eyes of Jurmala residents and elsewhere in Latvia and abroad is determined by the location of Jurmala by the sea and its resorts and sanatoria that exploit local natural resources (including sulphur water) and its cultural events and historical architecture. It is important for Jurmala city to shape its image not only as a resort and a residential place near the capital city – Riga – but also as a city rich in culture in order to evoke a wish in its residents to stay and live in this city for a long time. Culture may be promoted in the city both by preserving and maintaining important cultural objects and by contributing to the diversity of cultural activities and their attendance. To evoke the interest of

Jurmala residents in the city's cultural life, it is advisable to let the residents themselves to get involved in it as much as possible.

Jurmala City Council, to enhance the cultural image, has designed the Jurmala City Cultural Development Strategy for 2008-2020. Since the number of tourists visiting the city, on a national scale, is considerable, further development of the cultural environment plays a great role for both locals and visitors. One of the objectives set by the City Council in its Jurmala City Cultural Development Strategy involves creating new and innovative souvenirs for Jurmala city. The authors see an opportunity to engage residents too in this process.

The paper puts forward the following hypothesis: Jurmala city residents are interested in Jurmala cultural events and in contributing to the recognition of the events.

To identify the opinions of Jurmala residents on the cultural life in their city and their engagement in it, the following research aim was set: to evaluate Jurmala residents' readiness to

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get engaged in the promotion of Jurmala cultural life.

The following specific research tasks were set to achieve the aim:

- 1) to study the guidelines for Jurmala city's cultural life promotion in the Jurmala City Development Programme 2014-2020 and the Jurmala City Cultural Development Strategy 2008-2020;
- 2) to explore the attitudes of Jurmala city's residents to cultural events in Jurmala;
- 3) to find out Jurmala city's residents readiness to engage in the promotion of the cultural events that take place in Jurmala.

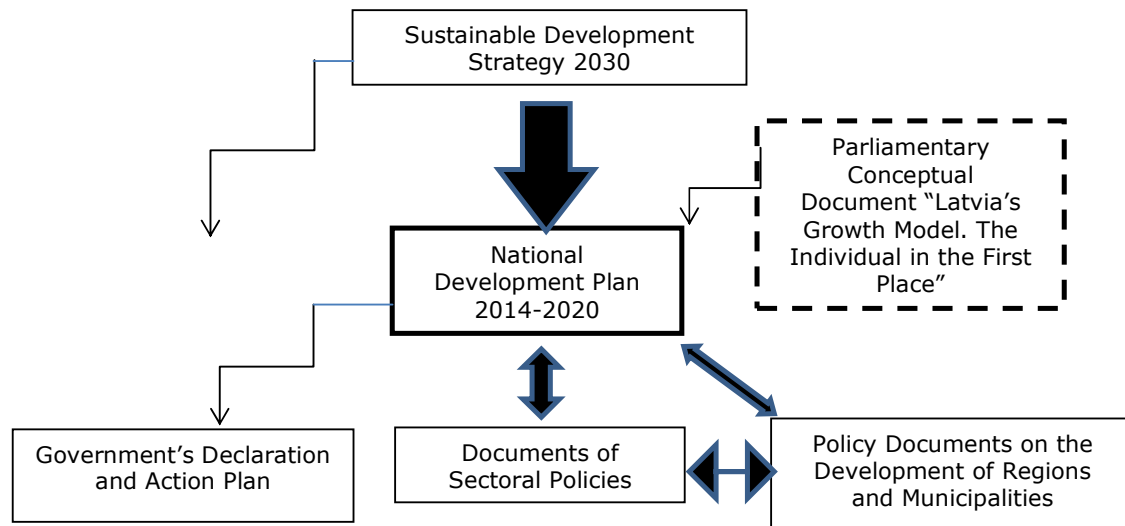
In the scope of the research, the authors used the monographic, logical construction and graphic methods, and a questionnaire survey of residents. Statistical analysis as well as analysis and synthesis were employed to process the data.

The present research also used the following policy documents: the National Development Plan

Jelgava, LLU ESAF, 21-22 April 2016, pp. 143-144 of Latvia for 2014-2020, the Jurmala City Development Programme 2014-2020 and the Jurmala City Cultural Development Strategy 2008-2020.

Research results and discussion

The National Development Plan is the key policy document for the national and local governments, which is designed in accordance with the European Union standards. The authority of Jurmala has elaborated the Jurmala City Development Programme 2014-2020 as well as a separate cultural policy document – the Jurmala City Cultural Development Strategy 2008-2020. The key national-level policy document is the National Development Plan of Latvia for 2014-2020. To find out what roles are specified for the cultivation of national values and the development of cultural activities in Jurmala, the authors analysed all the three above-mentioned development documents as well as other related policy documents.



Source: authors' construction based on the Cross-Sectoral Coordination Centre's presentation on the National Development Plan of Latvia for 2014-2020

Fig. 1. Position of the NDP 2020 in the planning hierarchy

The National Development Plan (NDP 2020) focuses on such objectives as preserving cultural heritage values as well as engaging the public in the cultivation of national values. The national government puts a special focus on preserving, maintaining and popularising basic cultural

heritage values. To achieve the objectives, the national government improves its cooperation with local authorities, entrepreneurs, public organisations and international institutions. The canon of Latvian culture is an instrument of government policies on national culture,

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education, national unity and public solidarity as well as on shaping the image of Latvia (Parliament of the Republic of Latvia, 2012).

The Sustainable Development Strategy of Latvia until 2030 also envisages the preservation, interaction and enrichment of cultural space as one of the priorities, which may be achieved through the formation of a creative society. To better understand whether this priority is appropriate for the Jurmala City Cultural Development Strategy, the authors also examined Latvia 2030 strategy. Latvia 2030 prioritises the preservation, interaction and enrichment of cultural space: within the context of global and European cultural diversity, it is important for Latvia to develop its identity, language, national cultural values and lifestyle that shape the cultural space of Latvia, while at the same time exploiting the fruitful influence of other cultures and enriching the cultural heritage of mankind. The purpose is to preserve and enhance the cultural capital of Latvia and to contribute to the sense of belonging to Latvia's cultural space, developing a competitive national identity based on public creativity and shaping a quality cultural environment in Latvia (Cross-Sectoral Coordination Centre, 2012).

In creating socially innovative souvenirs for promotion at Jurmala city cultural events, it is important to engage the local population in this process, thus, contributing to a creative urban environment and the participation of the public in cultural processes. For those engaged, such activities could also raise their sense of belonging to their national identity. The population could be engaged in souvenir sales, carrying out such activities at children's camps and events for associations. The development of urban cultural policies and the engagement of residents in the cultural life and in shaping it are important to the local authority of Jurmala city as well. Creating such souvenirs may be defined as a social marketing campaign for the population of Jurmala.

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The key purpose of social marketing is to actively engage residents in tackling some problem; besides, it has to be done through conviction rather than persuasion. Such a kind of marketing calls for taking civil responsibility and active participation rather than just passive watching what is going on (Andersone I. et al., 2010). Kudins (2012) emphasizes that in order to achieve socially desirable outcomes, people should be able to organize themselves, to face the challenges, identify their needs and priorities and try to satisfy them by (1) self-organisation in groups; (2) local resource mobilization, and (3) by attracting other resources. Scientists from various countries have shown that self-organization of society and targeted involvement in socially significant initiatives are an essential prerequisite for harmonization of interests of various members of society (Barnes H.S., 2006; Yaojun L. and Marsh D., 2008; Petrova T. and Tarrow S., 2007; Habermas J., 1995; Kruzmetra M. and Rivza B., 2014). The target audience of social change drivers might be both an organisation and the entire society. However, it has to be taken into account that only part of the audience addressed is ready to actively participate. It is important to understand it when defining the expected results of a campaign (Donovan R., Henley N., 2010). An analysis of theoretical literature shows that some leading social marketing researchers (L.Wallack, M.E.Goldberg and R.Donovan) point that social marketing professionals have to more focus on environmental factors that create a social problem. Namely, social marketing professionals have to identify the environmental factors that contribute to the social problem and, accordingly, to make changes in the environment (Wymer W., 2011).

To influence the exogenous factors for Jurmala residents that can evoke the wish of Jurmala residents to engage in producing socially innovative souvenirs, it is important to involve Jurmala city in this process and to integrate

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social changes in its strategic plans. At municipal level, no separate cultural policy document has been designed for Jurmala city; however, the development of the cultural sphere in Jurmala was defined as one of the priorities in the Jurmala City Cultural Development Strategy 2008-2020 (Jurmala City Council, 2009).

The Jurmala City Cultural Development Strategy 2008-2020 sets the following priorities:

- preserving and popularising cultural heritage at national and international levels;
- developing the infrastructure of cultural institutions and objects;
- holding and popularising quality and diverse cultural events;
- building the capacity of professionals in the cultural sphere. Jurmala city's cultural environment and cultural sector are analysed in the strategy in more detail than in the programme (Jurmala City Council, 2013).

The popularisation of cultural heritage may be carried out by means of special souvenirs created in Jurmala city, which involve the depictions of objects of cultural significance. Besides, innovative souvenirs could also popularise cultural events and raise the quality of Jurmala city's cultural events.

The Jurmala City Cultural Development Strategy 2008-2020 focuses in more detail also on the production of souvenirs as well as the establishment of creative laboratories for the population. Accordingly, one of the objectives set in the strategy refers to raising the activity and participation of the city's residents in educational and cultural events through:

- enhancing informative materials on cultural and educational opportunities and cultural events and their distribution channels;
- raising the culture and creativity of children and youths and creative excellence and participation for all age groups of the population;

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- establishing creative laboratories and holding symposiums with the participation of residents;
- promoting cooperation with craftsmen living in the city concerning producing souvenirs and folk art items typical for the city.

The authority of Jurmala has envisaged activities for the period 2011-2020 with a budget of approximately LVL 100 000 or EUR 142 287 for establishing creative laboratories and holding symposiums with the participation of residents (Jurmala City Council, 2009).

The policy documents of Latvia and Jurmala focus both on how important it is to popularise objects of cultural significance and cultural values and on how essential it is to engage also the population in this process. The authors believe that the most effective way how to cultivate the national values of Latvia or a particular region among the population is to engage them in shaping their cultural life. It contributes to their sense of belonging to and the wish to defend and be proud of their identity.

At present, 49 750 individuals live in Jurmala. Their number decreased by 10.6% during the last 15 years. According to a survey conducted by the Jurmala City Council, 90.3% of the surveyed city residents planned to continue living in Jurmala over the next five years because of proximity to the sea, nature as well as their native home and land. The key reason (21.3%) for choosing other place of residence instead of Jurmala, according to the surveyed residents, was expensiveness: a high tax on land, high utility costs etc. (Jurmala City Council, 2013).

It is essential for Jurmala City Council to engage residents in planning the development of their city life. The website www.jurmala.lv includes a section about the municipality; it offers interactive communication and residents may make their suggestions and participate in surveys on various matters. According to a survey by the Jurmala City Council, 36.3% of the respondents were satisfied with an opportunity to

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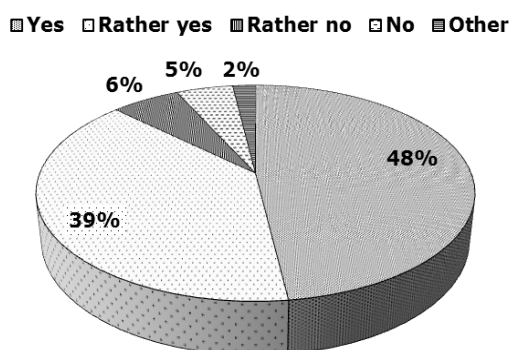
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participate in the planning process of the city's development, while 33.7% did not have a clear opinion about that. The main reason of their dissatisfaction was the fact that the opinions of residents were not taken into consideration (10%) (Jurmala City Council, 2013).

To find out the attitude of residents to the city's image and it's positioning by appropriate souvenirs during cultural events, the authors designed a special questionnaire aimed at identifying the opinions of Jurmala city's residents regarding opportunities to buy souvenirs at Jurmala cultural events and their

Jelgava, LLU ESAF, 21-22 April 2016, pp. 143-147 wish to engage in creating socially innovative souvenirs characteristic of Latvian ethnography and Jurmala and in promoting the souvenirs at Jurmala cultural events. The respondents were Jurmala city's residents, and the key survey focus was placed on identifying their wish to creatively engage in their city's cultural life. In total, 186 randomly selected residents of Jurmala participated in the survey. Of the total respondents, 65% were women (121 respondents) and 35% were men (65 respondents).



Source: authors' construction based on survey data

Fig. 2. Percentage distribution of replies to the question "Is it important, in your opinion, to sell souvenirs to visitors at Jurmala city's cultural events in memory of the event?"

The surveyed residents of Jurmala admitted that it was important to sell visitors souvenirs in memory of the event they participated in. In total, 87% or 162 respondents gave positive answers to the question. Of the respondents, 48% (90 respondents) were convinced that such souvenirs were necessary, while 39% (72 respondents) answered that such souvenirs would be quite necessary rather than unnecessary.

Only 11% of the residents (21 72 respondents) answered that it would not be necessary to sell souvenirs to visitors at various cultural events.

A very small part of the surveyed respondents - 2% (3 residents)- chose the reply option "other", mentioning that souvenirs would have to be free of charge, or it was difficult for them to answer the question.

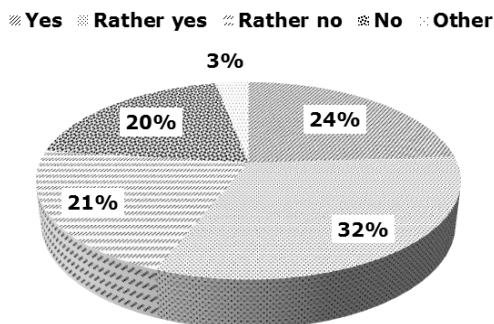
A negative attitude to selling souvenirs might be associated with the low purchasing power of individuals and the inability to see values in the souvenirs. However, in order to distribute souvenirs free of charge, sponsors are needed, who would cover the cost of production of the souvenirs.

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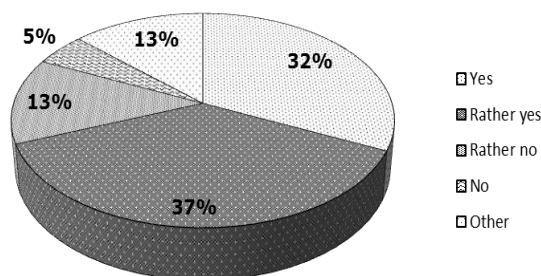
Source: authors' construction based on survey data

Fig. 3. Percentage distribution of replies to the question "Are you interested in engaging yourself or your relatives (e.g. children) in producing souvenirs if you are given such an opportunity?"

The majority of Jurmala city's residents were doubtful about whether they would be interested in engaging in the production of innovative Jurmala souvenirs or whether they would involve their relatives in this process. However, more than half of them (56% or 105 respondents) gave affirmative answers – they would engage in such activities with pleasure (24% or 45 residents) or would rather engage in than reject the activities (32% or 60 residents). Many residents also admitted that they would rather not engage in the production of souvenirs (21% or 39 residents) as well as they were not interested in such activities (20% or 36 residents).

Mostly negative answers were given by residents aged 19-25 as well as 51 and older. This may be explained by the fact that youths aged 19-25 begin their studies at a university and have other hobbies and ways of spending their leisure time, and the engagement of their relatives is not urgent. Individuals aged 51 and more have to be often convinced of how useful a particular activity is before offering them to engage in the production of souvenirs.

The residents who chose the reply option "other" mentioned that schoolchildren could be engaged as well as suggested establishing an interest group for this purpose.



Source: authors' construction based on survey data

Fig. 4. Percentage distribution of replies to the question "Do you prefer buying souvenirs produced particularly by the population of Jurmala at the city's cultural events?"

Despite the fact that part of the population doubted whether they wished to engage in the production of souvenirs, most of them would buy

the souvenirs. Of the surveyed residents, 32% (60 respondents) claimed that they would prefer such souvenirs, compared with souvenirs of other

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producers. Also, 37% (69 respondents) admitted that they would rather choose the souvenirs created by Jurmala residents. Only 5% (9 respondents) were sure they would definitely not choose such souvenirs.

It was difficult for 24 respondents (13%) to answer this question, as their choice would depend on the quality, price and uniqueness of souvenirs. One respondent said that he would buy such souvenirs only if their prices were lower than those asked by traditional craftsmen.

Consumers are often guided by their emotions at the moment of buying goods. All the mentioned factors – price, quality and souvenir uniqueness – create certain emotions in consumers.

Jurmala city's residents acknowledged that it was important to sell souvenirs to visitors at their city cultural events in memory of the event. However, not all the residents wished to engage themselves or their relatives in the creation of souvenirs. Most of them admitted they would prefer purchasing souvenirs being created by representatives of various social groups of Jurmala by their own hands. At the same time, the survey revealed that the respondents mostly would not be ready to pay more for socially innovative souvenirs created by Jurmala city's residents than for other souvenirs sold at any event. It is a positive fact that Jurmala city's residents were convinced of being ready to suggest tourists to buy such souvenirs if the souvenirs were of high quality and original. The respondent replies on other less important matters acquired in the survey confirm the authors' assumption that in general Jurmala city's residents support the idea of socially innovative souvenirs to be sold at city cultural events and are interested in cooperation to improve the city's cultural life if they are given such an opportunity.

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Conclusions, proposals, recommendations

1) The policy documents of Latvia and Jurmala for the period 2014-2020 emphasise that it is important for national and municipal policy makers to popularise objects of cultural significance and cultural values as well as to engage residents in this process.

2) According to the survey organized by Jurmala City Council, 36.3% of the respondents were satisfied with an opportunity to take part in planning the city's development; the main reason of their dissatisfaction was the fact that the opinions of residents were not taken into consideration (10%). Therefore, in order to strengthen the link between Jurmala city's residents with their place of residence, Jurmala City Council has to take measures to more engage residents in shaping their city life, including the cultural life.

3) Of the surveyed residents of Jurmala, 87% admitted it was important to market souvenirs to visitors in memory of the event they participated in.

4) More than half of the respondents (56% or 105 respondents) said they would engage themselves and their relatives in the production of Jurmala souvenirs or in this process with pleasure.

5) Of the respondents, 32% claimed they would prefer purchasing souvenirs being created by Jurmala city's residents rather than those produced by standardised providers of outsourcing services.

6) In order any participant of Jurmala cultural events can get a souvenir free of charge in memory of the event, the organisers of the event have to be motivated to establish creative workshops where visitors can create some art items from materials, prepared in advance, with small efforts and the help of Jurmala craftsmen.

7) Jurmala City Council has to seek for opportunities to establish creative workshops

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for Jurmala city's population where they could cooperate with craftsmen to create special Jurmala souvenirs. In authors' opinion, Jurmala City Council should also organize free

Jelgava, LLU ESAF, 21-22 April 2016, pp. 143-150 public educational lectures on historical facts and cultural and historical objects in Jurmala city, which residents could later represent in their own made souvenirs.

Bibliography

1. Andersone, I., Gaile-Sarkane, E., Aramina, D. (2010). Socially Responsible Marketing: Theory and Practice. *Scientific Journal of RTU: Economics and Business*. Riga: RTU, pp. 10-18.
2. Barnes, H. S. (2006). The Changing Political Participation of Post-Communist Citizens. *International Journal of Sociology*, Volume 36, Issue 2, pp. 76-98
3. Cross-Sectoral Coordination Centre (2012). Monitoring report on the implementation of the Sustainable Development Strategy of Latvia until 2030 (in Latvian). Retrieved: http://www.pkc.gov.lv/images/LV2030/PKC_Zinojums_LIAS.pdf. Access: 9.01.2016.
4. Donovan, R., Henley, N. (2010). *Social Marketing and Social Change. Principles and Practice of Social Marketing*. New York: Cambridge University Press. pp. 1-21.
5. Habermas, J. (1995). Moral Consciousness and Communicative Action: Studies in Contemporary German Social Thought. Cambridge: Polity Press. p. 225.
6. Jurmala City Council (2009). Jurmala City Cultural Development Strategy 2008-2020 (in Latvian). Retrieved: <http://www.jpd.gov.lv/docs/g09/l/g090407.htm>. Access: 15.02.2015.
7. Jurmala City Council (2013). Jurmala City Development Programme 2014-2020. Current Situation and SWAT Analyses (in Latvian). Retrieved: <http://www.jpd.gov.lv/docs/j13/l/j130625.htm>. Access: 12.02.2015.
8. Kruzmetra, M., Rivza, B. (1998). Pagasti un rajoni savas attistibas programmas. Latvijas Vestnesis, 1998. gada 28. februaris un 6. marts. [Civil Parishes and Districts in Their Development Programmes. Latvijas Vestnesis/Latvia Messenger, 28 February and 6 March 1998.]
9. Kudins, V. (2012). Jaunas vesmas vietejas attistibas jautajumu risinasana. Latvijas lauku forums, 3/2012. E-izdevums. [New Trends in Dealing with the Local Development Issues. Latvian Rural Forum, 3/2012. E-Edition.] Retrieved: http://www.lf.partneribas.lv/resource/1356701708_3_e-izdevums.pdf. Access: 16.11.2014
10. Parliament of the Republic of Latvia (2012). Report on the National Development Plan of Latvia for 2014-2020 (in Latvian). Retrieved: <http://likumi.lv/doc.php?id=253919>. Access: 23.12.2015.
11. Petrova, T., Tarrow, S. (2007). Transactional and Participatory Activism in the Emerging European Polity: The Puzzle of East-Central Europe. *Comparative Political Studies*, Volume 40, Issue 1, pp. 74-94.
12. Vilks, P., Vitola, A. (2013). National Development Plan of Latvia for 2014-2020. Retrieved: <http://www.slideshare.net/nap2020/20130327-nap2020-ter-plan-asoc1>. Access: 9.01.2016.
13. Wymer, W. (2011). Developing More Effective Social marketing Strategies. *Journal of Social marketing I(1)*, pp. 45-53.

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**SUSTAINABILITY-ORIENTED INNOVATION AND ITS IMPACT ON MARKETING
EFFICIENCY: EMPIRICAL EVIDENCE FROM CROATIAN AGRICULTURAL ENTERPRISES**

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Abstract. This paper empirically analyzes the tendency of developing sustainability-oriented innovative competences of agricultural enterprises in relation to their marketing efficiency. Research was conducted on a sample of 107 agricultural enterprises from the three Northwestern Croatian counties; Koprivnica-Krizevci, Bjelovar-Bilogora and Zagreb County.

The main aim of the study in this paper was to determine how agricultural enterprises can affect their marketing efficiency by developing sustainability-oriented innovation.

Empirical research was conducted through a survey and for this purpose a questionnaire was used as a major research tool. SPSS 22 software package was used for statistical analysis of the collected data. A method of descriptive statistics was used for the purpose of data analysis and their processing. Regression analysis was also made in order to establish the statistically significant influence of some independent variables on the marketing efficiency of agricultural enterprises as the dependent variable.

Independent variables were Research and Development, Sustainable Product, Marketing Management, IT and Education. Statistically significant ratio of change F indicates that independent variables contribute to explaining the dependent variable. The more innovative competence is oriented towards sustainability, the better is marketing efficiency. Within the innovation competence it is clear that research and development and information and communication technologies variables contribute to the marketing efficiency. As these two competences are more pronounced, marketing efficiency is better.

Key words: innovation competence, sustainability, marketing efficiency, Croatian agricultural enterprises

JEL code: M31 O31, Q01, Q13

Introduction

Innovations are considered as a key factor in the growth and development of enterprises, and they represent the main driving force of the economy of many countries. In terms of high competition, enterprises are forced to invest in the development and to introduce innovations if they want to be competitive on the market.

On the one hand, agriculture these days is not considered an overly attractive type of business. On the other hand, requests for food are growing day by the day. Accordingly, the agricultural sector should strive for new opportunities through technology development and commercialization of innovations. Croatian farmers have good natural conditions for agricultural development, experience and tradition. By production of quality agricultural products they could achieve a much more efficient and competitive market position than the current one. Acquisition of such a goal is possible only through the development of innovations and process of learning. On the one

hand, rural society is torn between tradition and innovation. On the other hand, for fear of investment and a lack of motivation, innovations in agribusiness are not applied to the extent that they might be.

Problems in this paper are defined as the problem of finding a connection between different independent variables that make up the concept of sustainability-oriented innovation, and marketing efficiency as the dependent variable.

The purpose of this paper is to determine the connection between the variables of sustainability-oriented innovation, which is defined as the number of different enterprise's commitments (research and development, sustainable product, marketing management, use of information technology and employee training) and the marketing efficiency.

The main hypothesis of this paper is that there is a distinct connection between individual parts (components) of the concept of sustainability-oriented innovation and marketing efficiency.

Based on the results it will be possible to conclude which sustainability-oriented innovation components are positively connected with the marketing efficiency, and ultimately, which ones are not.

Theoretical review

The shift in the marketing paradigm towards resolving individual consumer or social problems requires a whole range of innovations in the broad field of business activity. Innovation presents application of ideas, knowledge and practices that are new in a particular context in order to create a positive change. Also, innovation is the way of establishment of new products, development of new production processes and the accession to a new market segment where the company was not present before (Posavec et al., 2011).

A large number of research focus on innovation in the context of sustainability (Gallardo-Vasquez D. et al., 2010; Schaltegger S., 2011; Terziovski M. and Guerrero J.L., 2014), and explore the development of innovative strategies and their impact on the needs and expectations of a broad array of stakeholders (Ayuso S. et al., 2006; van Kleef J.A.G. and Roome N., 2007), at the same time exploring its economic impact on businesses (Skerlavaj M. et al., 2007; Hubbard G., 2009; Maletic M. et. al., 2014). Enterprises that have persisted and went through numerous stages in the implementation of sustainability have created more opportunities for innovation and competitiveness (Nidumolo R. et al., 2009; Sezen B. and Cankayab S.Y., 2013). Innovation is a crucial factor in achieving competitiveness. Their importance is even more prominent due to modern processes such as increased competition, shortening product life cycle, increasing technological capability and rapidly changing demands of consumers etc. (Bakovic T. and Ledic-Puric D., 2010).

It is known that greater innovation and higher adoption of innovations is related to the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 151-152 development of new or improvement of the existing products and technologies as well as the organizational structure and business processes, positive impact on the marketing efficiency, which, among other things, improves the image of the company (Yu-Shan C., 2008; Vitezic N., 2011), credibility, product image, differentiation, level of satisfaction, retention and consumer fidelization, satisfaction and retention of the best employees and market positioning (Gallardo-Vasquez D. et al., 2010). It is also positively correlated with the number of new consumers (Hitchhock D. and Willard M., 2009), rationalization of operations, higher value for consumers (Ismail S. T. and Alsadi B.Y., 2010) and ultimately with improved business efficiency which is reflected in the improved general competitiveness of enterprises (Epstein M. and Rejc Buhovac A., 2010; Critteneden V. et al., 2011; Fraja E. et al., 2011; Vitezic N., 2011; Langa E. and Zegrenau P., 2012).

Research results and discussion

Variables and measurement

The paper empirically examined the relationship between innovation and some of its components and marketing efficiency of agricultural enterprises in the area of three Northwestern Croatian counties. The study was conducted on a sample made up of 107 representatives of agricultural enterprises from Koprivnica-Krizevci, Bjelovar-Bilogora and Zagreb County.

All respondents filled in the questionnaire composed of 29 items. The level of agreement with the given statements is assessed on a Likert scale from 1 to 5.

The first part of the questionnaire included data on gender, age, education, business and enterprise size, number of employees and the type of enterprise: family farm (FF), agricultural craft (AC) and agricultural enterprise (AE) (Table 1).

Sample description (N=107)

Demographic characteristics	Frequency	%
Gender		
Male	74	69
Female	33	31
Age		
< 30	28	26
30-39	31	29
40-49	30	28
> 50	18	17
Education		
High school education	52	49
Bachelor degree	39	36
Master degree	16	15
Enterprise size		
<10	84	79
10-49	20	19
50-249	3	2
Type of enterprise		
FF	63	59
AC	20	19
AE	3	29

Source: authors' calculations based on empirical research

The second part of the questionnaire refers to the assessment of claims related to development of sustainability-oriented innovative competences. Claims are derived by the content compilation of recent literature titles, especially scientific journals, covering an area of innovation in the organization, innovation capabilities of enterprises through the development and application of environmentally friendly technologies, development of eco-innovative technologies and investments in the development of research and development projects (Maletic, M. et al., 2014; Gallardo-Vasquez, D. et al., 2010; Fraj-Andres, E. et al., 2009). In this way independent variables such as Research and Development, Sustainable Product, Marketing Management, IT and Education have been constructed. Research and Development variable concerns the application of new methods and

tools, which comprehensively use innovative, environmentally friendly technologies and processes, both in production and administration, including investment in the development of research and development projects.

Sustainable Product variable is based on a holistic concept of adopting environmentally friendly and socially responsible product or service. Given the specificity of an ecological agricultural product and its treatment as socially acceptable, it is very important how it is certified and marketed for the purpose of communication with consumers.

Marketing Management variable is explained by product distribution, design, packaging and relationship with consumers.

IT variable is defined by the application of information and communication technology, and the enterprise's presence on the Internet.

Education refers to the investment in promotion and education of employees.

All variables assume some form of sustainability-oriented innovation, whether it is a technological or business innovation.

The third part of the questionnaire deals with the dependent variable Marketing Efficiency. It consists of nine items: credibility, image of the company and products / services, the level of satisfaction and customer retention, creating a loyal consumer, differentiation towards competition, positioning and new product launches. This variable with its nine items refers to the marketing efficiency and is based on recent scientific literature sources (Epstein M. and Rejc Buhovac A., 2014; Maletic, M. et al., 2014; Terziovski M. and Guerrero J.L., 2014).

Research results

The SPSS 22 software package was used for statistical analysis of the data. A descriptive statistics was used for the purpose of analysis

Jelgava, LLU ESAF, 21-22 April 2016, pp. 151-154 and data processing. Arithmetic mean and standard deviation for each variable were calculated in order to determine the homogeneity / heterogeneity of the respondents (Table 2).

Regression analysis was used to determine the relative contribution of sustainability-oriented innovation competence on marketing efficiency.

Important criteria for the regression analysis is correlation between the independent variables. Correlation matrix indicates statistically significant correlations between independent variables. But, there is no high ($r < 0.60$) correlation between the independent variables which indicates possible usage of regression analysis.

The dependent variable of regression analysis is Marketing Effectiveness. The independent variables were Research and Development, Sustainable Product, Marketing Management, IT and Education. The results of the regression analysis are shown in Tables 4 and 5.

Table 2

Descriptive statistics (N=107)

	N	Minimum	Maximum	M	SD
Marketing Efficiency	107	2.44	4.78	3.7643	0.48665
Research and Development	107	2.33	5.00	3.3894	0.50467
Sustainable Product	107	2.00	5.00	3.8178	0.60809
Marketing Management	107	2.00	4.67	3.1651	0.46777
IT	107	2.00	5.00	3.9065	0.79542
Education	107	1.00	5.00	3.0561	0.95987
N	107				

Source: authors' calculations based on empirical research

Correlation analysis verified the degree of linear dependence between variables (Table 3).

Correlation between dependent and independent variables (N=107)

		Marketing Efficiency	Research and Development	Sustainable Product	Marketing Management	IT	Education
Marketing Efficiency	r	1	0.443**	0.280**	0.193*	0.397**	0.195*
	p		0.000	0.003	0.047	0.000	0.045
Research and Development	r		1	0.285**	0.298**	0.209*	0.175
	p			0.003	0.002	0.031	0.071
Sustainable Product	r			1	0.245*	0.081	0.179
	p				0.011	0.404	0.065
Marketing Management	r				1	0.076	0.224*
	p					0.439	0.020
IT	r					1	0.130
	p						0.180
Education	r						1
	p						

* Correlation is significant at the level of less than 5%

** Correlation is significant at the level of less than 1%

Source: authors' calculations based on empirical research

Table 4

Regression analysis (N=107)

R	R ²	Adjusted R ²	Estimate standard error	Modification				
				R ² modification	F modification	df1	df2	p
0.567	0.322	0.288	0.41050	0.322	9.596	5	101	0.000

df – degrees of freedom; p – statistical significance

Source: authors' calculations based on empirical research

Table 5

Contribution coefficient of explanation of the dependent variable

	Nonstandardized coefficients		Standardized coefficients	p
	B	standard error	Beta	
Constant	1.358	0.393		0.001
Research and Development	0.306	0.087	0.318	0.001
Sustainable Product	0.118	0.070	0.147	0.096
Marketing Management	0.024	0.092	0.024	0.791
IT	0.189	0.052	0.309	0.000
Education	0.034	0.043	0.067	0.435

p – statistical significance

Source: authors' calculations based on empirical research

Statistically significant F ratio of changes suggests that a set of independent variables contributes to the explanation of the dependent variable; the more sustainability-oriented

Innovation Competences, the better is Marketing Efficiency (F=9.596; df=106; p=0.00). The Innovation Competences explain 32.2% of the variability of Marketing Efficiency. Within the

sustainability-oriented innovation competences it is evident that Research and Development ($\beta = 0.318$; $p = 0.001$) and IT ($\beta = 0.309$; $p = 0.00$) contribute to the marketing efficiency. The more pronounced these two competences are, the better is marketing efficiency.

Conclusions, proposals, recommendations

This study empirically examined the relationship between sustainability-oriented innovations and marketing efficiency of agricultural enterprises in the three northernwestern counties in the Republic of Croatia.

The results of research show that the tendency to sustainability-oriented innovation in the surveyed Croatian agricultural enterprises is not equally emphasized in all aspects of innovation policies, probably because the innovation in all studied agricultural enterprises, which mostly belong to the category of small and medium-sized enterprises, represents additional costs which are not negligible since the Croatian economy, especially agricultural sector, is going through a difficult period of crisis. It should also be noted that management in the studied agricultural enterprises is often insufficiently trained. Likewise, the implementation of innovations very often represents an additional cost for the owners and / or managers, which is often considered a luxury or simply unnecessary or even impossible investment.

Bibliography

1. Ayuso, S. et al. (2006). Responsible Competitiveness at the "Micro" Level of the Firm using Stakeholder Dialogue as a Source for New Ideas: A Dynamic Capability Underlying Sustainable Innovation. *Corporate Governance*, Volume 6, Issue 4, pp. 475-490.
2. Bakovic, T., Ledic-Puric, D. (2010). Uloga inovacija u poslovanju malih i srednjih poduzeca (The role of Innovation in the Business of Small and Medium-sized Enterprises). *Poslovna izvrsnost (Business Excellence)*, Volume 1, Issue 5, pp. 27-42.
3. Crittenden, V. et al. (2011). Market-oriented Sustainability: a Conceptual Framework and Propositions. *Journal of Acad. Marketing Science*, Volume 39, Issue 1, pp. 71-85.
4. Epstein, M.J., Rejc Buhovac, A. (2010). Solving the Sustainability Implementation Challenge. *Organizational Dynamics*, Volume 39, Issue 4, pp. 306-315.
5. Fraja, E. et al. (2011). Green Marketing Strategy and the Firm's Performance: The Moderating Role of Environmental Culture. *Journal of Strategic Marketing*, Volume 19, Issue 4, pp. 339-355.
6. Gallardo-Vasquez, D. et al. (2010). Validacion de un instrumento de medida para la relación entre la orientación a la responsabilidad social corporativa y otras variables estratégicas de la empresa (Validation of Measuring Instrument for the Relationship between Orientation for Corporate Social Responsibility and other Strategic Variables of the Company). Retrieved: <http://repositorio.ipl.pt/bitstream/10400.21/1416/1/20.pdf>. Access: 18.12.2015.

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The two variables, Research and Development ($\beta = 0.318$; $p = 0.001$) and IT ($\beta = 0.309$; $p = 0.00$) contribute to the marketing efficiency. The more pronounced these competences are, the better is marketing efficiency. Therefore, in order to improve the marketing efficiency of agricultural enterprises emphasis should be on:

a) research and development:

b) application of information and communication technologies;

Research and Development and Information Technologies are in a positive and statistically significant correlation with Marketing Efficiency, which represents a potential to create enterprise's positive image and credibility. Positive image implies loyalty and trust which results in continuity and solidity of partnership between businesses and consumers as well as suppliers, owners, investors and the social environment in which the enterprise operates. In this way a premise for "win-win" situation is created as well as an appropriate market status of the enterprise that results in acceptable profitability.

It can be concluded that in order to improve the marketing efficiency, independent variables Research and Development and Information and Communication Technologies that are in significant correlations should be promoted and maintained at a high level.

7. Hitchcock, D., Willard, M. (2009). *The Business guide to Sustainability – Practical Strategies and Tools for Organizations*. London: Earthscan. p. 78.
8. Hubbard, G. (2009). Measuring Organizational Performance: beyond the Triple Bottom Line, *Business Strategy and the Environment*, Volume 18, Issue 3, pp. 177–191.
9. Ismail, S. T., Alsadi, B. Y. (2010). Relationship Marketing and Organizational Performance Indicators. *European Journal of Social Sciences*, Volume 12, Issue 4, pp. 545 – 557.
10. Langa, E., L., Zegreanu, P. (2012). Environmental Marketing Orientation: Focus on the Romanian Construction Sector. *Contemporary Marketing Review*, Volume 2, Issue 5, pp. 11–17.
11. Maletic, M. et al. (2014). The Relationship between Sustainability-Oriented Innovation Practices and Organizational Performance: Empirical Evidence from Slovenian Organizations. *Organizacija (Organization)*, Volume 47, Issue 1, pp. 3-13.
12. Nidumolu, R. et al. (2009). Why Sustainability Is Now the Key Driver of Innovation. *Harvard Business Review*, Volume 87, Issue 9, pp. 56-64.
13. Posavec S. et al. (2011). Poticanje inovacija – ključ razvoja u hrvatskom sumarstvu (Encouraging of Innovation - The Key of Development in the Croatian Forestry). *Sumarski list (Forestry Magazine)*, Volume 135, Issue 5/6, pp. 246-256.
14. Sezen, B., Cankayab, S. Y. (2013). Effects of Green Manufacturing and Eco-innovation on Sustainability Performance. *Procedia - Social and Behavioral Sciences*, Volume 99, Issue 6, pp. 154–163.
15. Schaltegger, S. (2011). Sustainability as a Driver for Corporate Economic Success: Consequences for the Development of Sustainability Management Control. *Society and Economy*, Volume 33, Issue 1, pp. 15-28.
16. Terziovski, M., Guerrero, J.L. (2014). Sustainable Development Orientation (SDO) Practice and its Impact on Innovation Performance. *JCEBI*, Volume 1, Issue 1, pp. 19-30.
17. Van Kleef, J.A.G., Roome, N.J. (2007). Developing Capabilities and Competence for Sustainable Business Management as Innovation: a Research Agenda. *Journal of Cleaner Production*, Volume 15, pp. 38-51.
18. Skerlavaj, M. et al. (2007). Organizational Learning Culture—the Missing Link between Business Process Change and Organizational Performance. *International Journal of Production Economics*, Volume 106, Issue 2, pp. 346–367.
19. Vitezic, N. (2011). Corporate Reputation And Social Responsibility: An Analysis Of Large Companies In Croatia. *International Business & Economics Research Journal*, Volume 10, Issue 8, pp. 85-96.
20. Yu-Shan, C. (2008). The Driver of Green Innovation and Green Image – Green Core Competence. *Journal of Business Ethics*, Volume 8, Issue 3. pp. 531 – 543.

CUSTOMER SATISFACTION MANAGEMENT IN RETAIL TRADE

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Abstract. Retail trade has always played a significant role in the economy of Latvia. Entrepreneurship including retail trade is based on the satisfaction of customers' needs and desires providing enterprises with a profit. Various relationships are formed between the enterprise and the customer during this process where each party has a definite aim that it strives to achieve. Enterprises primarily aim to increase their turnover and make a profit whereas customers could have several aims – to acquire the goods/services from a definite place, in the right quantity and/or receive the necessary information and relevant attitude. These customer benefits can shape the customer satisfaction with the chosen retail enterprise encouraging them to make repeat purchases. Repeat purchases are a very essential for retail enterprises as the process of attracting new customers always requires greater resources in terms of time, money and effort. To ensure customer satisfaction it is important to ascertain the main factors that shape customer satisfaction especially their distinctive features in retail trade.

Keywords: Customer satisfaction, customer needs, retail trade

JRL code: M3

Introduction

Private consumption is one of the cornerstones of economic growth and, therefore, retail may be regarded as the country's economic growth indicator. Retail in Latvia and the Baltic States, after the restoration of independence, has evolved with changing effects. For several years, it has been one of the largest contributors to the gross domestic product. Despite the current overall retail growth rates, the internal competition within the industry is growing. Consequently, it is important to find ways for successful development in such a competitive environment. Unfortunately, many companies choose unfair and / or illegal practices to achieve their business goals and ensure the competitiveness. This is shown by the Shadow Economy Index, which is calculated as a percentage of GDP (Putnins, Sauka, 2015). Business is based on satisfaction of consumer needs, which ensures reaching the company's objectives. Different relationships form in the process between businesses and consumers, but both sides have a specific goal how to benefit from them. For the company it first of all is to increase sales and market share, make profits, but for the consumer they are several – to get the required product / service at the right place, time and quantity, to obtain the necessary information and service quality. This relationship

is based on mutual benefit. The recent studies show that the attraction of new consumers costs 5-10 times more than selling products to the existing customers, while existing consumers spend about 67% more money than the new consumers (Anderson Jolly, Fairhurst, 2007). Thus, the satisfaction of consumer needs is the primary task of retailers. It should also be taken into consideration that the present quality level of the product/brand could fail to meet the needs of the future. Under such circumstances, enterprises should focus on their customers, i.e. offer customers higher value than competitors. In this context, it is vital to study the customer satisfaction management process.

The **aim** of the present article is to enhance the customer satisfaction management model in retail trade.

In order to achieve the above aim, the following **tasks** were set:

- 1) to analyse customer satisfaction and factors influencing it;
- 2) to enhance the customer satisfaction model for retail trade based on the theoretical analysis and research conducted.

The theories on customer satisfaction and their application possibilities in retail trade were evaluated using the author's personal experience, focus group discussion results, and research methods such as monographic, descriptive etc. A

consumer survey was used to approximate the consumer evaluation of the factors that influence their satisfaction with retail companies.

Discussion and results

In order to understand customer satisfaction and its specifics in retail trade, the author first reviewed the basic theory on satisfaction process which is based on serious theoretical concepts and empirical results:

- 1) **assimilation or cognitive dissonance theory** which is based on the assumption that individuals strive to achieve cognitive balance (Festinger, 1957);
- 2) **contrast** theory based on the assumption that in case of incompatibility between the actual and expected offer consumers apply additional corrections at both levels (Helson, 1964) and consumers can perceive the deviation from the expected as extremely positive or extremely negative (Engel, Blackwell, Miniard, 1993);
- 3) **assimilation-contrast** theory that combines both the abovementioned theories (Hovland, Harwey, Sherif, 1957).
- 4) **expectancy disconfirmation** theory is based on the assumption that consumer expectations from the supply perspective are formed under the influence of three factors: offer, consumer, third party (media, research etc.) (Zeithalm, Berry, Parasuraman, 1991);
- 5) **attribution** theory authors consider that there are various conditions that could increase or decrease the customer satisfaction level. Three main conditions have been highlighted: individual's internal and external conditions, stability/instability of the conditions and their controllability (Heider, 1958; Kelley, 1972:151-174; Weiner, 1985);
- 6) **comparison level** theory authors consider that the unique standard of the offer is most often expressed in three ways: comparison of expectations, experience and the actual offer standards (Hermann, Johnson, 1999);

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7) **value perception** theory authors deem that product offer perceptions and evaluations play a significant role in customer satisfaction which in turn are influenced by three key factor groups: product offer factors (product, service quality etc.), consumer factors (individual needs etc.), situational factors (transport infrastructure etc.) (Oh, Parks, 1997);

8) **purpose-benefit** theory that states that benefit is expressed as a positive or negative deviation from a particular reference point (e.g. profit or loss) (Tversky, Kahneman, 1981);

9) **multi-factor** theory based on *F. Herzberg's* employee motivation and satisfaction theory that differentiates two factors: hygiene and motivation (Herzberg, 1966).

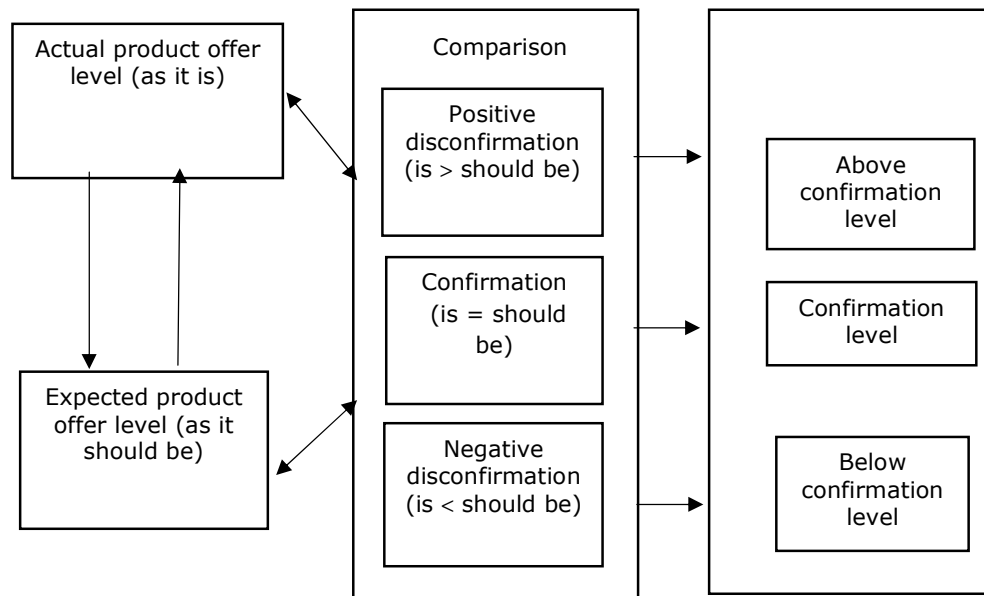
Applying the basic concepts of *F. Herzberg's* theory to customer satisfaction research, *R.L. Oliver*, Japanese researchers et al. underlined three types of attributes (Oliver, 1997; Kano, Seraken, Takanaski, 1984):

- expected attributes that could be compared to hygiene factors;
- exciting/surprising attributes that need to be fulfilled in order that customer satisfaction could be achieved through correspondence of actual and expected offer levels;
- desired attributes are not especially demanded and customers even do not expect them.

Following the review and analysis of nine customer satisfaction theories, one can observe the attempts of researchers to develop a universal customer satisfaction theory which was called the C/D paradigm (*confirmation/disconfirmation paradigm*), or the confirmation/disconfirmation model. Leading researchers (Thibaut, Kelley, 1959; Oliver, 1980; Churchill, Suprenant, 1982 etc.) in this field explained and further developed the essence of the C/D model over the period 1980–2000. They

offer the traditional C/D model with some minor differences which could be applied in practice to

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evaluate customer satisfaction with an enterprise's product offer (see Fig. 1).



Source: author`s design based on R.Oliver, G.Churchill, C.Surprenant publications (Oliver, 1980; Churchill, Surprenant, 1982; Andersen, Sullivan, 1993)

Fig.1. Traditional confirmation/disconfirmation (C/D) model

It could be concluded from Fig.1 that customer satisfaction is formed by comparing the real product consumption (use) experience (as it is) with the consumer's expectations including all the required features (as it should be). As a result satisfaction could be at three confirmation levels:

- if the real offer exceeds the expected level, the satisfaction achieved is above confirmation level (positive disconfirmation);
- if the real offer corresponds to the expected level, the satisfaction achieved is at the confirmation level (confirmation);
- if the real offer fails to meet the expected level, the satisfaction is below confirmation level (negative disconfirmation) or dissatisfaction.

The product offer levels are dependent on one another and in case of disconfirmation (positive or negative) corrections should be considered at the actual and/or expected level. This correction leads either to the increase or decrease in the confirmation. However, critical remarks regarding the model reflected in Fig. 1 can be found in

scientific literature. One disputable issue is connected with the significance of the consumers' perception in the C/D model. Some researchers deem that the following arguments should be taken into consideration:

- the consumer perception process is psychologically complex and could therefore be distorted because the expected product offer level in the memory is generally relatively vague and may differ from the real expectations (Oliver, 1997);
- the perception process is characterised by a subjective evaluation of certain product offer features that influence the satisfaction level (Swan, Trawick, 1981).

The author agrees to the view that consumer perception should be added to the C/D model as a separate component that is related to the other elements.

Another disputable issue is related to the inclusion of customer attitudes in the C/D model. Some authors do not differentiate customer satisfaction from attitude (Churchill, Surprenant, 1982; Westbrook, Reilly, 1983). Other authors

deem that satisfaction is formed as a result of cognitive comparison without the influence of attitude (Oliver, 1999). Other differences are highlighted by authors who deem that attitude is related to the pre-purchasing stage and satisfaction arises after making a decision regarding the purchase (La Tour, Peat, 1979). The author of the paper does not agree to these views. Firstly, "attitude is the evaluation of an offer and therefore the choice of possible course of customer action" (Praude, 2011). In turn, satisfaction/dissatisfaction arises as a result of other C/D model elements (Elliot, Percy, 2007; Praude, 2011). Therefore, attitude must be included in the C/D model as an element influencing the satisfaction level.

Apart from customer perception and attitude towards the product offer, it is also useful to append the C/D model with factors influencing the formation of expectations and perceptions of the product offer (refer expectancy theory). Taking into consideration all the critical remarks regarding the traditional C/D model, the author has worked out the model in a new form.

Reviewing the research works of various authors it could be concluded that there is a difference between satisfaction formation process in three economic sectors: consumer goods sector (Swan, Combs, 1976; Lewis, 1995 etc.), industrial goods sector (Homburg, Rudolph, 2001) and service sector (Brandt, 188; Cadotte, Turgeon, 1988).

The author's research environment – retail trade sector – due to its specifics cannot be included in any of the abovementioned sectors. However, in the context of the satisfaction process it is useful to highlight the specifics of this sector:

- 1) retail trade is an intermediary (distribution channel) between manufacturers and/or wholesalers who supply the goods and the consumers. Therefore, in order to satisfy consumer needs, retail trade must influence

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manufacturers and wholesalers as well as promote cooperation with them;

- 2) retail trade has to add a certain value to the tangible products - goods sold as the process includes sorting, wrapping, packing etc. of goods. Retailers also add certain value to products manufactured by others while reselling them under their own brand;

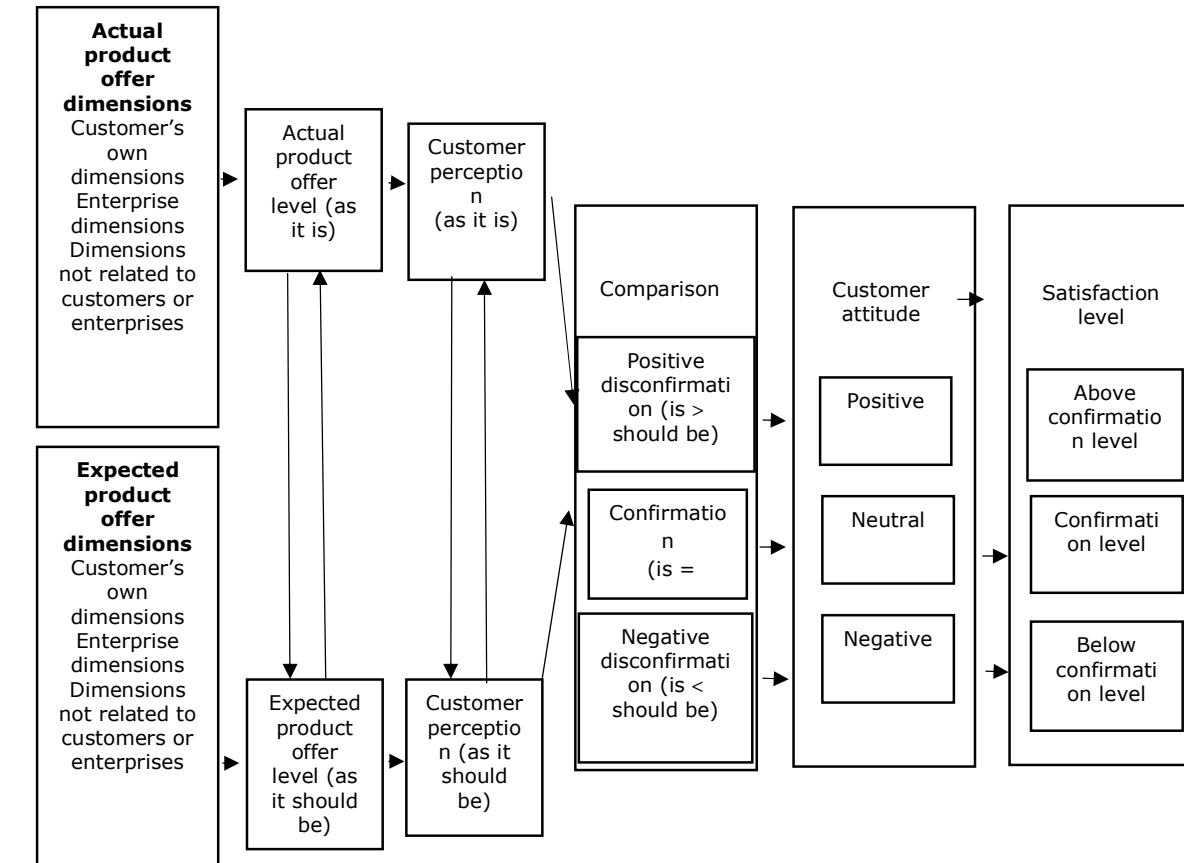
- 3) retail trade provides service to consumers at various outlets traditionally at shops and also using internet websites. Retail trade offers services or a set of intangible products that could not be attributed to consumers as property.

It follows from these retail trade specifics that consumers must be satisfied with both tangible (goods) as well as intangible (services) products. It influences practically all of the satisfaction formation stages. The level of influence and intensity depends on the service level (supermarket or specialised exclusive shop etc.), type of trade outlet (traditional shop, trade not in shops) and other factors.

Prof. V.Praude and the doctoral student I.Linina organised five focus group discussions on the research problem in 2014 and one in January 2015. The focus group participants were students of the 2nd study year of the University of Latvia - 82 postgraduate students (sub branch – marketing management), including 19 male and 63 female participants from 24 to 35 years of age who worked in enterprises and organisations in various fields as managers or specialists. The research goal was to ascertain the formation of customer satisfaction, loyalty building and the specifics of loyalty programmes in retail trade. The research organisers asked the audience questions based on the customer satisfaction management model worked out and stimulated/encouraged a discussion on the specifics of promoting satisfaction in trade in the context of comparison of actual product offer dimensions with the expected product offer dimensions. Participants answered in the

following manner regarding satisfaction, which was the main issue under discussion: 11 % mentioned satisfaction during the pre-purchase stage; 38% - during the purchase stage, 4% during the post-purchase stage and 47% during all the mentioned customer behaviour stages.

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The specifics of each stage of satisfaction formation process in trade were then highlighted and worked out based on the research results, data, literature analysis and the author's experience (see Fig.2).



Source: author's design

Fig.2. Enhanced confirmation/disconfirmation (C/D)

1. Actual product offer dimensions

1.1. Customer's own dimensions: need for tangible goods; importance of features of tangible goods; need for service quality; previous consumption experience; experience of the previous visit; alternative knowledge.

1.2. Enterprise dimensions: tangible goods (quality, range, placement on the shelves); service quality (speed, convenience, atmosphere etc.); product price; employee competence, communication, culture, readiness to assist etc.; enterprise image and reputation; work safety.

1.3. Dimensions not related to customers or enterprises: word-of-mouth communication;

location of the enterprise; enterprise environment.

2. Expected product offer dimensions

2.1. Customer's own dimensions: conformity of tangible product with its price; importance of features of tangible goods; service quality.

2.2. Enterprise dimensions: tangible goods (quality, range, placement on the shelves); product price; employee competence, communication, culture, readiness to assist etc.

2.3. Dimensions not related to customers or enterprises: word-of-mouth communication; company location; company environment.

According to the research results, positive/neutral/negative customer attitude is always formed as a result of comparison of the actual product offer level to the expected level. It is more complex in retail trade because an evaluation of tangibles (product) as well as intangibles (services) takes place. Furthermore, the combination of influence of both product types on the attitude is very much individual for each customer.

Several researchers (Jauanty, Jackson, 1991; Fisk, 1981 etc.) consider that the traditional C/D model lacks dynamism, as it in essence reflects on customer behaviour in the post purchase stage. The author of the paper considers that model needs to reflect all the three stages: pre-purchase (*shopping satisfaction*), during purchase (*buying satisfaction*) and post-purchase (*consumer satisfaction*). In accordance with the concept of processing of episodic information well known in psychology, an individual's overall satisfaction is formed not from static independent evaluation of objects of satisfaction but from isolated incidents/episodes of customer behaviour in the market. The dynamism of C/D model is important, in particular, in the service sector as, e.g. customer satisfaction with the outlet's service can be determined not just after the end of purchase of the product but also by the satisfaction level of a particular episode (e.g. product search) or a specific contact (for example, by the seller) experienced during any other visit to that outlet.

The author agrees to the view of necessity of dynamism for the C/D model but deems that it is necessary to introduce some new elements to this model in this context. However, it should be taken into consideration that the overall satisfaction is formed as a result of these elements (Johnston, 1992; Grönroos, 1999):

- satisfaction during customer behaviour stages (pre-purchase, purchase, post-purchase);

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- satisfaction during episodes of customer behaviour (e.g. locating the product on the shelf, payments etc.);
- satisfaction during particular contact situations (with sales assistants, cashiers, etc.).

Consequently, according to research results, satisfaction/dissatisfaction with a previous episode/contact has an impact on the next episode/contact. For example, the perception of service would be more negative if there had been a previous negative experience or an unchanged perception from a negative experience during a previous episode can influence expectations of the next episode. This negative effect can be expressed at the lower or higher level of expectation (Johnston, 1992; Grönroos, 1999).

Some researchers consider that the first customer behaviour stages/episodes/contacts play a deciding role in the formation of overall satisfaction/dissatisfaction and that the following stages/episodes/contacts have a relatively low impact (Bitner, Herbert, 1994). Whereas other researchers consider that the recent stages/episodes/contacts have a relatively high significance when, for instance, a negative experience can significantly impact the overall satisfaction level regardless of the previous positive experience (Johnston, 1995). In the author's opinion, conclusions at this stage cannot be definite as they depend on various specific factors and satisfaction dimensions, i.e. any stage/episode/contact in retail trade could have an impact regardless of the moment/sequence of its occurrence.

To identify consumer satisfaction factors, which may serve as basis for loyalty formation, and to rate them according to their significance in retail, there was carried out a consumer survey in all three Baltic States. The survey was designed in Google Forms, and translated into Lithuanian and Estonian to ensure the speakers of these languages with an opportunity to participate. Further, applying non-probability snowball method, the link to the questionnaire

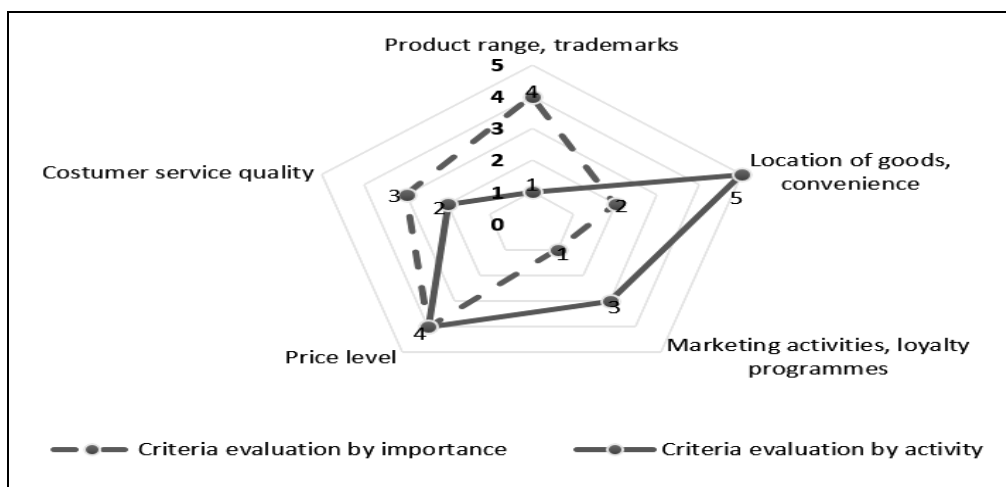
was e-mailed to recipients on the authors' personal contact list, who forwarded the message further. The questionnaire was also distributed to the member-companies of the trade associations in all three Baltic States. The survey respondents totalled to 738 respondents aged 18 to 74, including 65% women and 35% men. Regarding segmentation of the respondents by income level, the different income groups were distributed equally.

The survey data analysis results indicate the respondent habits and it may be concluded that 87% shop in several chains of supermarkets, 12% - in two chains, while only 1% prefer shopping in a particular chain of supermarkets. 72% of respondents shop several times a week and at the same outlets. On average, they spend 15 to 30 minutes in the shop. In particular cases, these regular consumers (68%) may shop in other chains following discounts and attractive offers. Information on the offers is acquired in many different ways. The most frequent answers mentioned by respondents included weekly discount newspapers, recommendations of relatives, friends and neighbours, as well as advertising. 90% of the respondents use several loyalty/discount cards offered by traders and their attitude towards them is positive. At the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 158-164 same time, 64% of loyalty/discount card users admitted that the trading companies never or hardly ever allow for communication via mobile text messages or e-mail. Even when such communication exists, it is not customised.

Regarding the question on factors related to what is important while choosing where to shop, the most important factor mentioned was the location of the shop. As in all three Baltic States the trading area per one inhabitant has not reached the average European indicators, this is understandable. Ranging other factors by their importance, it can be seen that 4 points were gained by product range/trademarks and price level, followed by service quality, while marketing activities and loyalty programmes were mentioned as the least important factors. (See Fig.3.)

Summarizing the shop evaluation factors, which according to the survey results would ensure consumer satisfaction, the situation is as follows (see Fig.3): the respondents value the most the location of the goods and convenience, followed by price level, marketing activities and loyalty programmes, while the lowest evaluation gained customer service quality and product range/trademarks.



Source: author's design

Fig. 3. Supermarket choice criteria and operation evaluation by consumers

It must be noted that the higher scores in the figure correspond to the more positive

evaluation, while the lower scores – to the worse ones. Comparing both graphs (see Fig.3), there

may be drawn a conclusion on the mismatch between the criteria evaluation by their value for consumers and the real operation of the supermarkets. For example, an important criterion – product range/trademarks (4 points) – was evaluated with score of 1 point by the real operation. The research shows that not only the goods/trademarks ensure consumer satisfaction, but also many other factors connected with the whole process at both the pre-purchase and purchasing stages. Thus, it may be concluded that the consumer satisfaction formation process in retail is a complex process consisting of several stages, where each of them impacts the formation of satisfaction and loyalty.

Conclusions and Recommendations

- 1) Nine customer satisfaction management theories have been developed since the 50s and 60s of the 20th century and each of the theories have appended the previously worked out theories with new elements of the customer satisfaction process.
- 2) Following the analysis of the nine customer satisfaction management theories it could be observed that researchers have attempted to develop a universal customer satisfaction theory called the C/D paradigm (confirmation/disconfirmation paradigm) or the confirmation/disconfirmation model.
- 3) The author recommends using the enhanced confirmation/disconfirmation (C/D) model in retail trade which has been improved and primarily appended with customer attitude that arises from the specifics of customer perception.

Bibliography

1. Anderson, J.L., Jolly, L.D., Fairhurst, A.E. (2007). Customer relationship management in retailing: a content analysis of retail trade journals. *Journal of Retailing and Consumers services*, November, 14(6).
2. Brandt, R. (1988). How Service Marketers Care identify Value – Enhancing Service Elements. *Journal of Services Marketing*, 2(3), pp. 35-41.
3. Cadotte, E., Turgeon, N. (1988). Dissatisfiers and Satisfiers: Suggestions from Customer Complaints and Compliments. *Journal of Consumer Satisfaction Dissatisfaction and Complaining Behaviour*, 1.pp. 74-79.
4. Churchill, G.A., Surprenant, C. (1982). An Investigation into the Determinants of Customer Satisfaction. *Journal of Marketing Research*, 19 (4), pp. 491-504.
5. Elliot, R., Percy, L. (2007). *Strategic Brand Management*. Bath Press, p.6.
6. Engel, J., Blackwell, R., Miniard, P. (1993). *Consumer Behaviour*, (7th ed.), Fort Worth: Dryden Press, p.832.

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4) Both the theoretical analysis and the consumer survey show that the retail sector, due to its specifics, differs from the other three sectors (consumption goods sector, industrial goods sector and services sector), as the particularities of the retail stipulate that consumers should be satisfied by the products that are both material (goods) and intangible (services).

5) Summarizing the consumer survey results, the following conclusions may be drawn:

- consumer behaviour is influenced by the purchase stimulation measures and communication carried out by the retail companies, and their evaluation with 3 points (out of maximum 5) shows that, unfortunately, the companies do not use fully the marketing opportunities;
- the analysis of the product range shows that it has been evaluated highly (4 points) as a supermarket choice factor, but very low (1 point) regarding the real situation, which indicated the need for improvement in this aspect;
- negative evaluation was also awarded to service quality (2 points), which indicates one more aspect that needs urgent improvement.

6) With increasing competition in the retail sector, it is important to gain understanding of all factors that may increase competitiveness. A satisfied consumer is key to business success. Thus, it is of utmost importance to develop a plan for the improvement of the consumer satisfaction factors.

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7. Festinger, L.A. (1957). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
8. Fisk, R.P. (1981). Toward a Consumption/Evaluation Process Model for Services. *Marketing of Services, AMA Proceeding Series*, Chicago, IL, p.19.
9. Grönroos, C. (1999), Internationalization Strategies for Services, *Journal of Services Marketing*, 1999, vol. 13, no. 4/5.
10. Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: Wiley, pp. 322.
11. Helson, H. (1964). *Adaptation Level Theory*. New York: Harper & Row.
12. Herrmann, A., Johnson, M.D. (1999). Die Kundenzufriedenheit als Bestimmnngsfaktor der Kundenbindung. *Zeitschrift furr betriebswirtschaftliche Forschung*, 21(1), s.5-24; 579-598.
13. Herzberg, F. (1966). *Work and the Nature of Man*. Cleveland, p.71.
14. Homburg, C., Rudolph, B. (2001). Customer Satisfaction in Industrial Market: Dimensional and Multi Role Issues. *Journal of Business Research*, 52(1), pp. 15-33.
15. Hovland, C., Harwey, O., Sherif, M. (1957). Assimilation and Contrast Effects in Reactions to Communication and Attitude Change. *Journal of Abnormal and Psychology*, 55(7), p.217.
16. Jayanty, R., Jackson, A. (1991). Service Satisfaction: an Exploratory Investigation of Three Models. *Advances in Consumer Research*, vol.18, p.603.
17. Johnson, M.D. (1992). The Determinants of Satisfaction for Products versus Services: Exploring the Ambiguity Hypothesis. *Association for Consumer Research Conference*, Vancouver, British Columbia, Canada, October 10th.
18. Kano, N., Seraken, N., Takanaski, F. (1984). Attractive Quality and Must – be Quality. *Journal of the Japanese Society for Quality Control*, 14(2), pp. 39-48.
19. Kelley, M. (1972). Causal Schemata and the Attribution Process. *Attribution: Perceiving the Causes of Behaviour*, Morristown, NJ: General Learning Press, pp. 151-174.
20. La Tour, S.A., Peat, N.C. (1979). Conceptual and Methodological issues in Consumer Satisfaction Research. *Advancer in Consumer Research*, Mi Association for Consumer Research, pp. 431-437.
21. Lewis, B. (1995). Measuring Consumer Expectation and Satisfaction. *Customer Satisfaction research*, Amsterdam, pp. 57-76.
22. Oliver, R.L. (1980). A Cognitive Module of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(November), pp.460-469.
23. Oliver, R. (1994). Whence Consumer Loyalty? *Journal of Marketing*, 63, pp.33-44.
24. Oliver, R.L. (1997). *Satisfaction: A Behavioural Perspective on the Consumer*. New York, pp.152-155.
25. Praude, V. (2011). *Marketings. 1. gramata*. [Marketing. Vol.1] Riga, Burtene, pp. 219.-233.
26. Swan, J., Combs, L. (1976). Product Performance and Customer Satisfaction: A New Conception. *Journal of Marketing*, 40(2), pp. 25-33.
27. Putnins, T.J. & Sauka A., (2015). *Enu ekonomikas indeks Baltijas valstis 2009 – 2014*. Riga: SSE Riga Ilgtspējiga biznesa centrs, 47 lpp.
28. Swan, J.E., Trawick, I.F. (1981). Disconfirmation of Expectations and Satisfaction with a Retail Service. *Journal of Retailing*, pp. 49-67.
29. Thibaut, J., Kelley, H.H. (1959). *The Social Psychology of Groups*. New Brunswick, New York: Wiley, p. 346.
30. Tversky, A., Kahneman, D. (1981). *The Framing of Decisions and the Psychology of Choice*. *Science*, 211(30), pp. 358-453.
31. Zeithalm, V.A., Berry, L.L., Parasuraman, A. (1991). The Nature and Determinants of Customer Expectations of Service. *Marketing Science Institute*, Report Nr. 91-113, Cambridge, pp. 11-25.
32. Westbrook, R., Reily, M. (1983). Value - Percept Disparity: An Alternative to the Disconfirmation of Expectations Theory of Consumer Satisfaction. *Advances in Consumer Research*, Provo, pp. 256-261.

SUSTAINABLE CONSUMPTION OF FOOD: A CASE STUDY OF SLOVAK CONSUMERS

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Abstract. The current environment is characterized by consumer society, in which the criteria by which to judge the maturity of individual markets include – maximum levels of comfort (especially in choosing and buying the product), convenience and growing product choice. These characteristics are the results of the change in consumer behaviour. The aim of the present paper was to realize the knowledge and application of the concept of sustainable consumption between and by the Slovak consumers. The method of structured questionnaire consisting of 12 questions was used. The total number of respondents was 300 randomly selected respondents. For a deeper analysis of the obtained results, seven assumptions have been set out and they have been tested with the use of Pearson's chi-square test, Mann-Whitney U-Test, Fisher's exact test and Cramer's contingency coefficient. The results of the present paper show that while the knowledge of the term sustainable consumption is not very high between the Slovak consumers (21% of respondents could explain what means the term sustainable consumption), its application into their everyday life is pretty high – more than 67% of respondents buy the so-called economical packages of food, more than 49% of respondents buy products of ecological production, almost 40% of respondents do really consume all the food which they buy and only 19% of respondents does not separate the waste from the food which they eat.

Key words: consumer behaviour, sustainable consumption, environment, product.

JEL code: M31, M39

Introduction

The manner how we, as consumers, think brings the producers and companies to come out with new ideas and impulses, which can affect us to go to the shop and to buy the exact product. To the forefront of social interest are also becoming the ecological questions of not just the production but also of the consumption (what is connected with so called green thinking) which lead to sustainable activities of individual producers, companies, but also consumers.

Sustainable consumption is something what relates to all of us. There is no more the problem with that, how to produce something but how to consume it so that it will be less harmful. The essence of sustainable consumption consists in the preference of so-called eco products and in the consumption of renewable amount of natural resources and products.

The concept of sustainable consumption can be divided into three main categories:

- ethical and critical consumption – e.g. the importance of the decision;
- ecological consumption – including the favourite "3R" of ecological behaviour

(Reduce, Reuse, Recycle) and elements such as agriculture, organic farming and handicraft production;

- social and solidarity consumption – where the corporate responsibility comes to the forefront. It refers to the social relations and conditions, fair treatment and paying conditions, to the elimination of discrimination, promotion of integration and to the focus on international economic rules (Horska E., 2012)

The aim of the present paper was to realize the knowledge and application of the concept of sustainable consumption between and by the Slovak consumers. In order to achieve the aim, the method of structured questionnaire was used. The questionnaire was consisting of 12 questions formulated as closed, so that respondents (total number of respondents was 300 randomly selected respondents, Table 1; the research was conducted in October 2015) had to choose one, alternatively several options. The questionnaire was evaluated by using contingency tables, which were prepared by Excel with subsequently developed graphic representations.

Characteristics of respondents

Category of respondents	Number	Place of respondent's residence	Number
Male	58	City	192
Female	242	Village	108
Age structure of respondents	Number	Educational structure of respondents	Number
15 – 19 years	30	Primary education	8
20 – 25 years	44	Secondary education	148
26 – 35 years	102	Higher professional education	18
36 – 49 years	80	Higher education	126
50 and more years	44		
Net family income	Number	Region	Number
up to EUR 500	48	Banska Bystrica	40
EUR 501 – 1 000	122	Bratislava	68
EUR 1 001 – 1 500	70	Kosice	28
EUR 1 501 and more	60	Nitra	44
		Presov	8
		Trencin	36
		Trnava	38
		Zilina	38

Source: authors' construction based on the results of the research

For a deeper analysis of the obtained results, assumptions about the correlation between the purchase of so-called economical packages of food and the respondent's net family income; the purchase of so-called ecological products and the respondent's gender; the reasons leading to the purchase of economical package of food and the respondent's level of education; the imagination of the improvement of respondents healthy lifestyle and his level of education, resp. his gender; the tracking of the information about the recycling of waste from the bought food and the respondent's age as well as the separation of waste and the respondent's age have been set out. To test the dependences Pearson's chi-square test, Mann-Whitney U-Test, Fisher's exact test and Cramer's contingency coefficient have been used.

Research results and discussion

The main objective of the modern understanding of marketing is to establish long-term relationships with customers, to maintain and permanently increase the number of present customers. The company reports, in relation to

its surroundings, to the social responsibility for the environment and sustainable development of society (Nagyova L., 2014).

The essential feature of sustainability is to meet the needs of contemporary society with the regard to the possibility of satisfactory life of following generations. Unlike the idea of sustainable development oriented mainly on the business sector, sustainable consumption is a challenge especially for consumers – even if it is an individual or the state.

The origins of the term sustainable consumption can be dated back to the Rio Earth Summit in 1992 (Jones P., 2009) and very simply it can be defined as the use of services and related products that respond to the basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle so as not to jeopardize the needs of future generations (The United Nations Environment Programme, 2016), or as the reference to the need to stay within the global sustainability of resources (Dahl A., 1998).

Of course, there can be also found other definitions of the same subject, which, for example, say that sustainable consumption focuses on formulating equitable strategies that foster the highest quality of life, the efficient use of natural resources and the effective satisfaction of human needs in promoting equitable social development, economic competitiveness and technological innovation (Tukker A., 2008), or that sustainable consumption implies a more equitable sharing of the resources between rich and poor and ensuring that the Earth's resources are able to meet the needs of future generations (Bartels C., 2002). What can be said in general is the fact that sustainable consumption does not mean only the reduction of consumption but also of its reorientation in terms of change in consumer choice towards sustainable lifestyles and shopping decisions (Kopanikova J., 2013); and that its basic limitations are considered in terms of the inadequate attention given to the social, cultural, and historical contextualization of consumption. The implicit assumptions of sustainable consumption concern on rational individuals and their needs and wants, and neglect the significance of consumption practices as embodying the relations between individuals. Consumer practices are cultural and social practices that have historically developed and are manifestations of local and global linkages of social interdependencies (Dolan P., 2002). This is why the concept of term "consumption" has to change towards "sustainable consumption", which should contain:

- satisfaction of customer needs and increase in the quality of life but without endangering the needs of future generations (i.e. with the view to minimizing the amount of natural resources, toxic materials, emissions and waste production throughout the products life cycle);
- sustainable consumption is a dynamic concept, resp. model of consumption, which indicates the required and needed direction

Jelgava, LLU ESAF, 21-22 April 2016, pp. 167-169 and in many cases also the importance of implementation of number of changes;

- sustainable consumption can be characterized as the function of time, in which the environmental pressures (which will be in the spotlight from the long view) must be evaluated (counted);
- sustainable consumption does not necessarily mean a quantitatively lower consumption, the consumption of products is in a rather different, more intelligent and prudent manner (for such behaviour, significant changes in consumer behaviour are necessary as well as changes in the level of organizations in the framework of ongoing marketing activities) (Gubiniová K., 2012).

The sustainable consumption is not involved in the degradation of the environment and for the customers it does not mean problems with a lower level of satisfaction of their needs (Pajtinková Bartáková G., 2012).

Despite the fact that sustainable consumption has more pros than cons, this concept is still not very well known between consumers and therefore it is not so easy to apply it into their everyday lives. The basic barriers to sustainable consumption include:

- lack of awareness and training;
- lack of support from the community, government and industry;
- reluctance to include the true environmental and social costs in the price of goods and services;
- ingrained unsustainable thinking and behaviours pattern;
- and lack of alternative sustainable products and services (Srinivas H., 2015).

The task for governments, parliaments, but also nongovernment organizations and professionals is to educate the people, to bring them to change their mindsets and to bring them to act more rationally and environmentally.

A questionnaire survey was conducted because of the need to determine the level of application of the concept of sustainable consumption between the Slovak consumers. The mentioned survey consisted of 12 questions, which have been given to 300 randomly selected respondents across the whole Slovak republic. As it could be seen from Table 1, the major group of respondents were female (81% of respondents), respondents between the age 26–35 years (34% of respondents) and respondents from the city (64% of respondents). Up to their education, net family income and region, it can be said that most of respondents have secondary education (49% of respondents), their net family income is between EUR 501 and 1 000 (41% of respondents) and they are from Bratislava region (23% of respondents).

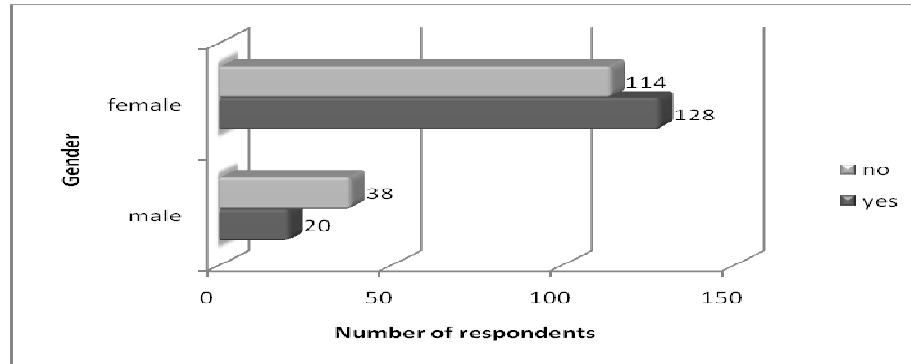
As the results of authors' own research show, while the knowledge of the term sustainable consumption is not very high between the Slovak consumers, its application into their everyday life is pretty high. While only 21.12% of respondents could explain what does mean the term sustainable consumption, exactly 67.33 % of respondents buy so-called economical packages of food, 49.33% of respondents buy products of ecological production, 29.13% of respondents follow the trends on the food market (organic good, fast food, green food etc.), 39.67% of respondents do really consume all the food which they buy, 39.00% of respondents and 27.00% of respondents track the information about the recycling of waste from the food which they buy mostly and only 19.00% of respondents does not separate the waste from the food which they eat and 12.67% respondents has never thought about this possibility.

Connected with the evaluation of few above mentioned questions, there have appeared also the questions about the dependence resp. independence between few variables. Therefore, the dependence between the purchase of economical packages of food and the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 167-170 respondent's net family income, between the purchase of ecological products and the respondent's gender, between the tracking of the information about the recycling of waste from the bought food and the respondent's age as well as between the separation of waste and the respondent's age have been evaluated with the use of Pearson's chi-square test, Fisher exact test and Cramer's contingency coefficient. While, up to the result of the Pearson's chi-square test, it must be stated that the H_0 hypothesis must be rejected on the level of significance 5 % and the H_1 hypothesis must be adopted, up to the result of the Cramer's contingency coefficient, it must be stated that this relationship is still very weak (the result of Cramer's contingency coefficient in the case of testing the dependence between the purchase of economical packages of food and the respondent's net family income, between the tracking of the information about the recycling of waste from the bought food and the respondent's age as well as between the separation of waste and the respondent's age were equal to 0.055409, 0.077876 and 0.05275). The Fisher's exact test was used for the evaluation of the relationship between the purchase of ecological products and the respondent's gender. From its evaluation is clear that between the tested variables (between the purchase of ecological products and the respondent's gender) there exists a statistically significant relationship which can be seen also from the Figure 1 (the result of Cramer's contingency coefficient was equal to 0.057422 what can be interpreted as a weak relationship between tested variables; the result of Fisher's exact test was equal to 0.013053 and is interpreted as statistically significant relationship) – female respondents prefer the purchase of ecological products in a higher way as the male respondents (exactly 52.89% of female respondents and 34.48% of male respondents have positively answered to the question of

purchase of food produced by ecological

Jelgava, LLU ESAF, 21-22 April 2016, pp. 167-171 production).

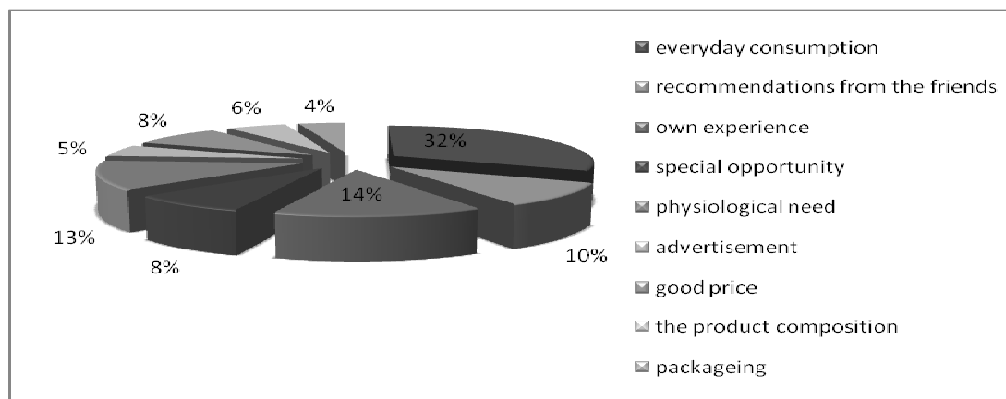


Source: authors' construction based on the results of the research

Fig. 1. Relationship between the purchase of ecological products and the respondent's gender

Because of the need to determine what leads Slovak consumers to their purchase of food, there was formulated not just the question of the frequency of their purchase but also of the factors which lead them to the purchase of food as well as of economical package of products and of ecological products. The results of authors' research show that most of Slovak consumers make their purchase of food mostly for few times in a week (41% of respondents), the most important factors which lead them to their

purchase are everyday consumption (31.75% of respondents), own experience (13.96% of respondents) and physiological need (12.58% of respondents) (Figure 2). The most important factor which leads them to the purchase of economical package of products is its better price (59.90% of respondents) and the most important factor which leads them to the purchase of food of ecological production is their better quality in comparison to the products of conventional production (35.81% of respondents).



Source: authors' construction based on the results of the research

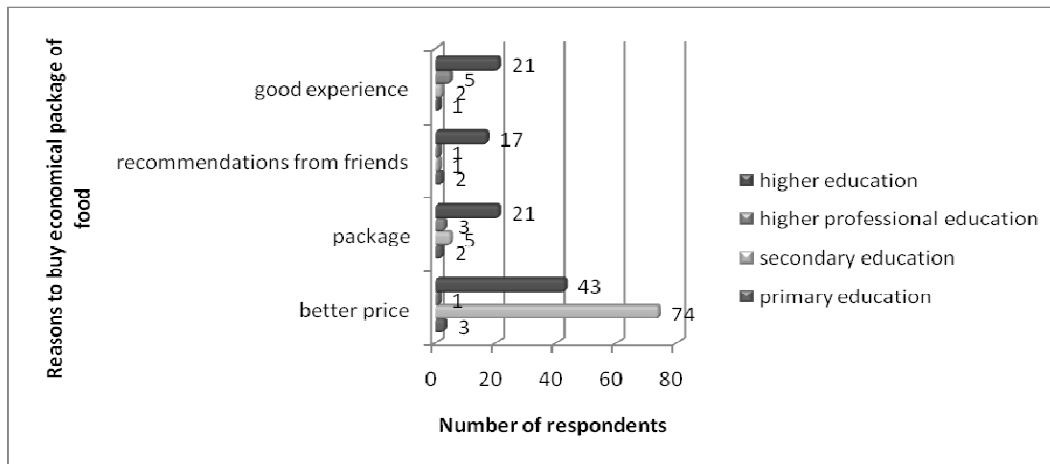
Fig. 2. Factors leading to the purchase of food, %

There has appeared also the question about the correlation between the respondent's answer to the question of factors leading to the purchase of economical package of food and the respondent's level of education. The mentioned relationship was tested with the use of Pearson's chi-square test and Cramer's contingency coefficient. Up to the results of both tests, it can be stated that there exists a statistically

significant relationship between the factors leading to the purchase of economical package of food and the respondent's level of education (the result of Cramer's contingency coefficient was equal to 0.103493 what is interpreted as a weak but statistically significant relationship between tested variables). The mentioned relationship can be also seen from Figure 3 – while people with secondary and higher education prefer mostly the

purchase of economical package of food because of its better price (more than 90% of respondents with secondary education and more than 42% of respondents with higher education),

Jelgava, LLU ESAF, 21-22 April 2016, pp. 167-172 people with higher professional education prefer them mostly because of their previous good experience (50% of respondents with higher professional education).

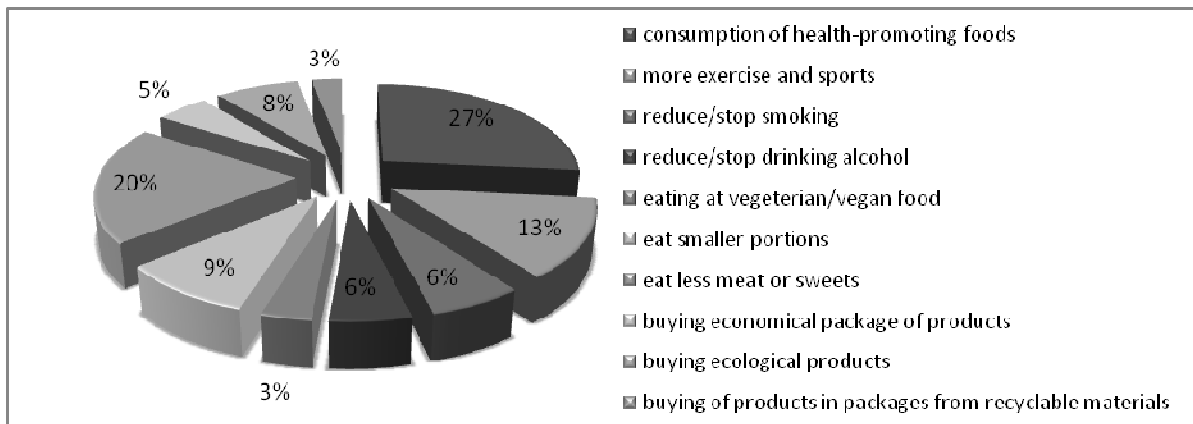


Source: authors' construction based on the results of the research

Fig. 3. Relationship between the factors leading to the purchase of economical package of food and the respondent's level of education

Up to the results of the research, it can be said that Slovak consumers imagine under the improvement of their healthy lifestyle mostly the consumption of health-promoting foods (28.25%

of respondents), to eat less meat and sweets (19.83% of respondents) and to make more exercise and sports (13.90% of respondents) (Figure 4).



Source: a authors' construction based on the results of the research

Fig. 4. Imagination of the improvement of respondent's healthy lifestyle, %

Connected to the above mentioned question, there has been tested the dependence between the imagination of the improvement of respondent's healthy lifestyle and respondent's level of education, resp. between the imagination of the improvement of respondent's healthy lifestyle and respondent's gender. While the first relationship was evaluated with the use of Pearson's chi-square test and Cramer's contingency coefficient, the second relationship

was evaluated with the use of Pearson's chi-square test, Mann-Whitney U-Test and Cramer's contingency coefficient. Up to the results of all statistical tests, it can be stated that between the both tested dependences there exist a statistically significant relationship (the result of Cramer's contingency coefficient was equal to 0.030147 and 0.03286; in the case of the secondly evaluated dependence – the U value was 14.5 and the critical value of U at $p \leq 0.05$

was 23, which means that the result is statistically significant at ≤ 0.05).

Conclusions, proposals, recommendations

As it was mentioned before, sustainable consumption means the use of services and related products that respond to the basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials. Despite the fact that sustainable consumption is a challenge especially for consumers, its limitations are considered in terms of the inadequate attention given to the social, cultural, and historical contextualization of consumption.

The present paper has focused on the realization of the knowledge and level of application of the concept of sustainable consumption between and by the Slovak consumers. Up to the results of author's own survey, which was held in October 2015, it can be said that:

- the knowledge of the term sustainable consumption between the Slovak consumers is still not very high – only 21% of Slovak respondents could explain the mentioned term;
- the application of the concept of sustainable consumption by the Slovak consumers is on a pretty high level – more than 67% of respondents buy economical packages of food, over 49% of respondents buy products of ecological production, more than 39% of respondents do really consume all the food which they buy, 27% of respondents track the information about the recycling of waste from the food which they bought, only 19% of

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respondents does not separate the waste from the food which they eat;

- up to the factors leading to the purchase of food – the most important factor which leads the Slovak consumers to the purchase of food is everyday consumption (almost 32% of respondents), the most important factor which leads them to the purchase of economical package of food is its better price (almost 60% of respondents) and the most important factor which leads them to the purchase of food of ecological production is their better quality (almost 36% of respondents).

Recommendations up to the results of authors' research can be, up to the focus group, divided into two main groups and they are as follows:

- recommendations for governments, parliaments but also nongovernment organizations and professionals – to improve the knowledge of sustainable consumption between the Slovak consumers by more seminars, courses, modules, websites, advertisements etc. concerned at the particular issue;
- recommendations for consumers – seek for and read more information about sustainable consumption, follow the news on the internet and on TV, buy only those food which are really consumed in the household, go to the shop with a shopping list, separate the waste, increase the consumption of products from ecological production, follow the information about the ways of waste's recycling, think more about the environment because you leave it to our future generations.

Bibliography

1. Bartels, G. C., Nelissen, W. (2002). *Marketing for Sustainability: Towards Transactional Policy-making*. Netherlands: IOS Press. p. 507.
2. Dahl, A. (1998). Sustainable Consumption and True Prosperity. *Bahá'í Library Online*. Retrieved: http://bahai-library.com/dahl_sustainable_consumption_prosperity. Access: 28.12.2015
3. Dolan, P. (2002). The Sustainability of "Sustainable Consumption". *Journal of Macromarketing*, Vol. 22, No. 2 (December), pp. 170 – 181.
4. Gubiniová, K. (2009). *Sustainable Consumption – Foundation of Sustainable Marketing?* Retrieved: http://www.cutn.sk/Library/proceedings/mch_2012/editovane_prispevky/Gubiniová.pdf. Access: 30.12.2015

Jelgava, LLU ESAF, 21-22 April 2016, pp. 167-174

5. Horska, E., Siringoringo, H. (2012). *European Consumer and Consumer Behaviour*. Nitra: SPU. p. 124.
6. Jones, P., Comfort, D., Hillier, D. (2009). Marketing Sustainable Consumption within Stores: A Case Study of the UK's Leading Food Retailers. *Sustainability*, Volume 1, Issue 4, pp. 815 – 826.
7. Kopanicova, J., Klepochova, D. (2013). Disposable Shopping Bags – Yes; Disposable Shopping Bags – No. Empirical Study of Sustainability Elements in Consumer Behaviour of Slovaks. *Proceedings of the International Scientific Conference*, Bratislava, October 11 – 12, 2013, Slovakia. Zilina: Strix. 1st edition. pp. 123 – 127.
8. Nagyova, L. et al. (2014). *Marketing*. Nitra: SPU. p. 460.
9. Pajtinkova Bartakova, G., Gubiniova, K. (2012). *Udrzatelny marketingovy manazment*. (Sustainable Marketing Management) Trenčín: Institut aplikovaneho manazmentu. p. 241.
10. Srinivas, H. (2015). Sustainable Consumption. *Sustainability Concepts*. Retrieved: <http://www.gdrc.org/sustdev/concepts/22-s-consume.html>. Access: 28.12.2015
11. Tukker, A., Charter, M., Vezzoli, C. (2008). *System Innovation for Sustainability: Perspectives on Radical Changes to Sustainable Consumption and Production*. UK: Greenleaf Publishing. p. 470.
12. United Nations Environment Programme. (2016). *What is SCP?* Retrieved: <http://www.unep.org/resourceefficiency/Home/WhatIsSCP/tabid/105574/Default.aspx>. Access: 01.01.2016

EFFECTIVENESS OF VISUAL METAPHOR IN MILK ADVERTISING

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Abstract. In prevailing competition-based market economy, there is a need for marketing communication to be effective in order to retain customers and attract the new ones. One of the most popular modes of marketing communication – advertising, now has to find ways to be attention grabbing and persuading among the enormous amounts of advertisements. Therefore, creativity becomes crucially important. Using metaphors, which cause consumers to understand one or some elements of the advertisement in terms of another, is the possible technique to make an advertisement creative. Moreover, as visual elements of the advertisement are considered as more attention grabbing than the verbal ones, the assumption can be made that the usage of visual metaphors in advertising is the method leading into the effectiveness of advertising. Nevertheless, subtleties such as product category may have the impact on the consumers' associations with the brand developed through advertising with visual metaphors and perceived value of the product; and the question rises whether this impact is positive or negative. The aim of this research is to determine the impact of visual metaphors on the effectiveness of milk advertising. The analysis of the research results reveals the specific aspects of consumer response to milk advertising, which are influenced by the application of visual metaphors and whether that aspects of consumer response to milk advertising are influenced positively or negatively. As a research result, authors provide guidelines for creating effective milk advertising campaigns.

Key words: advertising, effectiveness, metaphor, milk.

JEL code: M31, M37.

Introduction

Contemporary market is unimaginable without advertising. Each company is not only trying to be visible to its target consumers and society as a whole, it tries to gain the part in consumers' mind. Since its emergence, advertising has evolved to a masterpiece rather than to a method to sell something. Phillips B. J. and McQuarrie E. F. (2004) suggest that advertising is a form of human communication that is mainly based on pictures to persuade. Moreover, according to van Mulken M. et al. (2014), modern advertising relies heavily on visual metaphors.

Despite the wide body of scientific research in the field, much research has more focused on viewers' comprehension, interpretation, and attitude toward the ad as the outcome; however, the results of the persuasive effects of visual metaphors are still scarce (Jeong S.-H., 2008). Gkiouzepas L. and Hogg M. K. (2011) argue that the importance of the metaphor's depiction and referents in establishing representational deviation (and thus attracting and encouraging readers to uncover the implied visual message) have been neglected in the literature. Therefore,

the **scientific problem** analysed in this article can be raised by a question: what is the impact of visual metaphor on advertising effectiveness? Achieving to contribute to the scientific discussion on the issue, this paper **aims** to determine the impact of visual metaphors on the effectiveness of milk advertising.

Three objectives are set to achieve the aim:

- 1) to define visual metaphors and substantiate their usage in advertising;
- 2) to choose the metaphor suitable for the milk advertisement;
- 3) to compare the effectiveness of advertisements with and without metaphors.

Research results and discussion

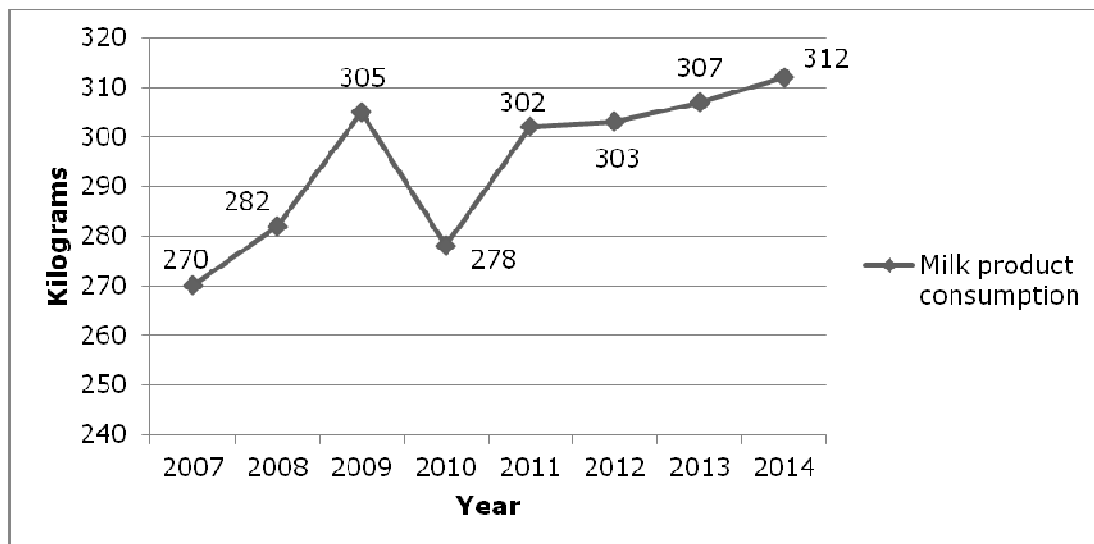
The objectives of the article determine its structure. To reach the aim, the main part of the article is organized into three chapters: substantiation of the topic; methodological background; and research results. The empiric results for the research were obtained by the questionnaire-based survey. Consequently, the research provides guidelines for marketers how to apply the visual metaphors in advertising.

1. Substantiation of the topic

Enterprises can shape consumer expectations by effective advertising (Eglite A., Kunkulberga D., 2015). However, considering the recent information overload in mass media, it is becoming very hard to attract targets' attention or evoke their interest. Advertisers have to find ways to motivate consumer engagement with the advertisement per se (Putrevu S. et al., 2004). Creativity gains the lions part in the process of advertising creation. One of the ways for attracting consumers' attention by evoking their interest is considered to be the usage of visual metaphors in advertising. Metaphor is unexpected parallel between two objects which transfers the symbolic meaning from one to the other. According to Proctor T. et al. (2005), metaphors make use of similarities and create

Jelgava, LLU ESAF, 21-22 April 2016, pp. 175-176 meaning by transferring the qualities from one object to a new object through an implied comparison based on analogy. Baxter L. A. (1992) emphasizes that metaphors dominate in our lives as a best parts of them. Therefore, using metaphors in advertising might be considered as a proper way for conquering competitors in the battle for consumers' attention.

Chamblee R. et al. (1993) suggest that readers approach advertisements for different product categories with different expectations. Therefore, the usage of visual metaphors in advertising in different industries might gain different results. For this research, Lithuanian milk industry was chosen as a research platform. As it can be observed in the Figure 1, the industry has been slightly growing each year since 2010.



Source: author's construction based on Statistics Lithuania (2015).

Fig. 1. Consumption of milk and milk products in Lithuania (kg per capita)

Although there are 31 milk processing plants in Lithuania, the five main dairy processors JSC Rokiskio Suris, JSC Pieno Zvaigzdes, JSC Zemaitijos Pienas, JSC Vilkyskiu Pienine and Marijampoles Pieno Konservai together process 93% of all milk purchased in Lithuania (Rucinski P., 2015). Therefore, advertising is considered as one of the core methods for convincing consumers to buy a brand.

2. Methodological background

In order to compare the effectiveness of advertisements with and without metaphors, the metaphor suitable for the milk advertisement was chosen, two milk advertisements (one with and one without the visual metaphor) were created and finally authors provided the questionnaire research.

The metaphor suitable for the milk advertisement was chosen after the content analysis of Lithuanian and foreign milk advertisements. The chosen metaphor contains the element of glasses of milk in the composition of teeth which cause consumers to understand that this element is white teeth. The bottle of milk is presented in the bottom of this advertisement. The same bottle of milk and only one glass of milk near the bottle are presented in the advertisement without visual metaphor. Latter two advertisements were used for the research.

The research was held in Lithuania in 2015. Only citizens of Lithuania could participate in the research. Authors applied simple random sampling method. The total amount of 200 questionnaires was distributed and 168 questionnaires were returned; 54 men and 114 women participated in the research.

The questionnaire was composed to reflect respondents' attitude toward the advertisements with and without visual metaphors, attitude toward products presented in the advertisements with and without visual metaphors and purchase intentions of the products advertised with and without visual metaphors. Attitudes were measured on semantic differential scale, thus revealing the strength and direction of a persons'

Jelgava, LLU ESAF, 21-22 April 2016, pp. 175-177 attitude toward the specific object. Seven point Likert scale was used to measure purchase intentions. Consequently, there were four main parts of the questionnaire: attitude toward the advertisement; attitude toward the product; purchase intentions; socio-demographic part (respondents were asked to identify their age and gender).

Consequently, the hypotheses were made that attitude toward the advertisement, attitude toward the product and purchase intentions of the product differ regarding advertisements with visual metaphor and without it.

IBM SPSS Statistics V.20 and XLSTAT 2014 software packages were applied for the statistical analysis.

3. Research results

The Wilcoxon Signed Ranks Test is applied (two dependent samples; non-normally distributed data) to assess the differences in attitude toward the advertisement, the attitude toward the product, and the purchase intentions when the product is presented in the advertisement with visual metaphor and without it. Test's results are presented in Table 1. As it could be seen, attitude toward the milk advertisements with visual metaphor and without visual metaphor differs statistically significantly ($p < 0.05$).

Table 1

Wilcoxon Signed Ranks Test

Variable	Advertisements	Z	p-value
Attitude toward advertisement	Ad with visual metaphor	3.056	0.002*
	Ad with no visual metaphor		
Attitude toward product	Ad with visual metaphor	0.650	0.515
	Ad with no visual metaphor		
Purchase intentions of the advertised product	Ad with visual metaphor	1.151	0.250
	Ad with no visual metaphor		

* $p < 0.05$

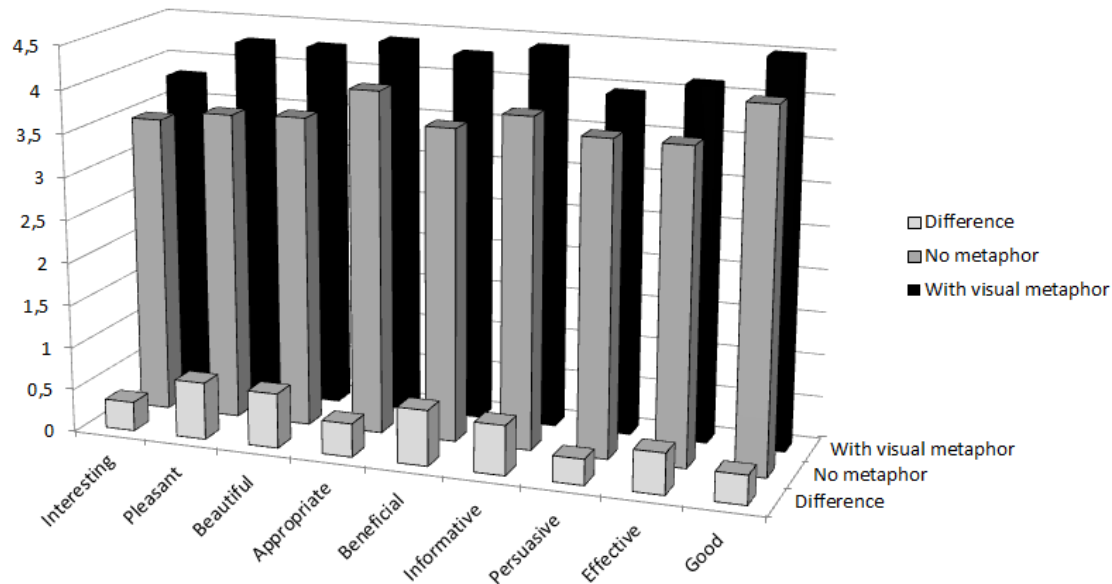
Source: author's elaboration.

The differences in attitude toward the product and purchase intentions of the product advertised

in advertisement with visual metaphor and without it are statistically non-significant.

Analyzing the attitude toward the advertisements in more detail, evaluations of the adjectives that represent the attitude are presented in Figure 2. As it could be seen, all of the adjectives are evaluated better for the advertisement with visual metaphor in comparison to the evaluations for the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 175-178 advertisement without visual metaphor. It could be stated that the advertisement with visual metaphor seems to be more pleasant, informative, beneficial and beautiful to the respondents than the advertisement without visual metaphor.



Source: author's elaboration.

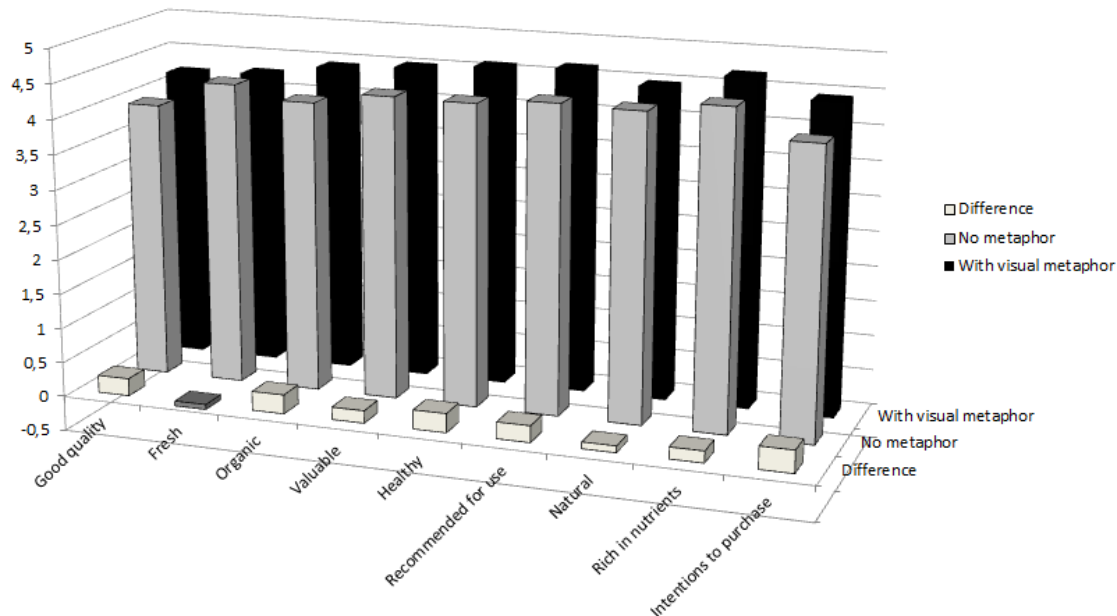
Fig. 2. Evaluations of attitude toward the ad with visual metaphor and attitude toward the ad with no visual metaphor

When analyzing the attitude toward the product presented in the two advertisements provided for the research, it could be seen that in almost all aspects (good quality, organic, valuable, healthy, recommended for use, natural, rich in nutrients) the product presented in the advertisement with visual metaphor is evaluated better (even though the differences are statistically non-significant) and only in one aspect (freshness) the product presented in the

advertisement without visual metaphor is evaluated better (Figure 3).

Moreover, intentions to purchase the product advertised in the advertisement with visual metaphor are higher (despite the fact that the difference is statistically non-significant).

Based on the research results it could be stated that visual metaphor in milk advertisement allows consumers to form the more positive attitude toward the advertisement.



Source: author's elaboration.

Fig. 3. Evaluations of attitude toward the product advertised in advertisement with visual metaphor and advertised in advertisement with no visual metaphor

In this research the difference in attitude toward the advertised products is statistically non-significant. Bearing in mind the fact that the product in this research contained no brand in order to eliminate the influence of respondents' already formed attitude toward known brands, it could be stated that this decision became the limitation of the research. Previous research (Grigaliunaite V., Pileliene L., 2015) confirmed that attitude toward the advertisement has a positive statistically significant influence on the attitude toward the brand, which in turn has a positive statistically significant influence on the purchase intentions.

The assumption could be made that the more positive attitude toward the advertisement elicited by the usage of visual metaphors can cause the more positive attitude toward the specific brand (not the product, as the research results revealed the attitude toward the products advertised in the advertisements with and without visual metaphor does not differ), and the more positive attitude toward the specific brand can cause higher purchase intentions of the specific brand, advertised with visual metaphor.

Conclusions, proposals, recommendations

- 1) The usage of visual metaphors in milk advertising indeed has a positive impact on its effectiveness. The analysis of the research results leads to the conclusion that visual metaphors in milk advertising allows consumers to form the more positive attitude toward the advertisement. Therefore, achieving to make milk advertisements more convincing, companies should use metaphors.
- 2) Visual metaphors in milk advertising do not form the more positive attitude toward the product and do not elicit higher purchase intentions of that product. It can be stated that on purpose to elicit milk consumption in general, companies (or even government) have to use other marketing measures. The assumption could be made that visual metaphors in milk advertising can form the more positive attitude toward the specific brand and elicit higher purchase intentions of that brand. Latter assumption becomes the direction for future research.
- 3) Based on the research results, the main guideline for creating milk advertising

campaigns which have higher possibility to become effective is to use visual metaphors and to emphasise the brand in the advertisement. Using visual metaphors and emphasising the brand in the advertisement could lead to the transfer of the more positive attitude to the advertisement to the more

Jelgava, LLU ESAF, 21-22 April 2016, pp. 175-180 positive attitude to the brand, which finally could lead to the higher purchase intentions of that specific brand.

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Bibliography

1. Chamblee, R., Gilmore, R., Thomas, G., & Soldow, G. (1993). When Copy Complexity Can Help Ad Readership. *Journal Of Advertising Research*, Volume 33, Issue3, pp. 23-28.
2. Eglite, A., Kunkulberga, D. (2015). Consumer Behaviour in the Bread Market in Latvia. *Proceedings of the 2015 International Conference "ECONOMIC SCIENCE FOR RURAL DEVELOPMENT"*, Volume 40, pp.72-82.
3. Gkiouzepas, L., Hogg, M. K. (2011). Articulating a New Framework for Visual Metaphors in Advertising. *Journal of Advertising*, Volume 40, Issue 1, pp. 103-120.
4. Grigaliunaite, V., Pileliene L. (2015). Determination of the Impact of Spokesperson on Advertising Effectiveness. *International Journal of Management, Accounting and Economics*, Volume 2, Number 8, pp. 810-822.
5. Jeong, S.-H. (2008) Visual Metaphor in Advertising: Is the Persuasive Effect Attributable to Visual Argumentation or Metaphorical Rhetoric? *Journal of Marketing Communications*, Volume 14, Issue1, pp. 59-73.
6. van Mulken, M., van Hooft, A., Nederstigt, U. (2014). Finding the Tipping Point: Visual Metaphor and Conceptual Complexity in Advertising. *Journal of Advertising*, Volume 43, Issue 4, pp. 333-343.
7. Phillips, B. J., & McQuarrie, E. F. (2004). Beyond Visual Metaphor: A New Typology of Visual Rhetoric in Advertising. *Marketing Theory*, Volume 4, Issues 1/2, pp. 113-136.
8. Proctor, T., Proctor, S., & Papasolomou, I. (2005). Visualizing the Metaphor. *Journal of Marketing Communications*, Volume 11, Issue 1, pp. 55-72.
9. Putrevu, S., Tan, J., & Lord, K. R. (2004). Consumer Responses to Complex Advertisements: The Moderating Role of Need for Cognition, Knowledge, and Gender. *Journal of Current Issues & Research In Advertising (CTC Press)*, Volume 26, Issue 1, pp. 9-24.
10. Rucinski, P. (2015). Lithuanian Dairy Industry Strongly Affected by the Russian Ban. Global Agricultural Information Network. Retrieved December 2, 2015, from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Lithuanian%20dairy%20industry%20strongly%20affected%20by%20the%20Russian%20ban._Warsaw_Lithuania_11-27-2015.pdf.
11. Statistics Lithuania (2015). Foodstuff consumption per capita. Retrieved December 2, 2015, from <http://osp.stat.gov.lt/en/statistiniu-rodikliu-analize?portletFormName=visualization&hash=bd1a2fd2-a868-4c86-b4e1-b6a8d2b7fa86>.

ADAPTATION OF INTERNATIONAL MARKETING COMMUNICATION MIX IN EXPORTER COMPANIES OF LATVIA

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Abstract. Developing an international marketing strategy, companies need to make decisions regarding communication adaptation to export market needs. According to the authors' previous research, successful export companies from small countries need to provide medium to high adaptation level for international marketing promotion plan. There are number of factors that influence choice of marketing tools in SMEs: cultural & geographical factors, economic development and legislation in target markets, selected route to market, target customer segments and particularly limited marketing budgets.

The article represents a research that empirically assesses the practices for adapting marketing communication strategies, particularly, the choice and efficiency of marketing tool mix in the largest Latvian exporter companies. The study also evaluates the factors of influence on marketing tool mix and reveals that companies from Latvia mostly use glocalization strategy in export markets.

Keywords: international marketing, marketing tools, export, adaptation.

JEL kods: M31

Introduction

The aim of the research is, based on international marketing strategy development conceptual study, to assess the adaptation practices of marketing communication strategies, particularly the choice and efficiency of marketing communication tool mix in the largest Latvian exporter companies. **The research object** is adaptation of international marketing communication strategy. **The tasks of the research** are to measure usage frequency of marketing tools in international marketing mix, to evaluate their efficiency, to explore the factors that influence choice of marketing tools and to draw conclusions on the adaptation of international communication strategies of Latvian exporter companies.

Over the course of the study, the practices for the adaptation of the international marketing communication strategies were assessed in the context of global academic research. The study is limited to the expert evaluation of a selected product category and specified export markets.

The research method applied is Expert survey of eight specifically invited marketing and exports managers from Latvian exporter companies, representing the following industries: dairy, confectionery, bakery and alcoholic beverages product production, pharmacology,

transport, IT services. Experts were selected among companies represented in "TOP 100 Best Exporting Brands from Latvia" – a research conducted by Latvian Chamber of Commerce and partners, identifying the largest and most visible export companies which comprise 20% of total export value in Latvia (Latvijas izcilako eksporta zīmolu petījums..., 2013). Out of ten selected experts six responded, thus, two other experts were invited providing wider scope of industries covered.

The most often specified export markets that were evaluated are: Russia, Lithuania, Estonia, the CIS countries, other EU countries, the USA and Israel. The Expert survey was conducted in May–November, 2015. Experts represented the following companies: SIA "NP Foods", A/S "Rīgas Piena Kombināts", SIA "Latvijas Piens", A/S "AirBaltic", SIA "ELVA Baltic", A/S "Grindeks", AS "Latvijas Balzams", SIA "Fazer Bakery Baltic". In the following compilation of the research results, these responses will be used only in a generalised form, without singling out any specific companies.

Research results present an assessment by experts on usage frequency of 12 export marketing communication tools (adapted from Keller K.L., 2001), using scale of four degrees: '0-never use, 1-rarely use, 2-often use, 3-always

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use'. The term marketing tools includes all marketing communication aids and activities. The same export marketing tools were also evaluated by experts on their perceived return, using scale of five points '1-low return, 5-very high return'. Six factors of influence on choice of export marketing tools were identified and evaluated by experts: cultural and geographical factors, legislation, customer segments, type of distribution and allocated marketing budget. Finally, experts chose among global, glocal and local communication strategies as mostly used in their companies.

The expert questionnaire was developed, taking into account the recommendation from Theodosiou M., Leonidou L. C. (2003), who have analysed a large number of empirical studies in the field of marketing standardisation and adaptation to focus the research on a specific product or a product line, instead of evaluating practices across the whole company.

Theoretical background

Communication is a major part of international marketing strategy. International or export marketing communication is cross cultural – communication between a person in one culture and a person or persons in another culture (Albaum G.S. et al 2005). Many studies discuss forces that drive adaptation or standardisation of international marketing strategies. The standardised advertising message may not always be suitable for all the segments of the market, as there are national differences, consumers' perception and knowledge about the product can differ, and so can differ the perception of the advantages of the product. The factors that prevent a full standardisation are related to the matters of translation, compliance with the regulations and the content of the message (Harris G., Attour S., 2003). Advertising standardisation can be used if such conditions apply: advertisement consists mainly of visual message; it features international celebrities,

Jelgava, LLU ESAF, 21-22 April 2016, pp. 181-182 well-known symbols and trademarks; music is important part of the communication (Doole I., Lowe R., 2008.). Small company managers often admit that they have achieved success in exports thanks to the adaptation of marketing communication for different markets. Small companies cannot achieve the economy of scale but are more flexible in adaptation (Stoian, 2010). Popular approach is for company to do some of both: go native and do as it does at home (Terpstra V., Russow L.C., 2000). Finding the right balance between standardisation and localization of marketing practices is called glocalization. Drivers of international marketing communications adaptation are the cultural differences. The cultural values have a significant effect on communication since they represent the most basic and core beliefs of society and these beliefs largely influence the communication patterns (Singh *et al* 2003).

Export marketing communication and promotion decisions can be reduced to: what message, which marketing tools, how much effort and money to spend. This article focuses on the choice of marketing tools in international promotion mix. The authors' previous studies show that promotion elements, including advertising, sales promotion, public relations, media channel allocation, personal selling have high adaptation level - 70% (100% means total adaptation and 0% – total standardization) (Batruga A., Puke I., 2014).

Public relations should be a part of communication mix for international companies, because positive publicity is very valuable – due to its independent nature, it is more credible than advertising. Multinational corporations frequently experience negative publicity. In general, there is a negative perception of multinational firm dominance and globalization (Lascu D.N., 2006), for example, McDonalds is constantly struggling with negative image questioning the quality of their food. General strategies for maximizing benefits of publicity in international markets are:

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to supplement ad campaigns with publicity campaigns, to provide high quality translations, to use publicity to attract new distributors and as a sales lead, to include detailed information in the press release (Walshak H.T., 1990).

Sales promotions are particularly effective if they are part of an integrated communications strategy. The customers' perception of the relative value of various promotions depends largely on their cultural values and differences, which lead to certain types of sales promotion being very successful in one country but failing in another (Doole I., Lowe R., 2008). Certain types of **POS advertising**, such as displays can be more standardized within international markets. They do not rely on words, so different language versions may not be necessary; they speak an international language by reinforcing logos and emphasizing brand image visually (Lascu D.N., 2006; Parker D., 1996). Research suggests that European and US consumers make more than 50% of their purchase decisions at the point-of-sale. Therefore, POS advertising expenditures constitute an increasingly higher percentage of overall promotional expenditures worldwide (Lascu D.N., 2006).

Along with growing internet sales and technology development, consumers no longer always buy in store. The point of sales is now where consumer is, and it could be anywhere. Consumers have started to involve their smartphones in shopping behaviour. Study has found that 55% of customers use their mobile phones when they are in a shop, with the majority (54%) using it to compare prices for an item online (Hathaway S., 2014). It has turned retailers into show-rooms: customers choose the item in store but buy online at a lower price. The purchase behaviour is changing for products that take longer decision making time, e.g. consumer electronics. For FMCG decisions still are mostly made in store and POS advertising can influence them. A study using eye tracking experiment found that in-store attention is limited and that

Jelgava, LLU ESAF, 21-22 April 2016, pp. 181-183 higher attention can increase consideration and choice for new brands (Chandon P. et al., 2009).

Direct (personal) **selling** is an important component of international marketing strategy, especially for business-to-business transactions. It involves face-to-face interaction between the seller and the buyer or buyers team (Lascu D.N., 2006), also direct contact via telephone or internet (Skype, social networks, online chats). Such interaction between the two parties will be affected by their national culture. The level of psychological overlap will vary across three dimensions: national character, organizational culture and individual personality (Kale S.H., Barnes J., 1992).

Above-the-line advertising is the most visible form of communication, as it involves high reach media: TV, radio, press and outdoor advertising etc. It is often considered the most important part of communication strategy for consumer products but is also the most expensive and for small country SMEs often remains an inaccessible communication channel. There are considerable differences among different ATL media channels, for that reason it is essential to obtain data about each media channel effectiveness in order to make informed decisions about international media plans (Doole I., Lowe R., 2008). Shift from online and offline media has been observed. In developed countries where households have access to multiple channels, traditional media as TV is losing audiences to internet media, particularly in younger age groups. Only 70% of 16-26 year olds watch TV at least once week, while in age group 27-65 year olds the share is 92% (TNS Emor survey, 2015). Moreover, TV advertising is losing attention, because people simultaneously use multiple screen devices – e.g. watching TV and browsing smartphone or tablet. Other forms of TV advertising can be used instead: product placement or sponsorship of programmes.

Press is media which in large countries is highly regionalized and mass marketers find it

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difficult to manage for national campaigns. It is easy to find circulation of national titles in small countries but high levels of readership of the press in country are still unusual (Doole I., Lowe R., 2008).

Some **websites** are clearly defined as marketplaces, other serve as part of corporate identity. Whichever is the company's aim, website should be adapted to target market country or at least speak its language. The global online population has now surpassed 3.3 billion users and more than 80% of these are not English speakers. While English is still the language with the highest penetration rate on the Internet, other language Web sites show much greater usage growth rates (internetworldstats.com, 2015). According to a survey across eight non-Anglophone nations, more than half of consumers buy only from Web sites that present information in their local language (DePalma et al., 2006). Extending online business success beyond the national level may require online marketing adaptation to the needs and wants of culturally different target populations (Bartikowski et al., 2015). Another survey found that more than 88% of Internet executives of multinational companies think website cultural adaptation is important or somewhat important to their company, and most of them see it as an important strategic priority (Singh N., 2012). A study of 47 international websites, using content analysis showed that international companies use glocalization strategies in depicting cultural values in their website content and appearance (Sutikno B., Cheng J.M.S., 2012). Within the context of web site content, glocalization refers to the consistency of underlying themes, structures, strategy and templates in the adopted approach but there is a local look and feel as far as execution of the web site promotion is concerned (Fletcher R., 2006).

Organisations use **email** to convey their **marketing** messages directly to their customers.

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The efficiency largely depends on the type of e-mail database – response rate will be higher if recipients are company's regular customers who have given permission to receive such e-mails. Open and click-through rates also vary across industries. E-mail open rates vary from 13.9% in 'Daily Deals/E-Coupons' to 27.9% in 'Art and Artists'. Click-through rates vary from 2 – 3.5% being the highest in 'Agriculture' and 'Food services' industries (<http://www.smartinsights.com/email-marketing>, accessed 20.12.2015).

While most organisations believe that integrated approach to marketing communication involving online and offline media is most effective, decision on a balance between spend on the two types poses a dilemma. Difference is that **internet marketing** effectiveness can be directly measured, making it easier to justify campaign spend. Although offline media impact on customer behaviour can be measured too, if the customer purchases offline, decisions might also depend on other influences (Doole I., Lowe R., 2008).

Research results and discussion

1. Export marketing communication tools – assessment of usage frequency and perceived efficiency in Latvian exporter companies.

The use of export marketing communication tools was assessed by experts in four degree evaluation scale (0-1-2-3), where '0' means 'never use' and '3' – 'always use'. According to the average evaluation of experts, the most frequently used export marketing tool is '**website in target country's language**' (2.5 degrees). This tool is used by every company represented in survey, disregarding the product or service specialization. Next most frequently used marketing tools are '**Point-of-sale advertising**' (2.1 degrees), which is used by all respondent companies except IT field, and '**Product catalogues**' (2 degrees).

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Above mentioned top three marketing tools are on average evaluated with 'high' perceived efficiency by experts (3.8 – 4.1 points in five point evaluation scale where '1' – means 'low return', '5' – 'very high return'). There is efficient 'usage-perceived return' relation for top three marketing tools – companies use them often and experience high return.

Often used marketing tools are also '**Social networks**' (1.8 degrees) and '**Product demonstrations/tastings at point-of-sales**' (1.8 degrees.) Social networks more or less frequently are used in every company disregarding the product or service specialization, however, the perceived return is evaluated as 'average'. The frequent usage of this tool can be explained with comparatively low costs and high availability. 'Product demonstrations and tastings' have earned the highest perceived return among all marketing tools in opinion of experts – 4.7 points. Direct contact with customer, offering engaging product experience, is the most effective way to introduce new products, particularly if the brand has low awareness. Unless it is a strong global brand, building awareness in export markets takes very high media investments which often cannot bring desired return in short period of time.

There are three rarely used (1.3-1.4 degrees) export marketing tools that have high perceived return: '**ATL advertising**' (4.2 points), '**Email marketing**' (3.5 points) and '**Direct selling**' (3.7 points). These tools could be advised for more frequent usage, however, high media costs are obvious obstacle for 'ATL advertising'. As admitted by most of experts – sufficient budget for communication is among largest challenges when they develop export communication plans. E-mail marketing can bring high return for companies, who sell on internet (e.g. travel services) and have database of regular customers, who are aware of company's brand and products.

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The least used export marketing tools according to expert survey are '**Direct mail**' (1.1 degrees) and '**Public relations**' (1.1 degrees). Direct mail also is evaluated as tool with the lowest return – 2.3 points. Half of respondents admit that they never use 'Direct mail' in their export communication plans, and experts perceived return evaluation is either low or average. 'Public relations' have average perceived efficiency (3.3 points) and together with '**Event marketing**' (3.3 points) can be advised for more frequent usage. Surely it takes a thorough target market culture, media and competitor context knowledge to execute successful PR and marketing events, therefore, such activities should be outsourced. As admitted by experts, understanding of local culture and communication specifics is one of key challenges they face in their tasks.

2. Determinants of export marketing communication mix in Latvian exporter companies.

Six factors of influence on export marketing mix were offered to experts assessment. As summarized in Table 2, all factors are influential, their values ranging between 4 and 5 in five point scale, where 1- 'no influence' and 5 'high influence'. The factor of highest influence is allocated to marketing budget.

Cultural and geographical factors have greater influence on companies that export to a number of different target markets and there is a large cultural and physical distance among home market and target markets. Experts from these companies have evaluated cultural and geographical factors with the highest score. Experts from companies, which export to more homogenous markets (e.g. CIS countries), assessed influence of these factors with average and low scores.

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Usage frequency and perceived efficiency of export marketing tools in Latvian exporter companies

Export marketing tools	Usage frequency		Perceived return (efficiency)	
	Degrees: never-0, rarely-1, often-2, always-3		Points: 1-low return, 5-very high return	
Website in the language of export target country	2.5	Often/Always	4.1	High
Point-of-sale advertising (posters, wobblers etc.)	2.1	Often	3.9	High
Product catalogues	2.0	Often	3.8	High
Social networks	1.8	Often	3.0	Average
Product demonstrations/tastings at point-of-sales	1.8	Often	4.7	Very high
Internet marketing (Google, SEO)	1.4	Rarely	3.0	Average
ATL advertising - TV/radio/press/outdoor	1.4	Rarely	4.2	High
E-mail marketing	1.3	Rarely	3.5	High
Direct selling	1.3	Rarely	3.7	High
Event marketing	1.3	Rarely	3.3	Average
Direct mail	1.1	Rarely	2.3	Low
Public relations	1.1	Rarely	3.3	Average

Source: authors' calculations based on the Expert survey conducted in May-November 2015

Table 2

Factors of influence on export marketing mix in Latvian exporter companies

Factors that influence export marketing mix	1 point – 'no influence', 5 points – 'strong influence'.
Marketing budget	4.71
Cultural factors	4.38
Geographic region	4.25
Diverse customer segments	4.14
Distribution channel	4.14
Legislation factors	4.13

Source: authors' calculations based on the Expert survey conducted in May-November 2015

3. Glocalization of international communication strategies in Latvian exporter companies.

As summarized in Table 3, experts assessment proves that various degrees of international communication strategy adaptation are used in Latvian export companies. Most of experts incline towards glocal or local strategy –

in 78% cases. None of experts admit usage of glocal strategy type, where product is adapted but message standardized. It shows that message is easier to adapt than product. Experts in 22% cases admit use of global strategy – standardized product and message – this derives from companies exporting to wide range of different markets, e.g. China, the USA, Russia.

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**International communication strategy adaptation practices
in Latvian exporter companies**

International communication strategy type	% of strategy application cases
Global strategy - standardized product, standardized message	22
Glocal strategy – standardized product, adapted message	44
Glocal strategy – adapted product, standardized message	0
Local strategy - adapted product, adapted message	33

Source: authors' calculations based on the Expert survey conducted in May-November 2015

Conclusions, proposals, recommendations

1) Top three most popular export marketing communication tools used in export companies in Latvia are: 'web-site in target country's' language' (2.5 degrees), 'POS advertising' (2.1 degrees) and 'product catalogues' (2 degrees). Top tools also have high perceived efficiency as evaluated by experts (3.8-4.1 points). Companies use them frequently and experience high return.

2) Marketing tool with the highest perceived efficiency is 'product demonstrations/tastings at point-of-sales' (4.7 degrees). However, its usage is only average (1.8 points). It shows usage-efficiency gap, and companies could use this tool more often.

3) There are three rarely used (1.3-1.4 degrees) export marketing tools that have high perceived efficiency: 'ATL advertising' (4.2 points), 'Email marketing' (3.5 points) and 'Direct selling' (3.7 points). These tools could be advised to use more frequently;

however, companies may face budget and product specific obstacles.

4) There are six influential factors on export marketing communication mix. Perceived influence rate according to experts assessment varies from 4.7 to 4.1 points: marketing budget, cultural factors, geographic region, diverse customer segments, distribution channel, legislation factors. Influence of cultural and geographic factors is lower, if companies export to homogenous markets.

5) Research reveals that various degrees of communication strategy adaptation are used in Latvian export companies. However, in most cases (78%) experts admit usage of glocalized or localized strategy. In 22% of cases companies in Latvia use global strategy, especially in companies that export the same product to countries of great cultural differences, e.g. China, the USA, Russia. It shows that global brands can derive also from small markets.

Bibliography

1. Albaum, G.S., Duerr, E., Strandkov, J. (2005). *International Marketing and Export Management*. England: Pearson Education Limited. p.29.
2. Bartikowski, B., Singh, N., Merunka, D., (2015). Conceptualizing Effects of Cultural Web Site Adaptation on Consumers' Online Trust. *Proceedings of the 2008 Academy of Marketing Science (AMS) Annual Conference*. Switzerland: Springer International Publishing. p. 46.
3. Batraga, A., Puke, I., (2014). Integrating Standardisation/Adaptation in International Marketing Strategies: Companies in Latvia. *Proceedings of Conference No 40 "Economic Science for Rural Development*. [online] Available at: <<http://www.esaf.llu.lv/getfile.php?id=1163>> [Accessed 04 January 2016]
4. Chandon, P., Hutchinson, J.W., Bradlow, E., Young, S., (2009). Does In-Store Marketing Work? Effects of the Number and Position of Shelf Facings on Brand Attention and Evaluation at the Point of Purchase. *Journal of Marketing*, Vol.73, pp. 1-17.
5. DePalma, D. A., Sargent, B. B., Beninatto, R. S. (2006). Can't Read, Won't Buy: Why Language Matters on Global Websites. *An International Survey of Global Consumer Buying Preferences*. [online] Available at: <http://c.yimcdn.com/sites/www.archbright.com/resource/resmgr/NWDLResources/4_Can't_Read_Won't_Buy_0609.pdf> [Accessed 20 Dec 2015]

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6. Doole, I., Lowe, R., (2008). *International Marketing Strategy*. England: Cengage Learning. pp. 314-315.
7. Email Marketing Statistics. (2015). [online] Available at: <Error! Hyperlink reference not valid.> [Accessed 20 December 2015]
8. Fletcher, R., (2006). The Impact of Culture on Web Site Content, Design, and Structure: An International and a Multicultural Perspective. *Journal of Communication Management*, Vol. 10 Issue 3, pp.259 – 273.
9. Harris, G., Attour, S., (2003). International Advertising Practices of Multinational Companies, *European Journal of Marketing*, Vol.37, p.157.
10. Hathaway, S., (2014). The Point of Purchase Is Wherever the Consumer Is, So What Is the Future for Shopper Marketing? *Journal of Brand Strategy*. Vol. 3, pp. 139-147.
11. Internet Usage Population and Statistics. [online] Available at: <<http://www.internetworldstats.com/stats.htm>> [Accessed 20 December 2015]
12. Kale, S. H., Barnes, J., (1992). Understanding the Domain of Cross-National Buyer-Seller Interactions. *Journal of International Business Studies*, Vol.23, pp.101-131.
13. Keller, K.L., (2001). Mastering the Marketing Communications Mix: Micro and Macro Perspectives on Integrated Marketing Communication Programs. *Journal of Marketing Management*, Vol.17, pp. 819-847.
14. Lascu, D.N., (2006). *International Marketing*. USA: Atomic Dog Publishing. p. 299-322.
15. Latvijas Izcilako Eksporta Zimolu Petijums 'The Red Jackets' (Best Exporting Brands from Latvia). (2013). [online] Available at: <http://www.theredjackets.lv/files/trj_2013_petijums_cbbb4.pdf> [Accessed 21 December 2015]
16. Parker, D., (1996). Popular Choice. *Marketing Week*, Vol.19, pp. 39-40.
17. Singh, N., (2012). *Localization Strategies for Global E-Business*. UK: Cambridge University Press. p.22.
18. Singh, N., Zhao, H., Hu, X., (2003). Analyzing the Cultural Content of Web Sites: A Cross National Comparison of China, India, Japan, and US. *International Marketing Review*, Vol. 22, pp.129-146.
19. Stoian, M. C., (2010). Export Behaviour, International Marketing Strategy and Export Performance in Spanish Small and Medium Sized Enterprises, *Doctoral Thesis*. [online] Available at: <<http://www.tdx.cat/bitstream/handle/10803/3979/mcs1de1.pdf;jsessionid=02FB865A783B59B29EEDD0927140D362.tdx2?sequence=1>> [Accessed 05 January 2015]
20. Sutikno, B., Cheng, J.M.S., (2012). How Global Companies Communicate in Host Country: a Glocalization Strategy in Web Space. *Asian Journal of Communication*, Vol. 22, pp. 58-77.
21. Terpstra, V., Russow, L.C., (2000). *International Dimensions of Marketing*. Canada: South-Western College Publishing. p.9.
22. Theodosiou, M., Leonidou, L. C., (2003). Standardisation Versus Adaptation of International Marketing Strategy: an Integrative Assessment of the Empirical Research, *International Business Review*, Volume 12, pp. 141-171.
23. TNS Emor Survey. (2015).
24. Walshak, H.T., (1990). Publicity Is a Must for International Marketers. *Marketing News*, Vol.24. p.14.

CONSUMER SATISFACTION AND LOYALTY MODEL ON THE INTERNET TRADE MARKET

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Abstract. In buying process a consumer uses different customer cards which provide additional discounts, accrue bonuses or allow using special offers. The situation is mostly formed in the traditional market where customer's satisfaction and loyalty are important to companies. However, the modern consumer wants to use available resources as efficiently as possible, so the use of online stores is becoming more and more popular. Moreover, the Internet is changing consumer satisfaction and loyalty role and model. In online trading there are no possibilities to influence consumers by personal service and there is a necessity to adapt to technological opportunities.

The purpose of this research is to study customer satisfaction and loyalty in the Internet trade market and to develop a conceptual loyalty model.

Research methods are: the study and analysis of scientific literature on the topic, consumer survey and its statistical analysis.

In the process of the research the consumer loyalty model on the Internet trade market was construct, which is based on the study and analysis of theoretical literature and respondents' answers about using online stores. People from different Latvian cities participated in the survey. The analysis of the results shows the main differences of loyalty model between the traditional and online trading markets. The research results can be used in practice to develop interaction with consumers in Latvian online trading market.

Key words: customer loyalty, customer satisfaction, internet trade market

JEL code: M300 Marketing and Advertising: General

Introduction

In this article, the author analysed and evaluated customer satisfaction and loyalty on the Internet trade market. After its evaluation, the author offered loyalty model transformation, which reflects loyalty on online trading. This topic is becoming more and more popular every year because of the growing number of users of online trading in Latvia.

The author puts forward the following hypotheses:

H1: Consumer loyalty to online stores is affected by such components as trust and satisfaction.

H2: Consumers evaluate product quality lower than delivery quality on the online trade market.

H3: Consumers use mostly foreign online stores.

The aim of this research is to study customer satisfaction and loyalty on the Internet trade market and to develop the conceptual loyalty model.

The main objectives of the research are to compare consumer loyalty model on the traditional trade market and Internet trading by

analysing scientific literature and analysing consumer survey.

Research methods are: the study and analysis of scientific literature on the topic, consumer survey and its statistical analysis.

The loyalty model development of online stores is topical and the novelty lies in the fact that consumers buy more in foreign stores but loyalty to online Latvian stores, which can be used by local companies, has not been investigated yet.

Research results and discussion

The number of consumers who use online stores is increasing every year, and 71% of Latvian internet users are involved in online shopping, which is by 4 percentage points more than in 2013. As it is shown in Gemius data, people aged between 25 and 34 are more active in online trading; women do that more often and act as professionals or office workers (KursorsLv, 2014). After analysing the latest statistics of Citadele Bank, it can be concluded that the number of transactions into foreign online shops increased by 42%, and into Latvian shops - by 9 percentage more in 2013 than in 2014 (Haka,

2015 [6]). In spite of the fact that in Latvia the popularity of online stores is growing, consumers do most shopping in foreign online stores. Among the Baltic States, Latvia takes the second place in terms of the percentage of people who are aged between 16 and 74 and who get the goods or services on the Internet (Latvian Internet Association, 2014).

By gathering and analysing the available information, the author can conclude that in Latvia it is necessary to promote local online stores and to increase consumer loyalty. However, before that it is important to study how loyalty in the traditional market differs from loyalty in the internet environment.

Table 1

People purchasing goods or services online (aged 16-74) %

Country	Residents, %
Latvia	33.5
Estonia	48.6
Lithuania	26.0

Source: Latvian Internet Association E-Commerce Statistics, 2014

1. Consumer satisfaction peculiarities of Internet marketing

Consumer satisfaction is a necessary component in any company where the customer is of great importance. The author underlines that consumer satisfaction is one of the main aims of the company, which means long-term commitment.

Literature gives various definitions of satisfaction. In 1997, Richard L. Oliver (Pires, Stanton, 2005) defined that satisfaction is a psychological set of results when the emotional environment provides hope realization higher than previous experience. By contrast, satisfaction can be described as the most important source of competitive advantage that as a result improves consumer loyalty and promotes the re-purchase (Levin, 2009).

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The author accepts both explanations, because one shows formation process of satisfaction, while the second one points to the result. Of course, speaking about satisfaction it is necessary to say about competitive development and long-term work with the consumer because of the importance to work with consumer behaviour in the market not only during the buying process but also afterwards.

In using the online trade market, it is essential to satisfy consumers directly in the online dimension. Having studied several theories in the article (Udo, Bagchi, Kirs, 2010), it can be stated that quality variability can be found in three main dimensions - information quality, system quality and product quality. They have determined that these dimensions affect directly customer satisfaction in online trading. Each dimension can create their own factors, for example, service quality can consist of five dimensions: intangible value, trust, responsibility, guaranty and empathy. The author agrees with such division but considers that such dimension as work speed could be added to service quality, because it is important for a consumer not only to use a nice-looking website that has been used for a long time where there are certain guarantees and a good attitude towards him but also where all the issues are dealt promptly and efficiently. Moreover, discussing the quality, the author points out the idea of adding delivery quality as nowadays there is a wide choice of different shipping methods which may differ by speed, price and locations, that is why delivery quality is an essential quality dimension. In 2014 there was a significant increase in complaints to the Latvian Post due to the rapid growth of Internet trading and the main reasons for complaints were cross-border correspondence delivery (mainly in small packages)- delivery with lack or damaged contents, delivery delays and indication of incorrect (incomplete) address (Haka, 2015[8]). These factors indicate that the quality of delivery

to the consumer is important and it is necessary to be improved.

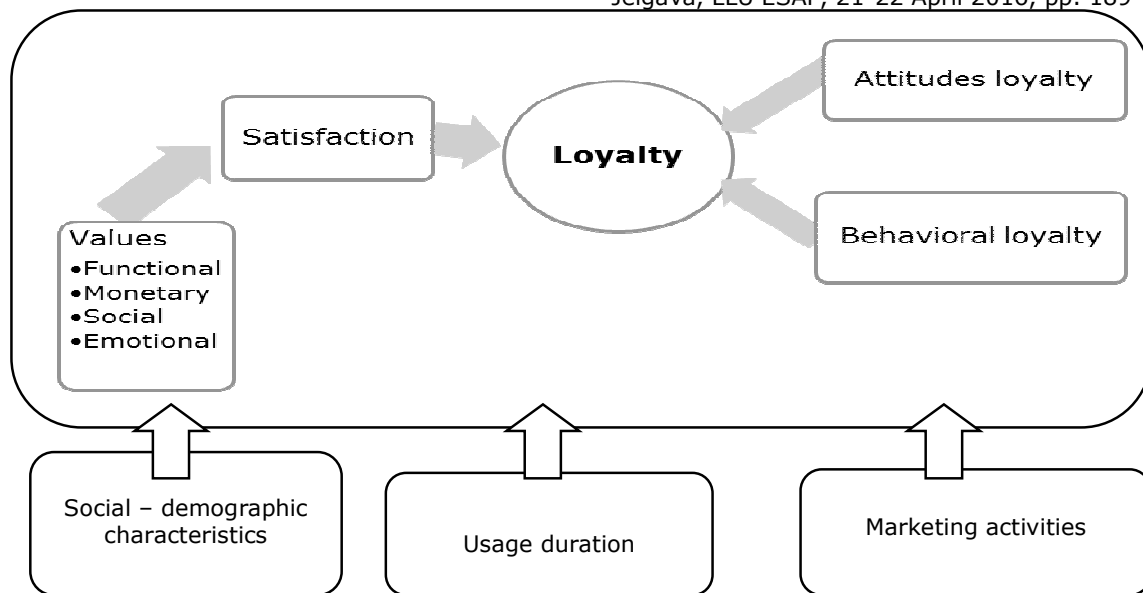
The author would like to state that the online buying process is different from the traditional one (Cartwright, 2000). It can be divided in three stages – the stage before the purchase, the online purchase stage and the after-sales stage (Subramanian, Gunasekaran, Yu, Cheng, Ning, 2014). These stages are similar to the traditional trading but have their differences and peculiarities. The stage, which is prior to the purchase, directs the consumer to buy goods or services at a particular seller based on the availability of information on the website. The online purchase stage should be easy and understandable to the consumer so the consumer can choose simply the method of payment, be sure that the money from the credit card will go where it is needed to go. Remote payments by using credit cards and the phone have been greatly increased on the Internet (virtual terminals). Such payments have been increased by 69% and the volume - 2.1 times. In 2014, remote card payments accounted for 21.2% of card payments in terms of number and 22.4% - in volume terms (in 2013 - 15.8% and 12.5%), as consumers started to use opportunities offered by e-commerce, including purchases in online stores (Haka, 2015[7]). The after-sales stage associated with delivery in time (as it was informed to the consumer before), the product is the same as it was described and shown in the picture, and if necessary, the product is exchanged and the consumer's problem is quickly solved. If all these stages are done in time qualitatively, then the consumer will feel satisfaction and will desire to use a particular

Jelgava, LLU ESAF, 21-22 April 2016, pp. 189-191 online store again, which will increase the loyalty level to the Internet trade market or to the specific shop.

2. Loyalty specifics of Internet marketing

Although consumer satisfaction is only explained as repeated purchase (re-purchase) in different definitions, the author wants to underline that it is not like that (Hoffmann, 2013). Loyalty is the unity of interaction and behavioural and attitudinal components, as shown in Figure 1, the model designed by the author from research made in early 2015 which was conducted within the master's thesis (Radionova, 2015). In turn, loyalty influences directly customer satisfaction (Audrain-Pontevia, N'Goala, Poncin, 2013), which may be affected by different values such as functional, social and emotional values and the value of money. The developed model points out that there are also factors that can influence consumer loyalty from outside, such as socio-demographic, usage duration, a variety of marketing activities. The analysis of loyalty models showed that satisfaction is the general impact factor to loyalty (Christodoulides, Michaelidou, 2011). The model can be used in general but each sector has its own characteristics and, of course, the Internet trade market has its own specific features that allow modifying the specific model and applying it to online stores.

Working with consumers on the Internet, there is a necessity to find a special approach and communication that could be integrated into this environment (Kotler, 2014). Three approaches are mentioned in different sources to increase consumer loyalty in the Internet world (Yi, 2103):



Source: Authors created model based on Radionova, 2015

Fig. 1. Consumer loyalty model

- professional approach - in terms of traditional marketing it means professional services associated with direct service and staff skills. The quality of provided information and service is important to consumer (Chang, Chen, 2008). It is honesty, while selling products on the Internet only best pictures should be displayed and a good description should be provided; the prices should be up to date. If there are any failures and getting the product the consumer sees that the product and the picture are two different things in real life, then there is no doubt that consumer returns it immediately. The same is connected to prices – some online shops do not count the full price with delivery and other options and when consumer start to pay the price increase. In this case, the consumer often refuses from the purchase and is looking for other alternatives. All provided information should be trustable and easy to use (Labrecque, Esche, Mathwick, Novak, Hofacker, 2013);
- interaction with consumers - it is possible to leave feedbacks in the virtual environment - both positive and negative. Without a doubt, even the best online shop cannot get only positive feedbacks. It should not be forgotten

that that reviews are written by people and psychological factors also should be taken into account. It is necessary to deal with any review very quickly. It is interaction with the consumer and requires a two-way communication in order to build a sustainable relationship with the consumer, which increase trust and satisfaction as well (McCole, Ramsey, Williams, 2010). Therefore, it is necessary to interact with the consumer kindly and with understanding and respect (Ivanov, 2012); in case of any problems that may be arisen there need to be find a solution to satisfy consumer. There should be a possibility to return the product, refund etc. In any situation it is essential to demonstrate that the consumer is important and that you care about him. Besides there is the necessity to ensure a convenient buying process (Andrews, Bianchi, 2013), delivery and billing processes. In short, the process of purchasing the product should provide the consumer with satisfaction and comfort (Martínez-López, Pla-García, Gázquez-Abad, Rodríguez-Ardura, 2014);

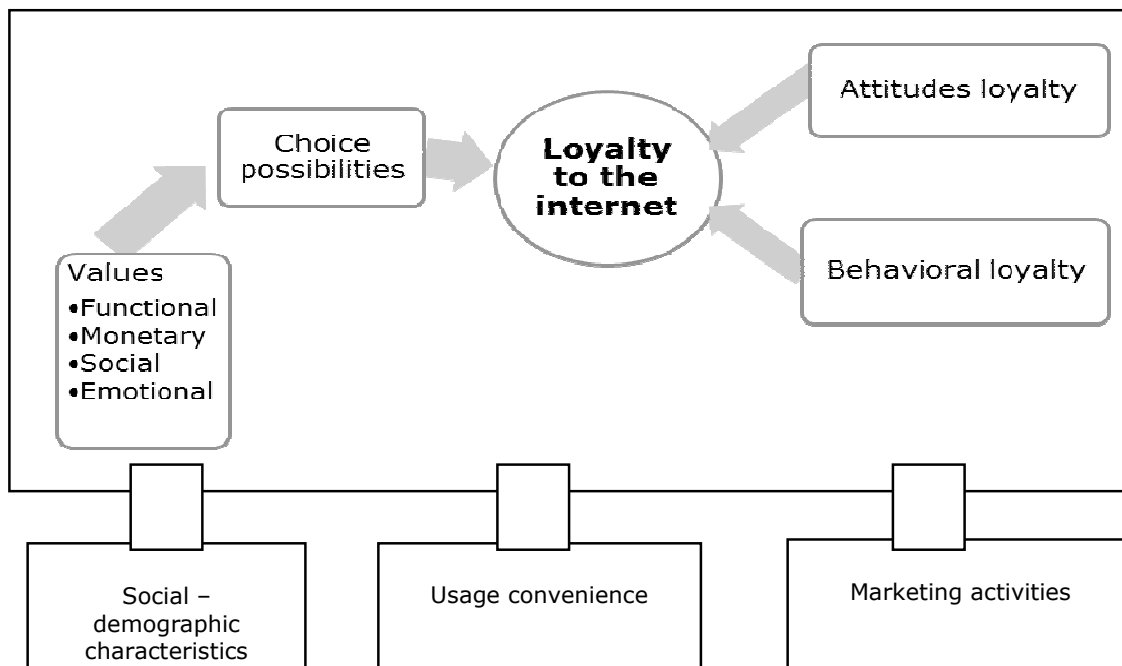
- stimulation – it is impossible to forget that any internet store wants to make a profit, which means that the consumer is more likely

to be motivated to visit the website and make as many purchases as he can. A variety of promotions and discounts motivate consumers to buy products very well (Sewell, Brown, 2002). Sometimes such actions are coordinated with traditional stores if the company has both stores in traditional and internet environments. Loyalty programmes become topical and stimulate to buy in a particular online store in order to accrue bonus points, to get free delivery, discounts or various gifts etc (Ткачев, 2015). A personal approach to each customer is important too, such as a thank-you letter, holiday greetings, faster delivery etc. After such service the consumer wants to share his positive experience with either his friends or acquaintances, or in social networks and blogs, or elsewhere, thus, creating a positive impression about the company.

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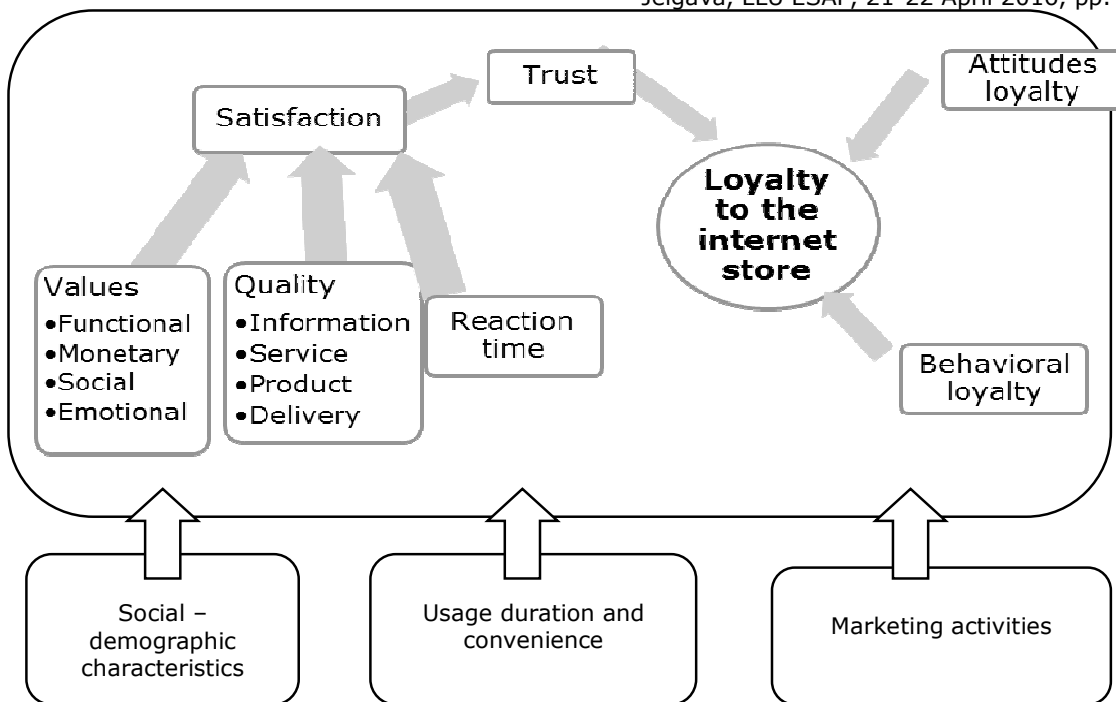
After having analysed the theoretical part, the author has modified and adapted consumer loyalty model to the internet environment (Figure 2.) and to the internet trade market (online store) (Figure 3.).

The models developed by the author point out that the loyalty building process on the internet and in particular online stores is more complicated process than it is considered to be, because it is affected by several factors. In this case, it is necessary to mention repeated purchases (re-purchases), which will appear in case of the high level of trust, which affects satisfaction. The author would like to single out that the chosen opportunities are what make the difference in loyalty to the traditional market and to the online market. While on the internet it is much faster to find required products, also to find a product that is not available in a traditional store, so foreign stores are more popular than local ones in Latvia.



Source: Authors created model based on Radionova, 2015

Fig. 2. Consumer loyalty model to the internet



Source: Authors created model based on Radionova, 2015

Fig. 3. Consumer loyalty model to the internet store

3. Consumers satisfaction and loyalty measurement of internet trade market

The author discusses the results based upon the questionnaire presented to 319 respondents who answered the questions. The research is still continuing to obtain the data from over several years and to compare the changes that take place over time, so today there are only interim results.

After having analysed the results, it can be concluded that the consumers use internet-trading services at least once a month – 57,37% of respondents. 10.66% and 2.19% of the respondents use the internet shops once a week and a couple times a week. 15.36% of respondents use internet trading only a few times a year, while 14.42% do not use it at all. Most of respondents (43.57%) give preference to foreign stores. 24.76% respondents use both foreign and Latvian internet market services and only 10.66% use only Latvian internet shops. In contrast, 4% of respondents are not interested in what country and in which internet shop to make

purchases and 6.58% of respondents do not buy online at all. That situation can be explained by the fact that foreign consumers can buy any product by a low price, with a good and free delivery and from a wider assortment. In online stores such as ebay.com, alibaba.com, aliexpress.com etc. consumers choose products from different sellers, gathering thousands of offers in one place. Respondents (23.08%) answered that the most important factors for re-purchase are delivery opportunities and quality; 18.68% stated that it is product variety, 17.22% presented offer price, 16.48% - delivery price, 10.62% - quality of products, 8.06% - offered brand and 5.86% - service quality. The author would like to point out that sometimes foreign online stores do not deliver products to Latvia or delivery cost is high and the delivery duration is too long, so this is becoming an important factor for consumers. The internet trade market service quality as the factor for repeated purchases has been used least of all, this can be explained by the fact that communication with the seller is rare and it is not also popular for customers.

Internet sellers should expand their territorial delivery options and the range of products; that could not only attract new customers but also promote existing consumer satisfaction and loyalty.

Conclusions, proposals, recommendations

1) Consumer satisfaction of the Internet trade market affects the quality, which can be divided into four dimensions, such as quality of information, service quality, product quality, delivery quality. Satisfaction causes customer loyalty, so the traders in both markets should focus on the quality in all dimensions, for that purpose different customer research can be made to evaluate not only the satisfaction and loyalty, but also to find reason of results.

2) Online purchase process consists of three stages - pre-purchase stage, the online purchase stage, after-sales stage. On the first stage the consumer is directed to a specific website to a specific seller / shop. The second stage is when the customer is provided with full information and secure purchase via the Internet. The third stage is quick delivery to the buyer and the product should fully coincide with the information provided by the seller, and feedback should be provided to express gratitude or complaints, to evaluate the service, to return a purchase or ask questions. While interacting with consumers, sellers need to specify full and appropriate information that will not confuse consumers, increasing not only satisfaction but also trust to the seller. After that process, it is necessary for sellers to react as quickly as it is possible to increase trust that influences satisfaction and loyalty.

3) Professional skills, interaction with consumers and consumer stimulation can be used to increase consumer loyalty in the Internet environment. The formation of loyalty to the Internet and Internet stores are

Jelgava, LLU ESAF, 21-22 April 2016, pp. 189-195 influenced by such factors as opportunities, quality (in all dimensions), reaction time, usage duration and convenience. Internet traders have to expand their territorial delivery options and the range of products; it could not only attract new customers but also promote existing consumer satisfaction and loyalty. Because of the big number of other sellers and opportunities of Internet sellers need to find the most efficient way of communication with consumer to make long - term relation with consumer.

4) H1, H2, H3- proved. All hypothesis were proved. H1 - theoretical background - consumer loyalty to online store is affected by trust and satisfaction components. H2 -by the survey results consumers evaluate the quality of products lower (10.62%) than the quality of supply (23.08%) of the Internet trade market. H3 - 43.57% of respondents use only foreign online storesThe results showed that consumers in Latvia are not loyal to the local online stores. To improve the situation the sellers need to analyse what consumers like in foreign stores and improve the communication by make changes in all quality dimensions which will increase the satisfaction and the level of trust.

5) It is recommended to react on different situations as soon as possible and rise the all quality dimensions in case to satisfy consumers and increase the level of efficient communication with customers. That helps to increase the level of loyalty both to product and seller.

Bibliography

1. Andrews L., Bianchi C. 2013. Consumer Internet Purchasing Behavior In Chile. In *Journal of Business Research* 66, 1791–1799
2. Audrain-Pontevia A.F., N'Goala G., Poncin I. 2013. A Good Deal Online: The Impacts Of Acquisition And Transaction Value On E-Satisfaction And E-Loyalty. In *Journal of Retailing and Consumer Services* 20, 445–452
3. Cartwright R.I. 2000. *Mastering Customer relations*. Published by Palgrave Macmillan.
4. Chang H. H., Chen S. W. 2008. The Impact Of Customer Interface Quality, Satisfaction And Switching Costs On E-Loyalty: Internet Experience As A Moderator. *Computers in Human Behavior* 24, 2927–2944
5. Christodoulides G., Michaelidou N. 2011. Shopping Motives As Antecedents Of E-Satisfaction And E-Loyalty. In *Journal of Marketing Management* Vol. 27, Nos. 1–2, 181–197
6. Haka Z. 2015. Strauji aug interneta tirdznieciba; vairak ieperkas arvalstu interneta veikalos (Haka Z., The Increase Of Internet Trading; Buying More In Foreign Online Stores) Retrieved: <http://www.db.lv/tirdznieciba/strauji-aug-interneta-tirdznieciba-vairak-ieperkas-arvalstu-veikalos-426351> Access: 15.12.2015.
7. Haka Z. 2015. Vienam Latvijas iedzivotajam ir videji divi norekinu konti (Haka Z., The Latvian Resident Has Average Two Accounts) Retrieved: <http://www.db.lv/finanses/vienam-latvijas-iedzivotajam-videji-ir-divi-norekinu-konti-431950> Access: 17.12.2015.
8. Haka Z. 2015. Visvairak sudzas par tradicionala pasta pakalpojumiem (2015) (Haka Z., The Most Complaint About The Traditional Post Services) Retrieved: <http://www.db.lv/tirdznieciba/visvairak-sudzas-par-tradicionala-pasta-pakalpojumiem-430054> Access: 16.12.2015.
9. Hoffmann, N. 2013. Loyalty Schemes In Retailing : A Comparison Of Stand-Alone And Multi-Partner Programs Frankfurt: *Peter Lang AG*.
10. Ivanov A. E. 2012. The Internet's Impact On Integrated Marketing Communication. *Procedia Economics and Finance* 3, 536 – 542
11. Kotler P. 2014. Kotler On Marketing: How To Create, Win, And Dominate Markets, Free Press
12. KursorsLV. 2014. Interneta ieperkas jau 71% Latvijas interneta lietotaju Technology blog Kursors.lv, (KursorsLV, 71% Of The Latvian Internet Users Already Buy Online) Retrieved: <http://kursors.lv/2014/08/03/interneta-ieperkas-jau-71-latvijas-interneta-lietotaju/> Access: 16.12.2015.
13. Labrecque L. I., Esche J., Mathwick C., Novak T. P., Hofacker C. F. 2013. Consumer Power: Evolution In The Digital Age. *Journal of Interactive Marketing* 27, 257–269
14. Latvian Internet Association. 2014. Statistika e-komercija (Latvian Internet Association, E – Commerce Statistics) Retrieved: <http://www.lia.lv/ekomercija/> Access: 15.12.2015.
15. Levin E.C. 2009. A Conceptual Framework For Modelling The Antecedents Of Client Loyalty In The Advertising Industry Context. In *Proceedings of Australian & New Zealand Marketing Academy Conference, Melbourne Australia*
16. Martínez-López F. J., Pla-García C., Gázquez-Abad J. C., Rodríguez-Ardura I. 2014. Utilitarian Motivations In Online Consumption: Dimensional Structure And Scales. *Electronic Commerce Research and Applications* 13, 188–204
17. McCole P., Ramsey E., Williams J. 2010. Trust Considerations On Attitudes Towards Online Purchasing: The Moderating Effect Of Privacy And Security Concerns. *Journal of Business Research* 63, 1018–1024
18. Pires G.D., Stanton J.P. 2005. *Ethnic Marketing*. First edition, Thomson Learning
19. Radionova E. 2015. *Klientu lojalitates izvertesana un analize*, GlobeEdit (Radionova E., Customer Loyalty Evaluation And Analysis, GlobeEdit, 2015)
20. Sewell C., Brown P.B. 2002. *Customers For Life: How To Turn That One-Time Buyer Into A Lifetime Customer*, Crown Business; Revised edition
21. Submarian N., Gunasekaran A., Yu J., Cheng J., Ning K. 2014. Customer Satisfaction And Competitiveness In The Chinese E-Retailing: Structural Equation Modeling (SEM) Approach To Identify The Role Of Quality Factors. In *Expert Systems with Applications* 41, 69 -80
22. Udo G. J., Bagchi K. K., Kirs P. J. 2010. An Assessment Of Customers' E-Service Quality Perception, Satisfaction And Intention. In *International Journal of Information Management* 30, 481-492
23. Yi J. 2013. 3 Simple Strategies To Increase Customer Retention, Ecommerce Rules Retrieved: <http://ecommercerules.com/3-simple-strategies-increase-customer-retention/> Access: 18.12.2015.
24. Ткачев С.С. 2015. *Дисконтные системы: внедряем и развиваем*. Ростов н/Д: Феникс (Tkachev S.S. Discount Systems: Introduce And Develop. Rostov n/D: Feniks, 2015)

DETECTING MONOPOLISATION TENDENCIES IN THE CONTEXT OF MODERN BUSINESS CYCLES: A QUANTITATIVE PERSPECTIVE

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Abstract. The research "Detecting monopolisation tendencies in the context of modern business cycles: a quantitative perspective" provides a multi-perspective in-depth description of the nature, the occurrence sources, the development procedure and the internal conjuncture specifics of the present day monopolisation process as well as provides an example of modern econometrical method application within a unified framework of market competition analysis for the purpose of conducting a quantitative competition evaluation on an industry – level, resulting in applicable outcomes, suited for both private and public actors in terms of investment/business activity strategic analysis for the former and policy/regulatory action planning for the latter. The main scope of the aforementioned research is devoted to developing and further enhancement of monopolistic tendencies' detecting and quantitative analysis practices, while simultaneously considering the broader context of macroeconomic volatility and the corrective market effect, occurring within various stages of business cycle development. The introduced methodology shall be structured in a coherently – comprehensive manner, enabling a constituent analysis of a possibly monopolistic market trend, followed by a corrective adjustment of the acquired result by crucial secondary influence factors, deriving from the conjuncture specifics of competition in the relevant market and the empirical consequences, which are rooting from the current stage of respective industry's business cycle maturity. The current research employs a system of economic situation – reflecting ratios, based of authentic calculations, conducted within the framework of the relevant industry's structural conjuncture analysis, while projecting the acquired corrective coefficient on the competitive situation in the evaluated market, described through the prism of market power distribution between the involved supply – side actors.

Key words: monopolisation process, market power distribution, business cycle, competitive environment, competition development trends.

JEL code: D42, D43, D47, D52, E32.

Introduction

With the vast development of modern business practices and the advent of the globalised trade system, numerous formerly unquestioned and unchallenged visions of the economy functioning paradigms, market mechanisms and causality of business conduction processes had already been and still find themselves in a stage of productive transformation, re-evaluated and positively – critical analysis from various scholarly as well as professional perspectives. Based on the classic Adam Smith's theory (Smith, 2007), John Maynard Keynes (Keynes, 2011) alternative approach and works of Paul Samuelson (Samuelson, 1939), economic research is continuously developing along with the endlessly flexible social and market agenda, causally following and quickly reacting to newly emerging global and regional challenges. While considering the research, conducted by some of the most notable scholars of modern day economic theory,

one may reasonably argue that certain aspect of market interaction are justly defined as empirically – fundamental and thus may not be subjected to any sort of revisionary agendas, which occasionally do find their way onto the discussion issue lists of the modern economist community. Without prejudice to acknowledging certain areas of economic analysis, such as the demand – supply based market equilibrium or the law of diminishing returns, as indubitably empirical, a certain area of market functioning is indeed being addressed diversely by various scholars, professionals and interest group representatives due to the structural controversy, imbedded in the very essence of the relevant phenomenon. The issue in point is the process of monopolisation, taking place in an open market economy and seemingly contradicting with both the economic reasoning for competition – bases resource utilization, product distribution as well as means of production allocation, and the core benefit to society, brought by consumer choice

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possibilities, namely, need satisfaction in the context of market functioning efficiency.

As it had been previously argued, while the presence of a truly full monopoly undoubtedly brings unrecoverable (deadweight) losses to the society, the process of monopolisation is a natural state of affairs, based on both resource limitations and enterprise struggle for profitability, with the mentioned tendencies becoming excessively persistent and particularly visible in times of economic downslide and external shock occurrences² (Skoruks, 2014). The first deviation from the situation of competition, sufficient in terms of intensity and efficiency, is the obtaining of a dominant market position, which is recognized by the European Union Competition Law as not an infringement per se but rather as a potentially risky situation of possible future negative market trend development. As defined in the Article 102 of the Treaty on the Functioning of the European Union, "any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market insofar as it may affect trade between Member States". (TFEU, 1958) Therefore, it may be concluded that monopolisation tendencies constitute a potentially negative economic development, forever, in certain situation, such state of affairs may be "the least of two evils" in regards to the only remaining economically efficient option being a public body interference or even nationalisation, the latter being highly incompliant with the current developments in the European single market (Stucke, 2013).

The question arises in defining the limits of monopolisation process remaining an economically natural and mostly tolerable, in terms of market functioning efficiency, development, adjusted by the consideration of the present stage of business cycle evolutionary maturity and the correspondently generated economic shocks, both endogenous and

Jelgava, LLU ESAF, 21-22 April 2016, pp. 197-198 exogenous, and defining a boundary, which, if crossed, leads the industry down the path of excessive market power concentration and counterproductive entrepreneurial practices, creating a sufficient basis for competition monitoring public body interference with the goal of deterring further escalation of unfavourable monopolisation process.

The objective of the current research is the conduction of a full-scale study on the nature of monopolisation process, the role of market power concentration in monopolisation tendencies' progressive escalation and the defining of the degree of external factor influence in accelerating the mentioned occurrences, contextualised within the existing business cycle theories.

The hypothesis of the current research may be defined as follows: monopolisation tendencies in modern open market economies are driven by excessive individual market power concentration and may be detected and quantitatively measured by evaluating the relevant competition environment, while taking into account the relevant external influence of the business cycle evolution and its current development stage.

The scientific object of the current research may be defined as market power, perceived as an economic phenomenon, affected by both the internal competitive environment of a modern open market economy and the external influence of constituent business cycle evolution.

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

- description and assessment of the existing substantiations, causes and consequences of modern monopolisation process with an emphasis on evaluation and explanation of the role, taken by market power as an economic phenomenon, in the development and modern evolution of the empirical monopolisation process;
- development of a quantitative monopolisation process assessment methodology, which considers both the current level of market

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power concentration and its prevalent redistribution trends;

- incorporation of business cycle delivered adjustments to market power de facto distribution patterns, which reshapes the final evaluative perception of monopolisation process development in a relevant market into the structure of the previously mentioned methodology.

The following assessment methods shall be used in order to conduct the current research: monographic analysis, graphic analysis, econometrical modelling, mathematical criteria analysis, quantitative economic pattern analysis, qualitative indicator value range structure analysis and data grouping method.

1. Theoretical background of the conducted research

In terms of economic evaluation, a monopoly is defined as a specific market situation that enables the obtaining of a higher profitability level of economic activity on the behalf of price growth and production cost cutting with the use of the so-called monopoly position advantages (Freedman, 1962). A vast variety of singularised methods of monopolisation level assessment currently exist and are widely implemented for a variety of analytical purposes, such as, for example, the Lerner Index (Lerner, 1934), the Herfindal – Hirshman Index (US Department of Justice..., 2010) or the evaluation of price elasticity. However, the above mentioned methods are either focused on a single legal equity individual monopoly power measurement or target a zero-momentum, "time-frozen" market cluster, which, in both cases, is inappropriate for conduction of a medium-term industry-level holistic monopolisation trend evaluation. Furthermore, the mentioned methods are often mutually incompliant and lack synergetic capacities, while remaining highly useful in terms of unilateral application (Skoruks, 2014).

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In this respect, it is important to note that the European Union Competition Law in the form of the European Commission Regulations and the European Court of Justice Decisions, addresses the issue of competition enhancements and the counterfactual process of monopolisation, defined as market consolidation, via the prism of the relevant market definition, emerging from the mutual overlapping of geographical and relevant product markets (European Commission, 1997). As it may be deduced from the previously stated information and additionally conducted legal text analysis (The Council of the European Union, 2004), the main emphasis in the European Union Competition Law is based on the effective and/or potential competition distortion mitigation, which is strictly prohibited as incompliant with the conditions of the Treaty on Functioning of the European Union and the conditionality of the Single Market functioning (TFEU, 1958). However, it is crucially important to underline the fact that even a case of de facto dominant position acquisition by a private organization is not a per se violation of the legislation in place – only the proven abuse of such position generated advantages forms a sufficient legal basis for public body interference. Therefore, it may be concluded that certain market imperfections are considered less harmful by the European Commission that direct administrative action caused distortion of natural economic process conduction (The Council of the European Union, 2003). Consequentially, a the current European context defines the necessity of quantitatively analysing monopolisation tendencies within relevant markets with a notion of tolerance for minor and, more importantly, economic by their nature cases of market power distribution imperfections, to an extent of accepting a dominant market position, obtained via good willed and fair competition, compliant with the rules, regulating the functioning of the European Single Market.

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If addressing monopolisation trend quantitative detection through the prism of market power distribution, concentration and reconfiguration, one must first define the relevant phenomenon and describe its crucial, influence-shaping characteristics. The definition of market power varies among scholars and professionals, being interpreted according to individual commentators' experience, background and affiliation (White, 2012; Council of the European Union, 2004; OECD, 1993). However, several parallels may be drawn, in particular, regarding market power phenomenon descriptive features and its essential economic structural components, leading to an empirical conclusion that market power enables enterprises to grow their presence in the relevant market and to an extent which is directly proportionate to the market power volume in point, unilaterally alter price levels.

Consequently, it may be concluded that the currently existing scientific literature and legislative commentary provides a solid basis for development of a quantitative analysis of competition structural composition in various heterogeneous product relevant markets and the establishment of a conceptual methodology for the previously mentioned evaluation conduction seems empirically possible.

2. Concept of the developed monopolisation process evaluation methodology

Reiterating the empirically-theoretical concept mentioned in the first section of the current research, individual market power of an enterprise consists of its ability to unilaterally implement an independently-favourable pricing policy and its current market share, defined as a fraction of the market total short-term equilibrium consumption capacity, composed of the corresponding supplier's economic activities within the mentioned relevant market. Therefore, an in-depth analysis of the two relevant crucial factors would greatly benefit the incorporation of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 197-200 market power phenomenon assessment in the addressed broader problematic of monopolisation trend detection in modern globalised open markets.

Individual supply amount is critically affected by the existing or potential demand amount, with both of the mentioned fundamental economic factors being equalised or, econometrically speaking, mutually balances out by the common denominator of competitive market price. Therefore, it may be concluded that the effective size of an enterprise, measured by its presence in a market, is determined by the symbiosis of its individual supply amount and the corresponding sale price. It may be deduced that the individual supply amount multiplied by the relevant existing sale price would equal the turnover of the mentioned enterprise over a defined timeframe. Therefore, if an industry level market power distribution analysis is being conducted or the required perspective dictates an evaluation, only focusing on a certain product type or non-supplementary market structures, the turnover of the supply-constituting enterprises shall deliver the required accurate and objective results. (Dierker, Grodal, 1996).

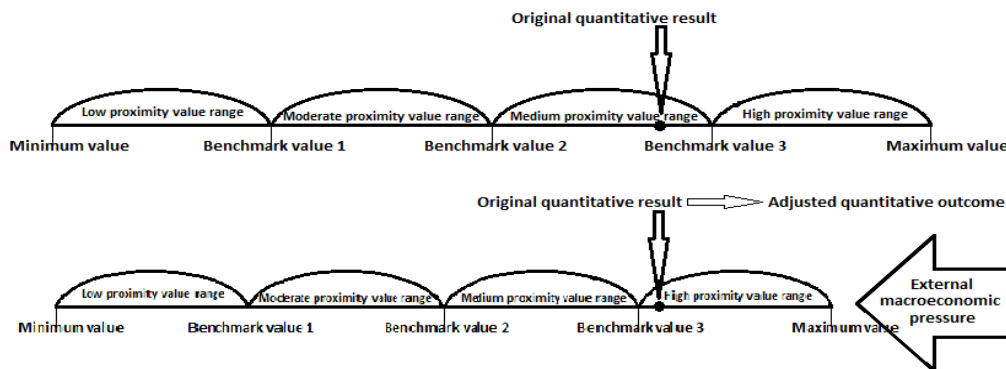
In cases of imperfect (Robinson, 2012) or as defined by Chamberlin, monopolistic competition (Chamberlin, 2010), which is the source of monopolisation process development and monopolistic trend emergence, market power is unevenly distributed between the suppliers, active in a relevant market, and the trend of exercising the available influence causally derives from the ability to either neglect or predetermine the retaliation actions of the existing effective competitors, which consequentially leads to monopolistic trend strengthening and potential dominant position establishing. Following such logic, the ratio of cumulative individual market power distribution in case of the existing monopolistic competition to the equivalent value in situation of perfect competition would objectively and rationally reflect on the current

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state of monopolistic trend development and, if a dynamic trend is analysed, enable the calculation of such occurrence future emergence probability. In other words, the objective economic reality disables the relevant market from tending to transform into a state of perfect competition, thus, limiting the maximum value of dispersed market power concentration, decreasing the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 197-201 actual high end value of optimal cumulative market power distribution, which, while taking into account the constant value of the originally generated quantitative results, causes it to proportionately shift between the quantitative interpretation of the mentioned value, expressed as the proximity value ranges, reflected in Figure 1.



Source: compiled by authors

Fig. 1. The concept of generated result adjustment by business cycle corrective influence from the external (business cycle) perspective

As reflected in Figure 1, if quantitative outcome values, provided by the developed methodology based analysis are altered, their correspondent qualitative interpretation and perception grading scales are simultaneously adjusted to adequately fit the newly detected economic reality, thus, making the proposed approach suitable for evaluating both endogenous and exogenous factors, influencing the analysed competitive environment.

3. The quantitative structure and functioning principles of the developed methodology

The further introduced indicator of market power concentration distribution is based on measuring the state of de facto market conditions being divergent from those of a perfectly competitive situation, while taking into account the objective mutual interconnectedness of competing enterprise in the context of supply-side of the general market equilibrium. While

presuming that each enterprise is rationally motivated to exploit their maximum market power on a largest possible scale and that every enterprise in a competitive environment theoretically engages every other opponent with the synergetic effect of market power being a holistic economic phenomenon, the aggregated disproportionality of market power distribution in a relevant market may be determined as the opposite of simultaneous individual market power cumulative mutual compensation, to be more precise, its excessive amount, which is not being cancelled out by a pro rata competitor influence. Therefore, mutual cumulative individual market power compensation may be reflected by what for the purpose of the current research shall be further referred to as the mutual compensation index, which may be calculated in the quantitative fashion, described in Formula 1:

$$MCI = \frac{MSH_1}{MSH_e} * \frac{MSH_2}{MSH_e} * \frac{MSH_3}{MSH_e} * \dots * \frac{MSH_n}{MSH_e} = \prod_{i=1}^n \left[\frac{MSH_i}{MSH_e} \right] \quad (1)$$

where

MCI – mutual compensation index, %;

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MSHi – de facto individual market share of a supplier, %;

MSHe – nominal individual market share of a supplier in case of perfect competition, %.

While taking into account the information, made available in Section 2 and Section 3 of the current research and more specifically outlined in Figure 1 and Formula 1, it would be beneficial in terms of raising the cumulative efficiency of the conducted analysis to incorporate the according conditions and influence factors into the composition of the proposed methodology, while simultaneously taking into account the external macroeconomic pressure, emerging from the relevant developments in the continuous business cycle evolution.

Business cycle development and constituent maturity stages may be evaluated in various manners, depending on the preferred economic paradigm or the prevalent common practices, dominant in a certain institution, organization or region (Hansen, 1985; Kitchin, 1923; Lee, 1955). However, certain approaches had proven

Jelgava, LLU ESAF, 21-22 April 2016, pp. 197-202 themselves as specifically efficient in terms of industry level development analysis in a macroeconomic cycle context. (Long, Plosser, 1983; Plosser, 1989; Romer, 2011). Correspondingly, the following five economic indicators had been chosen to represent the external effect the maturity and development of the general business cycle has on internal market power distribution conjuncture: (1) market consumption capacity dynamics; (2) dynamics of external investment amounts in the analysed industry; (3) dynamics of employment in the analysed industry; (4) dynamics of share of the analysed industry in the GDP of the relevant national economy; (5) market capacity dynamic relative to GDP growth/decline. For the purpose of the current paper, the mentioned corrective coefficient hereafter shall be referred to as the external adjustment ratio. While taking into account the previously mentioned information, the external adjustment ratio may be calculated in the manner, reflected by Formula 2:

$$K = \frac{\sum_{i=1}^n \frac{MCC_t}{MCC_{t-1}}}{n} * \frac{\sum_{i=1}^n \frac{INV_t}{INV_{t-1}}}{n} * \frac{\sum_{i=1}^n \frac{EMP_t}{EMP_{t-1}}}{n} * \frac{\sum_{i=1}^n \frac{\Delta GDP_t}{\Delta GDP_{t-1}}}{n} * \frac{\sum_{i=1}^n \frac{1 + \Delta MPC_t}{1 + \Delta MPC_{t-1}}}{n} \quad (2)$$

where

K – external adjustment ratio, scalar values;

MCC – market consumption capacity, currency values;

INV – external investment amount in the analysed industry, currency values;

EMP – employment in the analysed industry, natural value or percentage;

GDP_r – real gross domestic product, currency values;

t – sliding consistent annual analytical period, years

n – cumulative timeframe of the conducted analysis, years.

As reflected by Formula 2, the external macroeconomic pressure (explained in Figure 1) alters the value ranges, further defined in Table 1, thus adjusting the qualitative interpretation of

the affected qualitative reference benchmarks, while enabling a more accurate analytical perception of the addresses issue to be implemented as a coherent methodological approach.

The detection of existing or potential monopolisation tendencies in a given relevant market comprises from both individual market power distribution and the actual number of suppliers, financially able and strategically willing to compete for redistribution of the relevant economic asset in the context of business cycle constituent conduct. Consequentially, monopolisation trend presence in a relevant market may be quantitatively detected by employing the method, for the purpose of the current paper further referred to as the

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competition level index, which is econometrically

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described in Formula 3:

$$CLI = \frac{N^2 - \frac{N}{MCI \cdot K}}{N^2} = \frac{N^2 - X}{N^2} \quad (3)$$

where

CLI – competition level index, %;

N – number of suppliers in the market within the analytical period, scalar values;

MCI – mutual compensation index, scalar values;

K – external adjustment ration, scalar values;

X – market power x – factor: the quotient of N and the product of MCI and K, scalar values.

In order to elaborately describe the qualitative interpretation of the competition level index generated quantitative results, it would be rational to create a summary of the proposed methodology's functionality and applicability. The mentioned description had been made available in the form of Table 1:

Table 1

Competition level index quantitative value ranges and their interpretation

Value range	(-∞;-55%)	[-55%;-30%)	[-30%; 0)	[0]	(0;30%]	(30%;75%]	(75%;100%]
Type of competition	Regressive competition			Point of divergence	Progressive competition		
Form of competition	Excessively regressive competition	Stably regressive competition	Increasingly regressive competition	Stagnant competition	Declining progressive competition	Volatile progressive competition	Sufficiently progressive competition
Monopolistic trend endurance	Powerful	Strong	Moderate	Struggling	Weak	Emerging	Non - existent
Probability of monopolistic trend development	Certain	Very high	High	Medium	Low	Dubious	Insignificant

Source: compiled by authors

As it may be seen from Table 1, the type of competition may be described as either tending towards individual market power mutual compensation on a level, enabling further market entry barrier elimination and existing supplier intensified multilateral engagement or, on the contrary, showing a trend of enhancing market structure stagnation and further individual market power disproportionate consolidation, the former case obtaining the title of progressive competition, while the latter being dubbed regressive competition.

From the perspective of private market actors, progressive competition indicates varying degrees of market consumption capacity saturation and suggests a market entry is possible or, from an internal perspective, reflects relatively equal further profit generation

opportunities on the basis of fair and transparent competition, while regressive competition indicates significant economic market entry barriers, which question the financial rationality of such attempts, simultaneously pointing out an imbalances market structure with possible internal discrimination of the modest by the mighty. Additionally, regressive competition may be defined as the situation of monopolistic trend already occurring and consequentially, if left unchallenged, having the potential of further expanding its negative influence over the entire market structure via continues individual market power disproportionate concentration in a certain supplier cluster or influence field of an individual supplier. Simultaneously, if the number of suppliers is limited and the market structure is in a state of de facto oligopoly or quasi – oligopoly,

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low values of competition level index in the regressive competition range reflect a clustered concentration of market power, meaning that a high probability of prohibited horizontal agreement is present.

Conclusions

Taking into account the conduct, results and findings of the current research, one may conclude the following:

- 1) monopolisation tendencies are most likely to emerge in situations of disproportionate individual market power distribution between suppliers, conducting economic activities within a defined relevant market;
- 2) monopolisation tendencies may be altered by both business cycle caused external economic pressure and macroeconomic

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development trends of a certain national or regional economy;

- 3) monopolisation tendencies may be detected through the analysis of individual market power mutual compensation effect in the context of the aforementioned business cycle evolution;
- 4) applying harmonised quantitatively-analytical methods and their qualitative interpretation algorithms in the context of synergetic econometric modelling proved to be an efficient methodological approach of monopolisation trend detection, recording and evaluation.

Bibliography

1. Chamberlin, E. H. (2010). On the Origin of Oligopoly: Reediting. Cambridge: Cambridge University Press. pp. 113–149. Retrieved: <http://www.jstor.org/discover/10.2307/725018?uid=3738496&uid=2129&uid=2&uid=70&uid=4&sid=2110467303605>. Access: 11.09.2014
2. Dierker, E., Grodal, B. (1996) Profit Maximization Mitigates Competition. Springer – Verlag, Economic Theory, Volume 7, Issue 1, pp. 139-160
3. European Commission (1997). Commission Notice on the Definition of Relevant Market for the Purposes of Community Competition Law. *Official Journal of the European Communities*, Retrieved: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209%2801%29&from=EN>. Access: 13.08.2015.
4. Hansen, G. D. (1985). Indivisible Labor and the Business Cycle. *Journal of Monetary Economics* Volume 16, Issue 3, pp. 309–327.
5. Heijdra, B. (2009). Real Business Cycles. Foundations of Modern Macroeconomics (2nd ed.). Oxford: Oxford University Press. pp. 495–552.
6. Keynes, J. (2011). The General Theory of Money, Interest and Employment. London: Macmillan. pp. 289–315.
7. Kitchin, J. (1923). Cycles and Trends in Economic Factors. MIT Press: Review of Economics and Statistics, Volume 5, Issue 1, pp. 10–16.
8. Lee, M. W. (1955). Economic Fluctuations. Homewood, IL: Richard D. Irwin, pp. 2-25.
9. Lerner, A. P. (1934). The Concept of Monopoly and the Measurement of Monopoly Power. *The Review of Economic Studies*, Volume 1, Issue 3. Pp. 157–175.
10. Long, J. Jr., Plosser, Ch. (1983). Real Business Cycles. *Journal of Political Economy*, Volume 91, Issue 1, pp. 39–69.
11. Organisation for Economic Cooperation and Development (OECD), Directorate for Financial, Fiscal and Enterprise Affairs (1993). Glossary of Industrial Organisation Economics and Competition Law. Paris, pp. 57. Retrieved: <http://www.oecd.org/regreform/sectors/2376087.pdf>. Access: 13.08.2015.
12. Plosser, C. (1989). Understanding Real Business Cycles. *Journal of Economic Perspectives*, Volume 3, Issue 1, pp. 51–77.
13. Robinson, J. (2012). The Economics of Imperfect Competition: 1969–2012 Anthology Edition. London: Macmillan. pp. 189–211.
14. Romer, D. (2011). Real-Business-Cycle Theory. Advanced Macroeconomics (Fourth edition). New York: McGraw-Hill. pp. 189–237.
15. Samuelson, P. A. (1939). Interactions Between the Multiplier Analysis and the Principle of Acceleration. *Review of Economic Statistics* Volume 21, Issue 1, pp. 75–78.
16. Skoruks, D. (2014). Complex Econometric Model of Monopolisation Process Evaluation. *Procedia - Social and Behavioral Sciences*, Volume 110, Issue 1, pp. 202–214.
17. Smith, A. (2007). An Inquiry Into the Nature and Causes of the Wealth of Nations. Books I, II, III, IV and V. Lausanne: MetaLibri. pp. 347–351.

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³Corresponding author. Tel.: +(371)29184578. E-mail address: Maija.Senfelde@rtu.lv

Jelgava, LLU ESAF, 21-22 April 2016, pp. 197-205

18. Stucke, M.E (2013). Is Competition Always Good? *Oxford Journal of Antitrust Enforcement*, Volume 1, Issue 1, pp. 162-197.

19. The Council of the European Union (2003). Council Regulation (EC) No 1/2003 of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty. *Official Journal of the European Communities*, Retrieved: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R0001&from=EN>. Access: 13.08.2015.

20. The Council of the European Union (2004). Council Regulation (EC) No 139/2004 of 20 January 2004 on the Control of Concentrations Between Undertakings. *Official Journal of the European Communities*, Retrieved: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0139&from=EN>. Access: 13.08.2015.

21. Treaty on the Functioning of the European Union (TFEU) [Consolidated version] (1958). Rome, pp. 88 – 89. Retrieved: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN>. Access: 13.08.2015.

22. U.S. Department of Justice and the Federal Trade Commission. (2010). Horizontal Merger Guidelines. Washington, D.C. pp. 16-19. Retrieved: <http://www.justice.gov/atr/public/guidelines/hmg-2010.html#5b>. Access: 29.11.2014

23. White, L. (2012). Market Power: How Does It Arise? How Is It Measured? New York: New York University, Leonard N. Stern School of Business, Department of Economics, Working papers, EC-12-06. Retrieved: http://webdocs.stern.nyu.edu/old_web/economics/docs/workingpapers/2012/White_MarketPowerRiseandMeasure.pdf. Access: 13.08.2015.

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DECISION MAKING ON ADVERTISING EFFICIENCY IN INTERNET (RESULTS OF ENTREPRENEURS SURVEY ON INTERNET MARKETING)

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Abstract. Technology development has initiated and supported different developments in internet marketing and advertising on Internet. The aim of the paper is to research how companies make decision on advertising efficiency in internet. For this purpose, first scientific literature was examined. Afterwards the authors have conducted the survey where companies were asked to evaluate different aspects of internet marketing. The European Commission data (The European Commission, 2015) have indicated that internet marketing usage trends could differ based on the company size. Therefore, the analysis of the survey was done by grouping results by company size taking into account turnover of the company in 2013. To ensure additional and deeper analysis, companies were divided in two groups according to the changes in turnover (comparing results of 2012 and 2013). Methods used in research: analysis of scientific literature, survey of entrepreneurs on internet marketing. The analysis of the survey data was done by using the descriptive statistic methods – indicators of central tendency or location, indicators of variability; cross tabulations; non-parametric statistics – Kruskal-Wallis test, Mann-Whitney U test. It was found that companies more often are making their decision on advertising efficiency based on company's specialist's experience rather than followed advices of advertising companies. Companies with big and growing turnover more often make their decisions based on results of advertising campaigns than companies with small turnover or companies with not growing turnover.

Key words: advertising efficiency, internet marketing, social media, turnover, webpage, export promotion.

JEL code: L86; M31; M37

Introduction

Technology development has initiated and supported different developments in internet marketing and advertising on Internet. The aim of the paper is to research how companies make decision on advertising efficiency in internet and evaluate how they differ from several aspects of the companies. To achieve this aim the survey was designed to have information from the companies. The several parties were involved in the process of designing the survey questionnaire – both practitioners and researchers. Different aspects of internet marketing were included into the survey enlisted questions about advertising efficiency. The European Commission data (The European Commission, 2015) have indicated that internet marketing usage trends could differ based on the company size. Therefore, in this research companies were grouped by company size taking into account turnover of the company in 2013. To ensure additional and deeper analysis, companies were divided in two groups according to the changes in turnover (comparing results of 2012 and 2013). Methods used in

research: analysis of scientific literature, survey of entrepreneurs on internet marketing. Most of the questions in the survey were designed so that the respondents were asked to give evaluations on a 10-point scale (1-10) that allows conducting deeper analysis of results. The analysis of the survey data was done by using the descriptive statistic methods – indicators of central tendency or location, indicators of variability; cross tabulations by different aspects; several non-parametric statistics criteria – Kruskal-Wallis test, Mann-Whitney U test – were used for testing statistical hypotheses.

Research results and discussion

Research topics in academic research world – wide has devoted a lot of attention to issues on technology development already for several decades. Technology development has initiated and supported different developments in internet marketing and advertising on Internet aspects – including different technological, psychological, cultural aspects and scale measurements (Zheng et al., 2016; Chatterjee, 2001); (Ma and Lee, 2014), different technical applications (Dellarocas

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et al., 2007), differences on internet advertising (Goldfarb et al., 2014), on decision making towards offered on web search results (Roscoe et al., 2016), on Internet information credibility issues (Flanagin and Metzger, 2000) and on-line marketing research aspects (Grabner-Kräuter and Kaluscha, 2003), analysis on aspects how consumers do react on internet advertising offers (Rodgers and Thorson, 2000), on website and brand influences (Lee et al., 2009), on Internet searching strategy selection (Guinee et al., 2003), on effect of web interface features influence on consumer online purchase intentions (Hausman and Siekpe, 2009), in differences of attitudes by gender (Awad and Ragowski, 2008); (Kim et al., 2011), in differences of attitudes by age group (Ahuja et al., 2007). Different approaches are used for different product marketing (Baraskina and Rivza, 2010). Negative advertising experience is evaluated by researchers from different aspects as well (Obermiller and Spangenberg, 2000); (Darke et al., 2009). Researchers have analysed aspects of net neutrality and internet fragmentation as the role of online advertising (D'Annunzio and Russo, 2015). Researchers have paid attention also to online advertising and competition policy issues as two-sided market perspective (Calvano and Jullien, 2012). Some branches of national economy often change organization like as for tourism branch where often there are changes with lower influences of tourist information centres (Lyu and Hwang, 2015). Researchers have applied different research methods and data analysis methods including different kinds of multivariate statistical analysis as well as conjoint analysis for research result analysis in different countries (Chen et al., 2010).

The topic of Internet marketing usage by Latvian companies is of high importance. Digital Economy and Society Index 2015 (DESI) have shown that integration of digital technology by Latvian business is the lowest in the EU. Not only are Latvian businesses lagging behind the EU in

Jelgava, LLU ESAF, 21-22 April 2016, pp. 206-207 all aspects of e-Commerce, the performance in on-line commercial activities has stagnated when compared to the year before (European Commission, 2015), for instance, report shows that only a minor fraction of Latvian SMEs are selling on-line (6.9%), that an even smaller percentage of SMEs are engaged in cross-border online sales (4.1%), and that SMEs have a below-average e-commerce turnover (7.6%). Low indicators for Latvia were observed also in earlier years, for instance, Eurostat data (The European Commission 2013 & 2014).

Original questionnaire was designed for survey realisation. Questionnaire was accepted by survey realisation partners taking into account that all required aspects have to be researched and analysed. Most of the questions in the survey were designed on a 10-point scale. This allows conducting deeper analysis of results. Survey organisation was followed by strict rules to have representative sample: the population was defined – all companies registered in companies' register LURSOFT. The European Commission data (The European Commission, 2015) have indicated that internet marketing usage trends could differ based on size of the company. Therefore, also in this research companies were grouped by company size taking into account turnover of the company in 2013. Analysed companies were divided in two groups according the changes in turnover (comparing results of 2012 and 2013) to ensure additional and deeper analysis. That has led to making four groups of all potential respondents:

- 1) companies with big turnover and turnover growth (turnover in 2013 at least EUR 5 000 000 and grown from 2012 to 2013);
- 2) companies with big turnover and without turnover grown (turnover in 2013 at least EUR 5 000 000 and not grown from 2012 to 2013);
- 3) companies with not big turnover and with turnover growth (turnover in 2013 less than EUR 5 000 000 and grown from 2012 to 2013);

4) companies with not big turnover and without turnover growth (turnover in 2013 less than EUR 5 000 000 and not grown from 2012 to 2013).

Such division of companies allows analysis of the company responses in general, as well as by different aspects with use of cross – tabulations and compare results between the groups.

Potential respondents (companies) were selected by systematic sampling approach from companies register *LURSOFT* data basis using predefined criteria:

Every second company with turnover above EUR 5 000 000/per year (from 1400 companies on November 24, 2014) was selected from *LURSOFT* data base;

Every fifth company with turnover between EUR 500 000 – 4.99 mil./per year (from 8151 companies on November 24, 2014) was selected from *LURSOFT* data base;

Totally selected companies 3667;

Included companies 3548 in survey;

After call to companies 726 companies agreed to participate in survey, responded 467 companies. Total response rate was 12 %.

Potential respondents (included in the sample) received personal invitation to participate in the survey by phone afterwards they received an e-mail with the link to the survey. The process of invitation of respondents was carried out by telemarketing company *Boposervices*. If the survey was not filled in during one week then the company received additional reminding to participate in the survey. Third invitation was sent after two weeks for those who has not filled the survey questionnaire. Every day telemarketing company provided report on calls made and overall survey process.

The questionnaire contained a list of questions related to internet marketing usage within a company. Among responding companies about 22% of the companies already have internet shops and 4% of respondents are planning to

Jelgava, LLU ESAF, 21-22 April 2016, pp. 206-208 open internet shops. It was found that a large number of respondents used webpage only for business card purposes without any possibility to order products online or even fill in contact form (47%). More than a half of respondents (56.7%) have registered profiles in *Facebook*.

Respondents were asked to evaluate the importance of internet marketing for achieving marketing and sales goals. Most of the respondents evaluated the importance of internet marketing with 8 points (mode – 8; mediana – 9; arithmetic mean – 6.80) but totally more than 60% of respondents evaluated with more than 7, thus, indicating that internet marketing plays quite important role in the company. The empirical research has shown that companies more often are making their decision on advertising efficiency taking into account the experience of company specialists – half of respondents gave evaluation 8 or more (median), the most often respondents gave evaluation 8 (mode) but evaluation's arithmetic mean was 7.32 in evaluation scale 1–10. The evaluations were quite homogeneous (standard deviation). Companies also often used results of advertising campaigns and improved non-efficient approaches. Companies less often followed advice of advertising companies – half of respondents gave evaluation 4 or less, the most often respondents gave evaluation 1, evaluation's arithmetic mean was 4.38, for this aspect the responses differ most – indicators of variability were the biggest from all analysed aspects in the survey. Companies followed intuition (arithmetic mean – 6.19, median – 8, mode – 8) and companies have followed activities of competitors (arithmetic mean – 6.40, median – 7, mode – 8), the evaluations were quite heterogeneous. Main statistical indicators on companies' evaluations for the survey question "How do you make decisions and advertising efficiency on Internet?" are included in Table 1.

Main statistical indicators of evaluations by companies for question "How do you make decision on advertising efficiency on Internet?"

	Improve non-efficient approaches	Follow activities of competitors	Take into account specialists experience	Use results of advertising campaigns	Follow intuition	Follow advice of advertising agency
Arithmetic mean	7.00	6.40	7.32	7.00	6.19	4.38
Std. error of mean	0.144	0.151	0.127	0.179	0.160	0.223
Median	8	7	8	8	6.5	4
Mode	8	8	8	8	8	1
Standard deviation	2.247	2.383	1.987	2.681	2.484	3.260
Variance	5.050	5.677	3.948	7.188	6.172	10.625
Range	9	9	9	9	9	9
Minimum	1	1	1	1	1	1
Maximum	10	10	10	10	10	10

Source: authors' calculations based on the company survey in 2015 (n=467) evaluation scale 1-10, where 1 – do not use; 10 – use very often

The survey results have shown that companies with big turnover (at least EUR 5 000 000) and growing turnover used results of advertising campaigns more often than companies with small turnover (less than EUR 5 000 000) or companies with non-growing turnover. In turn, companies with growing turnover more often took into account experience of the respective company specialists. Companies with turnover of EUR 5 million and with growing turnover more often than other companies follow advices of advertising companies and more often use results of the advertising campaigns. The evaluations of respondents had rather big variability; it means that approaches of companies differ. Statistical indicators – median and standard deviations on companies evaluations for question "How do you make decisions and advertising efficiency on Internet?" by turnover of company are included in Table 2. Statistically significant differences with high probability as proved by the results of the Kruskal-Wallis test ($\chi^2 = 8.913$, $p = 0.030$) were found when analysing companies by different turnovers (as seen in above table) on usage of

advertising campaigns for decision making on advertising efficiency. Evaluated aspect "use of results of advertising campaigns" differed statistically significantly in companies within following groups - big growing turnover and small growing turnover (Mann-Whitney U test: $z = -2.646$, $p = 0.008$) as well as in companies with big and growing turnover as well as in companies with small and not growing turnover (Mann-Whitney U test: $z = -2.141$, $p = 0.032$). For decisions on advertising efficiency companies with internet shop more often have used results of advertising campaigns, more often improved non-efficient approaches, more often have followed activities of competitors and more often have taken into account specialists' experience than companies without internet shop (see Table 2). Companies who are planning to open internet shop more often improved non-efficient approaches and more often followed activities of competitors than companies who are not planning to open internet shop. However, differences of evaluations about decision on advertising efficiency on Internet by companies, planning to open internet shop and companies

not planning to open internet shop were not statistically significant - as proved by the results

Jelgava, LLU ESAF, 21-22 April 2016, pp. 206-210 of the Mann-Whitney U test: $p > 0.246$.

Table 2

Statistical indicators (median, standard deviation) of evaluations by companies for question "How do you make decision on advertising efficiency on Internet?" by turnover of company

	Turnover in 2013 at least EUR 5 000 000 and grown from 2012 to 2013		Turnover in 2013 at least EUR 5 000 000 and not grown from 2012 to 2013		Turnover in 2013 less than EUR 5 000 000 and grown from 2012 to 2013		Turnover in 2013 less than EUR 5 000 000 and not grown from 2012 to 2013	
	Median	Standard deviation	Median	Standard deviation	Median	Standard deviation	Median	Standard deviation
Improve non-efficient approaches	8	2.05	8	2.33	8	2.37	8	2.17
Follow activities of competitors	7	2.49	6	2.01	7	2.50	7	2.01
Take into account specialists experience	8	2.08	7	1.98	8	2.03	7	1.77
Use results of advertising campaigns	9	2.67	8	2.64	8	2.70	8	2.61
Follow intuition	7	2.55	6	2.27	6	2.64	7	2.12
Follow advice of advertising agency	5	3.43	4.5	3.35	3	3.18	3	2.88

Source: authors' calculations based on the company survey in 2015 (n=326), evaluation scale 1-10, where 1 – do not use; 10 – use very often

In evaluations of the companies about decision on advertising efficiency on Internet between companies with different number of employees it was found that companies with employees from 1 to 5 more often improved non-efficient approaches and took into account specialists experience, companies with number of employees 6 to 10 more often took into account specialists experience and used results of advertising campaigns. Companies with number of employees 11 to 15 more often have taken into account specialists' experience. Companies with number of employees 16 to 20 more often took into account specialists experience and followed intuition. Companies with number of

employees 21 to 30 more often took into account specialists experience and followed activities of competitors. Companies with number of employees 31 to 40 more often took into account specialists experience and improved non-efficient approaches. Companies with number of employees 41 to 50 more often took into account specialists experience and used results of advertising campaigns. Companies with number of employees 51 to 60 more often used results of advertising campaigns, but companies with number of employees above 60 more often improved non-efficient approaches and took into account specialists experience, and also used results of advertising campaigns.

Main statistical indicators of companies without internet shop evaluations for question "How do you make decision on advertising efficiency on Internet?"

	Do you have internet shop							
	Yes				No			
	Arithmetic mean	Median	Mode	Standard deviation	Arithmetic mean	Median	Mode	Standard deviation
Improve non-efficient approaches	7.6	8	8	1.60	6.8	7	8	2.43
Follow activities of competitors	6.9	7	8	2.05	6.3	7	6	2.50
Take into account company's specialist(s) experience	7.6	8	8	1.61	7.2	8	8	2.12
Use results of advertising campaigns	7.7	8	8	1.81	6.7	8	8	2.94
Follow intuition	6.6	7	8	2.02	6.0	6	8	2.64
Follow advice of advertising agency	4.4	4	1	3.25	4.4	4	1	3.25

Source: authors' calculations based on the company survey in 2015 (n=326), evaluation scale 1-10, where 1 – do not use; 10 – use very often

All groups of companies (companies with different number of employees) have less followed advice of advertising agency. The differences of companies' evaluations about decision on advertising efficiency on Internet among companies with different number of employees were not statistically significant, as proved by the results of the Kruskal-Wallis test ($p > 0.156$).

Analysis of main statistic indicators of evaluations by companies based on companies' marketing team average age indicated that marketing team in age group of 41 exceeding years more often have taken into account specialists' experience. Marketing teams in age group not exceeding 35 years in comparison with older teams are more often using results of advertising campaigns and more often have taken into account specialists' experience. Marketing teams in age group from 36 to 40 years more often try to improve non-efficient approaches and more often take into account

specialists' experience. Older teams follow their intuition more in comparison with younger teams. Older teams more often follow advice of advertising agencies.

Conclusions, proposals, recommendations

1) The topic of Internet marketing usage is of high importance for Latvian companies as latest indicators of Digital Economy and Society Index in 2015 have indicated that integration of digital technology by Latvian business is one of the lowest in the European Union.

2) Advertising on internet efficiency aspects are on special importance are on research agenda for scientists in different fields: information technology, psychology, marketing and management, such research is carried out in many countries world-wide to involve possible consumers in advertised issues and let them make decision on respective purchase.

3) For decisions on advertising efficiency in companies in Latvia most are used results of advertising campaigns and taking into account respective company specialist's experience, but companies follow less to advice of advertising companies - mode (the most often used response of respondents) was with the lowest possible evaluation (1) and half of respondents gave evaluation 4 or less – characterised by median in scale 1-10. Older specialists gave more respect to advices of advertising companies.

4) Companies with big turnover (at least EUR 5 000 000) and with growing turnover more often make their decisions based on results of advertising campaigns than companies with small turnover (less than EUR 5 000 000) or companies with not growing turnover. Companies with growing turnover more often took into account company specialists' experience; the mentioned differences were statistically significant.

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5) The companies with marketing team of age from 41 to 45 years, make their decisions less based on results of "follow activities of competitors" and "use results of advertising campaigns" than younger marketing teams, the differences were statistically significant.

6) The differences of companies' evaluations about decision on advertising efficiency on Internet are not statistically significant among companies with different number of employees and companies with internet shop and without internet shop as well as between companies planning to open internet shop and companies not planning to open internet shop.

7) The differences of companies' evaluations about decision on advertising efficiency on Internet among companies with different number of employees were not statistically significant,

8) Most of the companies do not know exact expenses for attracting clients by using internet for advertising.

Bibliography

1. Ahuja, R.D., Michels, T.A., Walker, M.M., Weissbuch, M. (2007). Teen Perceptions of Disclosure in Buzz Marketing. *Journal of Consumer Marketing*, Volume 24, Issue 3, pp. 151-159.
2. Awad, N.F., Ragowsky, A. (2008). Establishing Trust in Electronic Commerce through Online Word of Mouth: An Examination Across Genders. *Journal of Management Information Systems*, Volume 24, Issue 4, pp. 101-121.
3. Baraskina, I., Rivza, B. (2010). The Effect of Competition Forces and Competitions Strategy in the Market of Organic Products. *European Integration Studies*, Issue 4, pp. 133-140.
4. Calvano, E., Jullien, B. (2012). Issues in Online Advertising and Competition Policy: A Two-Sided Market Perspective. *Recent Advances in the Analysis of Competition Policy and Regulation*, pp. 179-197.
5. Chatterjee, P. (2001). Online Reviews: Do Consumers Use Them? *Advances in Consumer Research*, Volume 28, Issue 1, pp. 129-133.
6. Chen, Y.-H., Hsu, I.-C., Lin, C.-C. (2010). Website Attributes that Increase Consumer Purchase Intention: A Conjoint Analysis. *Journal of Business Research*, Volume 63, Issue 9-10, pp. 1007-1014.
7. D'Annunzio, A., Russo, A. (2015). Net Neutrality and Internet Fragmentation: The Role of Online Advertising. *International Journal of Industrial Organization*, Volume 43, pp. 30-47.
8. Darke, P.R., Ashworth, L., Main, K.J. (2009). Great Expectations and Broken Promises: Misleading Claims, Product Failure, Expectancy Disconfirmation and Consumer Distrust. *Journal of the Academy of Marketing Science*, Volume 38, Issue 3, pp. 347-362.
9. Dellarocas, C., Zhang, X., Awad, N.F. (2007). Exploring the Value of Online Product Reviews in Forecasting Sales: The Case of Motion Pictures. *Journal of Interactive Marketing*, Volume 21, Issue 4, pp. 23-45.
10. European Commission (2015; 2014; 2013). Digital Economy and Society Index (DESI) Country Profile – Latvia. Retrieved <http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard> Access: 06.01.2016
11. Flanagin, A.J., Metzger, M.J. (2000). Perceptions of Internet Information Credibility. *Journalism and Mass Communication Quarterly*, Volume 77, Issue 3, pp. 515-540.
12. Goldfarb, A. (2014). What is Different About Online Advertising? *Review of Industrial Organization*, Volume 44, Issue 2, pp. 115-129.
13. Grabner-Kräuter, S., Kaluscha, E.A. (2003). Empirical Research in On-line Trust: A Review and Critical Assessment. *International Journal of Human Computer Studies*, Volume 58, Issue 6, pp. 783-812.
14. Guinee, K., Eagleton, M.B., Hall, T.E. (2003). Adolescents' Internet Search Strategies: Drawing Upon Familiar Cognitive Paradigms When Accessing Electronic Information Sources. *Journal of Educational Computing Research*, Volume 29, Issue 3, pp. 363-374.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 206-213

15. Hausman, A.V., Siekpe, J.S. (2009). The Effect of Web Interface Features on Consumer Online Purchase Intentions. *Journal of Business Research*, Volume 62, Issue 1, pp. 5-13.
16. Kim, E.E.K., Mattila, A.S., Baloglu, S. (2011). Effects of Gender and Expertise on Consumers' Motivation to Read Online Hotel Reviews. *Cornell Hospitality Quarterly*, Volume 52, Issue 4, pp. 399-406.
17. Lee, M., Rodgers, S., Kima, M. (2009). Effects of Valence and Extremity of EWOM on Attitude Toward the Brand and Website. *Journal of Current Issues & Research in Advertising (CTC Press)*, Volume 31, Issue 2, pp. 1-11.
18. Lyu, S.O., Hwang, J. (2015). Are the Days of Tourist Information Centers Gone? Effects of the Ubiquitous Information Environment. *Tourism Management*, Volume 48, pp. 54-63.
19. Ma, Y.J., Lee, H.-H. (2014). Consumer Responses Toward Online Review Manipulation. *Journal of Research in Interactive Marketing*, Volume 8, Issue 3, pp. 224-244.
20. Obermiller, C., Spangenberg, E.R. (2000). On the Origin and Distinctness of Scepticism toward Advertising. *Marketing Letters*, Volume 11, Issue 4, pp. 311-322.
21. Rodgers, S., Thorson, E. (2000). The Interactive Advertising Model: How Users Perceive and Process Online Ads. *Journal of Interactive Advertising*, Volume 1, pp. 42-61.
22. Roscoe, R.D., Grebitus, C., O'Brian, J., Johnson, A.C., Kula, I. (2016). Online Information Search and Decision Making: Effects of Web Search Stance. *Computers in Human Behavior*, Volume 56, pp. 103-118.
23. Zhang, X., Ko, M., Carpenter, D. (2016). Development of a Scale to Measure Scepticism Toward Electronic Word-of-Mouth. *Computers in Human Behavior*, Volume 56, pp. 198-208.

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SOCIAL MEDIA AS A TOOL FOR PROTECTION OF CONSUMERS' INTERESTS AND RIGHTS

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Abstract. Complaining and getting effective redress can reduce or even offset consumer detriment and thus help reinforce consumers' confidence in the market (European Commission, 2015^B). Social networks, social networking and social media are now business tools used around the world by most industries. One of the main benefits of using social networks is the instant knowledge of what consumers are saying about seller/provider allowing respond quickly to this information. However it could be negative point for seller/provider in case when customers do not receive the value they had anticipated. The aim of the paper is to analyze the problems of consumer's interests and rights protection and find out whether social media could be used as a tool for protection of consumers' interests and rights.

Based on the EU consumers' surveys analysis, the model of four scenarios of consumers behaviour is created in cases when consumers are not satisfied with goods or services. Scenarios 2 and 3 are used by consumers less often, while Scenarios 1 and 4 are more positive for both - consumer and seller/provider since they allow solving problems without interaction of third parties, create communication flows, trustful relationship, good reputation of seller/provider and develop loyal fans from consumers' side. When companies are presented in social media they have more incentives to resolve the problem of consumers since the information about disloyalty can spread very fast and broadly. Therefore, social media is a natural tool enabling consumers to gain benefits, which help protect their rights.

Key words: social media, consumer, consumers' interests, consumers' behaviour, protection of consumers' rights.

JEL code: M310, M390, K290

Introduction

Better consumer conditions not only improve consumer welfare but can also benefit the economy as a whole. When consumers have the necessary confidence and knowledge they act as market drivers — by comparing offers, switching providers, complaining and seeking redress when their rights are breached — they reward the most efficient and innovative companies, stimulate competition, which in turn leads to improved productivity and growth.

On the supply side, effective consumer policies ensure a level playing field for companies, increase legal certainty and reduce compliance costs (Spakovica, Moskvins, Moskvins, 2013), (European Commission, 2015^B).

While both the incidence and the volume of e-commerce are growing rapidly in the EU, there is considerable untapped potential for further growth (European Commission, 2015^B). In this situation, social media start to play important role to inform consumers about goods and services and to get relevant feedback from consumers to seller/provider. The continuing

development of web-based and mobile technologies allow interactive communication between those creating the social media and their readers, followers, members and customers. Behavioural economics says that people are often not fully rational and not independent but tend to reproduce their peers' choices (European Commission, 2015^A). Social networks, social networking and social media are now business tools used around the world by most industries (Selling Skills, 2014). However, social media resources can be used not only in e-commerce. Buying goods and services in the direct retail sale and in the places, where services are offered, social media are useful for getting information about characteristics, quality, price of goods, services and references about experience of other people.

In this connection, the aim of the paper is to analyze the problems of consumer's rights protection through researching consumers' behaviour in situations of dissatisfaction with goods or services and consumers' attitude to the process of resolving consumers' problems from

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the side of sellers or providers and to find out whether social media could help to increase the satisfaction level of consumers in relationship with sellers or providers and hence could be used as a tool for protection of consumers' rights.

The study is based on the review of European Commission's documents, legislation and literature as well as on statistical data available from the European Commission's Analytical reports, the EU Consumer Conditions Scoreboard and Consumer Markets Scoreboard conducted in 2012, 2014 and 2015. In the study descriptive method and secondary data analysis are applied.

Research results and discussion

In an ideal world — where both consumers and retailers have full knowledge on consumer rights and legislation, and public authorities are successful in guaranteeing compliance with that legislation — consumer problems should not occur. However, in the real world, it is unavoidable that things go wrong. In those cases, consumers should know where to complain and be able to get redress quickly, simply and inexpensively (European Commission, 2015^B).

1. Consumers' confidence, satisfaction, behaviour and relationship with sellers/providers

Consumers' confidence that their rights are respected and protected differs widely across the EU. Consumer confidence in the organisations responsible for the protection and/or respect of consumer rights (e.g. retailers) is very important, since a lack of trust may reduce consumers' willingness to engage actively in the market. According to Consumer Conditions Scoreboard (European Commission, 2015^B), seven out of ten

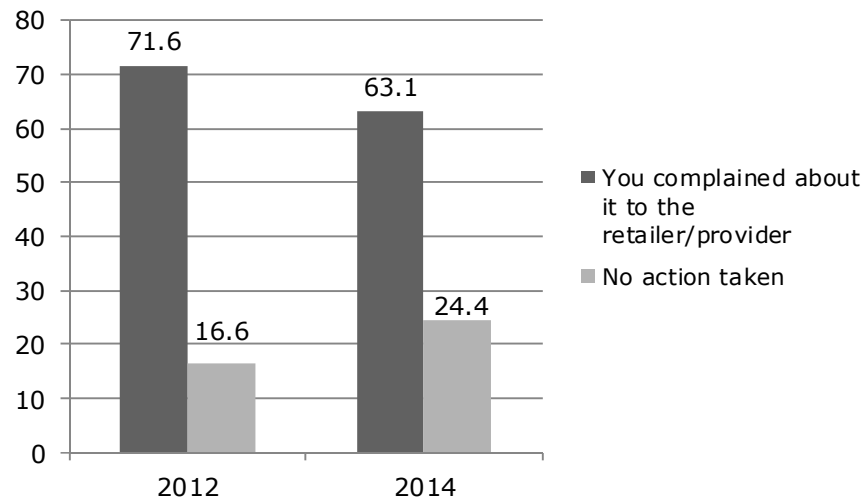
Jelgava, LLU ESAF, 21-22 April 2016, pp. 214-215 respondents (71%) are confident that retailers and service providers respect their rights as consumers. In Latvia, this indicator is lower (68%) in 2014 comparing with the EU-28.

Around 22% consumers say they have experienced a problem buying or using goods or services in the past 12 months, which they felt gave them a legitimate cause to make a complaint. Out of those, 76% took action to solve the problem while 24% did nothing about it. Compared to 2012, consumers seem to have experienced slightly fewer problems but are also somewhat less active in trying to solve them (European Commission, 2015^B). Typical complaint channels include appealing to the trader to amend the situation to the consumer's satisfaction or, if no consensus is achieved directly with the trader, going to a third body. Reaching an amicable solution with the trader is the best option, as it is efficient in terms of costs and outcomes for both parties. In line with these assumptions, the vast majority of respondents who felt they had a legitimate cause for complaint did contact the retailer or service provider directly (63%) (Figure 1). In 2014, consumers were somewhat less likely to complain to a retailer or service provider than in 2012. In-house customer service is by far the most common channel for receiving consumer complaints (74%) (European Commission, 2015^B). Also according to the Market Monitoring Survey undertaken in 2013 (European Commission, 2014), the party most likely to be contacted is the seller of the goods or the provider of the service (57%) — thus, the immediate and known point of contact and (in the case of (semi-)durable goods) the one legally responsible for any faults in the product.

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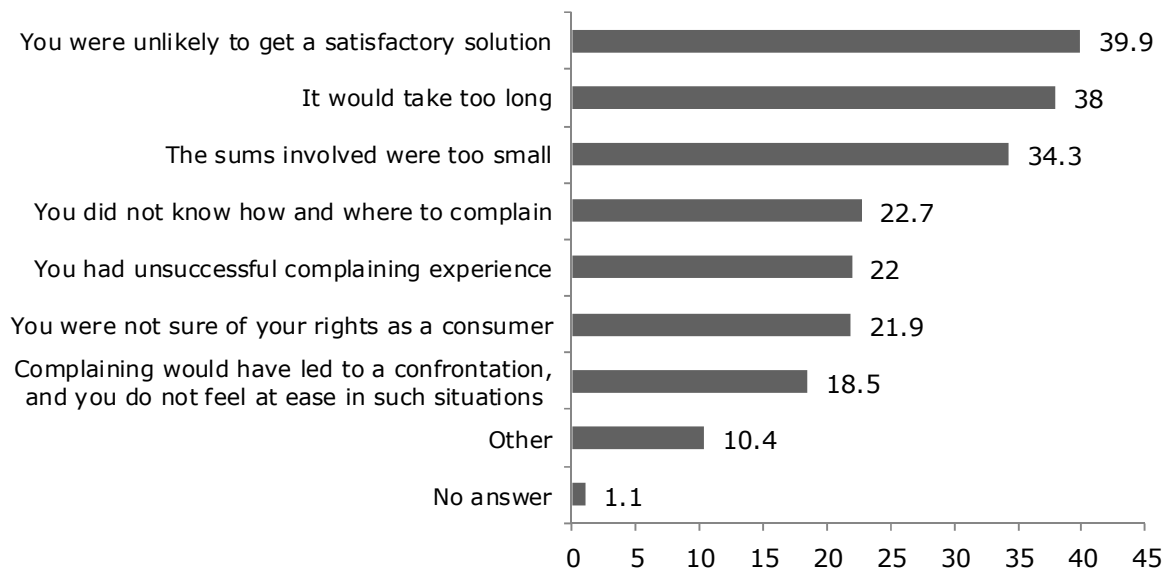
Source: authors' construction based on (European Commission, 2013), (European Commission, 2015^B)

Fig.1. Actions taken when encountering a problem, the EU-28, 2012-2014, %

A third of those who had a problem (31%) shared their bad experience with friends and family. But in case of using social media the essence of the problem will be known to a wider number of consumers.

There are different reasons why consumers do not complain despite feeling they have a

legitimate reason to do so. Four in ten said they were unlikely to get a satisfactory solution to the problem they encountered (40%) or thought it would take too long (38%), while a third (34%) said the sums involved were too small (European Commission, 2015^B) (Figure 2).



Source: authors' construction based on (European Commission, 2015^D)

Fig.2. Consumers' reasons for not taking action when encountering a problem in EU-28, 2014, %

It could be argued that small detriment is a valid reason not to complain, because the resources needed (and consequently the costs) for complaining could actually exceed any

(financial) loss incurred. Empirical analysis also suggests that the statement "the sums involved were too small" is very different from other reasons not to complain, while the statement

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"you were unlikely to get a satisfactory solution" can be considered as an umbrella category for the perceived difficulty of complaining. Overall, 80% of those who did not take any action were discouraged from complaining by the (perceived) difficulties, such as low likelihood of success, lack of information on whether and how to proceed or the expected length of the complaint procedure (European Commission, 2015^B).

Satisfactory remedy can reduce or even offset consumer detriment and enhance consumer confidence (European Commission, 2015^B). In discussing consumer behaviour, it is thus important to look not only at the level of problems and the proportion of complaints made but also at consumers' satisfaction with the way their complaints have been handled by sellers/providers. The Competition and Consumer Protection Commission, which was established in 2014, undertook the first consumer detriment survey (Competition and..., 2014). This study seeks to measure the level of consumer detriment experienced in Ireland when a goods or service delivery is not as intended or falls short of consumer expectations.

Respondents who claimed that they would definitely or likely need to purchase the goods or service in question were asked if there were any ways they would attempt to avoid similar problem occurring in the future with such products. Suggestions included using a different company or service in the future (14%) and/or researching the product/service more before purchase (13%) (Competition and..., 2014).

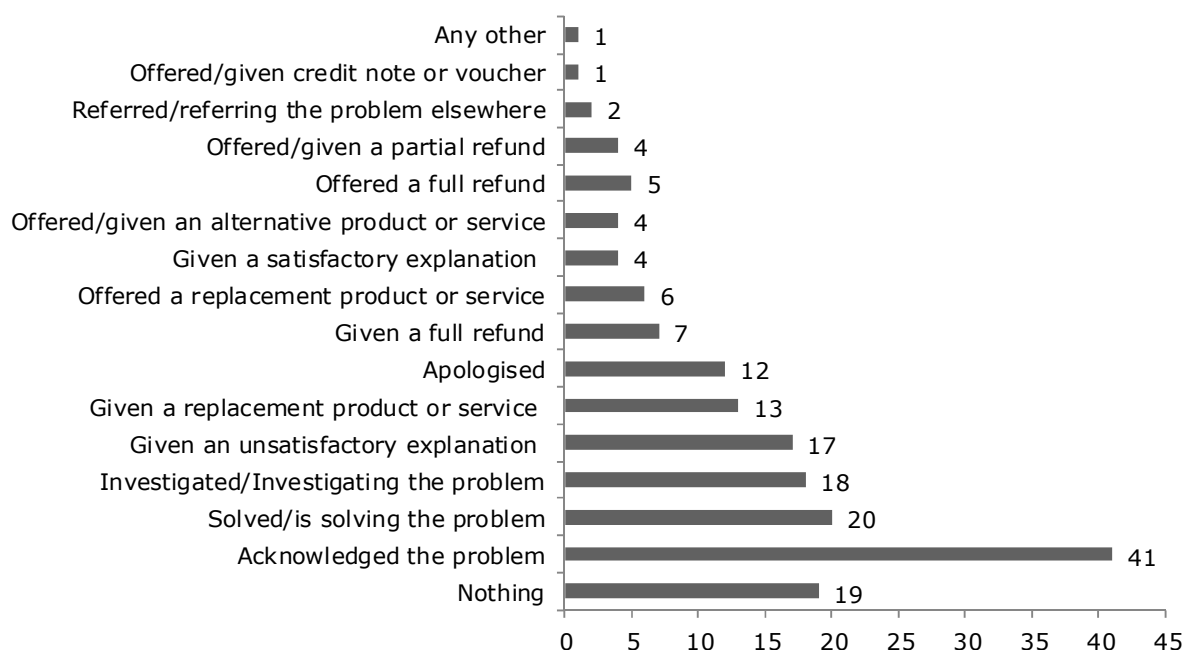
It is important also to analyse the actions taken by the company or firm that provided the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 214-217 problematic goods or service, as the level of company responsiveness can provide a pivotal role in consumers' overall experience of detriment (Figure 3). A company or firm handling an issue well could potentially alleviate the overall inconvenience and effects of experiencing a problem with a goods or service for the consumer, while a negative or absent response could further exacerbate the problem. The analysis displayed above shows the actions taken by companies or firms according to respondents who had made at least some contact with the company or firm regarding the problem. For one fifth of such respondents (19%), the company or firm providing the goods or service had reportedly done nothing in response to the problem. Such a response, or indeed a lack of, was most apparent among respondents reporting a completely unresolved problem, constituting nearly half of such respondents (38%). For two in five respondents, the company had at least acknowledged the problem (41%). Given that one third of respondents (32%) state their likelihood of using the company has been affected a great deal also state that the company had done nothing highlights the necessity of company or firm responsiveness and reactivity when faced with a consumer problem, even at the very simple end of the scale. In relation to the types of action taken by the company or firm, just over one in ten respondents (13%) were reportedly given a replacement product or service, while 7% were given a full refund (Competition and..., 2014)

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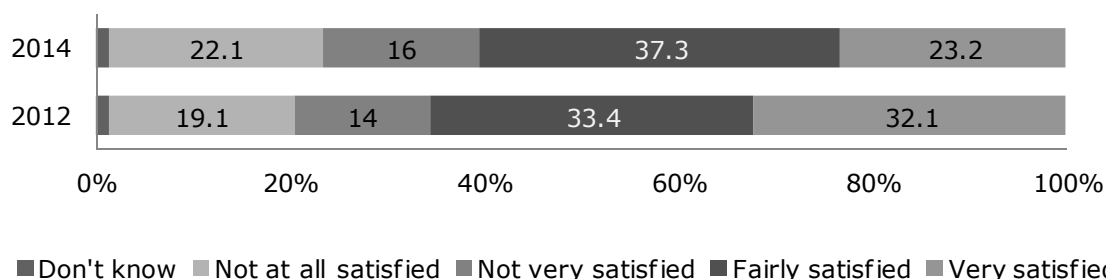


Source: authors' construction based (Competition and..., 2014)

Fig.3. The actions taken by the company or firm that provided the problematic good or service, %

Respondents in the EU were also asked several further questions evaluating how well they felt the company performed in meeting their needs throughout the experience of the problem

with the goods or service (European Commission, 2015^D) (Figure 4). In 2014, 38% of the respondents were not satisfied with companies' actions in resolving consumers' problems.



Source: authors' construction based on (European Commission, 2015^D)

Fig.4. Consumers' satisfaction with complaint handling by retailer or service provider in EU-28, 2012-2014 (%)

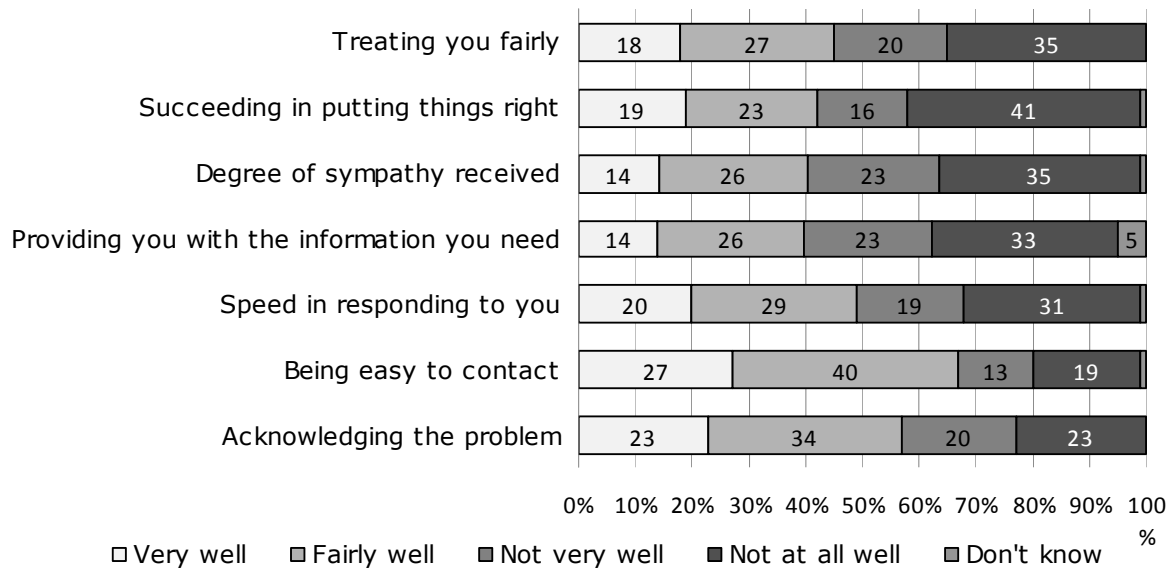
For businesses, successful handling of complaints is an important factor in increasing consumer loyalty (European Commission, 2015^D). As displayed in Figure 5, companies performed best in terms of ease of contact, with nearly two-thirds of respondents who contacted the

company or firm believing the company performed well in this regard (67%). Similarly, over one in two respondents felt the company performed well in acknowledging the problem (57%).

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Source: authors' construction based on (Competition and..., 2014)

Fig.5. Evaluation of meeting consumers' needs, %

The respondents were split evenly in terms of their experience of the companies' speed in responding to them, with just under half reporting this had been performed well (49%), while a similar proportion believed this had not been performed well (50%). Four in ten respondents considered that the company or firm had performed well in providing them with the information they needed (40%). Over half of the respondents did not rate highly the degree of sympathy received, taking steps to put things right, succeeding in putting things right, and/or treating the respondent fairly.

2. Benefits of social media for protection of consumers interests

Social media refer to the digital version of those traditional formats such as television, radio, newspapers and magazines that are now accessible online and also is the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and applications dedicated to forums, microblogging, and social networking are among different types of social media. The continuing development of

web-based and mobile technologies allow interactive conversation and immediate exchange of information and use of social media by businesses to reach the consumer. The consumers can now interact with the electronic media they receive by uploading their own video, text, photographs, documents and comments to sellers/providers blog, website or page on a social network to create consumer generated content. Creating it on social network page of seller/provider is very similar to a client referral of sellers'/providers' goods or services.

One of the main benefits of using social networks is the instant knowledge of what consumers are saying about seller/provider allowing respond quickly to this information (Pros and Cons of..., 2016). But it could be the negative point for seller/provider in case when the customers did not receive the value they had anticipated. For example, consumers can send an email relating their experience and expectation of a refund. If their complaint is not dealt with immediately, they will share the story of their "experience" virally, sending their comments to their friends and relatives. As a result, companies' reputation could be impacted

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positively or negatively depending upon how they monitor and respond to such an online complaint and reputation would depend on consumers' satisfaction level. Therefore, interaction with clients is one of the keys to building the online and social relationship that companies seek to achieve. To further the two-way communication, the consumer is invited to join the conversation by commenting on products and services. The company can develop relationship with the customer by asking about the customer's preferences. With this information seller/provider can use an individual approach to find decision in case of consumer's dissatisfaction or a problem.

Social sites can offer companies a fast and efficient way to build and grow long term customer relationships. According to the 2015 Social Media Marketing Industry Report (Stelzner, 2015), most companies are using social media to develop loyal fans (69%). Of those who have been using social media for at least one year, 64% found it useful for building a loyal fan base. Facebook, Twitter, LinkedIn, Google+, YouTube, Pinterest and Instagram were the top seven platforms used by companies, with Facebook leading. More than half of the companies (52%) choose Facebook as their most important platform.

Based on the research, surveys' analysis, and requirements of legislation, it is concluded that consumers have four scenarios to act in case of experiencing some problem with a good or a service (Figure 6).

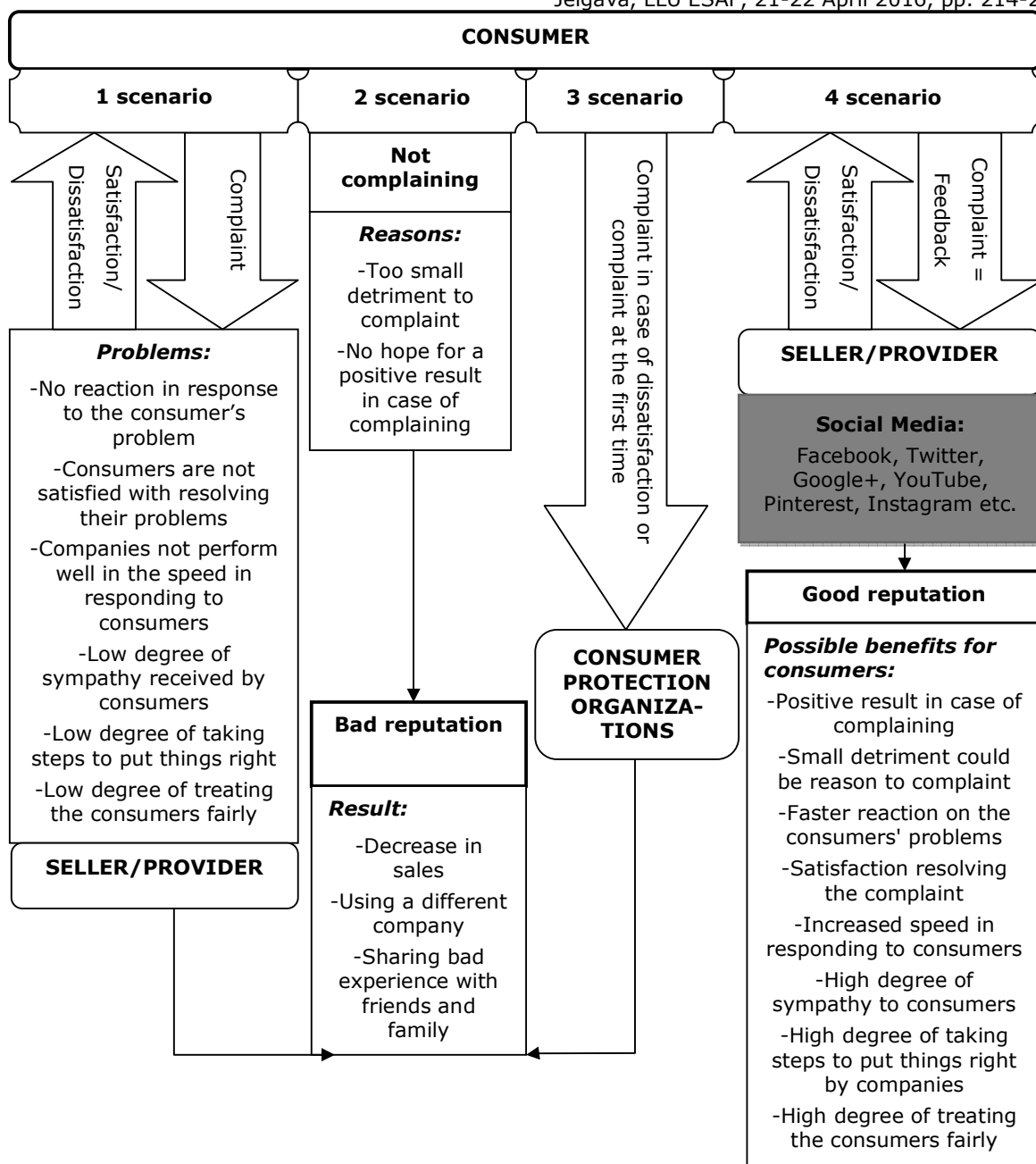
The first scenario foresees complaint from consumer to seller/provider without intervention of third parties, for example, consumer protection organisations. In this case, according to the consumer surveys analysed above,

Jelgava, LLU ESAF, 21-22 April 2016, pp. 214-220 consumers sometimes are not satisfied with speed in reacting on problems, resolving problems and responding on them, degree of sympathy received, treating the consumers fairly and degree of taking steps to put things right. However, smart seller/provider will try to find decision of the problem and consumer will be satisfied. Otherwise, reputation of seller/provider will suffer. **The second scenario** foresees not complaining possibility due to the lack of hope for a positive result in case of complaining and too small detriment. As a result, seller/provider does not receive any complaint but actually the problem will continue to exist since it is not resolved. Reputation of seller/provider would suffer that would lead up to switching on another seller/provider. **The third scenario** foresees that consumer will complain directly to the consumer protection organizations. Consumers can do that in cases when they are not satisfied with the result of the complaint resolution by seller/provider or if they have decided to do that without interaction of seller/provider. In both cases, it means that consumer and seller/provider do not have good communication, dialog and trustful relationship that would influence reputation of seller/provider. **The forth scenario** includes situation when both sides - consumer and seller/provider - have good communication flow and relationship using social media to be in touch with each other. In this case, seller/provider will be interested to prevent any consumer's dissatisfaction when consumer could easily share bad experience with friends and family by using social media, negative or absent response could further exacerbate the problem and as a result company's reputation will suffer.

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Source: authors' construction based on (Competition and..., 2014), (European Commission, 2015^b), (European Commission, 2015^d), (Consumer Rights..., 1999).

Fig.6. Four scenarios of consumers' behaviour including pros and cons for socially networked consumers and sellers/providers

Conclusions

- 1) Based on the EU consumers' surveys analysis, the model of four scenarios of consumers behaviour is created in cases when consumers are not satisfied with goods or services.
- 2) According to statistical data, the Scenarios 2 and 3 are used by consumers less often, comparing with Scenarios 1 and 4 since 71%

of the respondents are confident that retailers and service providers respect their rights as consumers. In case of the problem, 63% contacted the retailer or service provider directly in-house customer service is by far the most common channel for receiving consumer complaints. By encountering the problem with goods or services, 24% of consumers did nothing, although complaining

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and getting effective redress can reduce or even offset consumer detriment and thus help reinforce consumers' confidence in the shopping environment.

3) Scenarios 1 and 4 are more positive for both consumer and seller/provider since they allow solving problems without interaction of third parties, create communication flows, trustful relationship, good reputation of seller/provider and develop loyal fans from consumers' side. However, in case of Scenario 1, consumer can encounter problems more

Jelgava, LLU ESAF, 21-22 April 2016, pp. 214-222 often (comparing with Scenario 4) such as no reaction on problems, dissatisfaction, low degree of sympathy from sellers'/providers' side and so on. When companies are presented in social media they have more incentives to resolve the problem of consumers since the information about disloyalty can spread very fast and broadly. Therefore, social media is a natural tool providing benefits for consumers, which help protect their rights.

Bibliography

1. Competition and Consumer Protection Commission (2014). *Consumer Detriment Survey 2014*. Ipsos NRBI, pp.20.
2. *Consumer Rights Protection Law* (1999). Retrieved:<http://likumi.lv/ta/id/23309-pateretaju-tiesibu-aizsardzibas-likums>. Access: 08.01.2016.
3. European Commission (2013). *The Consumer Conditions Scoreboard. Consumers at home in the single market*. 9th edition – July 2013, Brussels, p.140.
4. European Commission (2014). *Consumer Markets Scoreboard. Making Markets Work for Consumers 10th Edition* – June 2014, p.144.
5. European Commission (2015^A). Behavioural Economics. *Health and Consumers*. Retrieved:http://ec.europa.eu/consumers/archive/behavioural_economics/index_en.htm. Access: 15.11.2015.
6. European Commission (2015^B). *Consumer Conditions Scoreboard. Consumers at Home in the Single Market*. 2015 edition, p.136.
7. European Commission (2015^C). *Retailers' Attitudes Towards Crossborder Trade and Consumer Protection*. Flash Eurobarometer 396, TNS Opinion & Social, September 2015, Brussels, p.32.
8. European Commission (2015^D). *Consumer Attitudes towards Cross-border Trade and Consumer Protection*. Flash Eurobarometer 397, TNS Opinion & Social, September 2015, Brussels, pp.133.
9. Pros and Cons of Social Media (2016). Australian Government resource. Retrieved:<http://www.business.gov.au/business-topics/business-planning/social-media/Pages/pros-and-cons-of-social-media.aspx>. Access: 04.01.2016.
10. Selling Skills (2014). *Travel and Tourism Consultant*. Course eTextbook, 6.12.Edition, IATA Training&Development Institute, p.512.
11. Spakovica E., Moskvins G., Moskvins M. (2013). Consumers' Complaints and Complaint Handling as a Crucial Aspect of Good Market Functioning. *Proceedings of the international scientific conference "Economic Science for Rural Development"*, No. 32, Rural Development and Entrepreneurship Marketing and Sustainable Consumption, p.106.
12. Stelzner M.A. (2015). *Social Media Marketing Industry Report 2015*. How Marketers are using Social Media to Grow Their Businesses. Social Media Examiner, May 2015, p.54.

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IMPORTANCE OF TERRITORY MARKETING AND ITS SYMBOLS: CASE STUDY OF TALSI MUNICIPALITY

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Abstract. *The aim of the article is to analyse the significance of territory and its symbol marketing in the promotion of territory attractiveness and development. Basing on different opinions, stated in the scientific literature, the article presents the role of territory marketing in the establishment of place attractiveness, underlying different symbols of the current territory. The article studies Talsi municipality and its symbols as elements for establishing image attractiveness, revising different symbol groups that emphasize municipality in total, not only Talsi town as a centre of the municipality.*

Survey that was provided both to residents and visitors of Talsi municipality showed different results in identification of symbolic elements in municipality that could be the reason why current activities in territory marketing are not quite successful. Therefore, there is a necessity for a territory marketing strategy in the municipality, where the opinion of tourists about symbols of the municipality would be taken into consideration.

Key words: territory marketing, place attractiveness, symbols, municipality.

JEL code: M31

Introduction

Nowadays, when the economy of every country is characterized not only by its resources but also by economic, cultural relations and production cooperation, there is a necessity not only for product and service marketing but also for territory marketing that could promote and sell a particular territory worldwide. Today, between 5 and 10% of all advertising space in newspapers is devoted to the marketing of places, regions and nations (Langer, 2001). It means that a country must recognize its competitiveness advantages, possible direction for development, and work out specific tasks for attracting current and potential residents, tourists, entrepreneurs and investors. Due to increasing globalization and limited resources one of the main tasks for a good territory management is a rise of current resources and quality, attraction of new resources, developing the territory and preventing it from degradation.

Revising the current situation in Talsi municipality, the authors of the article set out aim to determine whether symbols of the territory are important territory marketing. To fulfil the aim the following tasks were determined:

- to analyse the role of territory marketing in the territory;
- to revise territory image as a body of different symbolic elements;
- to study the potential of Kurzeme region in promotion of territory marketing;
- to evaluate the use of symbols in territory marketing strategy of Talsi municipality.

For the output of the article, the authors used methods of logical analysis and synthesis, monographic and analytic research method for theoretical and empiric sources, logically constructive method, data processing method, descriptive method.

1. Role of territory marketing in the establishment of place attractiveness

Place marketing, though quite new and diverse research method in academic literature, definitely is not a new phenomenon. Place marketing is centuries old – as ancient town arms, coats-of-arms and escutcheons partly served the same purpose as modern logos in current society. A couple of centuries ago, these narrative techniques included the invention of national history and traditions and the construction of common symbols and rules, such as national currencies, national anthems and flags (Langer R., 2001).

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Increasingly often people think of popularizing the particular state, region, city or place in order to get its own niche for increasing competitiveness and find unique approach to every interested. Nowadays, place marketing has become especially popular, which after Smyth (1994) is "strategic stimulation of the city or suburban area with an aim to ensure specific activities and events". P.Kotler (1999), in his turn, offers such definition of territory or place marketing: "Place marketing is an activity that is performed to establish, maintain or change relationship and/or behaviour according to particular places".

Rainisto (2003) stresses out that place marketing after its essence consists of two parts – 'place' and 'marketing', where a term 'place' can correspond to any place, starting from small historic objects to places of state importance. Other authors, such as Verlaet, develop concrete definition of regional marketing, stating that "regional marketing is a planned whole of regional government activities. It takes place within the framework of the goals of an integrated development vision and the related priorities, and the presence of alternative options for customers. It is aimed at the increased use of regional products by residents, investors, visitors and other users of the region, by optimal matching of wants and needs of (potential) customers on the one hand, and the supply of regional products on the other hand" (Meijer, 2009).

The most important factor in marketing is direction of a product or in this case – territory – towards market to attract residents, visitors and entrepreneurs. It can be achieved with the help of four widely known methods of territory marketing – image marketing, marketing of popular sights, infrastructure marketing and people marketing.

Matias (2007) in his research stated that the most important elements for the definition of the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 223-224 territorial marketing strategy and attractability management are the following:

- 1) identifying and building in the territory points and elements of real elements of real differentiation – the importance of choosing a differentiating function to carry out;
- 2) choosing and differentiating the symbolic elements related to the territory – the importance of graphic symbols of reference – the building of the territory's identity card;
- 3) choosing specific communication plans for specific target groups;
- 4) the joint management of the symbolic, real, potential and relational dimensions of the territory;
- 5) the building of the territorial brand(s) – the territory is a complex product having a complex way of being promoted – firstly one needs to know where one is headed to;
- 6) the option about building the territory's image(s) based on the territory itself or based on the most relevant economic sectors territorially or even based on the main companies located therein (Matias et al., 2007).

Therefore, the abovementioned states that territory marketing in the particular place can be developed with the help of different elements that are not competing among each other but cooperate and through different communication channels work with different target audiences.

2. Territory image as a body of different symbolic elements

Territory image, similarly to company or product image becomes more developed. Although initially it seems limited and constant, different marketing strategies, social surveys, different psychological and economic indicators are being used to establish territory image that would be binding to corresponding target audience. Making decision on development of territory image and attraction of chosen target audience, the image-making specialists should

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take into consideration four steps, described below.

First step of image making is defining the needs and wishes. In this stage, specialists should set out desirable wishes and tasks for achieving aim as well as deliberative possible image vision and associations that consumer will have after visiting the particular territory.

In the second step, specialists should determine the possible direction of territory in market, i.e. should think of the first reaction, first opinion and associations of territory consumers. To ensure the achievement of set-out aims and implementation of territory vision, it is necessary to establish outstanding first communication stages with visitors. In this stage, it is advisable to perform SWOT analysis of the territory, surveys for potential visitors in order to clarify their wishes and associations with a particular market and other research.

In the third stage, the particular territory will already receive associations and emotions from visitors themselves. People during their visit in a particular territory will unconsciously receive the level of territory attractiveness and quality and will decide whether come to this territory for another time and suggest visiting it also to others.

The fourth stage is an evaluation of results, achieved in the first three stages, since visitors already have their own opinion and story about the territory. When they hear the name of a particular place, they already have their own visual image of the territory with its character and traits. In this stage, it is necessary to provide different sociologic surveys on a territory quality, asking visitors about availability of the territory, infrastructure, cleanliness of the sights and territory itself etc. (Kotler P., 2006).

3. Potential of Kurzeme region in promotion of territory marketing

Kurzeme region is one of five regions in Latvia that is located in the West of Latvia. The base of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 223-225 settling structure in Kurzeme region is historically established city net that is formed from 15 cities. Approximately 15 000 settlements form settlement net of Kurzeme region. More than 90% of all settlements in the region are farmsteads. The total amount of villages is 500, including villages that are seasonally inhabited (Kurzeme planning region..., 2011).

Kurzeme has maintained and developed several advantages that promote competitiveness of the region in national and international scale. Evaluating indicators of entrepreneurship and employment, export ability and productivity it can be stated that Kurzeme region in different intensity has comparative advantage for fisheries, clothing production, tourism, production of finished hardware, forestry, food production, ancillary activities of storage and transport, wholesale. Region has not significant advantages in the fields of human resources or knowledge resources but natural resources and infrastructure can be marked as significant advantages (Kurzeme 2030, 2015).

Sustainable development strategy of Kurzeme planning region for 2015–2030 states that Kurzeme region has to provide development of creative resources for increase in value added, indicating that "it is necessary to promote cooperation between traditional and creative industries that results in new innovative, unique products, developed product designs and trademarks, improved marketing that also increases value added for the particular industry in the region. Consequently, it is significant to invest in the development of creative industries and resources as well as encourage representatives of creative and traditional industries to cooperate and use each other's knowledge and skills, creating up-to-date, marketable products that could become recognizable not only in region or Latvia but also abroad."

Revising sustainable development strategies of Latvia and Kurzeme region, it is determined

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that the potential of Kurzeme region is creativity, heritage and sights – the most popular of them are Karosta, Ventspils city, the Historical Centre of Kuldīga and red-brick bridge across the river Venta, Wine Hill in Sabīle etc. These are symbols that, included in marketing strategy and appropriately used, can attract not only residents but also tourists and potential investors.

4. Use of symbols in territory marketing strategy of Talsi municipality

Talsi municipality is located in Northern Kurzeme, in Kurzeme planning region (which corresponds to European NUTS 3 region). Talsi municipality with 29597 residents (CSB, 2014) and area of 1763.2 sq.m. is the greatest municipality in Kurzeme region and the sixth greatest municipality in Latvia.

The centre of municipality is Talsi town. Municipality has borders with Roja and Mersrags municipalities, through which Talsi municipality has the exit to the Baltic Sea. Municipality has also borders with Dundaga, Kuldīga and Ventspils municipalities in Kurzeme planning region as well as with Tukums and Kandava municipalities that are located in Rīga planning region.

Talsi municipality was established in 2009 after the administrative territorial reform when former Talsi district was divided into four smaller municipalities: Roja, Mersrags, Dundaga and Talsi municipalities. After implementation of the reform, Talsi municipality experienced decrease of territory image, since places and different values, such as Cape Kolka, the Livonian heritage or seashore that symbolized Talsi district for many years now were located in other municipalities. The territory experienced necessity for a new, attractive image, offering current and creating new symbols that would attract target audience of different ages who would be interested not only visiting municipality but also stay for a living there and develop their entrepreneurship.

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Initially municipality did not provide significant image direction activities; image making mainly appeared in all county without any purposeful action and such situation did not promote identification of the municipality in Latvia. Due to such actions, tourists recognized particular places, sights and objects, not the municipality as a whole, thus, no association were established. However, due to the crisis, many residents emigrated to other municipalities and countries, the tourist flow decreased and the local government had to think of a better approach of territory marketing.

For a new strategy it had to include whole territory of the municipality, which was not a simple task, since the centre of the municipality is located in the centre of the municipality, moreover municipality shows monocentric traits. Municipality still has no marketing strategy for promotion of image attractability, though local government and corresponding institutions actively work on tourism offer development and popularization of the greatest events in Talsi municipality in order to offer the best things of Talsi municipality.

The development programme of Talsi municipality for 2014-2020 defines long-term aim – to promote sustainable development of Talsi municipality by strengthening local economy and management to establish pleasant environment for life and work and hand over natural and culture heritage to next generations. To implement the abovementioned aim – establish pleasant environment for life and work and hand over natural and culture heritage to next generations – territory has to determine the objects, i.e. symbolic elements, with the help of which the pleasant environment for life and work is established. For the analysis of symbols, the authors during September provided a survey, consisting of 7 questions, 4 of which are analysed further on due to their appropriateness to the research. The author questioned 252 residents of

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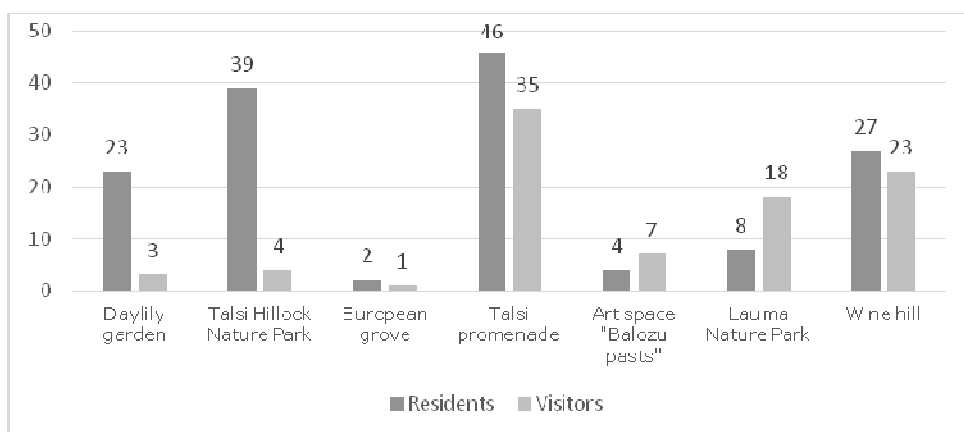
Latvia in total; 132 of them were residents but 120 – visitors.

Results of the survey show a tendency that symbolic elements, chosen by residents of the municipality, significantly differ from visitors' opinion; hence witnessing that the municipality has no united image, moreover, each of these resident groups connects municipality with their own symbols, creating completely different associations. Further in the present article the authors will analyse criteria – sightseeing places, events, visual symbols and entrepreneurship – the use of which implements the previously set-out aim about establishing pleasant environment for life and work.

Analysing the criterion "Sightseeing places" (Figure 1), it can be determined that residents of Talsi municipality stress the symbolic meaning of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 223-227 Talsi promenade and Talsi Hillock Nature park, while only 4% visitors sees the symbolic value of the Nature park. More than 20% of visitors emphasize the existence of Daylily garden, which is the greatest daylily garden in Eastern Europe.

Both residents and tourists evaluate symbolic value of Talsi promenade (33% residents and 31% visitors, respectively) as well as Wine hill (19% residents and 20% visitors) in the life of municipality. It should be stated that Sabile Wine Hill is the town symbol and has been included in the Guinness World Record Book as the most northerly vineyard in the world. It should also be stated that such sightseeing places as Art space "Baložu pasts" and Lauma Nature park are more evaluated by tourists than residents.



Source: survey results

Fig. 1. Symbolic meaning of sightseeing places among residents and visitors

Culture and sport events are integral part of society's life and allow territory not only promote its image but also direct it towards some specific direction, defining priorities that are set in the territory – art, music, dances, sports etc. Well-planned events usually attract visitor attention and often get into annual agenda not only in the specific territory but also in regional and national calendar of sports and culture.

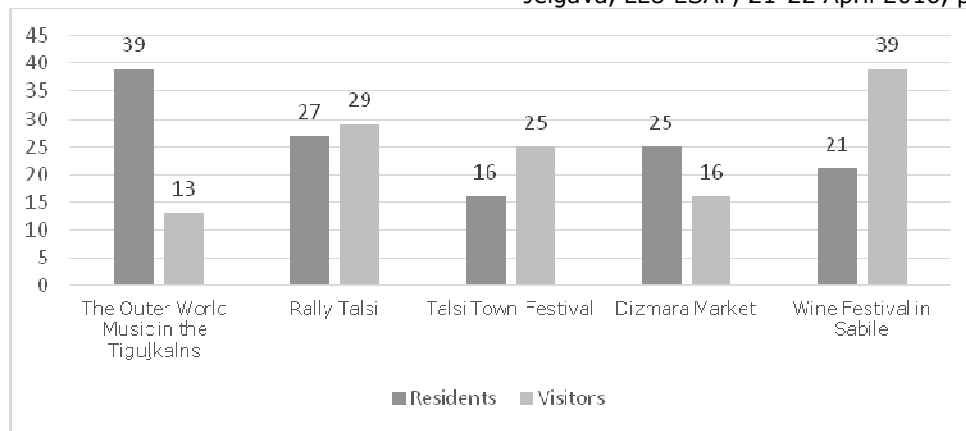
Evaluating the criterion "Events in Talsi municipality", the authors repeatedly want to underline differences in opinions between both

groups of respondents – while residents give the greatest symbolic value to the Outer World Music in the Tigulkaļns (28%), visitors do not pay much attention to it (12%).

Visitors unambiguously evaluate the symbolic meaning of Wine Festival in Sabile (27%) and Rally Talsi (24%) in the social life of Talsi municipality. The meaning of Rally Talsi, its economic contribution and establishment of municipality image in sports field have been evaluated also by 21% of residents.

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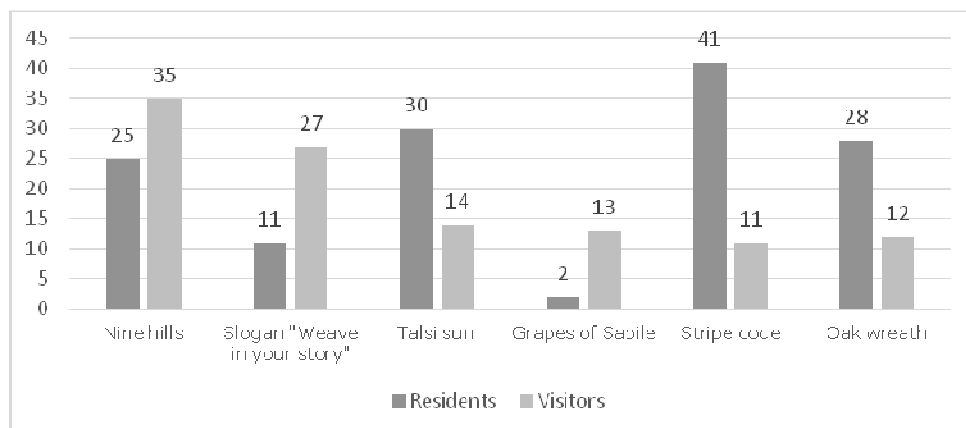


Source: survey results

Fig. 2. Symbolic meaning of events in Talsi municipality among residents and visitors

The authors discovered an interesting situation with two events of municipality scale – Dizmara Market and Talsi Town Festival. Both festivals are quite similar not only after their format; they both are held in the centre of municipality only with a month interval. The visitors of Talsi municipality evaluate the symbolic meaning of Talsi Town Festival (22%) that, although it is town festival, offers wide and interesting programme for everyone. Dizmara Market, in its turn, is a festival for residents of whole municipality and guests but is evaluated only from the residents (18%).

Visual and verbal symbols of the territory are becoming more and more significant – nowadays everyone knows at least one company or territory slogan, logo or other visual and verbal approaches with the help of which the particular company or territory promotes its identification as well as indirectly indicate any other important information. Also Talsi municipality purposefully works at the output of new symbols that would create new associations with the territory and put stress on symbols and traditions of the municipality.



Source: survey results

Fig. 3. Symbolic meaning of visual and verbal symbols in Talsi municipality among residents and visitors

Analysis of the criterion "Visual/verbal symbol" (Figure 3) shows that results are comparatively different but still directed toward the same direction. Nine percent of residents state that the visual symbol of the municipality is

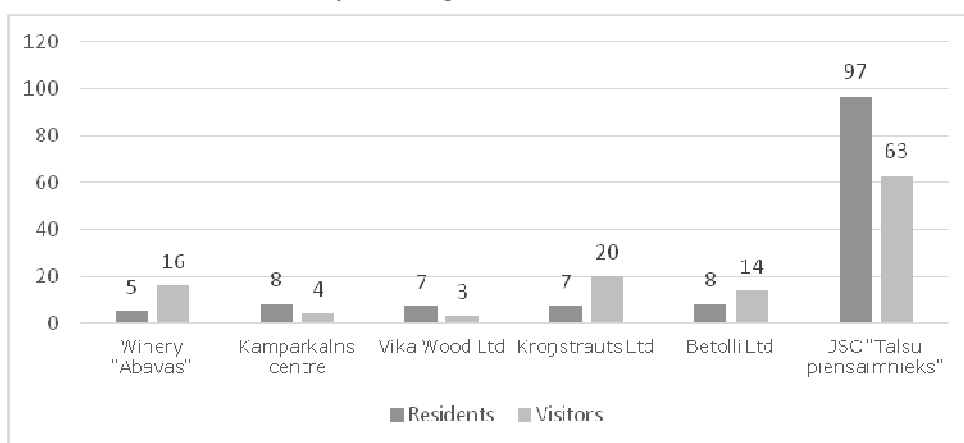
a stripe code that is derived from the national costume of Talsi municipality. The visitors, in their turn, underline the existence of nine hills in Talsi town (31%) that are one of the most significant tourism objects in Talsi town. They

also highly evaluate the new slogan of Talsi municipality "Weave in your story" that indirectly indicates the strong traditions of folklore, folk dances and choir singing in the municipality and invites visitors and residents to weave in their own story in Talsi municipality – it was stated by 24% of visitors.

Twenty per cent of the residents underlined the symbolic meaning of the oak wreath that has been used also in the coat of arms of the municipality but, unfortunately, it does not make any significant associations among visitors. Residents also commented their surveys, stating

Jelgava, LLU ESAF, 21-22 April 2016, pp. 223-229 the municipality needs new symbols to maintain and offer to visitors.

Companies in the territory indicate on economic growth of the territory, create new working places and attract professional workforce. Talsi municipality cannot be proud of specific weight of big production companies but many companies in the municipality are unique in their form of activities, for example, "Betolli" Ltd that offers shirts with individual design, or "Kronstrauts" Ltd that produces Sabile cider, using traditional methods and local apples.



Source: survey results

Fig. 4. Symbolic meaning of companies in Talsi municipality among residents and visitors

Revising the criterion "Entrepreneurship" (Figure 4), it can be stated that both residents and visitors highly evaluate the symbolic meaning and significance of JSC "Talsu piensaimnieks" (73% residents and 53% visitors, respectively). Visitors also have evaluated the meaning and contribution to the municipality from such companies as "Betolli" Ltd (12%), Kronstrauts Ltd (17%), and Winery "Abava" (13%).

The authors determine that, although big production and service companies give a greater contribution to the development of the territory, more workplaces and financial resources, symbolic meaning and identification territory can be achieved with small niche companies.

Conclusions, proposals, recommendations

- 1) Territory image, similarly to company or product image becomes more developed; different marketing strategies, social surveys, different psychological and economic indicators have been used to establish territory image that would be binding to corresponding target audience.
- 2) Kurzeme has maintained and developed several advantages that promote competitiveness of the region in national and international scale, for example, fisheries, clothing production, tourism, production of finished hardware, forestry, food production, ancillary activities of storage and transport, wholesale; also natural resources and infrastructure can be marked as significant

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advantages. These aspects are taken into consideration, developing strategies for sustainable development of Kurzeme region and separate municipalities in it as well as other normative documentation.

3) Performing the analysis of all criteria, it can be seen that major part of events, sightseeing places and companies, for example, Talsi promenade, Talsi Town Festival, JSC "Talsu piensaimnieks" are located in Talsi town.

4) Potential symbols, i.e. objects that visitors and residents mentioned as the second or third in the survey, such as Daylily garden, Sabile Wine Festival and Rally Talsi are located in municipality, thus, promoting polycentric development of the municipality.

5) Residents of the municipality are more focused on events in the centre of municipality, while guests come to an events

Jelgava, LLU ESAF, 21-22 April 2016, pp. 223-230 and sightseeing places around all territory of the municipality that should be taken into consideration in the establishment of long-term development documents, including territory marketing strategy for the particular territory and tourism plan for next years. If local government invests in those events and places, that are more significant in the eyes of visitors, the possibility they return to the municipality, increases.

Acknowledgments

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Bibliography

1. Development Programme of Talsi Municipality 2014-2020. Retrieved: <http://www.talsi.lv/attistibas-programma475>. Access: 16.12.2015.
2. Kotler, P., Asplund, C., Rein, I., Haider, D. (1999). *Marketing Places Europe*, Prentice Hall, p. 215
3. Kotler, P., Keller, K. (2006). *Marketing Management*. 12th edition, Pearson Prentice-Hall, Upper Saddle River, NJ, p. 265.
4. Kurzeme Planning Region homepage. Retrieved: http://www.kurzemesregions.lv/sakums/Apraksts_par_rejonu. Access: 16.12.2015.
5. Kurzeme 2030. Retrieved: http://www.kurzemesregions.lv/userfiles/files/KPR%20IAS%20projekts_10042015.pdf. Access: 16.12.2016.
6. Langer, R. (2001). *Place Images and Place Marketing*, Department of Intercultural Communication and Management Copenhagen Business School, p. 5
7. Matias, A., Nijkamp, P., Neto, P. (2007). *Advances In Modern Tourism Research: Economic Perspectives*. Retrieved: https://books.google.lv/books?id=eEncjdnKZsC&pg=PA1&lpg=PA1&dq=Matias+etc.,+Advances+in+Modern+Tourism+Research&source=bl&ots=klcVDkkAvE&sig=s99aLhVfry41_kvZyDy4ZEeIXM&hl=lv&sa=X&ved=0ahUKEwjirNm9i6DKAhXL2SwKHc2BDkgQ6AEINTAD#v=onepage&q=Matias%20etc.%2C%20Advances%20in%20Modern%20Tourism%20Research&f=false. Access: 04.12.2015, pp. 129-130.
8. Meijer, P. (2009). *Regional Marketing: The Hague Region Case*. Retrieved: <http://thesis.eur.nl/pub/6431/Masterscriptie%20Petra%20Meijer%20297508%20december%202009.pdf>. Access: 04.01.2016., pp. 11-12.
9. Rainisto, S.K. (2003). *Success Factors Of Place Marketing: A Study Of Place Marketing Practices In Northern Europe And The United States*. Doctoral Dissertation, Helsinki University of Technology, Institute of Strategy and International Business. Retrieved: <http://lib.tkk.fi/Diss/2003/isbn9512266849/isbn9512266849.pdf>. Access: 05.01.2016., pp. 66-68
10. Smyth, H. (1994). *Marketing the City: The Role of Flagship Developments in Urban Regeneration*, Taylor & Francis, pp. 41-42.

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COMPARATIVE ANALYSIS OF CUSTOMER BEHAVIOUR MODELS

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Abstract. In marketing theory, various models strive to explain customer behaviour. They vary one from another lot. However, since customers in different product markets behave differently, the need to understand various customer behaviour models arises, and the following problem emerges – number of situations where inappropriate behaviour models are chosen for practical usage significantly increases.

Therefore, the aim of the paper is – by identifying and evaluating most typical customer behaviour models, to understand how they differ from one another and explain better and more appropriate usage practice for different models. To achieve the aim, the authors have defined following tasks for paper:

- 1) to identify the essence and content of most popular customer behaviour model;
- 2) to assess strengths and weaknesses of each model by conducting expert interviews;
- 3) to determine practical application opportunities for each identified model;
- 4) to draw conclusions and make recommendations for practical usage of those models.

Results show that classic five-stage model is most popular customer behaviour model in both - theory and practice. There are many attempts to provide improved versions of the model, yet they all are incomplete. Some critics and suggestions for alternative models are useful when dealing with specific products and markets. There are specific models created for such situations. These models, however, do not explain customer behaviour in other markets. Therefore, despite the critics addressed towards the classic five-stage model, it is still appropriate to use it in practice, and it works the best in conjugation with other market/product-level specified models.

Key words: customer behaviour, decision making.

JEL code: M31

Introduction

The ultimate aim of marketing is to satisfy customers' needs and desires better than the competitors. Ability to understand how customers behave and how consumers make decisions is a prerequisite for doing it successfully. Over many decades, researchers have attempted to explain customer behaviour by providing various customer behaviour models. Some of these models have been approbated in practice more successfully than others. The problem is that number of situations where inappropriate behaviour models are chosen for practical usage significantly increases.

Therefore, the aim of the paper is – by identifying and evaluating most typical customer behaviour models, to understand how they differ from one another and explain better and more appropriate usage practice for different models. In the first part of the paper, the authors briefly go through the theoretical base of customer behaviour and examine various models that look at it from different perspectives. Such theoretical

base is necessary for expanded customer behaviour examination, and allows performing more detailed analysis of various marketing communication processes. To achieve the aim, the authors have defined following tasks for the paper:

- 1) to identify the essence and content of most popular customer behaviour model;
- 2) to assess strengths and weaknesses of each model by conducting expert interviews;
- 3) to determine practical application opportunities for each identified model;
- 4) to draw conclusions and make recommendations for practical usage of those models.

The following research methods are used in the paper: 1) monographic method – for purpose of information gathering and researching about general customer behaviour models; 2) descriptive method – for the purpose of general customer behaviour models content outlining; 3) comparative method – for the purpose of comparing customer behaviour models; 4) expert interviews – for the purpose of determining

practical application opportunities for customer behaviour models.

The discussion part of the paper contains expert interviews with five marketing professionals. Expert interviews provide overview about strengths, weaknesses and best usage practices of each model are provided.

Theoretical base of customer behaviour

To ensure that all readers have the same understanding of concepts used, before comparative analysis of customer behaviour models, the authors provide an explanation of semantics used. Following paragraphs explain terms behaviour, consumer behaviour, and consumer decision making.

Behaviour means consumer's actions about an attitude object (Solomon M., 2006).

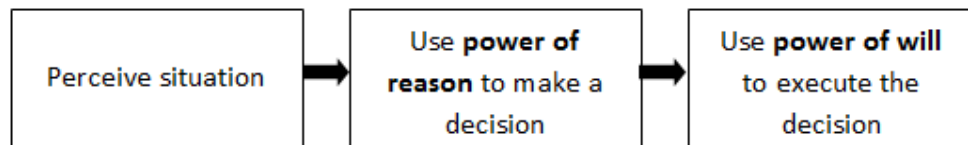
Consumer behaviour is the study of how individuals, groups, and organizations select, buy, use, and dispose of goods, services, ideas,

Jelgava, LLU ESAF, 21-22 April 2016, pp. 231-232 or experiences to satisfy their needs and wishes (Solomon M., 2006).

Author Du Plessis defines consumer decision making as the behaviour patterns of users that precede, determine and follow the decision process for the acquisition of need-satisfying products, ideas or services (Du Plessis P.J., 1990).

1. Broad comprehension of human behaviour

Customer behaviour is a general concept used in different academic disciplines such as sociology, psychology and marketing. It consists of three basic steps. First, people perceive a situation. Second, people use the power of reason to calculate whether taking one or another action will benefit to their long-term interest. Third, people use the power of will to execute the decision (Figure 1) (Brooks D., 2012).



Source: authors' construction based on D. Brooks provided explanation of human decision making process

Fig. 1. Human decision making process

The model suggests that human behaviour depends on perception, reason and will. It is important to know on which factor to focus most, when human behaviour is explained based on this model and is tried to be influenced or changed. For instance, in the 19th century Victorians emphasized the third step – the willpower. They preached that passions were the wild torrent, and humans had to tame and control them by their iron force of will (Brooks D., 2012).

In the 20th century, philosophers emphasized the second step (power of reason) as the most important. They believed that once people realize consequences of their actions they would be willing to stop it or not to do it. However, focusing on both will and reason has not proved

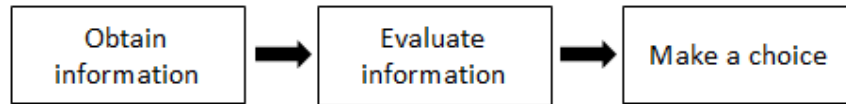
to be very effective. D. Brooks compares reason and will with weak muscles which in most cases are too weak to resist temptations. In the result, human self-delusion takes control over personal self-discipline. Therefore Step 1 (perception) is the most important part of this model. Perception is a thinking and skilful process. The way humans perceive certain things depends on their unconsciousness and past experiences (Brooks D., 2012).

In conclusion, the outcome, i.e. the decision of a person mostly depends on the way he perceives the situation. By taking this important aspect into account, customer behaviour models from the marketing perspective are evaluated next.

2. Comparative analysis of customer behaviour models

Academic literature and articles published during the second half of the 20th century use a

Jelgava, LLU ESAF, 21-22 April 2016, pp. 231-233 three-staged model similar to the one described in the previous section of the paper. Back then the customer decision making was intended to be explained by information processing approach model (Figure 2).



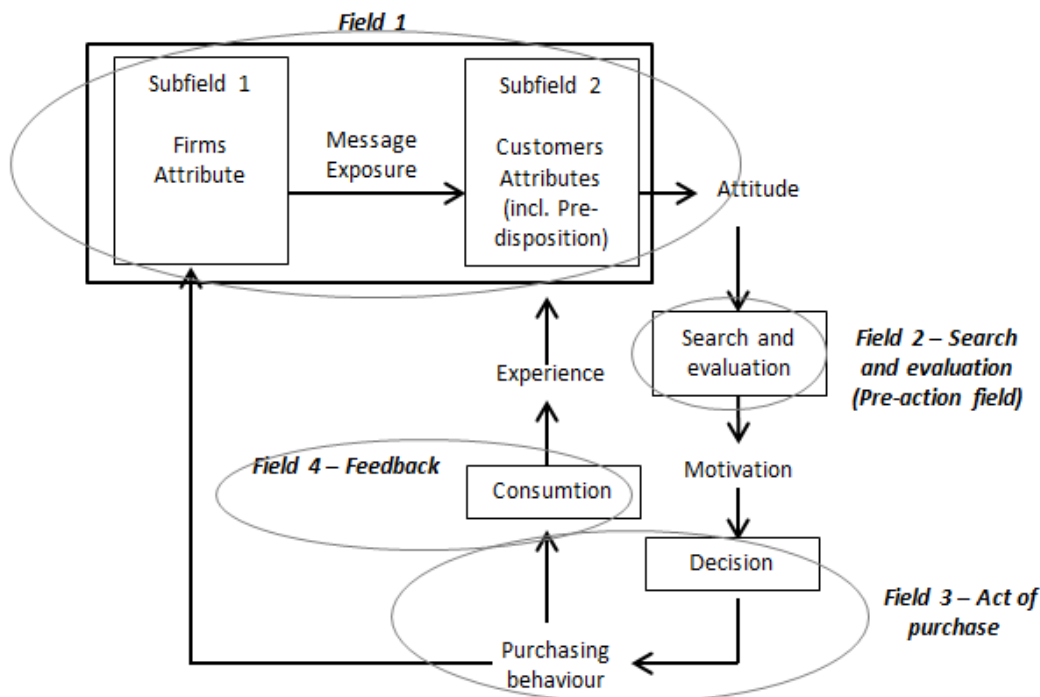
Source: authors' construction based on Solomon M.

Fig. 2. Information processing approach model

Information processing approach states that customers first obtain information, then interpret and evaluate it, and then make a particular choice. However, in the 21st century, this model is perceived to be too general and vague, and that makes it practically impossible to apply and use it for specific marketing decisions about placement and content of the communicated

message. Therefore, many models have been developed to describe buying behaviour in more details.

Two among the most detailed models are Nicosia model of the consumer decision process (Figure 3), and Engel-Blackwell-Miniard model of customer behaviour (Figure 4).



Source: authors' construction based on Nicosia F. M.

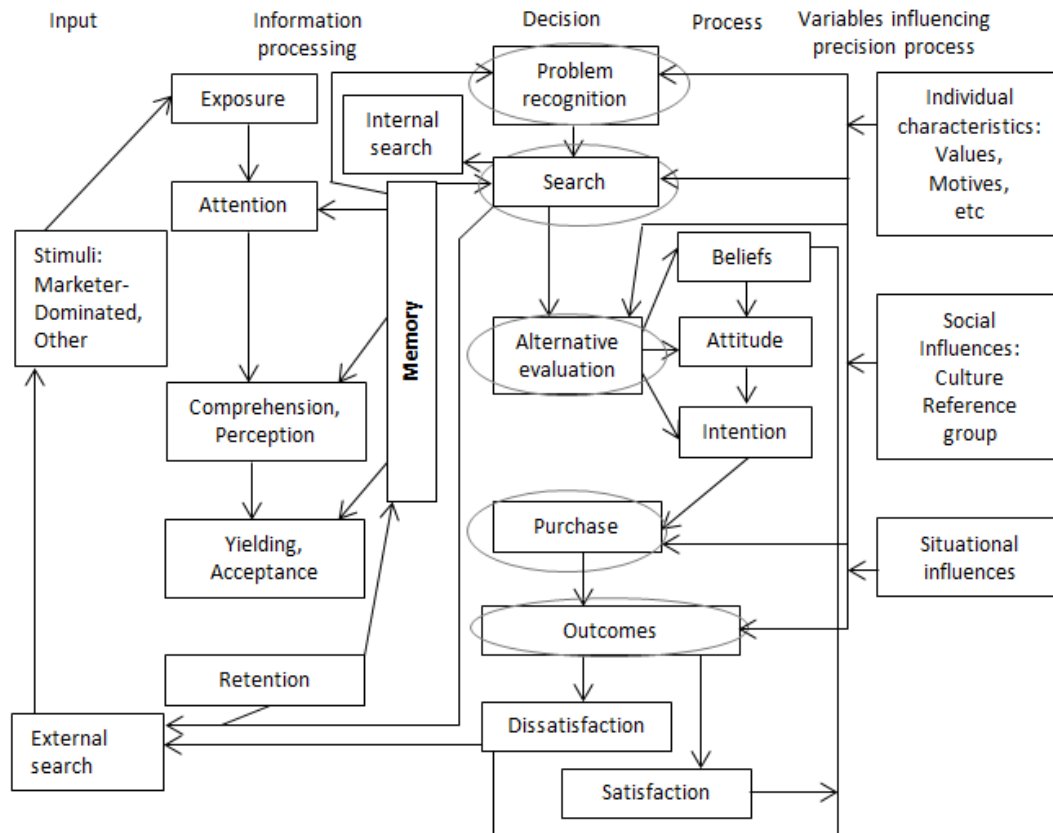
Fig. 3. Nicosia model of customer behaviour

Nicosia model of the consumer decision process (Figure 3) is one of the earliest customer decision process models which were recognized by most of the marketing experts at that time. It consists of four main fields (formation of customer attitude, information search and evaluation, an act of purchase, and customer's

feedback after product's consumption. In this model, customer attitude, motivation, buying behaviour, and experience is the result of corresponding primary fields, and this result significantly affects following areas (Nicosia F. M., 1966).

Figure 4 illustrates the Engel-Blackwell-Miniard model of customer behaviour, first published in 1968. This model shows decision-making process stages which are affected by

Jelgava, LLU ESAF, 21-22 April 2016, pp. 231-234 individuals characteristics (such as motives and values), social influences (such as, culture), and situational influences. (Engel J. F., 1968)



Source: authors' construction based on Engel J. F., Kollat D. T., Blackwell R. D.

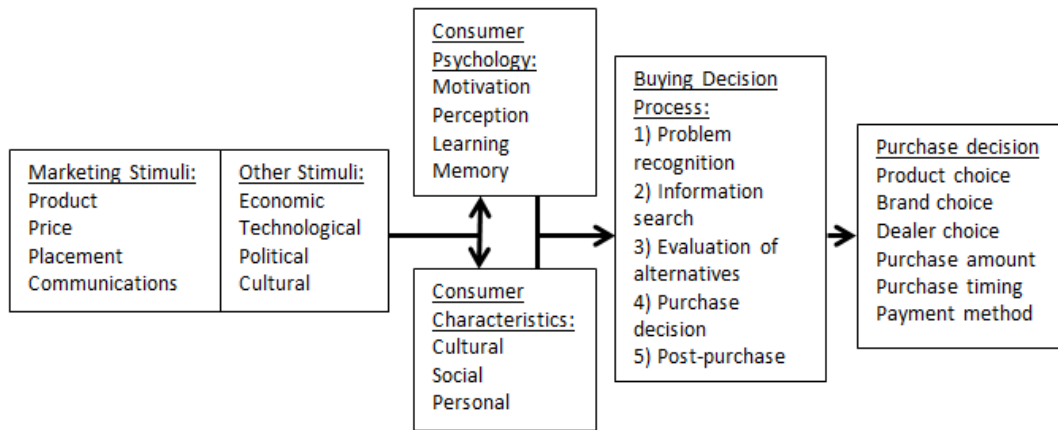
Fig. 4. Engel-Blackwell-Miniard model of customer behaviour

However, active critics have been addressed towards both models. Critics argue that this model seems to be a mechanical overview of human behaviour, which makes it difficult to use for practical purposes. It ignores the fact that customer's individual factors and also social and situational factors significantly influence customer's own processing. Due to the complexity of the model, it is hard to read. Unclearly defined variables that form this model makes it too vague for practical usage. Thereby, according to author Foxall, the Engel-Blackwell-Miniard model is pre-scientific, and cannot be validated (Loudon, D.L., 1993) (Foxall G.F., 1980).

Contemporary analysis of consumer behaviour from marketing perspective starts with the

understanding of the stimulus-response model (Figure 5).

In the stimulus-response model, factors that affect human behaviour are divided into two main groups – external environment factors or stimuli, and internal environment factors. External environment factors fall into two groups - marketing stimuli, which companies can control, and other stimuli, on which companies have very limited control. These external environment factors have an indirect influence on both customer characteristics and customer psychology. Figure 5 visualizes that in addition to perception, consumer response is fundamentally affected by three other psychological processes - motivation, learning, and memory (Kotler P. T., 2012).

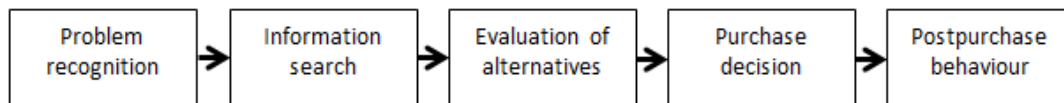


Source: authors' construction based on Kotler P. T., Keller K. L.

Fig. 5. **Stimulus-response model**

All the previously mentioned groups of factors (marketing stimuli, other stimuli, customer psychology, and customer characteristics) play a significant role in customers buying decision

process. Figure 6 illustrates the classical customer buying decision process consisting of five steps.



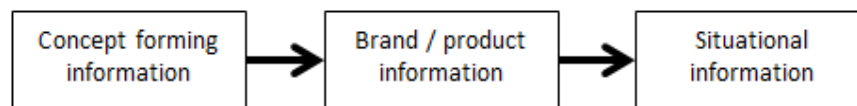
Source: authors' construction based on Kotler P. T., Keller K. L.

Fig. 6. **Classic 5-stage customer buying decision process**

The traditional five-stage model suggests that the client typically passes through five stages – need recognition, information search, evaluation of alternatives, purchase decision and post-purchase behaviour. The five-stage model implies that the buying process starts long before the

actual purchase and consequences long afterward (Kotler P. T., 2012).

Search behaviour and alternatives evaluation is different for the majority of individuals. Author Kaas specifies information search process by dividing it into various stages (Figure 7).



Source: authors' construction based on Kaas K. P.

Fig. 7. **Information search process**

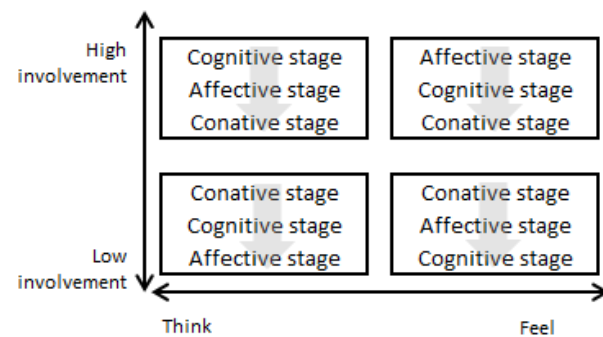
These stages depend on the knowledge of customers about the market and the frequency of purchase. If customers are not familiar with brand or product, they enter into concept forming stage where they learn about the product, its characteristics and attributes. In this phase, customers develop their criteria for choice. Afterwards, they move to brand /product information stage. Those clients who are familiar with the product but do not purchase it on a regular basis, do enter in this stage. These customers acquire brand-specific information to

compare the information about their defined attributes of a product. Then customers move to situational information stage where they collect only specific information (Kaas K. P., 1982).

The five-stage model supports the assumption that people carefully and rationally process as much information about the product as possible, that they consider all the pros and cons of a product, and make the logical decision. However, most often customers do not go through this logical process every time they buy something (Solomon M. 2006).

Most of the models argue that customer decision-making process is the process that goes through several stages - cognitive stage, affective stage and behavioural stage. During the cognitive phase, customer's mental processes are affected and by that awareness of product is formed. In affective stage, consumer engages with his emotional or feeling responses, and develops several associations and attitudes towards the product. In behavioural stage, the customer is lead to particular action(s), which in most cases is purchasing action (De Pelsmacker P., 2007).

Most of the previously described models assume that customer first goes through cognitive stage followed by affective stage followed by behavioural stage. However, this sequence faces a lot of disagreements, and several scientists have offered alternative approaches. In his model (Foot-Cone-Belding (FCB) grid (Figure 9)), author Vaughn presents four differently sequenced models (Vaughn, R., 1986).



Source: authors' construction based on Vaughn, R.

Fig. 8. **Foot-Cone-Belding (FCB) grid**

FCB grid delineates 4 strategies - 1) informative; 2) affective; 3) habitual; 4) satisfaction. Informative strategy (Learn-Feel-Do) relates to products with high-involvement, where economic considerations prevail. This sequence is appropriate for such products as cars and insurance. Affective strategy (Feel - Learn - Do) is applicable for purchases with high involvement of feelings. These products most

Jelgava, LLU ESAF, 21-22 April 2016, pp. 231-236 often are satisfying self-esteem needs where more emotional communication should be reached to reach the consumer. The Feel - Learn - Do sequence work well for products like cosmetics, jewellery and fashion clothing. Habitual strategy (Do-Think-Feel) works best in cases when consumers do routine purchase. In those cases, customers learn about products after (trial) consumption. They do responsive behavioural learning by doing. Although buyer might have a quite low level of awareness before the actual purchase, deeper knowledge about the product is not necessary. This approach is common to paper products, cleaning appliances and gasoline. Satisfaction strategy (Do-Feel-Learn) is appropriate for those low-involvement products which reflect customer's individual personality and are perceived as a little pleasure. Examples of such products are greeting cards, beer, cigarettes and candies (Vaughn, R., 1986).

3. Discussion and results

The authors did five expert interviews to understand better how customer behaviour explaining models work in practice. Chosen experts were marketing communication specialists who have successfully proven themselves in the marketing field at international level. The names of interviewed experts are not provided due to confidentiality reasons.

According to interviewees, human decision-making model (Figure 1) from character paradigm, information processing approach, and similar models are used more in sociology and psychology. These models provide good understanding about the general behaviour of people, and why they act in a certain way. But in marketing, these models are too broad for practical usage.

Nicosia model of consumer decision process and Engel-Blackwell-Miniard model may be suitable for academic purposes, and serve as a general picture when investigating particular customer behaviour aspects. However, it is not

used in real life - the massive amount of information complicates reading of it, and there is missing indication of all possible links between different elements. It cannot accurately represent average customer decision making. Therefore, serious considerations should be made, before applying any of these models in practice.

Interviewees agree that best asset of Stimulus-response model is the fact that it encompasses main factors that affect customer behaviour and decision-making processes. That makes Stimulus -response model more preferred than Nicosia model, Engel-Blackwell-Miniard model, and other models. They also include classical 5-stage model into it.

According to the interviewees, the primary benefit of the Classical 5-stage model is that it requires the marketer to consider each decision-making phase when preparing marketing tactics. Seller has to consider how to approach the consumer in each particular phase and to develop communication tools for all of them if needed. So, even if a consumer does shortcuts – which frequently happens in a case of low-cost products and frequent purchasing – there are still tools (communication) considered for touchpoints left (phases which consumers do not skip) to make max possible influence in the particular stage. If marketing tactics are well prepared and specific for each of five phases – then customer still may be affected during purchasing moment by sales personnel or specially designed online or offline promotion in POS.

Another strength of the model is its attention to post-purchase evaluation phase which is important due to increasing electronic word of mouth communication across specific communication platforms.

Last to mention is the provided ability to analyse market from this five phase perspective. Market research tools now allow to segment market and to recognize consumers who belong to particular decision-making stage part for some product or service. So, a company might decide

Jelgava, LLU ESAF, 21-22 April 2016, pp. 231-237 to put the majority of efforts to target auditory at the particular stage, and internet based communication tools allow to prepare well-targeted communication campaigns for this specific audience.

As interviewees admit, the main weakness of the model is its linear or step-by-step structure, because not all the customers follow this particular structure. Often some stages are skipped. Also, often in high-involvement purchases, customers go back to previous steps. However, even taking into account above mentioned weaknesses, the five stage customer decision-making model is very well approbated in practice and frequently used as a backbone for marketing strategies.

Kaas' information search process is an excellent model but it is recognized only in theory. None of the interviewees have dealt with this model in practice. This model logically structures information search process and reveals why search methods are different among customers who are acting in the same product market. Therefore, marketing specialists are recommended to use this model more often in their practices.

Foot-Cone-Belding grid and its modifications are good models because they reveal why and how customers are behaving differently in buying various products. FCB Grid denies wrong assumption that humans make the decisions only after seriously considering all pros and cons, and possible alternatives, i.e. this model justifies and explains the irrationality of customer's behaviour when buying products. The drawback of both of those models is that they do not allow interactions between different stages of the design. Such scenario in practice is very unlikely to happen.

Conclusions, proposals, recommendations

After the interviews and overview of theoretical research the authors draw following conclusions:

- 1) Buying process starts long before the actual purchase and lasts long after it, and this aspect have to be taken into account when analysing customer behaviour.
- 2) The main drawback of most commonly used models is their logical step-by-step sequence of stages that excludes such situations where customer forms attitudes and knowledge about the product after the actual purchase.
- 3) The extensive customer behaviour models such as the Nicosia model and the Engel-Blackwell-Miniard model of customer behaviour are too theoretical and logical, and, therefore, do not represent well consumer behaviour. Such models also are hard to read as they contain a large number of elements.
- 4) Simplified models apply to a broader range of situations, yet, they vaguely explain the given situation, which makes them too general for practical applications.

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- 5) When choosing right model for customer behaviour analysis, the following questions are recommended to be answered – 1) How simple should the model be? 2) Should model describe audience or product very broad or very specific?
- 6) In situations when general consumer behaviour is in scope, it is possible to use models which are more generic and universal. However, comprehensive models do not precisely explain the customer decision making when buying specific products, for instance, when customers do habitual purchases.
- 7) There are cases when very precise and accurate results are necessary. Then it is recommended to use two models – the classic five-stage model which applies to all the products, and the specific model which more precisely explains customer behaviour in buying the particular product.

Bibliography

1. Brooks, D. (2012). *The Social Animal*. New York: Random House Trade Paperbacks. p. 448.
2. De Pelsmacker, P., Geuens, M., Van den Berg, J. (2007). *Marketing Communications A European Perspective*. Harlow: Pearson Education Ltd. p. 610.
3. Du Plessis, P.J., Rousseau, G.G., Blum, N.H. (1990). *Consumer Behaviour. A South African Perspective*. Pretoria: Sigma. p. 319.
4. Engel, J. F., Kollat, D. T., Blackwell, R. D. (1968). *Consumer Behavior*. New York: Holt, Rinehart and Winston. p. 652
5. Foxall, G.F. *Consumer Behavior. A Practical Guide*. (1980). New York: John Wiley & Sons. p. 207.
6. Kaas, K. P. (1982). Consumer habit forming, information acquisition, and buying behavior. *Journal of Business Research* Volume 10, Issue 1. pp. 3-15.
7. Kotler, P. T., Keller, K. L. *Marketing Management* 14th Edition. (2012). Upper Saddle River: Prentice Hall. p. 816.
8. Loudon, D.L., Della Bitta, A. J. (1993). *Consumer Behaviour. Concepts and Applications*. McGraw-Hill, Inc., p. 788.
9. Nicosia, F. M. (1966). *Consumer Decision Processes: Marketing and Advertising Implications*. Harlow: Prentice Hall. p. 284
10. Solomon, M. et. al. (2006). *Consumer Behavior: A European Perspective*, 3rd ed. Harlow: Prentice Hall. p. 701.
11. Vaughn, R. (1986). How Advertising Works: A Planning Model Revisited, *Journal of Advertising Research*. Volume 26, Issue 1. pp. 57-66.

FINANCE AND TAXES

FINANCIAL LEVERAGE AND RATE OF GROWTH IN A FAMILY-OWNED SMALL BUSINESS (BASED ON POLISH FAMILY-OWNED FARMS)

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Abstract. An analysis of growth rate in two groups of family-owned farms was performed in this study. The first group consisted of subjects who financed their estate exclusively with their equity, whilst the second who used financial leverage. The research encompassed the years 2004-2013 and included the same group of farms (a balanced panel). A thesis was formulated that farms which draw loans achieve a higher rate of return, estate and equity because they make investments. This thesis was not fully confirmed, and the decisive reason was the excessive equipping of such farms in fixed assets, which did not correspond with a higher increase of income. Investment expenditure and the paying off of debt had a negative influence on the amount of financial means transferred to the household and as a consequence, the rate of growth.

Key words: family farm, equity, debt, rate of growth.

JEL code: M21, G32, D22, Q12.

Introduction

The lack of sufficient capital is a prime concern for many small family businesses. Such cases lead to a never-ending choice between: incurring debt and increased risk. This is combined with a cautious approach towards finances, namely, for the sake of maintaining financial security of the family. The problem is intensified in the event of the family business being the main source of income for the family. All decisions made in this regard are the effect of the owner's and family's approach towards the issues of risk.

Due to the lack of an unequivocal definition of "family firm", in this work the term will apply to all subjects whose firm is owned by the family and is their main source of employment and income.

Polish farmers and their families are most frequently the owners and administrators of their farm. This means that the decisions undertaken in the family farm concern the family's needs and the farm's production possibilities. The aim of this work is to become familiar with the effects of financial leverage (or its lack) on the rate of growth for the family farm. In this research, the following thesis was formulated: farms which take out loans (and incur debt) make greater investments which lead to a higher rate of return from capital and a greater rate of growth. Research tasks were: to know the equipment of

farms in assets, the amount of cash transferred the family and returns on assets and equity.

Literature review

Interest in financial issues, or rather, in related behaviour in family businesses is significant in the literature, both from the point of view of the agency theory (Jensen, Mecling, 1976) and of the hierarchy theory (Myers, 1984). The first point of view is considered in the aspect of conflicts which may occur in the family, especially when the next generation comes to power and control, the second is associated with the issues of financial sources and capital structure. Despite this, the studies were not able to unequivocally find the answer to problems to differences in incurring debt between family firms and companies out of the family structure (Ampenberger et al., 2013). However, the research of Lopez-Gracia and Sanchez-Andujar (2007) suggests that family firms do not conduct a different policy within the range of financial decisions and financing the business to other firms. This is despite their internal resources, possibility of development and difficulties caused by financial costs which differentiate the behaviour of family firms from non-family firms. Koropp et al. (2014) claim that the approach of the family influences the behaviour of the family firm in decisions concerning financing methods (research was conducted in 118 German family

firms). These studies indicate that the attitude of the family has a negative influence on the way in which foreign capital is used, and a positive influence on the way equity is managed. This is most probably a result of the fact that the owners of small family firms do not observe the cost of equity. Moreover, these decisions may result from different personality traits of the owners. This was confirmed in the research conducted by Coleman and Carsky (1999). These showed that decisions concerning taking a loan are based on the age, education of the owner and profitability of the firm. These studies were conducted with the use of logistic regression concerning the degree to which small firms use different forms of credit. Cassar and Holmes (2003) discovered the factors which decided the capital structure and choice of financing in small and medium sized businesses – on the basis of a panel survey.

The results of research concerning different types of behaviour within the scope of growth in family and non-family firms were unexpected. This could be the effect of a different approach to the management and goals of family and non-family firms. This can be confirmed by the research of Casson (1999) and Chami (2001), who indicate that the owners of family firms run by more than one generation, are not only interested in the immediate effect – that of monetary flow (which may translate into financial efficiency) but also in an increased level of resources which remain available for future generations. In research conducted by Bereznicka (2013) it was observed that family firms with a successor were a factor which had a positive influence on increasing capital as well as economic profit. On the contrary, Bennedsen et al. (2007) show in their research that decisions concerning the transfer of the firm to a successor decreased the operative profitability of assets and indicate that the employment of an external manager is a better option for the firm. The employment of a manager outside the family may be a better solution when the next

Jelgava, LLU ESAF, 21-22 April 2016, pp. 240-241 generation is not interested in the continuation of the family business. The owners approach to capital structure plays a significant role, whereas external financing is often associated with the increase of farm size (Romano et al. 2001). A greater size of the family firm does not always have a positive influence on its productivity. This was confirmed by the research of (Chu, 2011, Corbetta, Montemerlo, 1999, Schulze, Lubatkin, 2003). The studies conducted by M.A. Gallo and A. Vilaseca (1996) showed that family firms are characterized by a small ratio of debt/equity and entities holding a bigger share in the market are characterised by lower financial efficiency than market-oriented family firms.

Data and methodology

Numerical data and values for the study were obtained from the FADN database. Farms which did not benefit from external funding and farms which incurred debt during the 2004-2013 period were selected from 4580 family farms which continuously collected financial data in the aforementioned period. After conducting an analysis of the farms which did not use financial leverage from the years 2004-2013, it turned out that these concerned farms from 2 area categories – under 20 ha of cultivated land and 20-50 ha of cultivated land. Unfortunately, amongst farms of an area below 20 ha, none of the farms benefited from foreign capital (in the years 2004-2013). Farmers who used external funding sources during this period were identified in the group of farms with 20-50 ha of cultivated land. Analysis of these farms led to a conclusion that the average area of these farms significantly differed from the group of farms which did not use foreign capital in 2004, thus it was decided to limit the number of these entities, so that the average land area in the groups with and without foreign capital was identical. An area-based criterion was used, because the study showed a relationship between the area of cultivated land and the capital levels. In farms above 50 ha, not

one farmer was found to have solely used their equity to finance the farm. That is why this group was not considered in further works.

Finally, two groups were selected from the data base. The first group included farms which did not use foreign capital during the 10 year period and which owned 20-50 ha of cultivated land. This group included 144 such entities. This group was labelled OE (only equity). The second group included farmers which owned farms with an average area identical as in the group without foreign capital in 2004. Their number amounted up to 323 (labelled as D&E).

To define the rate of growth the following formula (1) was used:

$$g = ROE \cdot \frac{FC}{Income} \quad (1)$$

where, FC – monetary assets of the family

The rate of return from equity (ROE) provided information about the effects of equity use in and the farm and was included in the considerations as a relationship between the income obtained from the family farm and the equity. The second

Jelgava, LLU ESAF, 21-22 April 2016, pp. 240-242 element of the formula reflected the financial means transferred to the household in relation to income made. The combination of these two components enabled the assessment of the family farm taking into consideration the farm and household and their influence on the rate of growth.

A regression model designed on the basis of panel data, using the least squares method, was used in order to determine the decisive factors from the point of view of the farm debt.

Characteristics of the research objects

Table 1 presents a summary of numerical data concerning land and capital (basic factors in farming and agricultural production) for groups of farms (excluding the value of the land).

Table 1.

Land and capital resources (without value of land) for groups of farms in the years 2004-2013

Year	Land [ha]		Capital ¹ (debt) [thousand PLN]	
	OE Group	E&D Group	OE Group	E&D Group
2004	27.8	27.8	260.6	442.8 (68)*
2005	28.0	29.2	255.8	444.4 (69)*
2006	28.0	29.7	254.9	46.,6 (83)*
2007	28.5	30.8	251.0	476.0 (88)*
2008	29.0	31.7	256.1	502.3 (94)*
2009	29.0	33.0	260.1	528.9 (104)*
2010	29.0	33.0	252.0	538.0 (105)*
2011	21.7	41.0	245.0	514.0 (106)*
2012	29.6	35.0	249.5	606.0 (122)*
2013	29.2	35.0	249.2	628.6 (126)*

*debt value

Source: author's calculations based on the FADN PL data.

¹ The capital in this sense is the value of farm assets including tangible assets (mainly) and animals and other ingredients, which farmers use leading agricultural activities. In parentheses are given information about the assets that were financed with loans capital.

During the first analysed year, the studied entities had similar land resources at their disposal, but capital resources of the farms were varied. The group of farmers benefitting from loans had 44 % more capital at their disposal than the second group (own equity in this group was higher, by over 30%). This means that a significant part of capital (for Polish conditions) came from external sources (foreign capital was used to finance a consistently increasing part of the assets in 2004. – 15%, 2008 – 18% and 2013 – 20%). It is likely that the basic farming resources and the size of the assets will impact changes occurring in the subsequent years. Farms funded exclusively by their own equity increased the area of cultivated land by about 2 ha - 7%, whereas in the E&D group a growth of 8 ha - 18%, was observed during the ten year period of the study. This directional change is associated with the value of available capital of the farmers. On the basis of an analysis of values provided in Table 1 it was concluded that an

Jelgava, LLU ESAF, 21-22 April 2016, pp. 240-243 equity depreciation was still observed in the group without foreign capital, despite the increased farm size (measured as the cultivated land area). At the same time, farmers using external funding sources managed to increase their capital by 40% (with a debt increase of 85%), and their equity by 32%. Because of the specific nature of Polish family-owned farms – which combine the household with the farm, the capital increase was a result of capital expenditures made and not of profits retained, because money is transferred to the household and does not influence the size of the farm. This monetary flow may return as capital expenditure to the farm, if such a need arises. This is, however, a decision made by the family and is based on their needs related to consumption and accumulation (savings and investments). Table 2 provides a summary of data about the levels of assets transferred to the household and about investment levels.

Table 2.

Value of assets transferred to the household, income from a family farm and investments in farms during the studied period

Year	Family cash [thousand PLN]		Income from family farm [thousand PLN]		Value of investments [thousand PLN]	
	OE Group	E&D Group	OE Group	E&D Group	OE Group	E&D Group
2004	27.2	46.3	31.6	61.3	3.7	23.7
2005	38.2	60.7	31.0	62.0	9.7	28.0
2006	40.1	66.0	41.0	79.0	8.7	37.4
2007	42.0	58.9	50.5	82.7	12.0	36.0
2008	47.7	67.9	41.0	80.0	8.7	32.0
2009	44.9	70.1	40.0	71.0	1.,0	43.8
2010	51.6	69.0	59.0	100.0	14.9	43.8
2011	50.0	75.2	60.0	116.0	12.9	46.0
2012	65.0	92.9	67.0	127.0	10.8	57.0
2013	64.4	95.7	63.0	119.0	11.2	54.0

Source: author's calculations based on the FADN PL data.

The studied groups showed nominal increase of financial assets transferred to the household. However, higher amounts were observed in the E&D group. It was concluded that the value of financial assets (FC) doubled in comparison to

2004 in those groups, whereas families in debt-free farms received 2.37 times more financial assets in 2013 than in the first analysed year. This would mean that the farms funded exclusively by their equity operated more

efficiently and the rate of income generation was higher for those farms. It should also be noted that in the case of the E&D group farms, the amounts transferred to the family assets were lower in comparison to income in most years during the studied period, the effect being obviously associated with debt repayments. Significant differences in the FC amounts can be observed in the compared groups (around 30 thousand PLN in 2013). This effect may have been influenced by monetary assets from financial operations – mainly by debt increase, but also by other factors. Investment funding may have influenced the amount of monetary assets transferred to the family. Before reaching the family budget, monetary assets were used as

Jelgava, LLU ESAF, 21-22 April 2016, pp. 240-244 investment expenses, in amounts higher than in the OE group. This observation is confirmed by data provided in Table 2.

Investment levels of debt-free farms were very low and did not exceed 15 thousand PLN. (17% of monetary assets generated by the farm), whilst indebted farmers made investments at a far higher rate – spending 4 time more, on average, for the purpose (about 50% of 'private' family capital). Reasoning behind such decisions may be questioned, of course.

Results

Table 3 presents results of a t test for the studied groups, covering assets profitability and own equity.

Table 3.

Basic statistics, t test and F statistics in the studied group of farms

Year	OE-1	E&D-2	t	df	p	N1	N2	St. Dev. 1	St. Dev. 2	Variance	
										F	p
ROA											
2004*	0.134	0.165	-2.4791	465	0.0135	144	323	0.1271	0.1219	1.0873	0.5419
2005	0.145	0.163	-1.2059	465	0.2284	144	323	0.1279	0.1569	1.5067	0.0054
2006	0.196	0.180	1.0990	465	0.2723	144	323	0.1796	0.1275	1.9838	0.0000
2007	0.240	0.183	3.7843	465	0.0001	144	323	0.1864	0.1325	1.9786	0.0000
2008	0.194	0.176	1.0986	465	0.2725	144	323	0.1850	0.1476	1.5711	0.0011
2009	0.196	0.159	1.9694	465	0.0495	144	323	0.2698	0.1354	3.9677	0.0000
2010	0.314	0.215	4.3623	465	0.0000	144	323	0.3388	0.1479	5.2473	0.0000
2011	0.297	0.329	-0.4348	465	0.6639	144	323	0.2153	0.8706	16.3497	0.0000
2012	0.372	0.243	4.6547	465	0.0000	144	323	0.4183	0.1779	5.5303	0.0000
2013	0.367	0.229	4.1358	465	0.0000	144	323	0.5385	0.1807	8.8763	0.0000
ROE											
2004	0.134	0.206	-3.9126	465	0.0001	144	323	0.1303	0.1960	2.2638	0.0000
2005	0.144	0.206	-3.8634	465	0.0001	144	323	0.0788	0.1025	1.6914	0.0004
2006	0.196	0.260	-1.5603	465	0.1193	144	323	0.1827	0.4613	6.3752	0.0000
2007	0.240	0.249	-0.2806	465	0.7791	144	323	0.1869	0.3114	2.7710	0.0000
2008	0.194	0.244	-1.1725	465	0.2416	144	323	0.1954	0.4747	5.9018	0.0000
2009	0.196	0.191	0.1125	465	0.9105	144	323	0.2697	0.4133	2.3482	0.0000
2010	0.314	0.270	1.3630	465	0.1736	144	323	0.3388	0.3054	1.2303	0.1354
2011	0.304	0.387	-0.9606	465	0.3372	144	323	0.2266	1.0249	20.4493	0.0000
2012	0.372	0.325	1.2742	465	0.2032	144	323	0.4182	0.3386	1.5251	0.0022
2013	0.367	0.297	1.7004	465	0.0897	144	323	0.5385	0.3368	2.5556	0.0000

*Words in bold indicate the significance of differences between groups

Source: author's calculations based on the FADN PL data.

The ROA in the group of farms funded exclusively by their equity showed an increase from 8% in 2004 to 36.7% in 2013. An increase of 6 p.p., from 16.5% to 22.8%, was observed in the compared group. ROA fluctuations in the E&D group were caused by varied income levels combined with increasing value of assets, indicating that capital was used with varied effectiveness. Income obtained by farms in the OE group was also varied, but the higher rate of capital depreciation resulted in higher rates of return from assets.

The results of the t test show that during almost all of the studied years, the groups showed ROA differences. Significant differences were not observed in the periods of deteriorating economic conditions caused by decreasing prices of agricultural goods (2008 and 2011). A higher rate of return from assets in farms using foreign capital was observed during the differentiation periods. Higher ROA was seen in the OE group of farms starting from 2008 (excluding 2010). This effect was caused by capital depreciation accompanied by an income (a 3% decrease of asset value and a 54% income increase). Farmers in the E&D group made significant investments during this period, which did not result in adequately fast changes in income levels (a 25% capital increase and a 49% income increase). This effect is a proof of investment expenditures made by the farmers, which resulted in increased costs without a proportional income increase. The obtained results may provide evidence confirming ownership of equipment (especially located in fixed assets) owned by family farms, excessive in comparison with the results obtained by the farms.

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The rates of return on equity were higher in the E&D group in almost all the studied years with the exception of 2010 and 2012-2013. This effect shows that those farms managed to achieve leverage. Better results were observed in the OE group in the last two years, the results were caused by a significant equity loss caused by insufficient investments. Nevertheless, farmers from this group managed to achieve higher income. This study shows that Polish farm owners do not need to use external funding in order to use their equity reasonably and with good results. This thesis is confirmed by the fact that ROE distinguished the selected groups statistically only in the first two years. Such a variation was not observed in the following years.

This study shows that farmers use additional capital only to a small degree. This is confirmed by small ROE changes related to ROA (6-9%). Higher levels of debt probably would not have resulted in additional benefits due to the fact that Polish farmers have limited possibilities of increasing their area of land (the main plant production factor), but also because they use genetically modified, more effective material to a smaller extent. It can be said that Polish family-owned farms are run traditionally despite modernisation processes. The undertaken investments are not innovative enough to result in an improvement of farmer income. It should be also remembered that these considerations are related to 30-40 ha farms (large farms by Polish standards), in which it is impossible to introduce and implement innovations due to financial barriers.

Table 4 presents numerical data related to growth rates in family-owned farms.

Size rate of growth (g) and the t test for the studied groups

Year	OE-1	E&D-2	t	df	p	N1	N2	Standard Dev. 1	Standard Dev. 2	Variance	
										F	p
2004	0.113	0.150	-2.516	465	0.0122	144	323	0.1022	0.1627	2.5323	0.0000
2005	0.123	0.132	-0.909	465	0.3640	144	323	0.0984	0.0997	1.0264	0.8694
2006	0.190	0.222	-1.453	465	0.1468	144	323	0.1479	0.2500	2.8842	0.0000
2007	0.212	0.188	0.925	465	0.3553	144	323	0.0986	0.1962	2.1806	0.0000
2008	0.239	0.260	-0.236	465	0.8135	144	323	0.2433	1.0827	19.796 4	0.0000
2009	0.235	0.206	0.952	465	0.3414	144	323	0.2563	0.3215	1.5731	0.0022
2010	0.294	0.190	3.529	465	0.0005	144	323	0.4167	0.2163	3.7116	0.0000
2011	0.284	0.288	-0.069	465	0.9453	144	323	0.2536	0.6079	5.7491	0.0000
2012	0.423	0.267	3.082	465	0.0022	144	323	0.7866	0.3110	6.3954	0.0000
2013	0.412	0.263	3.654	465	0.0003	144	323	0.5699	0.3094	3.3930	0.0000

Source: author's calculations based on the FADN PL data.

The growth rate (g) was smaller than ROE up until 2007 (in both compared groups). This means that the amount of money transferred to households was smaller than the achieved income. The amount comprised about 85% of financial assets in the OE group and 75% in the E&D group. The achieved results are an effect of increased expenditures on investments and debt repayments (in the E&D group). The OE group farms were characterized by a growth rate lower by about 4 p.p. in comparison to the E&D group in this period, despite relatively higher shares of the income used for the needs of the family. In 2010 and in 2012-2013 farms which were funded exclusively by their equity saw a significantly higher rate of return (of 10-16 p.p.) This effect was caused by higher ROE in this group and by the transfer of a higher income share to the needs of the household – 87% in 2010, 97% in 2012 and 102% in 2013, (in the E&D groups, the values were 69%, 73% and 80%, respectively). The obtained results show that the financial surplus (income increased by amortization) was transferred to the household in 2013. This indicates a greater importance of family needs than that of workplace funding and equipment provisions. As a result, such an approach facilitated the shrinking of farm resources but also the improvement of the financial condition of

the family. This implies that farmers aim at increasing the cost-effectiveness of their wealth and at maintaining financial security of their family. However, on the other hand, without a sensible increase of capital expenditures, satisfying financial results cannot be maintained in the long-term perspective (although the OE group saw an increase in the efficient use of capital). In the case of the E&D group, the rate of return in the years 2012-2013 only reached the value of 0.26. This was presumably caused by the aforementioned amortisation but also by long-term debt repayments. Although farmers from this group failed to make full use of investment expenditures in order to achieve the adequate income increase, but their activities may be considered as balanced within the perspective of the farm and the household. A full assessment of the results of their activities will only be known from the perspective of the years to come.

Summary

The study, conducted on two groups of family farms using different ways of funding, confirms that the use of financial leverage leads to a wealth increase (visible as a result of significant capital expenditures of family farms). Farms funded by their equity only experienced capital

depreciation. Despite these differences, both groups saw an increase in the value of financial means transferred to the family, with the increase being a result of increased income from the farm. Unfortunately, the share of income converted into a unit of capital caused an unfavourable result for the group using debt for funding, which indicates deterioration of their cost-effectiveness. This effect was particularly noticeable after several years of intensive investments in fixed assets. The estate shrinkage observed (in the group of farms funded using equity) was relatively better used by these farmers. This effect was reflected in the ROA and ROE indicator levels. Therefore, the thesis formulated in the introduction and concerning higher rates of return in cases of greater

Jelgava, LLU ESAF, 21-22 April 2016, pp. 240-247 investments, was not confirmed. The growth rates in farms using loans was lower in the last three years studied than in the case of farmers with a dislike for loans. This was a result of not only lower ROEs but also of higher amounts being transferred to the household in relation to the income made.

In a summary, it can be said that Polish farmers – especially those who fund their farms using debt – should make more efficient use of their wealth or invest in more innovative solutions. The assessment of farmer behaviour based on short-term rates of return seems to be more favourable for farmers who do not rely on debt. A positive assessment of farmers using loans may be observed in the long-term perspective.

Bibliography:

1. Ampenberger, M., Schmid T., Achleitner, A-K., Kaserer, Ch. (2009). Capital structure decisions in family firms – empirical evidence from a bank-based economy, *Review of Managerial Science* July, Vol. 7, Issue 3: pp. 247-275.
2. Bennedsen, M., Nielsen, K.M., Pérez-González, F., Wolfenzon, D. (2007). Inside the family Firm: The Role of Families in Succession Decisions and Performance, *The Quarterly Journal of Economics*, 122(2), pp. 647-691.
3. Bereznicka, J. (2013). The role of successor in capital accumulation in the Polish family farms. *Journal of Social Sciences. Latgale National Economy Research*, 1, pp.23-35.
4. Cassar, G., Holmes, S. (2003). Capital structure and financing of SMEs. *Australian evidence, Accounting & Finance*, Volume 43, Issue 2, July, pp. 123-147.
5. Casson, M. (1999). The economics of the family firm, in: *Scandinavian Economic History Review*, 47, pp. 10-23.
6. Chami, R. (2001). What is different about family business, *International Monetary Fund Working Paper* No 01/70.
7. Chu, W. (2011). Family ownership and firm performance: Influence of family management, family control, and firm size. *Asia Pacific Journal of Management*, 28(4), pp. 833-851.
8. Coleman, S., Carsky, M. (1999). Source of Capital for Small Family-Owned Business. *Evidence from National Survey of Small Business Finances*, vol. 12, No 1, pp. 73-84.
9. Corbetta, G., Montemerlo, D. (1999). Ownership, Governance, and Management Issues in Small and Medium-Size Family Businesses: A Comparison of Italy and the US. *Family Business Review*, 12(4), pp. 361-374.
10. Gallo, M. A., Vilaseca A. (1996). Finance in Family Business, *Family Business Review*, Volume 9, Issue 4, pp. 387-401.
11. Jensen, M., Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure, *Journal of Financial Economics* 3, pp. 305-360.
12. Koropp, Ch., Kellermanns, F.W., Grichnik, D., Stanley, L. (2014). Financial Decision making in Family Firms, An Adaptation of the theory of Planned Behaviour, *Family Business Review*, vol. 27, No 4, pp. 307-327.
13. López-García, J., Sánchez-Andújar, S. (2007). Financial Structure of the Family Business: Evidence from Group of Small Spanish Firms, *Family Business Review*, vol. 20, no. 4, pp. 269-287.
14. Myers, S. (1984). The capital structure puzzle, *Journal of Finance*, 39, pp. 575-592.
15. Romano, C.A., Tanewski, G. A., Smyrniotou, K.X. (2001). Capital structure decision making: A model for family business, *Journal of Business Venturing*, Vol. 6, Issue 3, pp. 285-310.
16. Schulze, W. S., Lubatkin, M. H., Dino, R. N. (2003). Exploring the agency consequences of ownership dispersion among the directors of private family firms. *Academy of Management Journal*, 48, pp. 179-194.

PROBLEMS IN FINANCING THE DEVELOPMENT OF INNOVATION AND SCIENCE

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Abstract. From year to year, sources of finance and the efficiency of their use is one of the key issues concerning contributing to the development of innovation and science. In identifying and analysing related problems, the author particularly focused on examining the factors influencing the problems.

The research aim is to examine trends and problems in financing the development of innovation and science in Latvia. The following specific research tasks were set: to identify the change in Latvia's competitiveness among the Baltic States based on the Global Competitiveness Index, to perform an analysis on the attraction of investments contributing to science and innovation, to analyse the factors influencing it based on a survey of experts and to assess the factors hindering the attraction of venture capital.

The research employed the qualitative and quantitative methods of economic analysis: monographic, logical construction, SWAT analysis, an expert survey, and analysis and synthesis. The research revealed important changes in the field of fostering the development of innovation and science, analysed the application of a new management model and the establishment of an institutional framework in Latvia for the period 2014-2020 as well as highlighted the problems in financing the development of science and innovation and the necessity to solve the problems.

Key words: innovation, expenditure on science, R&D costs, venture capital investment, Latvia.

JEL code: G24, G28, G32

Introduction

A model for the support of science, technology and innovation, the efficiency of its use and the identification of opportunities for enhancing the model are important to contribute to growth in the national economy through orientating towards the production and exports of higher value-added products. From year to year, sources of finance and the efficiency of their use is one of the key issues concerning contributing to the development of innovation and science. In identifying and analysing related problems, the author particularly focused on examining the factors influencing the problems, including those in the field of attraction of venture capital.

The research aim is to examine trends and problems in financing the development of innovation and science in Latvia. The following specific research tasks were set in line with the aim: to identify the change in Latvia's competitiveness among the Baltic States based on the Global Competitiveness Index, to perform an analysis of the attraction of investments contributing to science and innovation, to analyse the factors influencing it based on a survey of experts and to assess the factors hindering the attraction of venture capital.

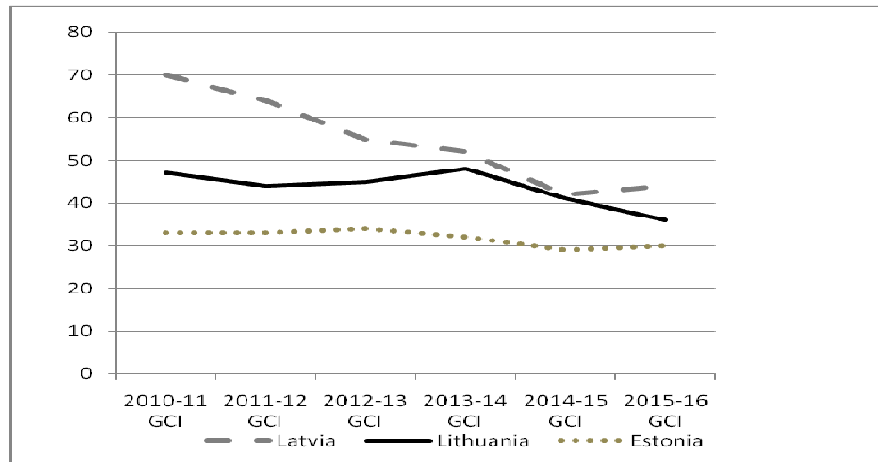
The research employed the qualitative and quantitative methods of economic analysis: monographic, logical construction, SWAT analysis, an expert survey and analysis and synthesis. The research analysed data of the Global Competitiveness Report, opinions of the members of the Latvian Association of Private Investors as well as published opinions and forecasts of several experts on venture capital investments and data of the European Central Bank.

Research results and discussion

1. Factors influencing and trends in Latvia's global competitiveness

On the current globalisation conditions, the growth and stability of any country are determined by the capacity to support and finance innovation, including applied research and development. It is of great importance for industries associated with the wellbeing and life quality of individuals: medicine, manufacture of pharmaceuticals, biotechnology, manufacture of food products and telecommunication and information technologies. According to the Global Competitiveness Report 2015/2016, Latvia is ranked the 44th (a rise by 26 places). Latvia still

lags behind Estonia, which holds the 30th place,



Source: author's construction based on data of the Global Competitiveness Report

Fig. 1. Latvia's rank in the Global Competitiveness Index among the Baltic States

However, one can notice that Latvia has not maintained its achievement in 2014-2015 (the 42nd place) and start losing its development pace to the other Baltic States. To examine the causes, the author analysed a number of indicators: increase in investment in R&D and the introduction of innovations in production, support to enterprises for the development of innovations, attraction of private sector funds to finance R&D, information availability, venture capital availability and opportunities to attract venture capital investors, intellectual property protection etc.

It was important to examine the trends and the factors presenting progress and requiring considerable improvements.

Science, technology and innovation are a set of achievements to be used by industries of the national economy that make the basis for economic growth, orientating towards the production of higher value-added products (Cabinet of Ministers, 2013a).

As shown in Table 1, particularly the Baltic States could present the fastest growth in 2015 in terms of innovation. Both Estonia and Lithuania significantly increased their expenditure on research and development in the public and

business sectors. In contrast, Latvia was able to allocate more funds for research and development only in the public sector, whereas the expenditure considerably decreased in the business sector.

With regard to the European Strategy 2020 for a Clever, Sustainable and Integrated Development, there is an emphasis on the necessity to promote the results of R&D in manufacture and especially on promoting co-operation between businesses and scientific institutions. Taking into consideration the obstacles for businesses – foreign business cultural differences and the climate, legal framework specifics etc. –, the EU envisions a simplification of cross-border business transactions as well as the need to stimulate the introduction of research results in manufacture (Mezeniece M., 2013).

Support measures for science, technological development and innovation in the period 2009-2013, implemented by the Ministry of Education and Science and the Ministry of Economics and funded by the EU Structural Funds, were very important, as investments by the public and private sectors in research, science and innovation were very small in this period.

Investment elements included in the Innovation Union Scoreboard in 2011 and 2015

Current performance	2011					
ENABLERS	EU27	EE	LV	LT	FI	SE
Finance and Support						
R&D expenditure in the public sector	0.76	0.79	0.38	0.56	1.10	1.07
Venture capital	0.095	N/A	N/A	N/A	0.145	0.212
FIRM INVESTMENTS						
R&D expenditure in the business sector	1.23	0.81	0.22	0.23	2.35	2.35
Non-R&D innovation expenditure	0.71	1.77	1.20	0.76	0.57	0.74
Current performance	2015					
ENABLERS	EU28	EE	LV	LT	FI	SE
Finance and Support						
R&D expenditure in the public sector	0.72	0.9	0.43	0.71	1.01	1.01
Venture capital	0.062	N/A	N/A	N/A	0.083	0.078
FIRM INVESTMENTS						
R&D expenditure in the business sector	1.29	0.83	0.17	0.24	2.29	2.19
Non-R&D innovation expenditure	0.69	1.55	1.38	1.1	0.37	0.79
	Rank	15	30	29	4	2

Factors that presented positive increase in 2015 compared with 2011

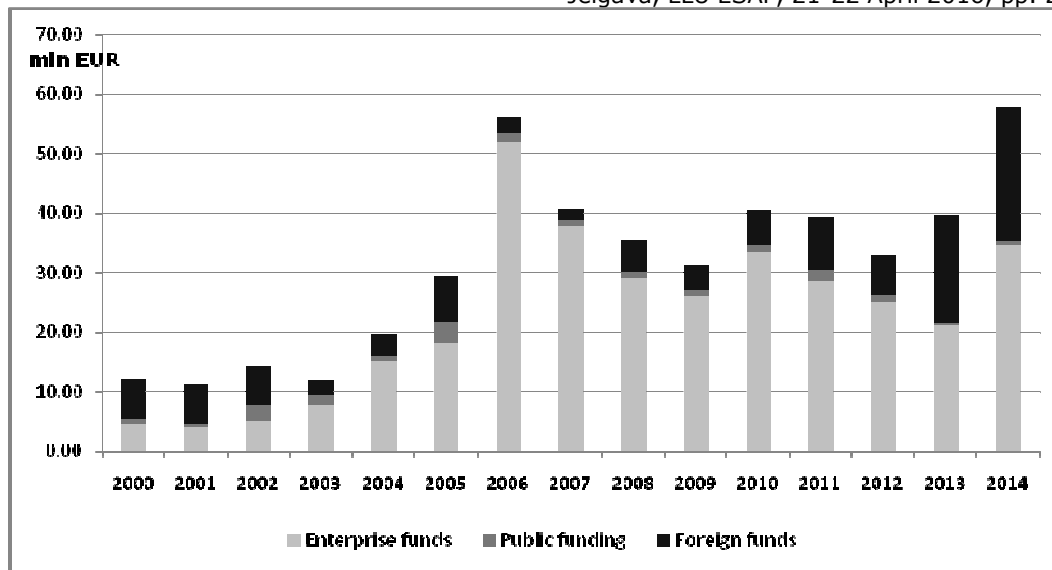
Source: author's construction based on data of the Innovation Union Scoreboard 2011 (IUS 2011) and Innovation Union Scoreboard 2015 (IUS 2015)

Investment by the private sector in research and development in Latvia (0.2% of GDP) was much smaller than in the EU-27 (1.2% of GDP), including Estonia (1.5% of GDP), which could be explained, to a certain extent, by the high proportion of small enterprises (approximately 18%) that operated in the field of high and medium technologies (Cabinet of Ministers, 2013a).

However, according to the Central Statistical Bureau of Latvia, a positive trend may be observed – the amount of foreign funds spent on scientific and research work in the business sector increased, particularly in 2013 and 2014 (Figure 2).

The number of enterprises of Latvia that made significant investments in research and development increased, as reported in the

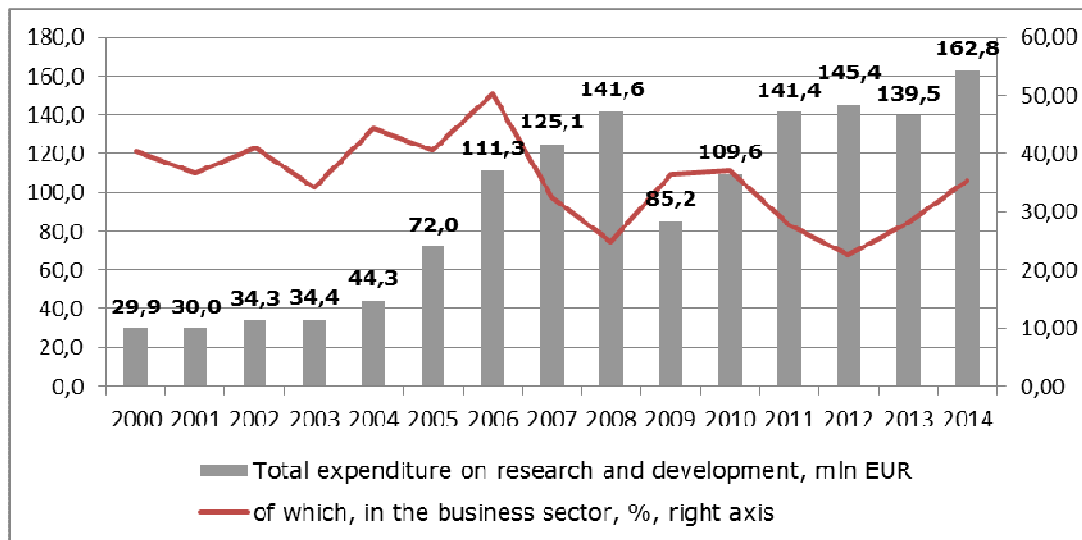
Research, Technological Development and Innovation (RTDI) Framework 2014–2020. According to the Central Statistical Bureau of Latvia, 264 enterprises made investments in research and development in 2009; in 2010 their number equaled 267, while in 2011 the number of such enterprises rose to 393. Nevertheless, efforts have to be made in order that the private sector invests in research and development more than half of total investment, which is typical of the EU-27 and some innovative economies (approximately 65% in Finland and 57% in Sweden), thereby making the national economies of the countries competitive in the global market (Cabinet of Ministers, 2013a).



Source: author's construction based on data of the CSB, 2015

Fig. 2. Expenditure on research and development in the business sector in Latvia in 2000-2014, mln EUR

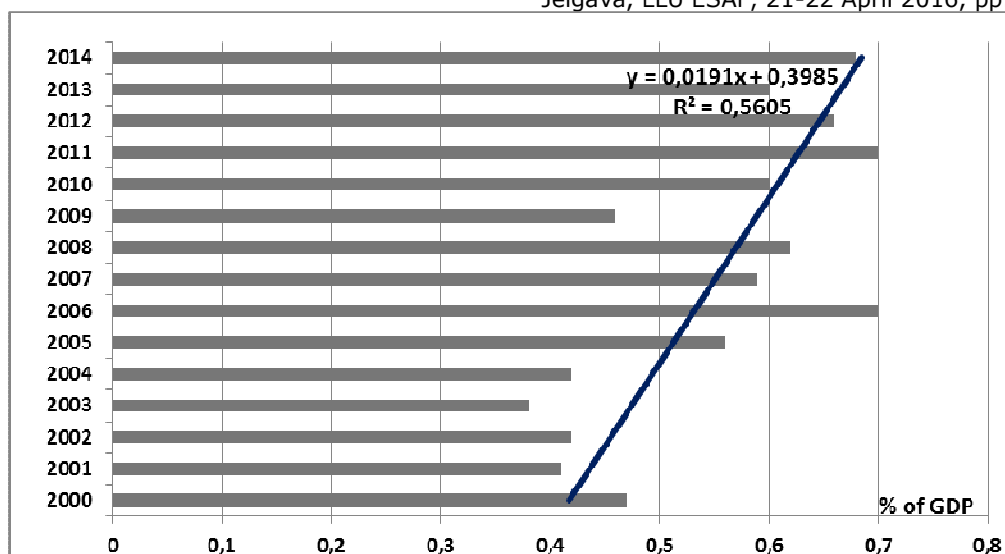
However, expenditures on scientific and research work in the business sector, as a percentage of the total expenditure on R&D, ranged within 25-35% in the post-crisis period (2012-2014) (Figure 3).



Source: author's construction based on data of the CSB, 2015

Fig.3. Expenditure on research and development in the business sector in Latvia, as a % of the total expenditure on R&D

Latvia has succeeded in having a positive trend with regard to increase in expenditure on R&D if measured as a percentage of GDP (Figure 4).



Source: author's construction based on data of the CSB, 2015

Fig. 4. Expenditure on research and development in Latvia, as a percentage of GDP

However, the level achieved is not sufficient to tackle a number of long-accumulated problems that mainly relate to government policies on science and innovation. In Latvia, for example, the aging of human resources is observed in the science industry – 42% of researchers were aged 50 and older in 2013. The largest problem of aging was reported in the science of mathematics, as 77% of researchers were aged 50 and older and in the sciences of physics, chemistry and biology where 44-47% were aged 50 and older. The highest proportions of young scientists and researchers were reported for computer sciences and informatics as well as land and environmental sciences (Cabinet of Ministers, 2013a).

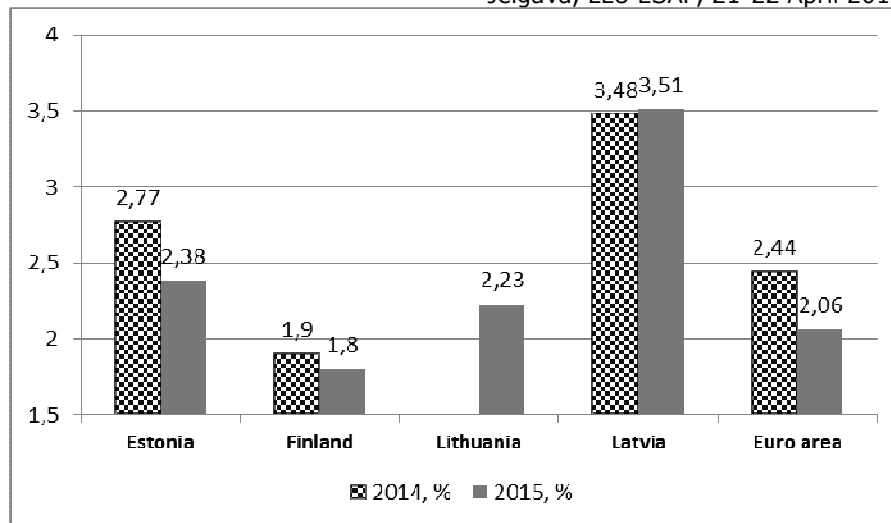
Poorly developed cooperation between research institutions and enterprises as well as limited opportunities and motivations of research institutions to provide services to the private sector and the insufficiently developed system of commercialisation of created knowledge may be mentioned as the next hindering factor. In the public sector, too, returns on investments through the licensing of inventions, the provision of research consultancy services, the introduction of new products and technologies in production and the foundation of new innovative and knowledge-based enterprises are insufficient.

The availability of bank loans and interest rates on loans are also a factor for innovation development and competitiveness. In the post-crisis period, the average interest rates on loans significantly decreased in the Euro-area Member States, including the Baltic States (Figure 5). In Estonia and Finland, the average interest rates on loans granted to the non-bank sector continued decreasing in 2014 and 2015. An exception was the commercial banks in Latvia that were very precautionary in granting new loans to the business sector and the interest rates remained at a considerably higher level than in the neighbouring EU Member States and in the Euro-area on the whole.

In addition to bank loans, it is necessary to attract venture capital and provide its efficiency in order to promote the commercialisation of research results and their introduction in production.

2. Attraction of venture capital and the factors hindering it

Attraction and efficiency of private capital, particularly venture capital, are important in the business sector.



Source: author's construction based on data of the European Central Bank, 2016

Fig. 5. **Composite cost-of-borrowing indicator for non-financial corporations, % (December 2014-2015)**

For various enterprises, the basic principles of venture capital mainly differ in investment size, source of finance and investor engagement in the enterprise's management. The earlier the stage of development of an enterprise, the smaller any individual investment is required and, accordingly, the greater engagement of the venture capital partner in the enterprise's management (Groh A. et al., 2011.).

It is important to mention the quantitative and qualitative indicators that characterise the development of private venture capital, for instance, the number of private venture capital funds, the number of PVC companies and the number of business angels which have a certain activity strategy in Latvia's market; active operation of intermediaries and support to them provided by national institutions as well as availability of information on their activity and specialisation and opportunities for implementing projects; availability of start-up managers and professionals in the field of private venture capital investments; a developed business culture and the introduction of "good practices" in entrepreneurship, which would make potential investors confident to invest in enterprises without acquiring the control package of their shares; lack of information and practice regarding the opportunities for attracting services

of managers and lawyers for new growing enterprises (the services are free of charge for a certain period, yet, the enterprise's shares are granted to them), for successful structuring of projects and for attracting investors; the overall investment climate in the country, Europe and the world; openness of the economy and internationalisation of innovations, which allows attracting start-up investors from other countries; insufficient activity of the associations uniting private venture capital market participants; the small number of projects appropriate for private venture capital investments; insufficient knowledge of professionals of new growing enterprises on the operational principles of private venture capital and the process of financing (Prohorovs A., Jakusonoka I., 2012).

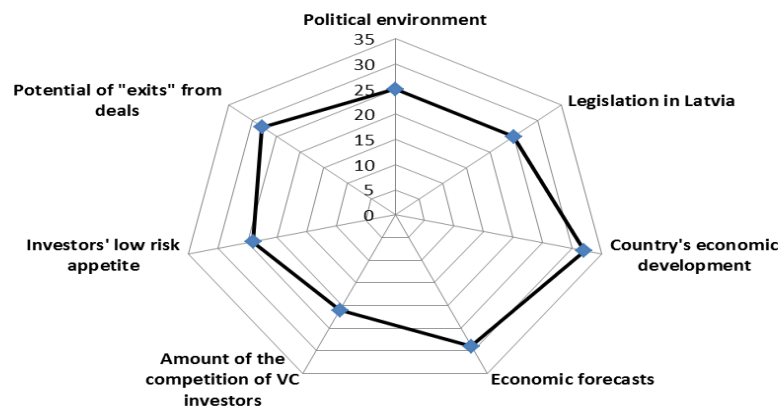
In 2012, the author conducted a survey of experts, which involved venture capital investors, financial experts, experts in education, entrepreneurs and professionals from business incubators. The survey aimed to identify obstacles that hinder the development of new innovative enterprises. In total, 20 experts were questioned and their opinions are presented in Figure 6.

Many factors hinder the development of the venture capital industry in Latvia: sizes of the

economy and the market, the historical background, an imperfect tax system, bureaucracy and others. At the same time, many opportunities could be implemented: development of the research and innovation basis, build up of competences, improvement of the legislation, availability of support of the Latvian Guarantee Agency, education reforms and others.

The development of the venture capital industry depends on demand and supply – the demand creates the supply and vice versa.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 248-254
Additional support is necessary for the foundation of small and medium enterprises that specialise in developing innovative goods or services with high value-added. More funding is needed for science and research. Supporting this industry would result in greater interest in exact sciences and in developing innovative solutions and goods or services with high value-added. By attracting venture capital investments, such projects would lead to establishing successful enterprises (Jakusonoka I., Liepnieks K., 2014).



Source: author's construction based on data of the survey of experts, 2012

Fig. 6. Expert opinions on the factors hindering the emergence of new innovative enterprises

Taking into consideration the achievements made in the previous years and the problems to be tackled in future as well as the National Development Plan of Latvia for 2014-2020, it was envisaged that in 2015 total expenditure on research and development had to reach EUR 240.7 mln (LVL 169.2 mln) or 1% of GDP (Figure 7). Also, the National Development Plan of Latvia for 2014-2020 envisages that total expenditure on science, including private investments, will increase until 2020, reaching 1.5% of GDP. Achieving this target requires a balanced structure of financing the area of science and technology, which is composed of a broad range of institutional and financial instruments aimed at raising competitiveness. Given the fact that the strategic goal is to significantly increase the

proportion of the private sector's contribution in total expenditure on science and technology, it is necessary to design financial instruments that contribute to the attraction of investments into the private sector (Cabinet of Ministers, 2013a).

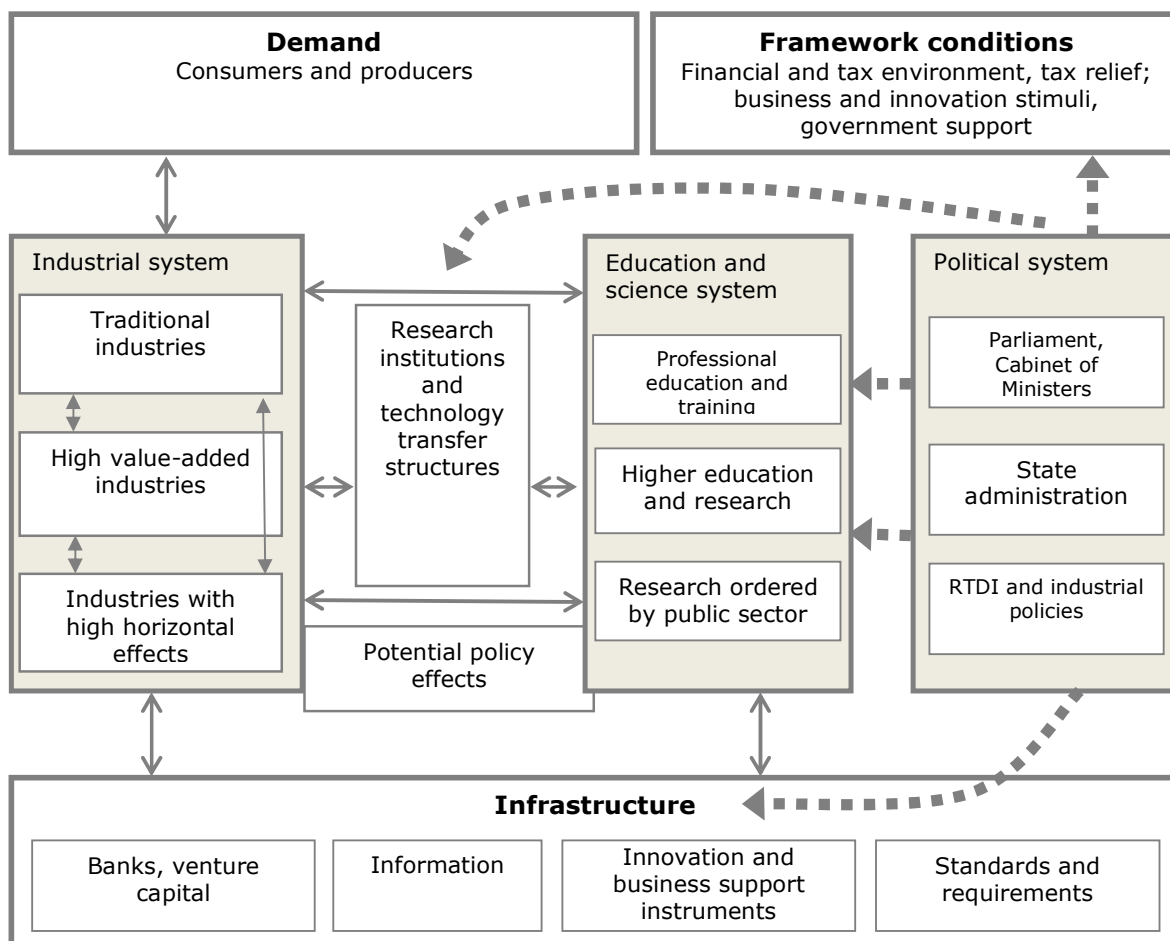
An important task is to develop interaction among all participants of the national investment system – universities, research institutions and technology transfer centres and state administration institutions – or the so-called Triple Helix Model.

In Latvia, research institutions lack capacity to promote and market products. There is a lack of financial instruments supporting product promotion and marketing activities. The innovation infrastructure needed for science is not funded and provided, which does not allow

creating new prototypes of products and technologies that could be promoted in the market. No forecast studies on products to be promoted in the market in future have been conducted, as research institutions have no

Jelgava, LLU ESAF, 21-22 April 2016, pp. 248-255 professionals competent in this field and such specialists are not prepared as well.

A lot of work has been done on developing a model for the RTDI system to activate the intensive use of scientific and technological potential in Latvia (Figure 7).



Source: Research, Technological Development and Innovation Framework 2014 – 2020

Fig. 7. Conceptual model for the national science, technology transfer and innovation system

The model for the science, technology transfer and innovation system can considerably contribute to the activation of scientific, technology transfer and commercialisation processes; yet, at the same time, adequate investments in research and development have to be made both by private investors and the government to make it a reality.

Conclusions, proposals, recommendations

1) It is necessary to establish an innovation system that promotes and supports technological progress in the national

economy and also contributes to inter-industry cooperation at national and international levels, which is orientated towards the transfer and commercialisation of creativity, newly created knowledge and technologies, through developing new services and goods in order to increase the innovative capacity of Latvia.

2) Sufficient human capital of high quality, an appropriate infrastructure, including an infrastructure for technological development and innovation, and closer cooperation are the

prerequisites for efficient investments in research and innovation, given the other favourable circumstances as well. The proportion of investments in R&D by foreign investors, the national government and the private sector has to be changed taking into consideration the experience of the most developed EU member States.

3) It is also necessary to attract foreign investments into the areas having a

Jelgava, LLU ESAF, 21-22 April 2016, pp. 248-256 component of research and technology development but lacking developed industries. The current range of financial instruments has to be expanded for this purpose, and new financial instruments have to be designed, which would focus on the reproduction of human capital for science and the formation of capacity for industrial innovation and knowledge absorption.

Bibliography

1. Cabinet of Ministers of the Republic of Latvia (2013a). Research, Technological Development and Innovation Framework 2014 – 2020 (informative part) (in Latvian). Retrieved: <http://polsis.mk.gov.lv/documents/4608>. Access: 17.02.2016.
2. Cabinet of Ministers of the Republic of Latvia (2013b). On the Research, Technological Development and Innovation Framework 2014 – 2020. Cabinet Decree No 685 of 28 December 2013. Retrieved: <http://likumi.lv/doc.php?id=263464>. Access: 16.02.2016.
3. European Central Bank. (2016). Composite Cost of Borrowing Indicator for Non-Financial Corporations. Retrieved: <https://www.ecb.europa.eu/stats/money/interest/comp/html/index.en.html>. Access: 17.02.2016.
4. Groh, A., Liechtenstein, H., Lieser, K. (2011). *The Global Venture Capital and Private Equity Index Country Attractiveness Index 2011*. Retrieved: <http://www.ey.com/GL/en/Services/Strategic-Growth-Markets/Global-venture-capital-insights-and-trends-report>. Access: 11.09.2015.
5. Jakusonoka, I., Liepnieks, K. (2014). Venture Capital as a Source of Finance for Enterprises. *Economic Science for Rural Development 2014*, No 33, Finance and Taxes, Jelgava: LLU, 2014, pp. 152-159.
6. Mezeniece, M. (2013). The Links of Knowledge Creation and Commercialisation Processes to Economic Growth in the Regions of the European Union. *Summary of the doctoral thesis for the scientific degree of Dr.oec.*, Jelgava, ISBN 978-9984-48-110-4, p.88.
7. Prohorovs, A., Jakusonoka, I. (2012). Financing of Innovation System Development and Attraction of Private Capital. *Economic Science for Rural Development 2012: Proceedings of the International Scientific Conference*, No 28, Rural Business and Finance, Jelgava: LLU, 2012, pp. 219-224. ISSN 1691-3078. Retrieved: <http://search.ebscohost.com/login.aspx?direct=true&db=e5h&AN=77408683&site=ehost-live&scope=site/> Access: 11.09.2015.
8. World Economic Forum (2013). Global Competitiveness Report 2012–2013. Retrieved: www.weforum.org/gcr. Access: 11.09.2015.
9. World Economic Forum (2014). Global Competitiveness Report 2013–2014. Retrieved: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf. Access: 21.01.2016.
10. World Economic Forum (2016). Global Competitiveness Report 2015–2016. Retrieved: <http://reports.weforum.org/global-competitiveness-report-2015-2016/competitiveness-rankings>. Access: 22.02.2016.

GLOBAL TAX COMPETITION IN OFF-SHORE COMPANIES

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Abstract. The article analyses tax oasis, demonstrates the different definitions thereof. Different approaches of countries as to their taxation policy which allow considering them low tax countries are reflected in the article. The aim of the study was to clarify the term (definition) and meaning of tax haven and to define the types of tax havens in the world. The tasks of study are: to clarify the definition, the meaning and the concept of tax haven; to find and to propose tax haven taxation policy in particular countries. The principal materials used for the studies are as follows: various sources of literature, e.g. scholars' articles, research papers and the reports of institutions. Qualitative research methods have been used: monographic; analysis and synthesis; grouping, logical and abstractive constructional etc.

Key words: tax havens, tax competition, global competition.

JEL code: H25, H26, F38

Introduction

In Europe, the share of corporate income tax in total revenues of the OECD countries has been rising up since 1975 (Chu, 2014). Reduction of the tax base and profit diversion are the tax strategies which utilise the deficiencies of the international taxation system in order to artificially transfer profit from the countries where it was obtained to low tax and tax-free countries and territories (Nodoklu terminologija, 2015).

The aim of the study was to clarify the term (definition) and meaning of tax haven and to define the types of tax havens in the world. The tasks of study are: to clarify the definition, the meaning and the concept of tax haven; to find and to propose tax haven taxation policy in particular countries.

Materials and methods. The principal materials used for the studies are as follows: various sources of literature, e.g. scholars' articles, research papers and the reports of institutions. The following suitable qualitative research methods have been used: monographic; analysis and synthesis; grouping, logical and abstractive constructional etc.

Due to the limited space, only the most important results of the research are outlined in the paper.

Research results and discussion

Many economists discuss whether the tax haven is the synonym of the term an "off-shore zone". There are several definitions found in the economics texts. The countries where taxes are low or where there are no taxes are considered tax havens. By registering their company in such countries international companies are able to avoid payment of taxes in their own country. Tax havens usually guarantee information confidentiality to their "clients".

Definitions in the economics texts may differ. The translation of the term "Off-shore" is "away from the shore". One of such definitions would be as follows: An off-shore company is a company registered with a foreign jurisdiction performing all its operations outside its country of registration (Kas ir OFSORS?). This can mostly mean a company registered in one country and actually operating in another country, or an off-shore company is an overseas company owned by an entrepreneur and managed by him from his own country. In most cases these countries are island countries, i.e. the former colonies of Great Britain, and the registration procedures in these countries are very similar.

In essence, the term "off-shore" does not mean anything else besides the fact that transactions are performed outside the domicile

country from the legal point of view. As unbelievable as it might seem, even the performance of transactions by using a Lithuanian or an Estonia company, if the transactions are performed by a Latvian resident, should be viewed as off-shore operations from the point of view of international law (Vai "ofsors" ir ...).

The term "off-shore" should by no means be used as the synonym of non-payment of taxes because off-shore transactions can also be performed in countries with high tax rates, e.g. Great Britain, the USA, Germany etc. Latvia should also be deemed a country of off-shores from the international point of view, moreover, quite an attractive one due to the liberal banking legislation.

The Organisation for Economic Co-operation and Development (OECD) identifies three key factors in considering whether a jurisdiction is a tax haven (Tax Haven Criteria ...):

- zero or only nominal taxes, or are perceived to offer themselves, as a place to be used by non-residents to escape high taxes in their country of residence;
- protection of personal financial information;
- lack of transparency.

Roger Brunet's definition of tax havens highlights a number of features, such as:

- reduced taxation;
- protection of information;
- encouraging the development of the banking sector;
- modern media holding;
- the absence of currency control;
- the promotional advertising;
- favourable tax treaties (Botis, 2014)

Tax havens create distortions on both the macroeconomic and microeconomic level.

As it was stated above, on the macroeconomic level they can threaten the stability of financial systems. Moreover, by not paying taxes or

avoiding taxes imposed upon tangible and/ or financial investment, the revenues of countries are reduced and they should be inevitably recovered by taxing the income gained from labour. Therefore, tax havens distort the correct balance between taxing of the capital and the labour.

On the microeconomic level, this causes a distortion between big and small companies, as well as micro companies. Companies representing the three above types have an increasingly less possibilities of using the offer by tax oasis, in particular, avoiding taxes or aggressive planning of taxes.

The major and the most widespread driving forces behind the operation of these havens are money laundering, non-payment of taxes, means for corruption or diversion of means for own companies. These territories act against the debt of the countries facing difficulties and implement broad scale campaigns aimed at protecting the free circulation of capital, these campaigns are joined by mass media, political parties and representatives of authorities.

As Botis highlights: "All tax haven countries provide some protection to bank or commercial information. In the case of a legal inquiry from a foreign government, most countries will not protect this information when the investigation is made under treaties. Otherwise, tax havens refuse to disclose the offered banking secrecy, although, it is a violation of the laws of another country" (Botis, 2014).

All over Russia the banks of Latvia are considered better than the banks of other off-shores. The conditions that attract persons and encourage them to perform financial transactions in a particular country can be of both a legal and a financial nature.

When, speaking about transactions taking place in off-shore zones, the jurisdiction is with a different tax regime for residents and non-residents and reliefs are granted to foreign investors in particular economy areas, tax havens

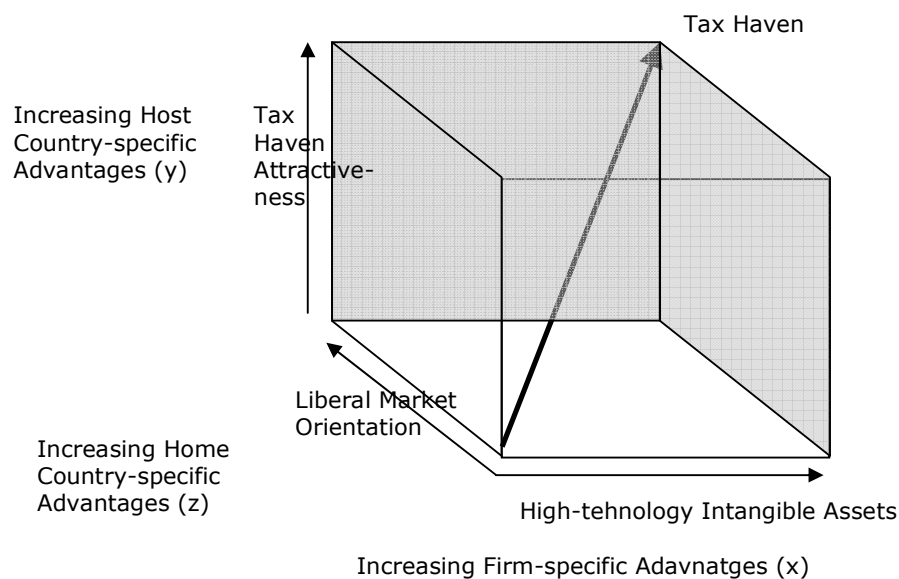
are characterised by non-cooperation with tax administrations of the country of origin and non-existence of treaties regarding double taxation. Such treaties usually contain a clause on the exchange of information about gained income. If the tax rate is 0%, such an agreement or a treaty is useless.

The authors refer to the Republic of Cyprus as an example. In this jurisdiction the tax rate for resident companies amounts to 42.5% and the tax rate for off-shore companies is 10 times lower and amounts to 4.25%. Therefore, Cyprus can be viewed as an off-shore zone. It should be noted that the Republic of Cyprus has concluded double taxation agreements with 30 countries

and, based on these agreements, the Republic of Cyprus cannot be listed as a tax haven.

Tax havens are characterised by non-transparency of tax regulation, a non-compliant legislation base, simplified registration procedures and company management, fictitious company owners and managers. In essence, there is tax competition. Therefore, it cannot be assured that a tax haven is the same as an off-shore zone.

Jones, C., Temour, Y. (2016) describes tax havens in a matrix where the core goal is increasing advantage at the firm-specific, home country-specific and the host country-specific levels (Figure 1).



Source: Jones, C., Temour, Y. (2016)

Fig. 1. Tax havens matrix

Off-shore companies in off-shore zones and their types

The question regarding off-shore companies registered in off-shores is a subject for discussion. Therefore, first the authors would like to clarify what an off-shore is.

There are various approaches as to the division of off-shore companies. There are countries (off-shores) where the legal regulation allows non-payment of taxes or payment of taxes

based on a lower rate. Most of these are developing countries. They charge a fixed fee for the registration of off-shore companies, thus gaining additional revenue to their budget. The definition "an off-shore company" or "off-shore business" does not possess a strict legal, tax or business meaning. The basic definition "an off-shore company" can be expressed as follows: a separate legal entity which is registered, located

or managed in a foreign country (Arzonu uzņēmumu dibināšana ...).

It is important to establish the purpose of use of companies. The authors have concluded that there can be various purposes: tax optimisation, protection of assets, management of an investment, patents and royalties, registration of real estate. In most cases companies need to receive a tax certificate in the country of founding of the company. In this case Cyprus as well as other countries which provide tax registration of the company is most advantageous.

In economics texts there are several types of off-shore companies. Off-shore companies which could be interesting from the point of view of optimisation of taxes and structuring of international business can be divided in three groups (Arzonu uzņēmumu dibināšana...):

The companies registered in the "classic" off-shores could be included in the first group characterised by the fact that they do not have operations in the country of registration, companies are released from payment of taxes or pay taxes at a 0% rate; they do not need accounting and audit; there is a fixed annual fee (charge). Globally there are more than half a hundred off-shore jurisdictions. Most famous of them are as follows: British Virgin Islands, Panama, Belize, Seychelles, Nevis, Bahamas, Dominican, Mauritius and others.

The second group could include low tax jurisdictions. These countries are not tax-free zones, they have higher international authority than off-shore companies and, by fulfilling certain conditions, tax payments can be very low. Companies that are registered in low tax jurisdictions need to submit accounting reports and to perform annual audit. This group includes Cyprus, Bulgaria, Hong Kong and Singapore.

The third group includes the companies registered in the countries which are not off-shores. These are countries with the simple (or even highest) tax collection system; companies

have to maintain accounting in the country of registration; companies can be used in agency schemes, formation of holding structures as well as used in non-taxation agreements, and, by complying with certain conditions, they can be lower taxes. These jurisdictions are: in European countries (in particular, Great Britain, Denmark, Switzerland, Estonia), the USA, New Zealand and many others. For example, the income tax rate in Great Britain ranges from 21 to 28% depending on the profit amount. In New Zealand, the rate is 33% of the profit obtained from a source in New Zealand.

As regards taxes, it can be concluded that the conditions of assessment of taxes depend on a particular jurisdiction. Classic off-shore jurisdictions provide for release from taxes or set a 0% rate. The other countries provide for the corporate profit tax: in Cyprus (10%), Great Britain (from 21 to 28%), New Zealand (33%).

"Classic" off-shore countries rarely enter into double taxation conventions or agreements which can be used for optimizing income from non-residents' structures. Thus, in order to implement double taxation agreements, jurisdictions which are not off-shore and low taxes are used. From the practical point of view it is easy to use Cyprus where the procedure for receiving the "tax residence certificate" is simplest.

The authors have concluded that there is confidentiality. In most off-shore jurisdictions (British Virgin Islands, Belize, Panama and others) the register of enterprises has information about the company director. However, in low tax and not off-shore jurisdictions (Cyprus, Hong Kong, European countries) registers contain information about directors and shareholders.

At present there are more than 60 countries in the world where companies can be registered with tax reliefs. Most popular of them are as follows: British Virgin Islands, Bahamas, Belize, Seychelles, Panama, Cyprus, Hong Kong and others.

There is also another viewpoint and another classification of low- tax countries. By using the previously conducted studies, the authors

summarised the tax policies in low tax countries in Table 1.

Table 1

Tax policy in low tax countries

No	Countries	Taxation
1	British Virgin Islands This territory is still an autonomous colony of Great Britain	0% tax rate applicable to business companies.
2	Hong Kong is a special administrative region of the People's Republic of China. It is no longer a colony of Great Britain as from 1997.	0% tax rate is applied to income generated from abroad. The profit obtained outside the territory of Hong Kong is taxed at the rate of 16.5%.
3	The Republic of Panama is located between North America and South America.	If a company does not generate income from other sources in the territory of Panama a 0% tax rate is applied. In compliance with Panama legislation, a company that does not generate income from other sources in Panama is not viewed as a taxpayer.
4	Belize has a common border with Mexico, in the south – with Guatemala. It achieved independence from Great Britain in 1981.	A 0% tax rate is applied to international business companies.
5	New Zealand is located in the South part of the Pacific Ocean, East from Australia. New Zealand is a part of the Commonwealth of Great Britain.	The corporate income tax of the companies whose shareholders are foreigners equals 33%.
6	The Republic of Cyprus is an island in the East of the Mediterranean Sea. This is a sovereign country with the presidential democracy	In companies registered in Cyprus and administered and managed from abroad only the income generated in Cyprus is taxed. An off-shore company in Cyprus is released from taxes of foreign dividends, interest and income from any permanent foreign representation office, and there are also tax reliefs and compensation of losses incurred abroad. Companies are not entitled to tax reliefs provided for by Double Taxation Treaties, however, the information exchanged provisions of such treaties are not applicable to them.
7	Marshall Islands are located in the North of the Pacific Ocean, approximately in the middle between Hawaii Islands and Australia. This is an independent sovereign country in the region of Asia and the Pacific Ocean and a rapidly growing financial centre of off-shores.	Non-residents' companies of Marshall Islands, including all the joint stock companies, partnerships, limited partnerships and limited liability companies, in Marshall Islands are relieved of any taxes. No taxes are imposed on any income, profit, dividends, royalties, compensations or any other types of income.
8	Saint Louis is located in the East of the Caribbean Sea. In 1979 it gained independence as one of the member states of the Commonwealth of Great Britain. It has a clean reputation with strict licensing laws and regulations	Saint Louis IBC can select a release from taxes or taxation of its income at the rate of 1%. International business companies do not have to pay the state fee, withheld tax and capital gain tax.
9	Commonwealth of Dominican is the former colony of Great Britain where currently there is independent constitutional democracy, located in the East of the Caribbean Sea	The law provides that the minimum period when taxes are not applied to off-shore companies is 20 (twenty) years as from the date of its registration.
10	Gibraltar is a city and a port on the Gibraltar cliff located on the Pyrenees Island, in the South of Spain, just across the North coast of Africa.	Income of non-residents' companies is taxed when it is not derived in the territory of Gibraltar or transferred to there. In order to qualify for the status of a non-resident, the company has to administered and managed outside the territory of Gibraltar. Non-residents' companies are not taxed by applying local taxes, except the corporate income tax imposed to income transferred to Gibraltar. Companies managed by non-residents are allowed trading in the territory of Gibraltar and with Gibraltar companies, however, in this case the corporate income tax is 35%.
11	Seychelles are located in the Indian Ocean between the East Coast of Africa and India.	In compliance with the law, IBC's of Seychelles do not have to pay taxes or duties for income or profit. They are relieved from the state fee for the transfer of property and any currency exchange control.
12	United Kingdom: Great Britain or also the United Kingdom of England, Scotland, Wales and Northern Ireland is located on islands in West Europe, North from France	All the income is split between partners and only then income is taxed by imposing the income tax provided for in the country where the relevant partner is residing or registered. In Great Britain partnerships are not viewed as companies,

No	Countries	Taxation
		therefore the corporate income tax is not applicable to them.
13	Saint Kitts and Nevis are located in Leeward Islands, in the North part of the Caribbean Sea East	Non-residents' companies are relieved of all types of taxes
14	Bulgaria is located in the South East Europe, in Balkan region.	In compliance with the Corporate Income Tax Act all companies and partnerships (including not registered partnerships) have to pay the corporate income tax the rate of which is 15%. It is planned that as from 2006 the corporate income tax will equal 12%. Internationally derived income of Bulgarian residents' companies is taxed. Income generated in Bulgaria by other companies is taxed. Non-profit organisations (including state owned companies) have to pay the tax for their business activity. Although branch offices are not legal entities, branch offices of non-residents' companies have a separate Balance Sheet and a Profit/ Loss Statement. Income of a branch office of non-residents' companies are taxed by applying the standard corporate income tax rate of 15%.
15	Latvia is strategically located in the East Europe by the Baltic sea, having several ice-free ports, good infrastructure and a land border with Russia, Belarus, Estonia and Lithuania (Low Tax ...).	All companies registered in Latvia are liable to corporate income tax at rate 15%. Dividends paid to individuals are subject to withholding tax only 10%, even reduced rate can be provided by DTA.
16	Canadian Company Formations	No tax on the company's income derived outside Canada

Source: author's created based on Inland Tax Department ..., Inland Revenue Department ..., Inland Revenue New ..., Low Tax Company....

Hong Kong, which is not an off-shore jurisdiction, still provides for the full tax relief for companies operating outside Hong Kong. This ranks Hong Kong among the most attractive jurisdictions for registration of companies.

Estonia is a Member State of the European Union. In Estonia, a 0% tax rate is applicable to the company profit, and only the profit distributed among the company owners (for example, in the form of dividends) is taxable. The correct use of Estonian companies allows using them for the purpose of tax optimisation.

The government of Gibraltar plans to refuse the status of a tax oasis, the system where off-shore companies are released from payment of taxes (Gibraltars atteiksies no ...). This decision was adopted in response to the international pressure imposed onto all tax oasis in order to achieve equal terms for both local and off-shore firms.

At the same time the corporate profit tax in Gibraltar is reduced to zero for all the companies. The financial sector accounts for approximately 25% of the economy of Gibraltar and ,therefore, plays a vitally important role for the survival and

welfare of Gibraltar. The corporate sector will continue paying money which is now collected by the government as corporate taxes and duties from the companies released from payment of taxes. This revenue amounts to approximately GBP 17 million per year. In order to compensate the revenue that is going to be lost due to the reduction of the corporate profit tax to zero, the "corporate wage list tax" will be introduced similarly to how this is done in Bermudan Islands. This tax will be assessed based on the number of employees. The wage tax and the business property borrowing tax will also be introduced and will jointly make up the amount equal to 15% of the company profit. In addition, all the companies will have to pay the annual registration fee amounting to GBP 300 or a half of this amount if the company does not have any income. Providers of financial services and utilities will have to pay the tax amounting to 8% of the profit. Due to the above measures many off-shore financial services providers will be forced to pay taxes for the first time. The government of Gibraltar wishes to introduce the

reforms in the near future (Gibraltars atteikšies no ...).

There is an interesting question regarding the blacklisted countries. The "Black List" is the list comprising the countries upon which various restrictions have been imposed, for example, regarding taxes or currencies. Classic off-shore jurisdictions (Panama, British Virgin Islands, Seychelles, Belize and others) are included in most "black lists". However, there are also exceptions, for example, Panama is not included in the Ukrainian "black list" and Seychelles are not included in the list of off-shores of the Russian Federation (Arzonu uzņemumu dibināsana).

Hong Kong and Cyprus are included in the "black lists" much more rarely and are not viewed as off-shore companies. Of course, jurisdictions which are not off-shores will not be found in any list (Great Britain, New Zealand, Denmark, Estonia etc.)

During the study it was established that in the cases when the prestige of a jurisdiction is an important aspect, the countries which are not referred to as off-shore jurisdictions are selected, for example, Hong Kong, Cyprus, Great Britain, New Zealand, Estonia etc.

Based on the conducted study it can be concluded that the services of off-shores are sufficiently broad and their utilisation is efficient only when they are used in compliance with the company needs and interests. Experts admit that in cases when a company wishes to reduce its tax burden it is worth focusing on off-shore structures, however, when it is more important for a company to protect its assets, it is better to implement active protection thereof by using funds or trusts instead of tax minimisation. In situations when a company operates in the area of information technologies, the use of the free e-commerce zone will seem more attractive to it.

Off-shores offer the establishment of investment funds by means of which it is possible to attract funds to the investment projects of a

company and the efficiency of use of off-shores depends on the specifics of the company operations instead of its location.

Tax transparency

Taking the global experience as the basis, tax transparency is required – the initiative by the European Commission providing for the introduction of automated information exchange between Member States regarding cross-border tax resolutions as from 2015.

Transactions conducted in off-shore companies are confidential in most cases. Therefore, there is no complete statistics about how much of tax money is not transferred to the central budget. For example, according to the assessment made by the non-governmental organisation Tax Justice Network in 2009 developed countries lose approximately EUR 124 billion deposited with the banks of tax havens every year. The Treasury of Great Britain alone loses EUR 4.2 billion per year, moreover, as ironical as it might seem, money is lost in the territories administratively related to Great Britain, in particular, in Jersey Island, Guernsey and Mena Island. The tax haven favoured by Americans is a modest five floor building in Georgetown, the capital of Cayman Islands. In the office building Ugland House more than 18,000 companies are registered despite the fact that 241 people work there. B. Obama has said: "This is either the biggest building in the world or the biggest fraud scheme in the world".

The assumption that the money deposited in off-shores in a majority of cases means unpaid taxes is also confirmed by experts. A tax lawyer admitted to the newspaper "The Times": "Every time when you lift a stone in a tax haven, you find proof that people have been evading taxes."

Besides Cayman Islands, Guernsey and Jersey, Switzerland and Lichtenstein, the list of off-shores includes also, for example, Hong Kong, Andorra, Monaco, Bermuda Islands, Antiqua and three countries of the European Union (EU) –

Austria, Luxemburg and Belgium. All the three have achieved non-application of the EU regulations providing for information exchange among Member States for preventing tax evasion by citizens in one country by depositing funds in another country towards them (Ofsori raugas uz ...).

The EU experts, first, consider that it is necessary to strengthen the international agreements regarding multilateral treaties in order to obtain information about transactions taking place in a country, second, they recommend to improve the national legislation in order to minimise tax evasion, third, to strengthen the inter-country cooperation in the field of taxes.

Conclusions, proposals, recommendations

The authors conclude that tax competition in small countries contribute to the attraction of

foreign investors. Based on the above the authors draw the following conclusions:

- 1) Due to the large number of tax obligations imposed on taxpayers, they are trying to find ways to avoid or reduce tax liabilities.
- 2) The existing inter-country tax competition has an increasing impact upon the tax policy of individual countries
- 3) Countries with low taxes are off-shore zones.
- 4) Global tax harmonization could be the only solution regarding tax havens and off-shores.
- 5) The European policy makers and policy makers all over the world are looking for legal possibilities of terminating tax oasis and the possibilities of avoiding taxes, however, at the same time owners of big companies look for advantages of such oasis and tax transfer possibilities.

Bibliography

1. Arzonu uzņemumu dibināšana (Foundation of Off-shore Companies) Retrieved: <http://www.bspgroup.biz/content/lv/192/%C4%80rzonu-uz%C5%86%C4%93mumu-dibin%C4%81%C5%A1ana.html> Access: 16.12.2015
2. Blanco, L. Rogers, C. (2012). Competition between Tax Havens: Does Proximity Matter? *International Trade Journal*. Sep/Oct 2012, Vol. 26 Issue 4, pp. 291-308. 18p.
3. Botis, S. (2014). Features and Advantages of Using Tax Havens. *Bulletin of the Transilvania University of Brasov. Series V: Economic Sciences*. 2014, Vol. 7 Issue 2, pp.181-188.
4. Chu, H. (2014). Tax Enforcement Policy and the Provision of Public Goods with the Presence of Tax Havens. *Scottish Journal of Political Economy*. July 2014, Vol. 61 Issue 3, pp. 304-321.
5. Gibraltars atteiksies no nodokļu oazes statusa (Gibraltar is Going to Refuse the Status of a Tax Oasis), Retrieved: http://financenet.tvnet.lv/zinas/131225-gibraltars_atteiksies_no_nodoklu_oazes_statusa Access: 21.12.2015
6. Inland Revenue Department of Hong Kong Government. Retrieved: <http://www.ird.gov.hk/> Access: 16.12.2015
7. Inland Revenue New Zealand Government. Retrieved: <http://www.ird.govt.nz/> Access: 16.12.2015
8. Inland Tax Department of Great Britain. Retrieved: <http://www.hmrc.gov.uk/> Access: 16.12.2015
9. Jaafar, A., Thornton, J. (2015). Tax Havens and Effective Tax Rates: An Analysis of Private versus Public European Firms. *International Journal of Accounting*. December 2015 50(4): pp. 435-457
10. Jones, C., Temour, Y. (2016). The Determinants of Tax Haven FDI. *Journal of World Business*. Volume 51, Issue 2, February 2016, pp. 237-250
11. Kas ir OFSORS? (What is OFF-SHORE). Retrieved: <http://www.sfi.lv/> Access: 20.12.2015
12. Low Tax Company. Retrieved: <http://www.lowtaxcompany.com/lv/oforu-valstis/latvia> Access: 20.12.2015
13. Nodokļu terminologija. (Tax Terminology) (2015). Retrieved: <http://www.europarl.europa.eu/news/lv/news-room/20150529STO61068/Nodoklu-terminologija> Access: 20.12.2015
14. Ofsori raugas uz krastu (Off-shores Looking Towards the Shore). Retrieved: <http://www.diena.lv/arhivs/ofsori-raugas-uz-krastu-13826192> Access: 21.12.2015
15. Palan, R. Chavagneux, C. Murphy, R. (2010). Tax Havens: How Globalization Really Works. Cornell Paperbacks. Ithaca, N.Y. : Cornell University Press. 270p.
16. Richardson, G. Taylor, G. (2015). Income Shifting Incentives and Tax Haven Utilization: Evidence from Multinational U.S. Firms. *International Journal of Accounting*. December 2015 50(4): pp.458-485
17. Tax Haven Criteria. Retrieved: https://web.archive.org/web/20120512074208/http://www.oecd.org/document/63/0,3343,en_2649_37427_30575447_1_1_1_37427,00.html Access: 15.12.2015
18. Vai "ofsors" ir sinonims nodokļu nemaksasana? (Is an Off-shore a Synonym to not Paying Taxes?) Retrieved: http://financenet.tvnet.lv/viedokli/143977-vai_ofsors_ir_sinonims_nodoklu_nemaksasana Access: 20.12.2015

IMPACT OF INTRODUCING UNHEALTHY PRODUCTS EXCISE DUTY ON CROSS BORDER TRADE AND GAIN OF LOW-INCOME PERSONS

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Abstract: The Ministry of Health has made a proposal to place excise duty on several grocery products that the Ministry of Health consider "unhealthy". The duty would allow to capitalize on the consumption of these products as well as limiting the consumption itself. However, this excise duty can cause several complications such as financial pressure on not-well-off households.

Placing the excise duty on products would consequently increase the price of the product, which would in turn increase the sales revenue of cross border trade. Recent studies have discovered that the consumer react to increased prices of the domestic product, by purchasing the goods in other countries to minimize his/her expenditures. Since the prices of grocery products are already higher than in the neighbouring countries - Lithuania and in specific cases Estonia, this increase in the price could cause the shopping abroad to become a really hot topic. Since the excise duty is a custom administrated tax, there has to be extra control on Russian and Belarus borders, as well as informing the general public about which products the excise duty has been imposed on. If the imported product exceeds the allowed quantity, these products should be taxed separately.

Since the excise duty is a consumption tax, it will directly affect lower income citizens, as they spend the majority of their income on grocery products. The process will expand the income inequality in Latvia even more, despite the fact that it is already one of the highest in the European Union.

Key words: excise duty, unhealthy food, cross-border trade, social inequality, the tax burden

JEL code: H25, H71

Introduction

The Ministry of Health has developed a proposal (Ministry of Health,2015) to impose an excise duty on several "unhealthy" grocery products and increase the existing duty on several products already taxed. The Ministry of Health has states that this initiative will increase the national budget by 30 million euros.

The proposal contains placing an excise duty on sausages and other meat products, meat subproducts or blood products, other products based on these products, canned goods made of meat, meat subproducts or blood, salted, marinated, dried or smoked meat or meet subproducts, which contain salt level of more than 1.8g/100g of meat product. The proposal establishes an excise duty placed on these products of EUR 7.00/100Kg of the specific good.

The proposal also contains an excise duty placed on palm oil- EUR 21.00 for every 100l, lard -EUR 21.00 /100Kg, as well as pre-made soups and broth, which will be taxed if the salt level exceeds 1g/100g's for an amount of EUR 21.00 /100Kg.

The Ministry of Health, also considers patatee chips, saltine nuts, popcorn and saltine corn snacks that contain more than 1.25g of salt for every 100g of the product as prime contenders for excise duty. These products would also be taxed EUR21.00 for every 100 kg of the product. Also, the Ministry of Health considers increasing the already existing excise duty placed on the artificially sweetened non-alcoholic drinks which is currently EUR 7.40 /100l to EUR 14.00/100l. Also they plan to place Excise duty on specific non-alcoholic drinks which contain an amount of caffeine larger than 15mg/100ml for an amount of EUR 21.00/100l

The goal of realizing this proposal is to increase the national budget as well as encouraging the consumption of healthier products. It has to be noted that there are few publically discussed arguments on the topic and relatively small amount of information that proves these products unhealthy. It is questionable whether this excise duty will change peoples' habits and will help them choose the

healthier alternative such as healthier meat products.

Based on the experience of other countries and several international researches, authors created a study to determine the influence of the proposed excise duty on the prices of these products and the impact it might have of cross border trade in Latvia. Authors also studied the possible reactions of socially sensitive groups of people based on the structure of their expenditures and consumption tax burden. These arguments have to be evaluated before deciding on the necessity of the excise duty placed on these "unhealthy" products.

The **hypothesis** is that excise duty placed on "unhealthy" grocery products could increase cross border trade and tax burden on citizens with low incomes.

The **goal of the research** is to evaluate how an excise duty may affect the cross border trade and the level of income for lower income citizens.

The **objective** of the research is cross border trade and social awareness. The **subject** of the research is imposing an excise duty on "unhealthy" products.

In order to achieve the goal of the research, several **steps** will be taken:

- 1) Known experience of the cross border trade in other countries;
- 2) Comparing the prices of goods in the Baltic states to determine the potential risk for cross border trade;
- 3) Determining the main problems, that might be faced when increasing the cross border trade with Belarus or Russia;
- 4) Acknowledging existing the social awareness in Latvia;
- 5) Analysing the burden of existing tax on different social groups ;
- 6) Estimating the increase in the burden faced by people, if the excise duty on "unhealthy" products was to be put in place.

The main **research methods** used in this study are **quantative**: analysis of **statistical** and **empirical** data.

1. Impact of introducing of excise duty on unhealthy products to cross-border trade

1.1. Case studies of other countries

There has been some research done on the topic of cross border trade. The difference in the price of the product after the excise duty has been imposed compared to the price for the same good neighbouring countries, where the excise duty is lower, motivates the consumer to purchase the good abroad. The traveling expenses are often more than paid for with the savings created from avoiding to pay the local excise duty (Leal A., Lopez-Laborda, Rodrigo F., 2010). The difference in the excise duty is one of the main motivators for the cross border trade.

Poland did the most of its cross border trade with Ukraine from 2010 to 2012, however a significant portion of the population living in the near border regions did their foreign shopping in other neighboring countries (Russia, Belarus). The research stated that out of all of food imports in Ukraine during 2012, 23% of it was unregistered import. Poland spent approximately 14 Million euros on importing grocery products from Ukraine alone, 2 million euros in Belarus, 4 million in Russia (Poweska H., 2014).

The research conducted on cross border trade between Germany and Denmark, concluded that 80% of the Danish citizens residing within 50 km from the German border, did their shopping in Germany at least once a year due to transborder tax policy. The most frequently purchased products are beer, wine and sweets which are priced cheaper than the same goods in Denmark (Bode E; Krieger-Boden C; Lammers K, 1994).

Similar tendencies can be observed in the cross border trade between the Netherlands and Germany in the (Reinas-Vales), (regions Spiering B., Van der Velde M., 2013). The people living near the border buy specific products in the other

country. The consumers state that the main reasons for this shopping abroads are better prices and variety of options.

A while ago a large part of the products and services provided in Mexico were imposed with 16% value added tax (VAT). However within 20 km from the border with United States of America, the duty rate was 11%. That was the preferred duty rate to decrease the cross border trade with United States of America. However the difference in duty rates crippled the economy overall, because the difference in duty rate was so significant that Mexican residents traveled to do their shopping in the zone with lower duty Rate (Lucas W.,2011).

Recent studies show that Chicago region located in United States of America, lost up to 40% of its revenue due to higher gasoline prices (Manuszak, M. D., Moul, C. C. ,2008).

Previously mentioned researches and the experience of other countries proves that consumer will react to the changes of prices, to minimize expenditures.

1.2. Impact on cross-border trade between the Baltic States

The excise duty proposed by the Ministry of Health for unhealthy food will increase the prices of the specific goods locally which will lead to increase in cross border trade. By imposing excise duty on specific products, the prices will increase so the cross border trade question begins more important, especially between Latvia, Lithuania or Estonia, because there is no currency barrier and there is no cost to crossing the border. That could adversely affect the Latvian economy. On the Table 1 are displayed the prices of specific products that are going to be taxed with Excise duty in the Baltic Countries.

Table 1

Product Prices in Baltic Countries (EUR)*

Product Group	Latvia	Lithuania	Estonia
Fruit Oil	2.31	1.56	2.39
Patato Chips	1.61	1.46	-
Sweetened, carbonized drinks	0.72	0.65	-
Juices	1.31	1.43	1.17
Pork	4.78	4.00	-

* Eurostat and the National Statistical Institutes, 2014

As it is shown in Table 1 several products are already more expensive in Latvia. Although the prices are measured overall and onlu few of the products are planned to be taxed with excise duty, one has to assume that the prices may go up in the whole product group, as it may be difficult for the retailers to differenciate the prices as few of the products have to be placed with excise duty. Similar effect can be seen already in non-alcoholic beverage group. Even though the excise duty has been placed on sweetened drinks, it is common that prices are similar between those drinks and other drinks also.

By imposing excise duty the price will grow by 4% for pork and up to 16% for juices. For example, the difference between non-alcoholic beverages between Latvia and Lithuania is approximetly 10%. By implying the excise duty the difference in prices will grow up to 18%.

It has to be noted that meat products are a large part of overall consumption. After a research (Baltic Institutes for Private Finances, Swedbank, 2014), for an average trip to a grocery store approximetly 35% are meat and fish products, 16% are bread and poultry products and milk products. Vegetables combine for 13% and fruits combine for only 10%. That

leads to a conclusion that meat products consist for a large part for overall consumption, and simultaneously also the meat subproducts and smoked meat.

The conclusions can be drawn that the cross border trade in Latvia will increase. By imposing the excise duty the country will not only gain from the excise duty revenue but, quite conversely will suffer losses and therefore the total tax revenue will decrease.

1.3. Cross-border trade with Russia and Belarus

Since Latvia is also bordering Russia and Belarus, there will also be problems with cross border trade with these countries. Regardless of the fact that Latvian citizens are under VISA regulations traveling to Russia, as well as the currency barrier, there are many non-citizens in Latvia, especially in 'Latgale' region-border area which leads to easier access to Russia, who do not need visa to enter Russia. According to Central Statistics Office currently in Latvia are 253640 non-citizens, 38777 Russian citizens and 1686 Belarus citizens (Central Statistical Bureau, 2014), therefore the cross border trade will increase with Russia and Belarus, which will not only affect alcohol, tobacco and gasoline import to Latvia but also food products planned to be taxed with excise duty.

Several grocery products that are planned to be taxed with excise duty can be imported from Russia and Belarus legally. Some of these products are: palm oil, readily made soups and broths, potato chips, salted nuts, popcorn, saltine corn snacks, sweetened non alcoholic drinks and energy drinks. Since excise duty is border administered tax, there has to be more control imposed on the actual border as well as informing the society that certain grocery products are taxed with the excise duty and that there is a fee to be paid if the imported good exceeds the allowed amount.

A controversial issue arises not only in the general cross border trade, but also when a person wants to legally declare importable goods and pay the excise duty. The question is if the person will be able to calculate and declare the duty, and how many resources will it take from the border control to control if the correct amount is being paid. The person will have to pay the banking transactions before declaring imported goods. Practically it is not possible, for example travelling by train from Russia or Belarus.

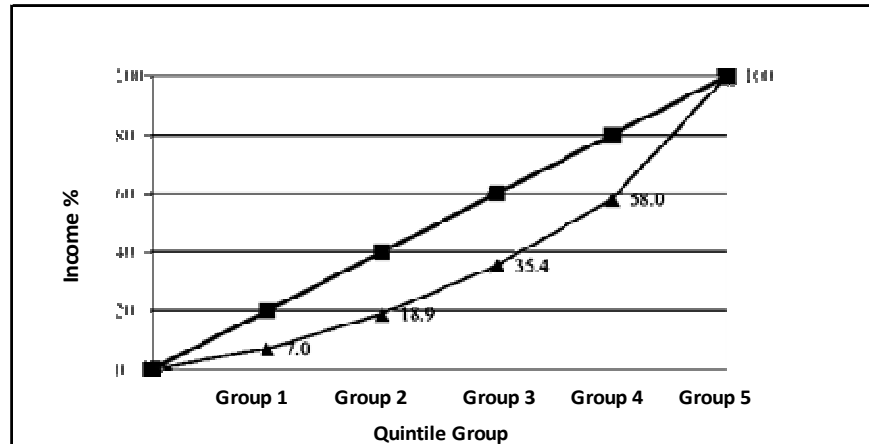
2. Impact of introduction excise tax on unhealthy products to income of low-income persons

2.1. Income inequality in Latvia

The income inequality has been described with GINI coefficient. Low GINI coefficient means that the income inequality is relatively small; conversely high GINI coefficient means that income inequality is relatively high.

The income inequality in Latvia is huge. GINI coefficient in Latvia is second highest in the European Union (2013: -35.2), (Eurostat, 2014). In the last several years there has been no notable improvements but quite the opposite - due to large amount of people migrating to live elsewhere it is creating a false sense of improvement, hence since the people who were in the lower income category before are migrating to search for better opportunities to earn living in different countries the GINI coefficient is artificially getting better (Quintile Group 1), (Juruss, M., Valuka Z., 2014).

Graphically the income inequality is usually displayed using Lorenz curve (Lorenz, M. O., 1905). If there were no income inequality the line would be perfectly straight, but since there is inequality the line is curved for the different groups.



Source: authors' construction based on data from Central Statistical Bureau, 2013

Fig. 1. Lorenz curve of income inequality in Latvia

As it is displayed in the Figure 2, first group only receives 7% of the income (instead of 20%), however the group 5 receives 42% which proves that there is a lot of income inequality in Latvia (Juruss M., Valuka Z., 2014).

One of the instruments made to minimize the inequality between the incomes of the citizen is fiscal political maintenance, hence using differentiated tax bids etc. the imposing of consumption tax, such as exise duty has a completely adverse effect- it increases the income inequality between citizens.

2.2. Citizen Consumption

Many researches show that there is a direct correlation between consumption and income. A big chunk of this research has been conducted by

John Maynard Keynes (Keynes M. J., 1936). Keynes main conclusion was that as the income increases for a person, the consumption does not increase as rapidly, hence the consumption increase has regressive nature. Proportionally to the expenditures, there are expenditure taxes that are to be paid, which in contrast against people with lower income contain larger percentage of their total amount of money than those with larger income. It means that consumers with different income have completely different tax burden. That is proven by following empirical data.

Table 2

Persons total grocery expenditures, % from income*

Quintile group	Group 1	Group 2	Group 3	Group 4	Group 5
Income per one household member (EUR)	124.93	227.58	295.01	412.66	779.67
Grocery expenditures per one household member (EUR)	56.93	77.05	88.28	97.32	116.17
The Share of Grocery Expenditures (%)	46%	34%	30%	24%	15%

* Central Statistical Bureau, 2013

The situation of grocery consumption is similar to situation of the total consumption-as income rises, the proportion of income spent on groceries decreases. Most of the money for the purchase of

groceries in relation to their income is spent by 1st quintile group, but the least of income- by fifth quintile group. Here it should be noted that

low-income persons spend on groceries nearly half of their income - 46%.

The share of grocery groups, which are expected to be placed with excise duty are displayed on Table 3. From the group of "Grains" it is popcorn, saltine corn sticks, from "Other Grain Oils" it is palm oil, from "Animal Fats" it is pork fat, "From Nuts and Seeds" – saltine nuts which contain more than 1.25 grams per 100 grams. "Processed Patatoes" – Patatoe chips, "Food Concentrates"- Readily Made Soups and

Broths, "Non-alcoholic drinks and fruit juices"- sweetened non-alcoholic drinks and energy drinks.

Table 3 shows the same tendency, hence perecentage wise from their income the most expenditures for the mentioned products, the highest percentages are from people with lower income level. Therefore, it can be concluded that the Exise Duty will affect the household with lesser income the most; hence the income inequality will grow even more.

Table 3

Person consumption of certain products, which are intended to impose with excise duty, % of income

Quintile Group	Group 1	Group 2	Group 3	Group 4	Group 5
Average income per one household member (EUR)	124.93	227.58	295.01	412.66	779.67
Grain Products	0.30%	0.24%	0.21%	0.14%	0.12%
Dried, Saltine, Smoked meat and meat subproducts	4.63%	3.11%	2.77%	2.10%	1.12%
Canned meats and meat subproducts	0.91%	0.64%	0.63%	0.51%	0.33%
Other fruit oils	0.85%	0.52%	0.39%	0.26%	0.12%
Animal Fat	0.06%	0.01%	0.04%	0.01%	0.00%
Nuts, seeds	0.17%	0.15%	0.14%	0.16%	0.14%
Processed Patatoes	0.16%	0.13%	0.12%	0.10%	0.08%
Food concentrates	0.36%	0.23%	0.22%	0.20%	0.09%
Non alcoholic beverages	0.34%	0.28%	0.23%	0.24%	0.18%
Fruit Juices	0.37%	0.23%	0.24%	0.26%	0.23%

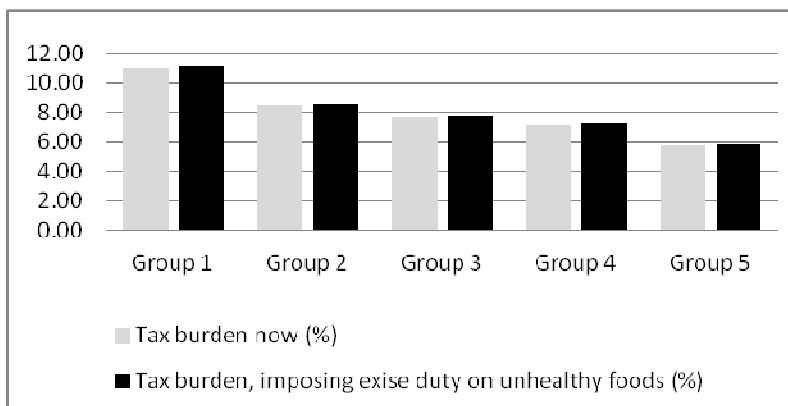
Economical development usually causes improvements in grocery choices, thereby improving the structure of overall dietary choices (WHO, 2003). Economic development creates qualitative and quantitative changes in diet. These changes, improve the structure of dietary choices by replacing fat with increase in energy and consumption of products with added sugar as well as fat consumption (mainly animal fat), with complex carbohydrates and fruits and vegetables. However the inequality between citizens and cross border trade will not improve the economical development (Elsner K., Hartma M., 1998; Popluga D., Melece L., 2009).

2.3. Burden of Expense tax on people with different income

Taking note of the fact that people with lower income spend relatively more of their income, it is already creating a situation in which people with lower income (elderly people etc.) have higher tax burden (value added tax). Imposing excise duty on unhealthy food, expenditure tax burden will increase more for the people with lower income than people with higher income. Calculations show that people with low income (Quintile Group 1.) would have two times bigger tax burden than that of people with high income (Quintile Group 5.).

Imposing excise duty on unhealthy foods, the prices will increase and therefore, so will the Value-Added Tax payments. That will lead to tax burden increasing for people with lower income even more. Research shows that already, the total expenditure tax burden (value added tax) for people with low income (Quintile Group 1.) is

11.01% from their existing income, creating a huge gap from people with high income (Quintile Group 5.) After the excise duty will be imposed the gap will further increase, tax burden will rise for people with low income to 11.29% or by 0.28% (Figure 3).



Source: authors' calculations based on data from Central Statistical Bureau

Fig. 3. Tax burden on household with different income.

Taking in account that there is already huge inequality in Latvia, GINI coefficient in Latvia during 2013 was -35.2%, by imposing the excise duty on unhealthy foods, inequality will only increase. Therefore this type of action is not suitable and is opposite of the government declared programme for the decreasing of income inequality, so it is not acceptable.

Conclusions

- 1) The experience of other countries (Poland, Sweden, Denmark, and Netherlands) shows that consumer will react to change in prices to minimize expenditures. Importing unregistered grocery product is a significant problem for countries bordering with countries where prices are lower due to different tax policies.
- 2) Imposing excise duty on specific grocery products will increase cross border trade in Lithuania and Estonia, because few grocery product groups are already cheaper there. Excise duty will increase the difference in price. As a result instead of gaining from excise duty, the state will lose value added

tax revenue as well as the local retailers will suffer which will lead to loss in overall tax revenue.

3) Adjusting excise duty to many new product groups will significantly increase border administrative burden, because in addition to the EU policy, the country will have to adjust excise duty on a national level. It will affect importing goods from Russia and Belarus the most. National Customs Board has to count on increasing the border control. The state would have to provide more information to its residents about products applied with excise duty and the consequences of exceeding allowed amount of imported goods.

4) Excise duty on unhealthy foods will increase the tax burden for people with low income (Quintile Group 1), it will be almost two times bigger for people with high income (Quintile Group 5). By increasing the expense burden on people with lower income the income inequality will increase. This type of action is unacceptable, because it does not comply with the governments plan about decrease of the income inequality.

Bibliography

1. Baltic Institutes for Private Finances, Swedbank (2014). Main Household Expenses Study in the Baltic. Retrieved: <http://www.manasfinanses.lv/wp-content/uploads/2014/04>. Access: 15.07.2015
2. Bode, E., Krieger-Boden, Ch., Lammers, K.(1994). Cross-border Activities, Taxation and the European Single Market. *Leibniz Information Centre for Economics*. Retrieved <http://www.econstor.eu/handle/10419/799>. Access: 17.07.2015
3. Central Statistical Bureau (2013). Household budget. Retrieved: http://www.csb.gov.lv/sites/default/files/nr_15. Access: 15.08.2015.
4. Central Statistical Bureau (2014). Nationality of permanent residents. Retrieved: www.csb.gov.lv. Access: 29.06.2015
5. Elsner, K., Hartma, M. (1998). Convergence of Food Consumption Patterns between Eastern and Western Europe. *Discussion Paper No.13*. Retrieved: <http://hdl.handle.net/10419/28587>. Access: 08.07.2015
6. Eurostat (2014). Gini Coefficient of Equivalised Disposable Income. Retrieved: <http://ec.europa.eu/eurostat/tgm/table.do>. Access: 01.06.2015.
7. Eurostat and the National Statistical Institutes (2014). Detailed average prices report.Eurostat metadata. Retrieved: <http://ec.europa.eu/eurostat/documents/272892/272992>. Access: 12.07.2015
8. Juruss, M., Valuka, Z.,(2014). Tax Impact on Inequality in Latvia, RTU, p.39.
9. Keynes M. J.(1936). *General Theory of Employment, Interest and Money, United Kingdom*, p.145.
10. Leal, A., Lopez-Laborda J., Rodrigo, F. (2010). Cross-Border Shopping. *Springer Science & Business Media B.V.* Volume 15, p.4.
11. Lorenz, M. O. (1905). Methods of Measuring the Concentration of Wealth. *Publications of the American Statistical Association* , Volume 9, Nr. 70, pp. 209-219
12. Lucas, W. D. (2011). The effects of preferential VAT rates near international borders evidence from Mexico, *National Tax Journal*, 64 (1), pp.85–104.
13. Manuszak, M. D., Moul, C. C. (2008). How Far for a Buck? Tax Differences and the Location of Retail Gasoline Activity in Southeast Chicagoland. *Review of Economics and Statistics*, Vol. 91, No. 4 , pp. 744-765
14. Ministry of Health, (2015). LETA. Retrieved: www.leta.lv. Access: 06.07.2015.
15. Popluga, D., Melece, L. (2009) .Trends in Food Expenditure, Consumption and Nutrition in Latvia, *LLU Raksti* (317), p.51.
16. Poweska, H. (2014).The Share of Cross-border Shopping in Poland's Trade turnover of Food Products with Neighbouring Countries on the EU's External Border. *Oeconomia* 13 (4), pp. 147–155.
17. Spiering, B., Van der Velde, M. (2013).Cross-Border Differences and Unfamiliarity: Shopping Mobility in the Dutch-German Rhine-Waal Euroregion. *European planning studies*, Volume 21, Issue 1, pp. 5 – 23.
18. WHO (2003). Diet, Nutrition and the Prevention of Chronic Diseases, *WHO Technical Report Series*, 916, p. 160.

PUBLIC FINANCE SUSTAINABILITY IN LATVIA: ASSESSING LONG-TERM CHALLENGES AND POLICY OPTIONS

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Abstract. Sustainability of public finances in Latvia in the long-term is facing challenges. The main challenge is connected with depopulation, decrease of working age population and ageing populations. The projected changes in the demographic structure require to adjust policies now in order to ensure fiscal sustainability in the long run. The main objective of this article is to give a contribution into discussion on long-term challenges for fiscal sustainability and possible policy options dealing with challenges. In the first part of the article, the authors analyze the demographic development in Latvia and proposed policy options and reforms for increase of labour force participation. In the second part, age-related budget expenditure for pensions, health care, education etc. are being analyzed, here paying more attention on pension system and the impact of recent pension reform. Low social spending in Latvia reduces the sustainability risks but doesn't ensure adequate benefits for future pensioners. This challenging task for the government is being accompanied with the uncertainty about the number of taxpayers in upcoming years. The pension adequacy and the recent improvements in increase of benefits are being analyzed as well as proposals are made for further policies which might help ensuring fiscal sustainability. Sustainability of public finance is a very complicated issue with many components, thus the complex reform package is proposed including efficiency of spending, continuing reforms of pension system, tax reform together with continuing active labour market policy.

Key words: fiscal sustainability, long-term demographic projections, ageing populations, labour market policy, pension policy

JEL code: J11, H55, H68.

Introduction

Changes in demographic structure and particularly, ageing in Europe causes both challenges and opportunities. On the one hand, people are living longer, more active and healthier lives but, on the other hand, the pressure on public finance is increasing, especially when continuing to ensure the generous European pension systems created in the past.

Whereas, according to the World Bank's data within the EU, Central Europe and the Baltic States are ageing differently – more rapidly and for different reasons. Low fertility and high emigration have led to falling or stagnating populations in Central Europe and the Baltics (Aging with growth, 2014). The working age population and employment as follows will decrease significantly in the long-term. It raises a question as who will be the tax payers in the upcoming years forming the budget for financing pensions, spending for health care and education.

The ageing is not the only challenge for sustainable public finance. The increase of deficit

and debt, other contingent liabilities and fiscal risks, the role of fiscal discipline also should not be neglected in the medium-term. The objective of this article is to give a contribution into discussion on long-term challenges for fiscal sustainability. The tasks set by the authors are to analyse the demographic development in Latvia and proposed policy options dealing with challenges due to changes in demographic structure and to analyse age-related budget expenditure and the impact of the pension reform on public finance. The analysis is carried out using statistical data and policy documents prepared by Latvian and international institutions.

1. Demographic development and policy options increasing labour force participation in Latvia

According to the Eurostat projections for Latvia (EUROPOP, 2013) in long-term the working age (15-64) population in Latvia will shrink significantly from 1341 thousand in 2013 to 778 thousand in 2060, whereas old age

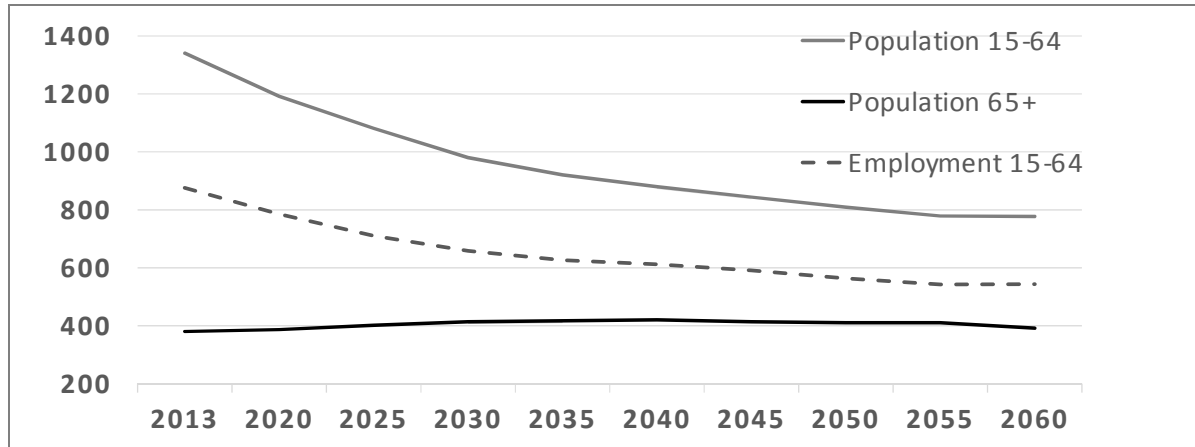
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population of 65+ due to increasing life expectancy will increase from 380 thousand in 2013 to 421 thousand in 2040 and then will decrease to 391 thousand in 2060 (Figure 1). The base year taken for the EUROPOP 2013 projections was the data available in 2013.

At the same time, the forecasts of the European Commission show that also

Jelgava, LLU ESAF, 21-22 April 2016, pp. 274-275 employment similarly to the group of working age population will decrease from 875 thousand in 2013 to 544 thousand in 2060, despite the employment rate is forecasted to increase from 65.3% in 2013 to 69.9% of working age population in 2060 (authors' estimates, The Ageing Report, 2015).



Source: authors' estimates based on EUROPOP2013, The Ageing Report 2015 data

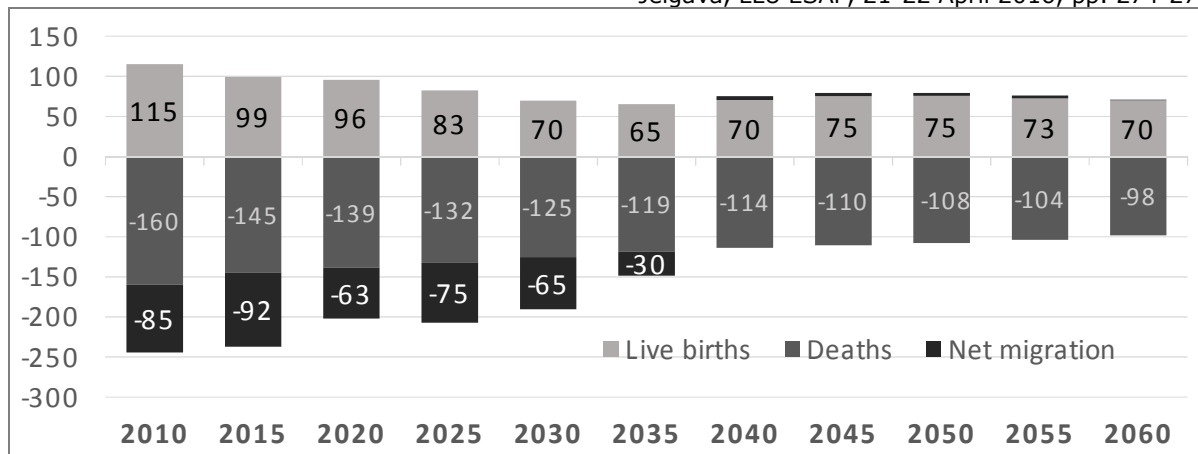
Fig. 1. Population and employment aged 15 to 64 years and population aged over 65 years in Latvia 2013-2060, thousands

Thereby, in long-term Latvia would move from having 2.3 employees per every person aged over 65 years in 2013 to 1.4 employee in 2060 (authors' calculation, EUROPOP 2013), thus these demographics changes obviously exert pressure on future tax burden, on the one hand, and adequate pensions and health care system, on the other hand.

In order to understand the drivers behind the demographic projections, it is necessary to look at indicators of birth rate, death-rate and net migration. As one can see from the Figure 2, the decrease of Latvian population till 2030 mainly will be determined by the negative net migration (the number of emigrants exceeds the number of immigrants) rather than negative natural

increase (births minus deaths) but then in the long term net migration is expected to be slightly positive but still the number of deaths will exceed the number of births.

Increasing the size of the labour force expands the policy choices available to all the countries. However, measures to increase fertility, while popular with governments, typically have limited impact on the size of the labour force, at least for several decades. The viable options include (a) increasing labour force participation (LFP), especially at higher ages; (b) raising retirement ages until life expectancy at retirement is around 15 years; and (c) encouraging immigration (The Inverting Pyramid, 2014).



Source: authors' estimates based on EUROPOP2013, Central Statistical Bureau of Latvia data

Fig. 2. Cumulative population change in Latvia from year t-5 to the 1 January of year t by factors: live births, deaths and net migration, thousands

According to the World Bank's recommendations, to reduce the negative impact of demographic changes on public finances the **labour market reforms** have to be included in the reform package, encouraging higher participation and longer stay in the labour market. The analysis shows that in age 55+ the productivity falls but it is still significantly higher than the productivity of younger workers. The myth that the older workers "occupy" the workplaces of youth is not fortified. During the economic and financial crisis of 2008-2010 the youth unemployment was higher than unemployment of old-age employees (The Inverting Pyramid, Overview, 2014). The World Bank suggests that governments can enact smart rules on part-time employment and provide options for gradual retirement, allowing older workers to combine part-time work with a partial pension, thus, keeping workers who are already in the formal labour force employed longer. Employers can adopt small adjustments to the workplace for the purpose of raising the productivity and comfort level of older worker while increasing the profitability of business. Older and younger workers bring different skills sets and experience and can complement one another in ways that increase productivity (The Inverting Pyramid, Overview, 2014).

According to the European Commission DG Employment, Social Affairs and Inclusion such activities as active ageing, involvement of women, young people, older workers, migrants in labour market, fighting long-term unemployment, stimulating entrepreneurship to support job creation, investing in skills development (vocational training, life-long learning) and education are important and the member states should intensify their implementation (EPC AWG seminar, 2015).

The Ministry of Welfare of Latvia now is designing active ageing strategy for Latvia - a strategy for longer and better working lives. The Ministry considers that even though participation of older people is often associated with such stereotypes as outdated skills, inability to adapt to changes and health problems, these stereotypes are mostly untrue and it is important to focus on strengths such as experience, loyalty, skills etc. Some preliminary conclusions for development of active ageing strategy are:

- possible employer interventions: age-specific equipment or work place adaptation, age-specific tasks for old workers, mixed-age working teams, working time reductions and flexibility, age-specific training and human resource management strategies;
- age is not the only factor affecting productivity, education level is of importance;

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- with time, traditional, only teacher-directed and theoretical learning might not always work - learning by doing and learning with job relevance works the best;
- the most frequent reason for long-term health effects (except of 15-24 years) - working conditions;
- number of lost days due to sickness less common among older workers – 52.9% of workers aged 45 (in 2014) and older did not have any lost days due to health problems;
- employed and unemployed as well as inactive are the target groups of active ageing policies (EPC AWG seminar, 2015).

Regarding **families and child policy** the main options offered by the World Bank are improvement of birth rate, progressive tax-benefit policy, supporting flexible workplace etc (Aging with growth, 2014).

Immigration, therefore, offers a natural way to counter the decline of the labour force. Bringing in more workers from other countries to cover the gap left by a shrinking workforce can complement other reforms and increase overall labour force participation. Of course, increased migration itself might pose new political challenges beyond those of pension reform, especially in a subdued economy and a sluggish labour market. The key is to strengthen the link between immigration policies and labour market needs to ensure that those workers entering the country's labour market from outside have the skills that are in demand.

Immigration and productivity growth, if it does not translate into higher wages, can also help countries with the financing of old-age security. Countries where the labour force is projected to decline between 2010 and 2050, even with all of these changes, could consider filling the gap with immigrants. In the absence of very substantial immigration of young workers, the labour force is going to age significantly (The Inverting Pyramid, 2014).

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Current refugee crisis in Europe, where Latvia jointly has to participate, will give the stimulus for government to put in order practical and legal regulation of immigration to respond to the shortage of labour force in medium-term and long-term.

2. The budgetary implications of population ageing and policy reforms towards fiscal sustainability

In order to assess fiscal sustainability, it is necessary to look at country's initial fiscal stance – the level of deficit and debt as well as to look at medium and long terms risks which can have an impact on sustainability of public finances. In the previous chapter, the authors have determined the main challenge or risk for the fiscal sustainability in long term – demographical changes and population ageing. Moreover, to better understand the implications of such long-term risk on the budget expenditure, it is necessary to look at long-term projections of the so-called age-related budget expenditure.

The European Commission in co-operation with Member States within the framework of the Economic Policy Committee Ageing Working Group every three years works out long-term projections of age-related budget expenditure as well as evaluates the sustainability of public finances for each Member State using specific indicators (Kekla J., Jakovleva K., 2013). Long-term budgetary projections are based on the demographic projections provided by the Eurostat and on the assumptions regarding economic growth and its determinatives in the long term.

Over the whole period 2013-2060, average annual GDP growth in the EU is projected to be 1.4%, unchanged compared to previous projections. However, there are significant differences in the growth potential across the Member States. Total age-related public expenditures are projected to increase by 1.4 p.p. of GDP between 2013 and 2060 in the EU, to

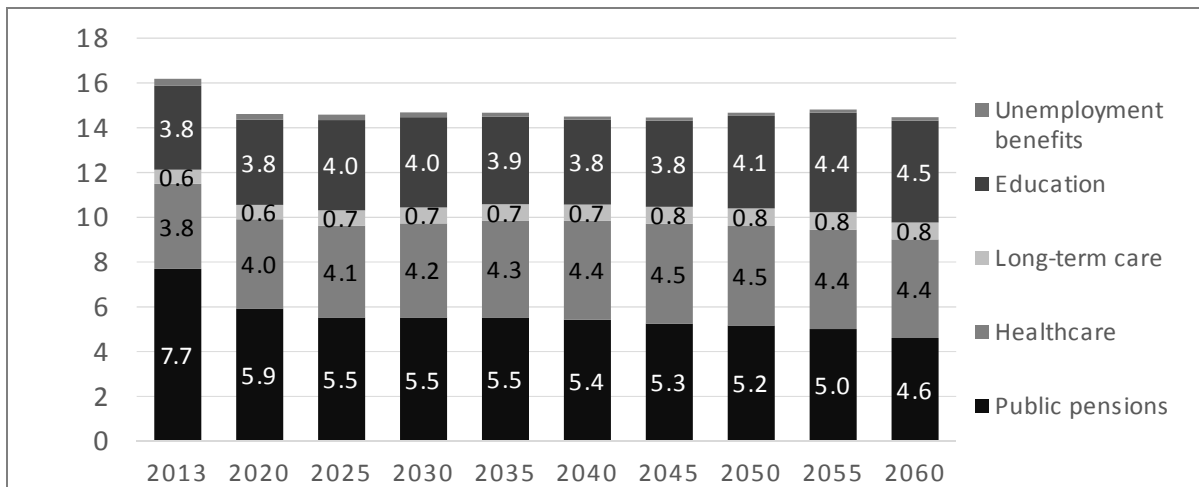
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reach 27% in 2060, with large differences across countries. Excluding unemployment benefits (strictly-age-related expenditure), an increase of 1.8 p.p. of GDP between 2013 and 2060 is projected in the EU, to reach 26.3% in 2060 (Council conclusions, 2015).

Opposite to the EU average, the age-related budget expenditure in Latvia is projected to fall slightly from 16.2% in 2013 to 14.6% in 2020

Jelgava, LLU ESAF, 21-22 April 2016, pp. 274-278 and then remain overall stable and reach 14.4% in 2060 (Figure 3). The biggest share of expenditure is public pensions, health care and education expenditure.



Source: authors' construction based on The Ageing Report 2015 data

Fig. 3. Age-related general government budget expenditure in Latvia 2013-2060, % of GDP

The decrease of expenditure-to-GDP ratio is mainly determined by reduction of public pensions-to-GDP ratio due to **pension reform** in 2012 and adopted changes in legislation:

- gradual increase in the retirement age every 3 months reaching 65 years on January 1, 2025;
- increase in the minimum insurance period from 10 to 15 years for entitlement to the state old-age pension and from 15 to 20 years as of January 1, 2025. The increase in the minimum insurance period necessary to receive an old-age pension stimulates the payment of state social insurance contributions (Stability Programme of Latvia, 2015).

It should be marked that there is still a possibility in Latvia to request an old-age pension prematurely two years before the regular retirement age. Still in many countries early

retirement schemes are popular, thus, resolving unemployment problems. International institutions recommend to refuse such scheme and instead of it to implement prudent labour market and education policy for employees in preretirement age.

However, together with comparatively low age-related budget expenditure at the same time according to the OECD data (Pension Adequacy Report, 2015) there will be a significant reduction of pensions replacement rate in Latvia in long-term, e.g., in 2053 the pension will form only 43.9% of gross income in low income group (2/3 or 66% of average income) in comparison with 69.2% of income in 2013.

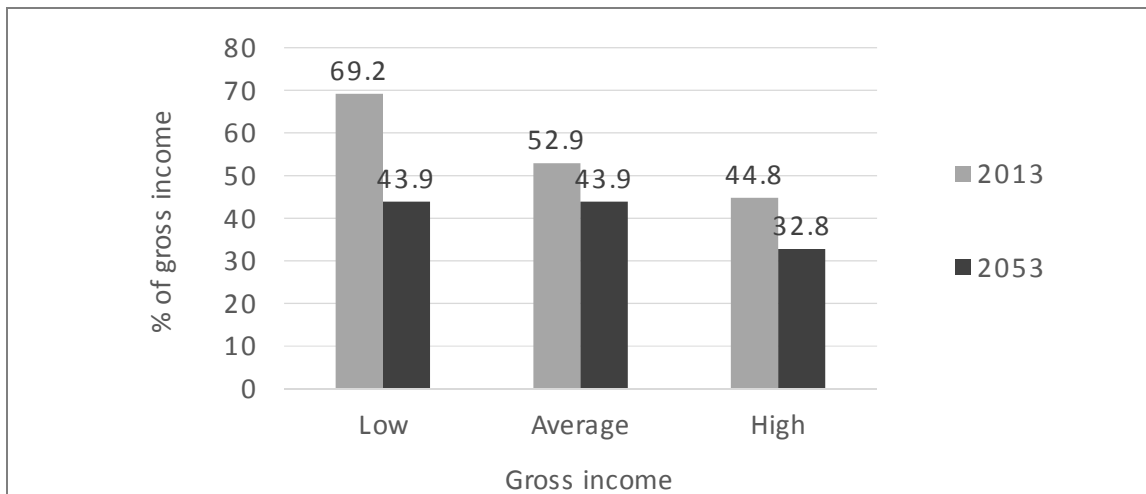
Figure 4 shows that the replacement rate is projected to fall also in average and high income (above average) group, thus exerting pressure to ensure adequate pensions in long-term and to provide appropriate level of budget revenue for financing.

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Also according to the World Bank estimates, Latvia is in the group of lower-spending countries and it means that in future it can face big

Jelgava, LLU ESAF, 21-22 April 2016, pp. 274-279 challenges of financing the pension system in order to ensure sufficient pensions (The Inverting Pyramid. Overview, 2014).



Source: authors' construction based on The 2015 Pension Adequacy Report data

Fig. 4. Current theoretical replacement rates in Latvia in 2013 and 2053 (with working career of 40 years up to age 65) by income groups, % of gross income

After the economic and financial crisis, the Latvian government made some actions to improve the **adequacy of pensions**. Since 2013 the indexation of granted pensions has been restored. First of all, small pensions have been indexed but already from 2014 state pensions or their part that does not exceed EUR 285 is indexed, taking into account the actual consumer price index and 25% of the real growth of the contributions wage. As of 2015 state pensions or their part that does not exceed 50% of the

average contributions wage of previous calendar year is indexed once a year on October 1, taking into account the actual consumer price index and 25% of the real growth of the social insurance contributions wage.

In 2012, there were also amendments made to the Law on State Funded Pensions providing for gradual increase in the contribution rate to Pillar II of the pension system, i.e. from 4% to 5% in 2015 and up to 6% in 2016 (Stability Programme of Latvia, 2015).

Table 1

Total pension expenditure by schemes, % of GDP

	2013	2020	2030	2040	2050	2060
Total pension expenditure	7.7	6.0	5.8	6.2	6.6	6.8
Public pensions (Pillar I)	7.7	5.9	5.5	5.4	5.1	4.6
Mandatory private pensions (Pillar II)	0.0	0.1	0.3	0.7	1.5	2.2

Source: authors' estimates based on The Ageing Report 2015 data

Taking into account the forecast of pensions expenditure which will be paid out from the funded pension scheme (Pillar II) together with the public pensions expenditure, the data shown in Table 1 confirms that the impact of the reform of funded pension scheme will be "visible"

contributing to higher pensions starting from 2050.

From the analysis above, one can see that the retirement age is gradually increased and state mandatory funded pension scheme and private savings are promoted in order to ensure

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sustainability of pension system. The Latvian government has already responded to ageing challenges by adjusting pension policy as well as made some effort in raising benefits adequacy.

However, the Ministry of Welfare considers that pension policy changes are not enough - raising retirement age without enabling workers to work longer cuts costs but leaves some workers with an income gap. Poverty risk and income inequality is relatively high in Latvia, therefore, the Minimum Income Reform has been initiated defining an adequate, evidence-based minimum income level (EPC AWG seminar, 2015).

The government can look also for alternative fiscal resources to make the future spending requirements affordable; this may mean cutting other expenditure to make more fiscal room for pension spending and looking for other revenue (The Inverting Pyramid. Overview, 2014). The World Bank suggests that raising revenue through consumption **taxes** might be more productive than raising revenue through alternative means. Broad-based consumption taxes are generally viewed as more efficient and less distortionary than labour taxes. Shifting the tax burden from labour taxes to consumption taxes may, therefore, help meet long-term financing needs and enhance efficiency while reducing adverse effects of labour taxes on employment and growth. Given the intergenerational inequities in current pension systems, with the burden of benefit and retirement age adjustment falling largely on younger cohorts, consumption taxes allow for better intergenerational burden sharing as they affect all cohorts, while labour taxes again affect only younger cohorts (The Inverting Pyramid, 2014). At the same time, the World Bank economists acknowledge that overall the tax rates are high and the room for future VAT increases may be limited and, therefore, the governments rather should look at property taxes.

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According to the European Commission estimates, Latvia is evaluated as a low-risk country as regards sustainability of public finances (Fiscal Sustainability Report 2015, 2016). The results of the report confirm that Latvia doesn't have risks in all risk categories. Risks appear to be low in the medium-term from a debt sustainability analysis perspective due to low stock of debt at the end of projections and over the long run thanks to the pension reforms implemented in the past. No specific-country recommendations regarding pension system reforms are being required from the European Commission now. However, in order to encourage together the sustainability of public finances and adequate financing of future benefits the only tax reform or pension reform is not enough. It should be complex approach of reforms package, including tax and budget spending reforms, reforms of social welfare systems, labour market reforms etc.

Conclusions

1) It is forecasted that up to 2060 the working age population and employment as follows will decrease significantly in Latvia. Latvia would move from having 2.3 employees per every person aged over 65 years in 2013 to 1.4 employee in 2060, thus, these demographic changes obviously exert pressure on future tax burden, on the one hand, and adequate pensions and health care system, on the other hand. Decrease of Latvian population till 2030 mainly will be determined by the negative net migration rather than negative natural increase.

2) Latvia is considered as a country of low age-related budget expenditure (pensions, health care, education, long-term care etc.). Opposite to the EU average, slight decrease of expenditure-to-GDP ratio from 16.2% in 2013 to 14.4% of GDP in 2060 is projected in Latvia.

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3) The decrease of expenditure-to-GDP ratio is mainly determined by reduction of public pensions-to-GDP ratio due to pension reform of 2012 which foresees gradual increase in the retirement age every 3 months reaching 65 years on January 1, 2025.

4) The significant reduction of pensions replacement rate in Latvia is forecasted in the long-term, e.g., in 2053 the pension will form only 43.9% of gross income in low income group in comparison with 69.2% of income in 2013. In order to ensure the adequacy of pensions, after the financial crisis the indexation of pensions and gradual increase in the contribution rate to Pillar II was restored, however, further options could be considered to increase budget revenue and/or to restructure budget spending.

5) The Latvian government has already implemented policies responding to demographic challenges. The policy options of

Jelgava, LLU ESAF, 21-22 April 2016, pp. 274-281 increasing labour force participation have been already considered by raising retirement ages. However, still early retirement scheme is in force and there is an option for government to abolish it and instead of it to implement prudent labour market and education policy for employees in pre-retirement age. When designing active ageing strategy for Latvia, the World Bank and the European Commission proposals have to be taken into account for labour market reforms.

6) However, immigration policy as suggested by the World Bank as a policy filling the labour force gap, is underdeveloped in Latvia. The authors conclude that the current refugee crisis in Europe, where Latvia jointly has to participate, will give the stimulus for government to put in order practical and legal regulation of immigration to respond to the shortage of labour force in medium-term and long-term.

Bibliography

1. Arias, O.S. Schwarz, A.M. (2014). The Inverting Pyramid: Pension Systems Facing Demographic Challenges in Europe and Central Asia. The World Bank, Washington, D.C. pp.184, 205, 261-263;
2. Arias, O.S. Schwarz, A.M. (2014). The Inverting Pyramid: Pension Systems Facing Demographic Challenges in Europe and Central Asia. Overview. The World Bank, Washington, D.C. pp.12, 21, 26;
3. Birth, death and migration data. Central Statistical Bureau data base. Retrieved: <http://www.csb.gov.lv/dati/statistikas-datubazes-28270.html> Access: 10.01.2016;
4. Council Conclusions on the Sustainability of Public Finances in light of Ageing Populations (2015). Council of the European Union. Press release 263/15, Economy and Finance. May 12, 2015. Retrieved: <http://www.consilium.europa.eu/en/press/press-releases/2015/05/12-ecofin-ageing-populations/> Access: 10.01.2016;
5. Fiscal Sustainability Report 2015 (2016). European Economy Institutional Paper 018, European Union. pp.10-16;
6. Kekla, J. Jakovleva, K. (2013). Application of Methods to Assess Public Finance Sustainability in Latvia. Scientific Journal of Riga Technical University. Series: Economics and Business 2013/23. RTU Press. pp.35-39;
7. Population projections EUROPOP 2013. The Eurostat data base. Retrieved: http://ec.europa.eu/eurostat/data/database?node_code=proj Access: 10.01.2016;
8. Seminar of Economic Policy Committee Working Group on Ageing Populations and Sustainability (EPC AWG) "Prospective labour force or who will be the future tax payers?". Organized by the Latvian Presidency in the EU Council. Seminar materials. Riga, June 16, 2015;
9. Stability Programme of the Republic of Latvia 2015-2018 (2015). Riga. pp. 66-67. Retrieved: http://ec.europa.eu/europe2020/pdf/csr2015/sp2015_latvia_en.pdf Assess 10.01.2016;
10. The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060). European Economy 3/2015, European Union. pp.337-339;
11. The 2015 Pension Adequacy Report: current and future income adequacy in old age in the EU. Volume I (2015). Joint Report prepared by the Social Protection Committee (SPC) and the European Commission (DG EMPL), European Union. p.354;
12. What's Next in Aging Europe: Aging with Growth in Central Europe and the Baltics (2015). Conference edition. The World Bank. pp. 7, 10. Retrieved: <http://www.worldbank.org/en/news/press-release/2015/03/10/active-healthy-and-productive-aging-in-central-europe-and-the-baltics> Access: 10.01.2016.

The views expressed in this article are those of the authors and do not necessarily reflect the stance of the Ministry of Finance of the Republic of Latvia.

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FINANCIAL REPORT QUALITY PROBLEMS WITHIN THE FRAMEWORK OF INSOLVENCY PROCEEDINGS IN LATVIA

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Abstract. The paper presents a more in-depth perspective on the concept and nature of financial report quality problems within the framework of insolvency proceedings for limited liability companies according to the provisions of regulatory enactments in Latvia. Empirical studies have been conducted in 2014 and 2015. In 2015, new regulations governing the preparation of the financial report were developed in Latvia. Author's research of the regulatory enactments drafts found that the new regulations do not take into account the existing problems in the preparation of financial reports within the framework of the insolvency process. The author wrote proposals for the improvement of a regulatory enactment and submitted them to the Ministry of Finance. As a result, the Ministry of Finance acknowledged that the problems identified by the author do exist and made some improvements in regulatory enactment. Although not all of them were accepted by other ministries at the time of writing. At the end of 2015, the inter-institutional meeting decided to create a special working group in 2016, which will work on legislative amendments to balance the various requirements of the regulatory enactments regarding the preparation of financial reports of the insolvency process.

Key words: limited liability company, financial report, insolvency, Latvia.

JEL code: G33, G38, M41, M48

Introduction

An insolvency process is one of the ways to eliminate the business in case a company does not have enough financial resources to pay its creditors.

Regulatory enactments of Latvia do not define exactly how a company should evaluate its property, claims and obligations in case the company has declared insolvency. However, the regulatory enactments determine the procedures for the evaluation of claims, obligations and property in accounting reports and the presentation of financial reports in case the company or its structural unit is liquidated (Cabinet of Ministers, 2003). For this reason, the majority of accounting specialists consider that in cases when a company enters an insolvency process, to evaluate its property, claims and obligations must be taken into account the evaluation procedures and the conditions applicable to the company under which its economic activities have been suspended and the company has been closed.

The author does not share this point of view and recommends to work on amendments in regulatory enactments to improve the business environment as well as to facilitate collecting

correct budget revenue, because the existing legislative and regulatory requirements do not directly regulate accounting and financial reporting in the insolvency process.

The research aim is to identify the important problems in the preparation of financial statements of a company's insolvency process in accordance with the requirements of the regulatory enactments of Latvia.

Based on the aim, the following research tasks were set:

- to analyse changes in the number of registered and excluded limited liability companies in Latvia;
- to analyse the legislative and regulatory requirements for property and obligation evaluation in the liquidation process and insolvency proceedings in Latvia;
- to analyse the regulatory enactments requirements for accounting and financial reporting in the liquidation process and insolvency proceedings in Latvia.

The following qualitative and quantitative methods were employed: the monographic method – in examining, assessing and analysing literature and legal enactments, selecting only

the information related to the present research, describing findings and interpretations; statistical methods, i.e. statistical observation, compilation and grouping of information, calculation of statistical data, analysis of causal relationships and data generalisation; logical analysis and synthesis. The graphic method was employed to show the relationships identified and their nature and form. The logical construction method was used in analysing results and making judgements.

The present research used studies on the regulatory enactments of the Republic of Latvia, statistics of the Register of Enterprises of the Republic of Latvia.

Research results and discussion

The existing legislation provides voluntary and forced termination of the activities of a company in Latvia as it can be seen in Table 1.

Table 1

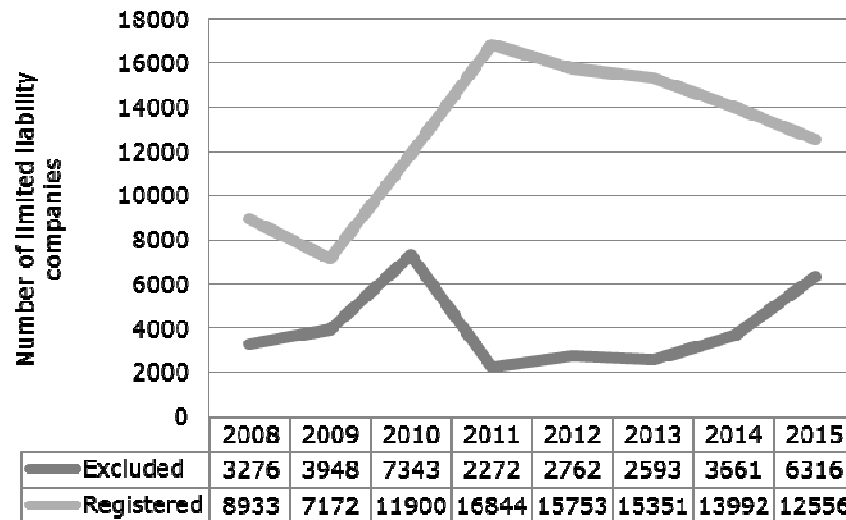
The legal basis of the termination of the company activities in Latvia

Legal acts	Grounds for terminating the activities of a capital company
Commercial Law	by a decision of shareholders
	by a court adjudication
	with the commencement of bankruptcy procedures
	with the termination of the time period specified in the articles of association (if the company was founded for a definite time period)
	having achieved the purposes specified in the articles of association (if the company was founded to achieve specified purposes)
	by a decision of the Commercial Register Office
	by a decision of the tax authority
Criminal Law	by a decision of a court or a public prosecutor regarding the application of a coercive measure

Source: author's construction based on Commercial Law (2000) and Criminal Law (1999)

According to the statistical data of the Register of Enterprises of the Republic of Latvia, the registration dynamics of limited liability companies (hereinafter the company) was declining in the period from 2012 to 2015 (Figure 1). There has been a year-on-year reduction in the number of newly founded companies: in 2012 were 6.48% fewer companies founded than in 2011. In 2013 were 2.54% fewer companies founded than in 2012. In 2014 13992 companies were founded, which was by 8.86% less than in 2013. The number of registered companies continued decreasing also in 2015 when 12556 new companies were

registered, which was by 10.26% less than in 2014. The number of excluded or liquidated companies constantly increased at the same time. The number of excluded companies accounted for 17.53% of total number of founded companies in 2012. In 2015 the number of excluded companies comprised 50.31% of the total number of new registered companies. The number of excluded companies includes companies which are closed through the ordinary procedure of the liquidation without using the instruments of insolvency proceedings and companies which are liquidated during insolvency and bankruptcy proceedings as well.



Source: author's construction based on statistical data of the Register of Enterprises of the Republic of Latvia

Fig. 1. Dynamics of registration and exclusion of limited liability companies by Latvia's Register of Enterprises in the period 2008-2015.

During the recent five years, on average, 868 legal persons and 1340 natural persons were declared insolvent (Table 2), which negatively affected tax collection in Latvia.

Table 2

Distribution of the number of insolvency cases registered in Latvia by characteristic of insolvency proceedings in the period 2008-2015.

Year	Proclaimed insolvency cases (total)		Insolvency cases for natural persons		Insolvency cases for legal persons	
	number	%*	number	%*	number	%*
2008	1290	-	1	-	1289	-
2009	2202	71%	53	5200%	2149	67%
2010	2773	26%	199	275%	2574	20%
2011	1728	-38%	849	327%	879	-66%
2012	2256	31%	1375	62%	881	0%
2013	2392	6%	1572	14%	820	-7%
2014	2251	-6%	1291	-18%	960	17%
2015	2417	7%	1615	25%	802	-16%
Total:	17309		6955		10354	

* Percentage change from the previous period

Source: author's calculations based on statistical data of the Register of Enterprises of the Republic of Latvia, Insolvency Register

The State Revenue Service calculated that on 1 December 2015, according to Latvian regulatory enactments, the uncollectible tax debts of the companies to be liquidated until the liquidation procedure has been completed were a total of EUR 9.23 mln, which was approximately 0.13% of actual collected tax amount in eleven

months of 2015, and 0.98% of the total debt amount in the same period (State Revenue Service, 2015).

According to the Register of Enterprises of the Republic of Latvia statistical data, the insolvency proceedings were terminated by the bankruptcy procedure, on average, for 1173 legal persons

per year in 2010 and 2011, for 897 legal persons in 2012, 633 legal persons in 2013, while in 2014 and 2015, on average, for 396 legal persons per year (The Register of Enterprises of ..., 2015).

The company's solvency is one of the central problems, which deals with the management of the company throughout the life cycle of a company. The definition of company's insolvency in the economic literature indicates that it can be examined in conjunction with the concepts of "liquidity", "credit" and "financial stability" (Sneidere, 2009).

In general, in the world, research focuses on the causes of insolvency of a company, as the insolvency and bankruptcy of any company affects the following:

- the creditors of a company, including employees who, because of the insolvency of a cooperation partner, cannot recover their investments or regain them in a limited amount (only partially);
- the country in which the company is registered and the business takes place, as the government institutions are not able to collect the previously determined taxes or collect them in a limited amount (only partially);
- residents of the country – because of many insolvency cases that result in bankruptcies in which the government is not able to collect the previously determined taxes, thereby decreasing government budgetary revenues, the government might lack resources for implementing various important social projects, for instance, construction or renovation of infrastructures, which, in its turn, does not foster business development and increase tax revenues (Kelmere L., Jakusonoka I., 2014).

An insolvency process is one of the ways to eliminate the business in case a company does not have enough financial resources to pay its creditors.

The legislature has determined that the company which is being liquidated must prepare the closing financial report to inform company's creditors and other third parties on the process and the solution.

Financial reports are a structured representation of the financial position and financial performance of a company. The objective of financial report is to provide information about the financial position, financial performance and cash flows of a company that is useful to a wide range of users in making economic decisions (European Commission, 2008).

On the one hand, on the basis of a financial report, the company calculates the tax amount payable to the State Revenue Service and, on the other hand, the State Revenue Service can check whether the company has properly calculated the tax amount payable into the state budget.

At the moment, the Latvian legislation does not define exactly how the company should evaluate its property, requirements and obligations in case the company has declared insolvency. But the laws determine the procedures on evaluating claims, obligations and property in accounting reports and the presentation of financial reports in case the company or its structural unit is liquidated (Cabinet of Ministers, 2003). For this reason, the majority of accountants consider that in cases when a company has an insolvency process, its property, claims and obligations must be taken into account the evaluation procedures and the conditions applicable to the company under whose economic activities have been suspended and the company closed.

Based on the analysis of the existing legislative and regulatory requirements, including those that do not directly relate to the regulation of the accounting and financial reporting in insolvency cases, the author disagrees with this point of view for the following reasons:

1) the insolvency proceedings of a legal person are an aggregate of measures of a legal nature, within the scope of which the claims of creditors are settled from the property of a debtor, in order to promote the honouring of the debtor's obligations (Insolvency Law, 2010). The legislature determine that the purpose is to promote the honouring of the obligations of a debtor in financial difficulties and, where possible, the renewal of solvency. So, the insolvency proceeding, by its very nature, does not mean that the company will be liquidated because the primary objective is to restore its solvency;

2) the Insolvency Law provides the right for the transition from legal person insolvency process to legal protection process. Legal protection proceedings are an aggregate of measures of a legal nature, whose purpose is to renew the ability of a debtor to settle his debt obligations, if a debtor has come into financial difficulties or expects to do so (Insolvency Law, 2010). Therefore, it is necessary to evaluate and understand whether the company's economic activity within the insolvency proceedings from the accounting point of view conforms to the going concern principle. In addition, the legislator has established a procedure for suspension of the company's economic activity of the insolvency proceedings;

3) in practice, after the court has proclaimed insolvency proceedings, a part of the companies continues economic activities for at least a year or for several more years, especially if the company owns property, which it can be leased for rental revenue.

If the company during the insolvency proceeding leases property and benefits from it with VAT taxable revenue and at the same time revalue its property to a value which corresponds to the expected net proceeds of the sale of this object and excludes its property from long-term

investments in current assets, the author considers that there are the following problems:

1) the financial reports do not provide correct information about the company's financial position and lucrative long-term investment. Therefore, the investors may be deterred from investing in this company and without investments the company must use the bankruptcy procedure;

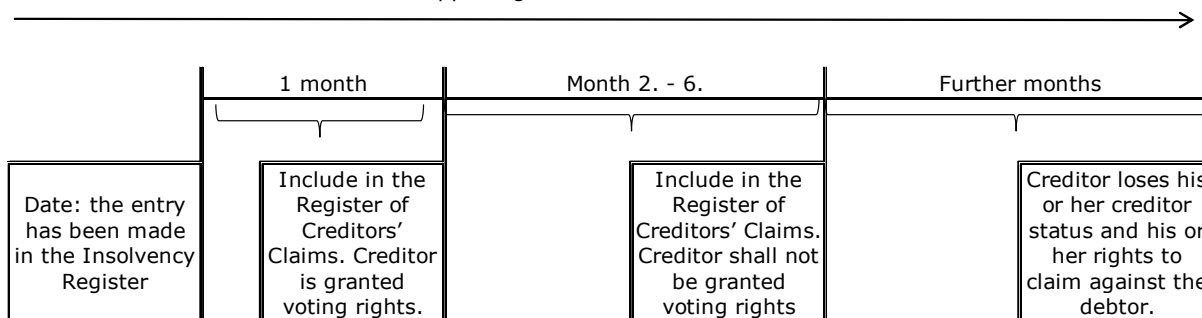
2) revenues and expenses are not harmonised within the reporting period. The property revaluation downwards up to the expected net proceeds of the sale, which is usually a forced sales value, make large expenses and, as a result, this constitutes a loss during the reporting period and the company is not obliged to pay corporate income tax to the state budget. If not reclassifying the property from long-term investments in current assets, then one calculates the depreciation and includes it in expenses and at the end of the period the financial report of the company should be correct - the profit or loss of the period of the lease. If there is a profit, the company has an obligation to pay the corporate income tax.

The obligations must be evaluated to an amount which has been agreed with creditors and there is an obligation to cover the amount if the company is closed through the ordinary procedure of the liquidation without using the instruments of insolvency proceedings (Cabinet of Ministers, 2003). The liquidator shall send a notice regarding the commencement of the liquidation to all known creditors of the company and the creditors of the company shall be invited to submit their claims within three months after the day of publication of the notice, if the company does not have known creditors, determine the term of not less than one month after the day of publication of the notice (Commercial Law, 2002).

The author's research of the Latvian regulatory enactments reveals that due to protection of creditors during the insolvency proceedings, the administrator has no duty to inform all known creditors of the company, except those creditors, whose place of residence or legal address is in another European Member

State, not in Latvia. Creditors' claims against a debtor shall be submitted to the administrator within six months from the day when the entry has been made in the Insolvency Register regarding the proclamation of the insolvency proceedings of a debtor (The Insolvency Law, 2010) (Figure 2).

Creditor submits creditors' claim with supporting documents



Source: author's construction based on Insolvency Law (2010)

Fig. 2. Submission of creditors' claims in the legal person insolvency proceeding

One of the fundamental principles of the insolvency process is the principle of respect for the interests of creditors. It is particularly important to ensure legal certainty and security business environment (Insolvency Administration, 2012).

Analysing the regulatory enactments, the author believes that the revaluation of liabilities during the insolvency process should be carried out at least twice and after each revaluation one should prepare a financial report for presentation of the financial position and financial performance of a company to third parties including creditors.

The author believes that it is incorrect that in cases where the company has an insolvency process, its property, claims and obligations need to evaluate in the same way as the company which economic activities have been suspended and the company has been closed. The author believes that the fundamental principle of insolvency process has to be taken into consideration and recommends to work on amendments in regulatory acts to improve the business environment, as well as to facilitate collecting correct budget revenues.

In 2015, Latvia developed new regulations governing the preparation of financial reports. The author examined the draft regulatory enactments and found out that the new regulations do not take into account the existing problems in the preparation of financial reports within the framework of the insolvency process. The author wrote proposals for the improvement of the regulatory enactments. For example, to use correct terminology according to insolvency cases (at the time of writing this article, it was taken into account and regulatory enactment draft was corrected). The author drew the attention of the legislator to the fact that the new legislative act did not provide specific requirements for evaluating a company's property, claims and obligations and requirements for preparing its financial reports, including an annual report, within the framework of insolvency proceedings as well as to the fact that the new legislative act was not in line with the requirements of other regulatory enactments.

As a result, the Ministry of Finance acknowledged that the author's found problems exist and made some improvements in the regulatory enactment draft. At the time of writing

this article not all of them were yet accepted by other ministries. At the end of 2015 it was decided at an inter-institutional meeting to create a special working group in 2016, which will work on the legislative amendments to balance the various requirements of the regulatory enactments regarding the preparation of financial reports in the insolvency process (Cabinet of Ministers, 2015).

Conclusions, proposals, recommendations

1) The registration dynamics of limited liability companies was declining in the period from 2012 to 2015. At the same time the number of excluded or liquidated companies constantly increased. The number of excluded companies comprised 50.31% of the total number of founded companies in 2015. The number of excluded companies includes companies which are closed through the ordinary procedure of the liquidation and companies which are liquidated during insolvency and bankruptcy proceedings.

2) Recent five years, 868 legal persons and 1340 natural persons, on average, were declared insolvent in Latvia. It's negatively affect tax collection in Latvia. On 1 December 2015, in accordance with Latvian regulatory enactment, the uncollectible tax debts in total is EUR 9.23 mln of the companies which are in the process of their liquidation.

3) The Latvian legislation does not define evaluating procedures for property, claims and obligations in case the company has declared insolvency. But the regulatory enactments determine the evaluation procedures and conditions for claims, obligations and property in accounting reports and the presentation of financial reports in case the company or its structural unit is liquidated.

4) As there are no direct regulatory requirements, the majority of accounting specialists consider that in cases where a company enter an insolvency process, its

property, claims and obligations must be evaluated in the same way as the company under which its economic activities have been suspended and the company has been closed. The author does not share this point of view for the following reasons: (1) the insolvency proceeding, by its very nature, does not mean that the company will be liquidated because the primary objective is to restore its solvency; (2) the Insolvency Law provides the right of the transition from legal person insolvency process to legal protection process and (3) in practice part of the companies after the day when the court has proclaimed insolvency proceedings continues economic activities for at least a year or for several more years, especially if the company owns property, which can be leased for rental revenue.

5) In 2015, Latvia developed new regulations governing the preparation of financial reports. The author examined the regulatory enactment drafts and found out that the new regulations do not take into account the existing problems in the preparation of financial reports in the insolvency process. The author wrote proposals on the improvement of the regulatory enactment and submitted them to the Ministry of Finance. The author drew the attention of the legislator to the fact that the new regulatory enactment does not provide specific requirements for evaluation of a company's property, claims and obligations and requirements for preparing financial reports, including an annual report, within the framework of insolvency proceedings and to the fact that the new regulatory enactment was not in line with the requirements of other regulatory enactments.

6) As a result, the legislator made some improvements in the regulatory enactment. At the end of 2015, it was decided at an inter-institutional meeting to create a special

working group in 2016, which will work on the legislative amendments to develop and balance the various requirements regarding

accounting requirements and the preparation of financial reports in the insolvency process.

Bibliography

1. European Commission Regulation (EC) No 1126/2008 (2008). International Accounting Standards. Retrieved: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02008R1126-20140617&from=LV>. Access: 06.01.2016.
2. Kelmere, L., Jakusonoka, I. (2014). The Company's Insolvency Impact on Tax Collection Process. *Open access scientific journal Science and Studies of Accounting and Finance: Problems and Perspectives*, No. 1 (9), pp. 52-64. Retrieved: http://afk.asu.lt/file/repository/Scientific_Journal_2014.pdf. Access: 20.12.2015.
3. Parliament of the Republic of Latvia (2000). Commercial Law (in Latvian). Retrieved: <http://likumi.lv/doc.php?id=5490>. Access: 20.12.2015.
4. Parliament of the Republic of Latvia (1999). Criminal Law (in Latvian). Retrieved: <http://likumi.lv/doc.php?id=88966>. Access: 20.12.2015.
5. Parliament of the Republic of Latvia (2010). Insolvency Law (in Latvian). Retrieved: <http://likumi.lv/doc.php?id=214590>. Access: 28.12.2015.
6. Insolvency Administration (2012). Summary of the Key Explanations and Findings by the Insolvency Administration for the Period 01.01.2008-31.05.2012 (in Latvian). Riga, Maksatnespejas administracija, p. 9
7. Cabinet of Ministers (2015). Cabinet Regulation No 775 of 22 December 2015 "Regulations regarding the Application of the Law on Annual Reports and Consolidated Annual Reports" Annotation (in Latvian). Retrieved: <http://likumi.lv/ta/id/278844-gada-parskatu-un-konsolideto-gada-parskatu-likuma-piemerosanas-noteikumi>. Access: 02.01.2016.
8. Cabinet of Ministers (2003) Cabinet Regulation No 583 of 21 October 2003 "Reporting of Enterprise Property as well as Claims and Liabilities in Accounting and Financial Reports if the Enterprise or its Structural Unit is Liquidated" (in Latvian). Retrieved: <http://likumi.lv/doc.php?id=80419>. Access: 28.12.2015.
9. Sneidere, R. (2009). Methods of Financial Analysis for Predicting Enterprise Bankruptcy (in Latvian). Riga, Lietiskas informācijas dienests SIA, p.11.
10. Register of Enterprises of the Republic of Latvia (s.a.). The registered entities by legal forms of dynamics, statistical data 2012-2015. Retrieved: <http://www.ur.gov.lv/?a=1089>. Access: 06.01.2016.
11. Register of Enterprises of the Republic of Latvia (s.a.). The exclusion of the entities in the dynamics of the legal forms, statistical data 2012-2015. Retrieved: <http://www.ur.gov.lv/?a=1094>. Access: 06.01.2016.
12. Register of Enterprises of the Republic of Latvia (s.a.). Number of initiated insolvency proceedings after the insolvency proceedings nature, statistical data 2012-2014. Retrieved: https://ws.ur.gov.lv/urpubl?act=MNR_STAT&stat_id=533. Access: 07.01.2016.
13. Register of Enterprises of the Republic of Latvia (s.a.). Number of terminated cases after the insolvency proceedings solution, statistical data 2012-2014. Retrieved: https://ws.ur.gov.lv/urpubl?act=MNR_STAT&stat_id=550. Access: 07.01.2016.
14. State Revenue Service (2015). Data on the Tax Debt Structure on 1st December 2015 (in Latvian). Retrieved: <https://www.vid.gov.lv/dokumenti/noderigi/statistika/nodoklu%20paradnieki/2015/decemris/zinas%20par%20nodoklu%20paradu%20strukturu%20uz%2001%2012%202015.pdf>. Access: 07.01.2016.
15. State Revenue Service (2015). Summary on the Collection of Budget Revenue for the Eleven Months of 2015 (in Latvian). Retrieved: <https://www.vid.gov.lv/dokumenti/noderigi/statistika/nodoklu%20ienemumi/2015/copy%20of%20book1.pdf>. Access: 07.01.2016.

ESTIMATION OF CURRENT STATUS OF INTERNAL ECONOMIC CONTROL IN RUSSIAN AGRICULTURE

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Abstract. The problem of internal control is crucial on modern life conditions in the Russian Federation. Agricultural companies have neither specialists nor desire to execute internal control. Only few companies have established internal control appropriately but these are mainly big companies and/or the companies with foreign capital. The article is aimed to estimate the current state of internal economic control, to present the reasons of this state and to offer scientific methods for improving internal control in agricultural companies. Internal control conditions of 32 small and medium-sized companies in the Russian Federation were investigated and presented in the article. The condition of internal control is not satisfactory. It is caused by implementation of old-fashioned managerial principles, low skilled specialists and non-payable work of controllers. The method of factor analysis and control of cost deviation in production of agricultural products is presented in the article.

Key words: controlling, efficiency, management, economic analysis, agricultural companies (enterprises).

JEL code: G3, Q12

Introduction

Efficiency of agricultural production depends on many factors, for instance, soil and climate conditions and intensification level of agricultural production in each company. (Ostaev G. et al., 2014) The following factors of the intensification significantly influence production of agricultural products:

- increasing of manufacturing mechanization by renewal of mechanical facilities (field engines, combine harvesters and others), replacement of old facilities with modern and more powerful equipment;
- regular work on land fertility improvement;
- implementation of advanced technologies in plant cultivation and cattle breeding;
- implementation of heavy yielding plants and high yielding breeds;
- achievement of scientific organization of manufacturing and labour, establishment of paid labour in all departments and branches (plant cultivation, cattle breeding and others) of agricultural companies;
- providing of efficient use of all resources (material, labour and financial) in the agricultural companies;

- achievement of reasonable management of agricultural production by means of internal management development and internal control as well.

Internal control is an independent function of management of agricultural production companies (Belobzhetskiy I., 1994). Many economists denote this fact in their works (Lu H. et al., 2011; Alborov R., 2008).

A management entity can take no effective managerial decision without control. Internal control has dual character in agricultural company management system. On the one hand, control is one of managerial activity types (Vasile E. et al., 2008). On the other hand, control is the main element of the whole managerial activity. Control provides audit of products manufacturing budget, achievement of planned products output and quality of the products and gross profit margin.

Generally, internal control in the agricultural production management system may be defined as a system-related activity made by the management entity and intended to identify real condition of production process, reveal the problems in the process and eliminate the problems before their growing into a crisis (Khoruziy L. et al., 2015). In accordance with this

definition, control is an economic activity (work) of administrators, managers, specialists and special departments executing audits, revealing problems, taking the decisions and verifying these decisions by means of direct and indirect links. The Accounting Law binds the companies to execute internal control.

This article is aimed to estimate the current status of internal control in agriculture and reasons of this status and to offer scientific method of executing internal control in agricultural companies.

The tasks of the research were set in order to achieve the aim: 1) to analyse the systems of internal economic control in agricultural companies in the Russian Federation 2) to find the problems and present proposals for improvement of internal economic control in agricultural companies of the Russian Federation.

Availability of scientifically based guidelines, their influence on internal control and managerial functions improvement is denoted by Feng M. et al. (2009).

Research results and discussion

In spite of the above mentioned facts, internal control in the agricultural companies is still established in a poor way and has low level of formal functioning.

A questionnaire survey was made among specialists at different levels of management in 32 agricultural companies in the Russian Federation. There were 5 joint-stock companies, 12 limited liability companies and 15 agricultural production cooperatives. Three specialists in each company, i.e. chief accountant, chief economist and manufacturing department supervisor or farm administrator at cattle breeding farms took part in the survey. The companies were chosen randomly among companies with staff up to 200 persons. The survey was carried out in 2015.

The investigation revealed the following main reasons of poor establishment and execution of internal control in agricultural companies:

- the managers of agricultural companies are not interested in efficient system of internal control of production (20% of respondents);
- special departments for internal control are missing in agricultural companies (15% of respondents);
- audit committees (supervisory boards) work as a public service (25% of respondents);
- agricultural companies do not have sufficiently qualified specialists to develop internal control (10% of respondents);
- old fashioned command management in some companies (15% of respondents). The managers keep command management mode especially in agricultural cooperatives.

The above mentioned results provide the basis for some conclusions and proposals.

Missing interest in efficient system of internal control of production (20% of respondents) from managers' side relates to old fashioned command management (15% of respondents). Privileged opinion of managers in the management system depresses independency of the specialists executing internal control and its results. This results in the absence of appropriate control of the management and developing of the off-the-books economy to some extent, falsifications of figures in products manufacturing and conversions of materials etc. The second and the third reason of poor established internal control in agricultural production (absence of special departments and audit committees working as public service) is also interrelated. These reasons were mentioned by 40% of respondents. The members of audit committees (supervisory boards) are actually elected at common meetings and these committees work as public service and their members get no revenue from this activity. Here is the reason for poor establishment and execution of internal control in agriculture. Taking into account the above mentioned facts, it is offered to establish special departments or offices of internal audit in medium and big

agricultural companies. Internal auditors are expected to have higher education in economics and desirably a certificate of professional accountant or auditor. They should be included into a staffing chart and get appropriate salary (revenue) for their activity.

Execution of these proposals will help eliminate the fourth reason (absence of sufficiently qualified specialists) and gradually settle down economic methods of internal management instead of command management in agricultural companies. However, the transition to economic mode of management needs corporate restructuring and establishing of financial responsibility centres. Self-control, self-administration and self-sufficiency are basic principles for operating of such centres. These centres should also obtain gross profit margin

and net profit margin from plant cultivating and cattle breeding.

As for the last reason of poor establishment of internal control revealed during the survey (absence of clear method of internal control execution given by 15% of respondents), it should be mentioned that currently there are no clear guidelines describing the sequence of actions for internal control execution. In terms of this fact, the Ministry of Agriculture is expected to develop and propose some guidelines or industry standards on execution of internal control (taking into account costs, products output and manufacturing results) to agricultural companies. The authors propose the concept model for development of the guidelines to execute internal control of agricultural production (Table 1).

Table 1

Concept model of internal control development in agricultural organizations

Aim and objectives of internal control in agriculture	Functioning of internal control in agricultural management system	Internal control subsystem			
		Revision of supervision board and control committee	Internal control in organization		Self-control of specialists, managers of own activity, social control at economic level
		The main elements of internal control development			
		Content	Form		
		Development method: principals, assumptions, requirements, scientific techniques, patterns (standards), axioms	Development mechanism: legislative, regulatory, methodological, organizational, normative, administrative, managing, automatized	Links: coordination, subordination, direct and reverse, dynamic and static, horizontal, vertical	Content of elements: object and subject of control, data sources, environment, time, period of realization, linking methods, means of control
Strategic orientation of internal control		Process of internal control development			
Internal control system					

Source: authors' construction

Presented model enables projecting solutions of research and practical problems and arranging internal control in agricultural companies. In this situation, internal control will provide all expected aims and specified functions in order to improve management efficiency in agricultural company and its segment.

However, the role of internal control in the management system of agricultural company is a discussion point. Some authors (Daiyle, A., 2001; Khan, D., 1997) consider that internal control is small part of controlling system. Some functions, belonging to internal control in authors' opinion, should be executed by controlling in fact. Internal

control provides audit of execution of some procedures only.

Some authors (Khasanov, B. 2003) point at negative perception of the word "Control", which is associated with strongman and totalitarianism. One of the aspects of internal control is submission indeed but it is not prevailing. In this article the meaning of control is completely positive and concerns reasonable utilization of limited resources and effective management of agricultural companies.

This concept model (Table 1) may be directly used for execution of internal control of agricultural production, i.e. control of costs, products output, gross profit margin and net profit margin.

However, successful execution of control in accordance with the offered model depends on condition of the management accounting, its methods and accounting system of products manufacturing costs. The control is not applied only to documents, accounting registers, correspondence of accounts and product cost calculations but deviation of actual costs from their specified value, products manufacturing volume deviation, gross profit margin deviation and net profit margin deviations as well. An analysis schedule and factorial models of formulas of control are presented in Table 2. The company Vostochnyi LLC (OOO) is used as an example to describe this method.

Table 2

Control of gross profit margin cost deviation and net profit margin deviation from grain crops manufacturing at Vostochnyi, LLC (OOO) in 2014

No	Factor	Designation	Specified (plan) value, thou. RUB	Actual value, thou. RUB	Deviation (+,-), thou.RUB
1	Gross output (estimated by internal transfer prices)	GO	89045	78067	-10978
2	Variable costs	VC	22848	19791	-3057
3	Semivariable costs	SC	21900	18762	-3138
4	Mixed costs	MC	13421	11811	-1610
5	Gross profit margin	GPM	30876	27703	-3173
6	Fixed costs	FC	18044	20203	+2159
7	Net profit margin (negative profit)	NPM	12832	7500	-5332

Source: authors' calculations

Both gross profit margin and net profit margin have been taken as effective factors. Net profit margin is often referred to as "bottom line" measure. By comparison with gross profit margin, net profit margin includes adjustments, for example, for non-operating expenses such as interest rates and taxes and operating expenses (Boratynska K. et al., 2013).

The data from the control table demonstrate the fact that actual gross output of grain estimated by the internal transfer price was RUB 10 978 thou. less than the specified (planned)

manufacturing volume. It was caused by low crop yield in the fiscal year.

The result is considered satisfactory provided that the variable, semi-variable and mixed costs decrease. Obtained gross profit margin and net profit margin indicate about satisfactory result too. In this company, the result is considered unsatisfactory provided that the level of fixed costs increases in comparison with the specified (planned) value.

Here, the reason for the increase of fixed costs should also be identified. Factorial models of control will be used in order to carry out

detailed control and define quantitative parameters of the gross profit margin deviation. Planned (p) and actual (a) factors will be specified in the following way:

Gross output – GO_p, GO_a ;

Variable costs – VC_p, VC_a ;

Semivariable costs – SC_p, SC_a ;

Mixed costs – MC_p, MC_a ;

Gross profit margin – GPM_p, GPM_a ;

Fixed costs – FC_p, FC_a ;

Net profit margin – NPM_p, NPM_a

Then, the reason for the gross profit margin deviation and profit before tax deviation in case of grain manufacturing will be calculated by formulas.

1. Overall actual gross profit margin deviation from specified value

$$\Delta GPM_a = GPM_a - GPM_p; \quad (1)$$

2. Deviation of actual gross profit margin from specified value by modification of the following factors:

- Gross output:

$$\Delta 1GPM_a = GO_a - VC_p - SC_p - MC_p - GPM_p; \quad (2)$$

- Variable costs:

$$\Delta 2GPM_a = GO_p - VC_a - SC_p - MC_p - GPM_p; \quad (3)$$

- Semivariable costs:

$$\Delta 3GPM_a = GO_p - VC_p - SC_a - MC_p - GPM_p; \quad (4)$$

- Mixed costs:

$$\Delta 4GPM_a = GO_p - VC_p - SC_p - MC_a - GPM_p; \quad (5)$$

3. Check:

$$\Delta GPM_a = \Delta 1GPM_a + \Delta 2GPM_a + \Delta 3GPM_a + \Delta 4GPM_a; \quad (6)$$

The calculation of the gross profit margin deviation at Vostochnyi, LLC (OOO) in 2014 is presented in Table 3.

Gross output, variable costs, semivariable costs and mixed costs influence net profit margin

in similar way. The calculation of net profit margin is presented in Table 4.

Table 3

Gross profit margin deviation

No	Deviation by the reason of:	Designation	Amount, RUB
1	Gross output	$\Delta 1GPM_a$	-10978
2	Variable costs	$\Delta 2GPM_a$	3057
3	Semivariable costs	$\Delta 3GPM_a$	3138
4	Mixed costs	$\Delta 4GPM_a$	1610
5	Total deviation	ΔGPM_a	-3173

Source: authors' calculations

Table 4

Net profit margin deviation

No	Deviation by the reason of:	Designation	Amount, RUB
1	Gross output	$\Delta 1NPM_a$	-10978
2	Variable costs	$\Delta 2NPM_a$	3057
3	Semivariable costs	$\Delta 3NPM_a$	3138
4	Mixed costs	$\Delta 4NPM_a$	1610
5	Fixed costs	$\Delta 5NPM_a$	-2159
6	Total deviation	ΔNPM_a	-5332

Source: authors' calculations

This method of control helps to make managerial decisions to adjust plans (budgets) with regard to specified (planned) manufacturing volumes in order to obtain profitability of the products. The method is quite easy and may be implemented in any agricultural company.

Conclusions, proposals, recommendations

From the review of used literature it is evident that some investigation has been devoted to this subject. A management entity can take no effective managerial decision without control. For this reason development and improvement of internal control should be done in ongoing manner.

As mentioned previously, the objective of this discussion was to estimate modern condition of internal control in agricultural companies of the

Russian Federation and to develop a method to improve it.

According of the aims of this article, the current state of internal control was estimated in 32 agricultural companies of the Russian Federation. Some problems and their causes were indicated in the article. The survey conducted in 32 agricultural companies provides adequate image of internal control in all agricultural companies in the Russian Federation.

1) The main result of the survey is that the state of internal control in agriculture of the Russian Federation is not satisfactory. Internal control exists formally in accordance with the legislation. The reasons of poor establishment are as follows:

- managers are not interested in the internal control as they implement old fashioned command principals of management;
- poor operation of audit committees is caused by the public mode of their service;
- number of qualified specialists is not sufficient;
- absence of guidelines for internal control execution;

Bibliography

1. Alborov, R. (2008). *Development Conception and Procedures of Accounting in the Agriculture*. Moscow: Economics of Agricultural and Processing companies. p.230
2. Belobzhetskiy, I. A. (1994). *Accounting and Internal Audit*. Moscow: Accounting. p.128
3. Boratynska, K., Nikolic, T., (2013). Financial Standing of the Daimler AG in the Period of the Global Economic Crisis *Proceedings of the Conference Economic Science for Rural Development* No 30, Jelgava, pp. 251-256.
4. Daiyle, A. (2001). *Practice of Controlling*. Moscow: Finance and statistics. p.336
5. Feng, M., Li C., McVay S. (2009). Internal Control and Management Guidance *Journal of Accounting and Economics*. Volume 48(2), pp.190-209
6. Khan, D. (1997). *Planning and Control: the Concept of Controlling*. Moscow: Finance and Statistics. p.800
7. Khasanov, B. (2003). The System of Financial Control and Internal Audit. *Audit Journal*. Volume 3, pp.48-51
8. Khoruziy, L., Kharcheva, I., Kostina, R. (2015). Audit Efficient Use of Public Funds Under the Direction Development of Dairy Farming. *Accounting in the Agriculture*. Volume 9, pp. 13-17
9. Kontsevaya, S. (2014). Concept and Arrangement of Internal Economic Control in Agricultural Sector in Terms of Russian Federation *Proceedings of the Conference Agrarian perspectives XXIII*, Prague, Volume 24, pp. 103-111.
10. Lu, H., Richardson, G., Salterio S. (2011). Direct and Indirect Effects of Internal Control Weaknesses on Accrual Quality: Evidence from a Unique Canadian Regulatory Setting *Contemporary Accounting Research* Volume 28, pp. 675-707,
11. Ostaev, G., Kontsevaya, S. (2014). *Organization of the Managerial Accounting and Internal Control in Feed Production*. Moscow: RGAU-MSHA p.212
12. Vasile, E, Ghita, M., Popescu, M., Mitran, D., Poanta, D. (2008). The Reorganization of the Internal Control System within Public Entities *Romanian Agricultural Research*, Volume 25, pp.107-112

2) One of proposed solutions of internal control improvement is a factorial method production costs control in plant cultivating and cattle breeding. The method is relatively simple and can be used in any agricultural company to adjust plans (budgets) with regard to specified (planned) manufacturing volumes.

It might be concluded that Russian agricultural companies have good potential for establishing a well-organized internal control system. Advanced experience of European countries can be used to establish internal control at agricultural companies of the Russian Federation.

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PROFIT DISTRIBUTION AND PAYMENT OF DIVIDENDS IN CERTAIN COMMERCIAL COMPANIES AND COOPERATIVES IN TERMS OF ACCOUNTING AND TAX LEGISLATION OF THE SLOVAK REPUBLIC AND THE EUROPEAN UNION

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Abstract. Profit or loss for the accounting period after taxes, specifically net profit is conditioned by the legal form of a business as well as the subject and the range of a business. The aim of the article is to analyse the development of the accounting result in the selected sample of companies of agricultural primary production in the Slovak Republic. Therefore, the research tasks are to evaluate the issues of the accounting result, profit distribution and dividend payment pursuant to the current accounting and tax legislation in the Slovak Republic and the EU. The most common business forms in the agriculture of the Slovak Republic are presented by companies with limited liability, joint stock companies and cooperatives. The authors resulted that in the observed years 2004–2014, except for the years 2011 and 2014, significant differences arose from the statistical testing of profit or loss in the selected sample of companies of agricultural primary production in the Slovak Republic. The development of mean values of accounting result in commercial companies and agricultural cooperatives was characterized by the fluctuating progress. Further, the result of the study shows that the purpose of net profit usage is not exhaustively determined, except for the regulations of the Commercial Code. Dividend from the profit reported for the accounting period 2014 paid by a company with a limited liability, a joint stock company or a cooperative in the year 2015, assigned to the distribution to shareholders, is exempt from personal and corporate income tax. Above mentioned statements relate to the payment of dividends to persons with the domicile or registered seat outside of the Slovak Republic.

Key words: accounting result, dividends / profit share, commercial company, cooperative.

JEL code: D39, K34, M21, M41

Introduction

Creation and development of a favourable business environment in regions is unthinkable without an appropriate tax system. Creating a tax system, each country has to consider not only the increased revenue collection from taxpayers, but it also has to be able to develop the business environment and to promote the people's prosperity by reducing differences in the regional development (Puzule, 2015).

Accounting result (profit or loss) is an important financial indicator expressing the effectiveness and efficiency of a business activity mainly in connection to the contributed capital. It is the basic information source and the measurement of financial profitability of contributed capital to the respective accounting period (Bastincova, 2007).

Management makes all their decisions based on the information provided by the accounting, whether it is the information from the past

(financial accounting), or the information predicting future (management accounting). One of the most important issues regarding a further existence and development of a company is a means of quantification of the part of a produced profit that can be divided by a shareholder (investor) without any imperilment of a business property of a company, i.e. performance potential that is a pre-condition for a further, long-term existence of a company. In accordance with national and international accounting legislation some non-realized profits can be produced as well. Those are risk profits as regards a company existence, given their significance, especially when there is an effort to divide them in the following accounting period by means of a gain sparing, thus, an analysis of recognized profit is very important (Paksiova and Kubascikova, 2014).

At present, the Commercial Code provides entrepreneurs with the various forms of a

business while their option fully depends on an entrepreneur. The selection of a business legal form belongs to long-term effective decisions and it presents the factor substantially influencing the financial politics of a business (Sivak et al., 2015). The share in profit (loss) pertains to the criteria effecting the selection of a legal form of a business.

Profit or loss of a current period presents the generated profit or loss for the selected accounting period. Its distribution is based on the written decision of a statutory body of the company and can be reported only based on this written decision (Strouhal et al., 2013).

Profit distribution and loss settlement is decided by the General Meeting of a company, generally when the financial statements are approved (Steker and Otrusínová, 2013). In particular, the profit distribution is based on the balances of equity accounts, internal rules of an accounting entity (Articles of Incorporation, Articles of Partnership), the amount of profit or loss and other circumstances.

The right to dividend payments does not arise directly from the fact that a company achieves a profit in the financial year, but it arises from the decision of the General Meeting on profit distribution to shareholders. The mechanism of dividend declaring and payments differentiates according to individual countries (Kralovic et al., 2002). The legislation stipulates mainly the manner of payments, respectively shares in profits in relation to the profit distribution.

The aim of the article is to analyse the development of the accounting result in the selected sample of companies of agricultural primary production in the Slovak Republic by means of testing the differences of profits or losses of commercial companies and agricultural cooperatives in the period from 2004 to 2014. In respect the above mentioned aim, the particular research tasks the authors define, i.e. (i) to present the accounting result, (ii) the profit distribution and (iii) the dividend payments in

Jelgava, LLU ESAF, 21-22 April 2016, pp. 296-297 certain commercial companies according to the selected regulations of currently effective laws in the Slovak Republic and the EU from the legal, accounting and tax perspective, including the obligatory payment to social security system.

The data of the assessed sample of agricultural companies derive from the information letters of the Ministry of Agriculture and Rural Development of the Slovak Republic which present the data from individual financial statements of particular companies. The selected sample consists of those companies which existed during the observed period and at the same time they did not change the legal form of a business. The assessed set of companies comprises 216 commercial companies (limited liability companies, joint stock companies) and 230 agricultural cooperatives. They represent the same companies in the whole observed time period.

Non-parametrical test is used for the statistical valuation of differences in mean values of net profits or losses which represents a hypothesis test that does not require the sample's distribution to be characterized by certain parameters. The Mann-Whitney U test is run; essentially it is an alternative form of the Wilcoxon Rank-Sum test for independent samples and it is completely equivalent. Assumptions of the Mann-Whitney test are:

- random samples from populations;
- independence within samples and mutual independence between samples;
- measurement scale is at least ordinal.

The following test statistics for samples 1 and 2 are defined where n_1 is the size of sample 1 and n_2 is the size of sample 2. Symbol R_1 is the adjusted rank sum for sample 1 and R_2 is the adjusted rank sum of sample 2. It does not matter which sample is bigger. Hypothesis for testing are:

Null hypothesis: Distribution functions of the both samples are the same.

Alternative hypothesis: Distribution functions of the both samples are different.

As test statistics will be used U_1, U_2 that are given by:

$$U_1 = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

and

$$U_2 = n_1 n_2 + \frac{n_2(n_2 + 1)}{2} - R_2$$

As for the Wilcoxon version of the test, if the observed value $U < U_{crit.}$ then the test is significant (at the α level of significance), i.e. the null hypothesis have been rejected. The values of $U_{crit.}$ for $\alpha = 0.05$ (two-tailed) are given in the Mann-Whitney Tables.

For n_1 and n_2 large enough the U statistic is approximately normal $N(\mu, \sigma)$, where

$$\mu = \frac{n_1 n_2}{2}, \quad \sigma^2 = \frac{n_1 n_2 (n_1 + n_2 + 1)}{12}$$

and

$$U = \frac{U_1 - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}}$$

If $|U| \geq U_\alpha$ then the null hypothesis is rejected in favour of the alternative hypothesis on the significance level α .

Standard methods of a scientific work such as selection, analysis, comparison and synthesis have been applied in the article's processing.

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Research results and discussion

1. Accounting result in the selected sample of companies of agricultural primary production in the Slovak Republic

Accounting result represents the measurement of sold production, efficiency of used live and materialized labour and the measurement of used contributed capital (Serences et al., 2010). The objectively affecting disparities and particularities of agricultural companies influence the amount of profit.

The maximalization of profitability is one of the main tasks (Kotulic et al., 2010). In connection with this statement, various determinants of profitability are mentioned: natural conditions, economic conditions, production structure, used manners and technologies, the level of labour utilization, production quality, sales prices, the amount of costs, turnover, liquidity, the manner of financing of business activity, other factors.

In case the size of sample 1 (cooperatives) was $n_1 = 230$ and the size of sample 2 (commercial companies) was $n_2 = 216$ in each observed year. Tested data were "accounting profits or losses" in each year from 2004 to 2014. Hypotheses about differences between accounting profits and losses have been formulated and tested.

MS Excel tools were used in order to compute the main characteristics and values of testing criterion U. Table 1 presents results of data testing of cooperatives and commercial companies in each year from 2004 to 2014. The U statistic is applied because of large ranges of samples n_1 and n_2 . Testing criterion for significance levels $\alpha = 0.05$ and $\alpha = 0.01$ are used from the source (Markechova et al., 2011). The particular model analysis is presented in

The authors state that in years 2011 and 2014 characteristics $U < U_{crit.}$; it cannot be rejected

the null hypothesis on the significance level α . Therefore, differences between accounting results of the both samples are not significant in years 2011 and 2014. In all other observed years, the results are $U > U_{crit.}$; the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 296-299 authors reject the null hypothesis in favour of the alternative hypothesis on the significance level α . In these years, differences between accounting results of the both samples are significant.

Table 1

Results of data testing of cooperatives and commercial companies

Year	Value of U	Year	Value of U
2004	2.97054 $> U_{crit.}$	2010	4.30106 $> U_{crit.}$
2005	6.16675 $> U_{crit.}$	2011	*1.29084 $< U_{crit.}$
2006	3.62257 $> U_{crit.}$	2012	3.65418 $> U_{crit.}$
2007	3.15872 $> U_{crit.}$	2013	3.79752 $> U_{crit.}$
2008	2.68679 $> U_{crit.}$	2014	*1.25702 $< U_{crit.}$
2009	7.30468 $> U_{crit.}$		
$\alpha = 0.05$	$U_{crit.} = 2.5758$	$\alpha = 0.01$	$U_{crit.} = 1.9599$

Source: authors' calculations

Figure 1 provides the graphical representation of mean and median for pooled data of cooperatives and commercial companies together. The differentiated progress was recorded for the mean value of net profits or losses for the accounting period in both legal forms of companies during the analysed years. The highest average value of losses was reported in the year 2009, while the highest value of net profit was acquired in the year 2011.

Data in Figure 1 present the significant fluctuation in the years 2009, 2010 and 2013. In the following periods the agriculture sector as a whole in the Slovak Republic reported the loss. In the year 2009 particularly the sharp fall in commodity prices contributed to this development. Within the framework of the Common Agricultural Policy no systematic measures were applied in order to eliminate the natural and market effects on sales, prices, respectively insurance compensation to agricultural producers. Despite increasing

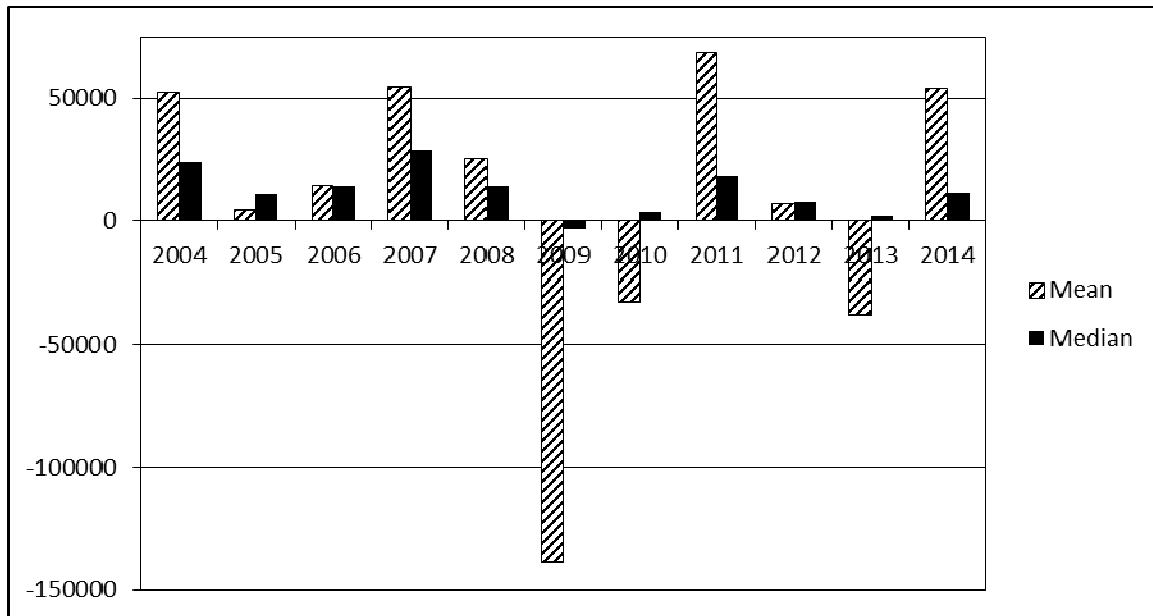
subsidies from the EU the negative economic result of agricultural companies is mainly due to low prices of agricultural products (Report on agriculture and food sector in the Slovak Republic, 2009).

The subsidies acquired from the EU present the crucial part in revenues of agricultural companies in the year 2010. Agricultural companies would have reported the loss without the subsidies. Accounting profits were affected by various factors, except for subsidy policy particularly direct payments, the rapid increase of prices of agricultural products as well as inputs to agriculture and impact of floods during the year caused the production failure (Report on agriculture and food sector in the Slovak Republic, 2010).

In the year 2013, differences in profits or losses between companies in various natural conditions and legal forms were lasted. Differences of profits or losses between agricultural cooperatives and commercial

companies significantly extended. The ratio of profitable companies has decreased. In general, commercial companies reported profits, while agricultural cooperative reported losses. Subsidies were provided under the same criteria

Jelgava, LLU ESAF, 21-22 April 2016, pp. 296-300 and conditions for both legal forms (Report on agriculture and food sector in the Slovak Republic, 2013).



Source: authors' construction

Fig.1. Graphical representation of mean and median for pooled data

Accounting result, profit distribution and dividend payment in terms of accounting law

The accounting result is defined as the measured final effect of accounting entity's activity generated in the accounting period. The creation and structure of accounting result in the Slovak Republic is adjusted by the Accounting Act and the Measurement of the Ministry of Finance of the Slovak Republic No 23054/2002-92, stipulating the details of accounting procedure and framework chart of accounts for entrepreneurs keeping double entry accounting as amended (hereinafter "Accounting procedures").

Pursuant the accounting legislation of the Slovak Republic net profit or loss is calculated in the appropriated structure in an income statement included in the individual financial statements. The generated economic result after taxes for the accounting period presents net profit which directly influences the equity of an

accounting entity as it is included in the equity. Components of financial statements presented by a statement of financial position and a income statement are mutually combined by means of reported net profit or loss for the accounting period. An income statement clarifies the creation of balance sheet item net profit or loss for the accounting period. Accounting result reported in an income statement must equal to net profit or loss for the accounting period in a statement of financial position.

There are various groups of external users of economics information on enterprises, which requirements are often in mutual discrepancies. Due to this fact, the data on economic transactions, occasions and circumstances need to be transformed in the general accepted statements of financial statements (Tumpach et al., 2014). The above mentioned topic is also particularly solved by Starova et al. (2014).

Pursuant to the IAS 1 - Presentation of financial statements has been renamed to a

comprehensive income statement. Comprehensive income includes all revenues and costs, gains and losses, which are normally included in an income statement, but unrealized gains and losses recorded in accounts of equity are included as well, and they are not included in an income statement (Kristofik et al., 2011).

Following the analyses the accounting result is an crucial indicator, mandatory reported in financial statements prepared in accordance with the legal arrangements of the Slovak Republic and the International Financial Reporting Standards ("IFRS") adopted by the EU.

According to the US GAAP the complex result includes not only the accounting result described in the income statement, but also an increase of own equity reported only in the balance sheet statement (Bohusova et al., 2013).

When opening the accounting books as at the first date of accounting period, profit or loss of the previous accounting period is accounted as a profit or loss to be approved (Accounting procedures). A profit or loss to be approved presents the distribution of accounting profit or the settlement of accounting loss pursuant the decision of a particular body of an accounting entity.

Under the decision of a particular body of an accounting entity, if an entity reports an accounting profit, it is possible to pay the part of profit to shareholders in commercial companies or members in cooperatives in the amount of their shares in profit of a company or a cooperative. Based on the before mentioned the liabilities towards shareholders and members arise when distributing a profit and correspondingly this transaction presents the decrease in profit as a profit or loss to be approved. It presents a balance sheet change related to liabilities and equity of an accounting entity.

Profit or loss to be approved shall not be reported as at the date of closing the accounting books. If a particular body of an accounting

Jelgava, LLU ESAF, 21-22 April 2016, pp. 296-301 entity does not provide a decision about a profit distribution by the end of the accounting period, this profit or its part might be reported as retained earnings from previous years (Accounting procedures).

Each shareholder has a right to profit share (dividend), which the General Meeting determines for distribution in accordance with profit or loss.

Determination of profit to be distributed between members in a cooperative is approved by the Members meeting. Share of a cooperative member in profit used for distribution is determined by the ratio of unpaid contribution to paid contributions of all members, if bylaw does not stipulate otherwise. While for members whose membership lasted only for a part of a year the ratio is shortened. The Commercial Code stipulates the certain amount of profit to be distributed to non-distributable fund before profit distribution in cooperatives.

Income tax and compulsory payments to social security system related to dividend payment

Profit share (dividend) paid from the profit of a commercial company or a cooperative, determined for distribution to shareholders/members contributing in the share capital or members of statutory and supervisory body of this commercial company or a cooperative even they are employees of a commercial company or a cooperative, are exempt from income tax. While a commercial company or a cooperative is considered to be an equivalent company with the registered seat in a foreign country.

Pursuant the above mentioned, i. e. dividends paid from the profit of a joint stock company and a company with limited liability to natural persons contributing to the share capital or members of statutory or supervisory body, are not subject of tax, thus they are exempt from personal income tax. The same is applied to

natural persons domiciled outside of the Slovak Republic.

Furthermore, the profit share, settlement amount, liquidation surplus if they are exempt from the personal income tax and are paid to a legal entity shall not be subject to corporate income tax. Above mentioned statement applies also in case such income is paid to legal entities seated outside of the Slovak Republic.

Council directive 2011/96/EU of 30 November 2011 on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States (hereinafter "EU Parent-Subsidiary Directive") is mandatory for all Member States of the EU. The main task of directive's acceptance among EU Member States was the application of the same tax regime for the distribution of profit reported by subsidiary companies. The EU Parent-Subsidiary Directive allows exempt dividends and other profit distributions paid by subsidiary companies to their parent companies from withholding taxes and eliminates double taxation of such income at the level of the parent company.

The EU Parent-Subsidiary Directive treats the taxation of distributed profit of certain commercial companies which are residents in the EU Member States in accordance with the local tax legislation and they are not tax residents in non-member states of the EU based on the double taxation agreements between member and non-member states.

The EU Parent-Subsidiary Directive is implemented in the tax legislation of the Slovak Republic, namely in the Income Tax Act. The EU Parent-Subsidiary Directive is applied in companies which legal form corresponds to the conditions of companies with limited liability and joint stock companies in the Slovak Republic.

The earning activity which is the subject to compulsory payment to social security system presented by health care insurance contributions also includes the paid profit share (dividend).

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An insurance payer is a dividends payer. A dividend payer is defined as a legal entity with the registered seat in the Slovak Republic who pays dividends. An insured person who is a subject to the health care insurance in the Slovak Republic and has income from dividends is obliged to pay the contributions on that income. This means that health insurance is not subject of the payment of dividends to foreign legal entities and natural persons who are not subject of the Slovak compulsory health care insurance.

The calculation base for insurance contribution arising from this income presents the amount of paid dividends in the calendar year. Contributions are paid as the prepayment in the amount of particular rate of insurance from paid dividends in a calendar month. The insurance prepayment is calculated and paid by a company distributing the profit instead of an insured person who has an income from dividends. A commercial company when paying dividends is obliged to settle the prepayment of health care insurance decrease the value of paid dividend by the amount of settled insurance prepayment and pay the decreased amount to its receiver.

Conclusions

- 1) Net profit for the accounting period presents the crucial source of financing of a business activity. It is an indicator mandatory reported in financial statements prepared in accordance with the legal arrangements of the Slovak Republic and the IFRS adopted by the EU.
- 2) Non-parametrical Mann-Whitney U test was used in the statistical evaluation of differences in accounting profits and losses of agricultural cooperatives (the sample size 230) and commercial companies (the sample size 216). In the selected companies of agricultural primary production the differences in accounting results are significant which is evident from values of statistical characteristics. The net profit development of

agricultural companies belongs to the significant factors of the rural development.

3) Based on the analysis of means and medians of selected companies can be stated that in the Slovak Republic within the reviewed periods the highest average value of losses has been reported in 2009, while the highest value of net profit have been generated in 2011. The significant fluctuation has been reported in the years 2009, 2010 and 2013. It should be noted that the above mentioned results were also reported in the agricultural companies within the whole agricultural sector in the Slovak Republic (Report on agriculture and food sector in the Slovak Republic, 2010 and Report on agriculture and food sector in the Slovak Republic 2013).

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4) According to the Slovak accounting legislation, the purpose of net profit usage is not exhaustively determined, except for the regulations defined in the Slovak Commercial Code.

5) The EU Parent-Subsidiary Directive is implemented into the Slovak tax legislation. According to the Slovak Income Tax Act the dividends are not subject to tax if paid from profits of a commercial company or a cooperative on which registered capital the recipient has share. On the contrary, the dividends are subject to compulsory payments to the social security system, i.e. the individual receiving the dividend income is obliged to pay the health care insurance contributions.

Bibliography

1. Bastincova, A. (2007). *Vysledok hospodarenia z uctovneho a danoveho hladiska. (Profit or Loss from the Accounting and Tax Point of View.)* Bratislava: Iura Edition, p. 104.
2. Bohusova, H., Svoboda, P., Nerudova, D. & Bocek, M. (2013). *Konvergence systemu IFRS a US GAAP pro vznik jedineho systemu financniho vykaznictvi. (Convergency of IFRS and US GAAP Systems for Establishment of Unified System of Financial Reporting.)* Brno: Policy Research Center, s.r.o., p. 208.
3. Kotulic, R., Kiraly, P. & Rajcaniova, M. (2010). *Financna analiza podniku. (Financial Analysis of a Company.)* Bratislava: Iura Edition, p. 238.
4. Krajcirova, R. & Ferenczi Vanova, A. (2014). Zdanenie podielov na zisku a odvodove povinnosti vybraných obchodných spoločností v zmysle právnej a danej legislatívy Slovenskej republiky a Smernice Európskej unie. (Taxation of Profit Share and Social Security Payment Obligations in Certain Commercial Companies in accordance with the Legal and Tax Legislation of the Slovak Republic and EU Directive.) *Trendy v podnikaní 2014: recenzovaný zborník príspevkov medzinárodnej vedeckej konferencie: 13. – 14. listopad 2014 Plzeň.* Plzeň: Západočeská univerzita. Retrieved: http://tvp.fek.zcu.cz/cd/2014/PDF_sbormik/krajcirova%20ferenczi%20vanova.pdf. Access: 15.12.2015.
5. Kralovic, J., Vlachynsky, K. & Markovic, P. (2002). *Financny manazment. (Financial Management.)* Bratislava: Iura Edition, p. 420.
6. Kristofik, P., Saxunova, D. & Suranova, Z. (2011). *Financne uctovnictvo a riadenie s aplikaciou IFRS. (Financial Accounting and Management with the Application of IFRS.)* Bratislava: Iura Edition, p. 804.
7. Markechova, D., Stehlikova, B. & Tirpakova, A. (2011). *Statisticke metody a ich aplikacie. (Statistical Methods and their Applications.)* Nitra: Fakulta prirodnych vied UKF v Nitre. Retrieved: http://www.km.fpv.ukf.sk/upload_publikacie/20120125_143707_1.pdf. Access: 11.12.2015.
8. Opatrenia MF SR c. 23054/2002-92, ktorým sa ustanovujú podrobnosti o postupoch uctovovania a ramcovej uctovej osnove pre podnikateľov uctujúcich v sustave podvojneho uctovnictva v znení neskorších predpisov. (Measurement of the Ministry of Finance in the Slovak Republic No 23054/2002-92 stipulating the Details of Accounting Procedure and Framework Chart of Accounts for Entrepreneurs keeping Double Entry Accounting as amended.)
9. Opatrenie MF SR c. MF/23378/2014-74, ktorým sa ustanovujú podrobnosti o individualnej uctovnej zavierke a rozsahu údajov určených z individualnej uctovnej zvierky na zverejnenie pre malé uctovné jednotky. (Measurement of the Ministry of Finance in the Slovak Republic No MF/23378/2014-74 stipulating the Details of Individual Financial Statements and Extent of Data determined for Publication from an Individual Financial Statement for Small Accounting Entities.)
10. Paksiova, R. & Kubascikova, Z. (2014). Risks of Company's Non-realised Profits Distribution. *Managing and Modelling of Financial Risks: 7th International Scientific Conference: 8th-9th September 2014 Ostrava, Czech Republic.* Ostrava: VSB - Technical University of Ostrava. pp. 598-605. Retrieved: http://www.ekf.vsb.cz/export/sites/ekf/rmfr/cs/sbornik/Sbornik_parts/Sbornik_II.dil.pdf. Access: 15.12.2015.
11. Puzule, A. (2015). Assessment of direct taxation instruments. *Latgale National Economy Research*, Volume 1, No 7, pp. 148-163.
12. Serences, P., Serences, R., Toth, M., Cierna, Z. & Rabek, T. (2010). *Financie v poľnohospodárstve. (Finance in Agriculture.)* Nitra: SPU, p. 189.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 296-304

13. Sivak, R., Belanova, K. & Jancovicova Bognarova, K. (2015). *Financie podnikateľskej sfery. (Finance in Commercial Sphere.)* Bratislava: SPRINT 2 s.r.o., p. 341.
14. Smernica Rady 2011/96/EU z 30. novembra 2011 o spoločnom systéme zdanovania uplatňovanom v prípade materských spoločností a dcerských spoločností v rozličných členských štátoch (prepracované znenie). (Council Directive 2011/96/EU of 30 November 2011 on the Common System of Taxation Applicable in the Case of Parent Companies and Subsidiaries of Different Member States (recast).)
15. Správa o poľnohospodárstve a potravinárstve v SR za rok 2009. (Report on Agriculture and Food Sector in the Slovak Republic 2009.) Retrieved: <http://www.mpsr.sk/index.php?navID=122&id=4162>. Access: 12.12.2015.
16. Správa o poľnohospodárstve a potravinárstve v SR za rok 2010. (Report on Agriculture and Food Sector in the Slovak Republic 2010.) Retrieved: <http://www.mpsr.sk/index.php?navID=122&id=5214>. Access: 12.12.2015.
17. Správa o poľnohospodárstve a potravinárstve v SR za rok 2013. (Report on Agriculture and Food Sector in the Slovak Republic 2013.) Retrieved: <http://www.mpsr.sk/index.php?navID=122&id=8835>. Access: 12.12.2015.
18. Starova, M., Hinke, J., Cermakova, H., Lorinczova, E., Valder, A., Kucharova, I. & Stafek, P. (2014). *Asymmetries in Accounting Information*. Praha: PowerPrint, p. 174.
19. Steker, K. & Otrusínová, M. (2013). *Jak číst účetní výkazy. Základy českého účetnictví a výkaznictví. (How to read Financial Statements. Basics of Czech Accounting and Reporting.)* Praha: Grada Publishing, a. s., p. 264.
20. Strouhal, J. et al. (2013). *Ocenování v účetnictví. (Valuation in Accounting.)* Praha: Wolters Kluwer CR, p. 420.
21. Tumpach, M., Manova, E. & Meluchová, J. (2014). Relevantnosť národného podnikového finančného výkazníctva v Slovenskej republike z pohľadu veriteľov ako nepriviligovaných používateľov. (Relevance of National Corporate Financial Reporting in the Slovak Republic from the Side of Creditor such as Privileged Users.) *Ekonomický časopis: časopis pre ekonomickú teóriu, hospodársku politiku, spoločensko-ekonomické prognózovanie = Journal for Economic Theory, Economic Policy, Social and Economic Forecasting*, Volume 62, Issue 5, pp. 495-507.
22. Zákon č. 431/2002 Z.z. o účtovníctve v znení neskorších predpisov. (Act No 431/2002 on Accounting as amended.)
23. Zákon č. 513/1992 Zb. Obchodný zákonník v znení neskorších predpisov. (Act No 513/1992 Commercial Code as amended.)
24. Zákon č. 580/2004 Z.z. o zdravotnom poistení v znení neskorších predpisov. (Act No 580/2004 on Health Care Insurance as amended.)
25. Zákon č. 595/2003 Z.z. o dani z príjmov v znení neskorších predpisov. (Act No 595/2003 on Income Tax as amended.)

IMPERFECTIONS OF SOCIAL INSURANCE FOR SELF-EMPLOYED PERSONS IN LATVIA

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Abstract. Self-employment plays a significant role in employment. Recently, self-employment is being enhanced both by entrepreneurs' wish to reduce labour costs and wish of employees themselves to pay less for their social insurance. In Latvia, the status of self-employed allows reducing mandatory payments for personal social insurance, and a person earning less than the state minimum salary, may choose not to make social contributions at all. The object and minimum amount of mandatory state social insurance contributions (MSSIC), making which a self-employed person may become socially insured, annually increase with the increase of minimum salary. Actually, every year more and more people with low income are left outside the security system under the regulations of the current social insurance system for self-employed persons in Latvia. This causes additional risks to the social insurance system, since part of the population is subject to the poverty risk when reaching the retirement age or becoming unable to work due to other reasons. The comparison of the state social insurance system for self-employed persons in Latvia and Lithuania allows concluding that all self-employed persons in Lithuania are subject to the mandatory state social insurance system. The authors believe that the state social insurance system of Latvia requires changes to cover also self-employed persons with lower income. Besides, in Latvia, pursuant to the amendments to the law "On State Social Insurance", every employee will be subject to social insurance at least for the amount of the minimum salary starting from 2017; however, no changes are planned regarding the state social insurance of self-employed persons.

Key words: self-employment, social contributions, state social insurance.

JEL code: H21, H55

Introduction

In contemporary economic situation, when the labour market becomes more flexible and new opportunities are emerging there, part of the population in Latvia, as elsewhere in the world, rather choose to undertake independent economic or professional activity versus paid employment. Also small businesses seek for possibilities to reduce operational expenses, including tax payments. In Latvia, self-employed persons feature an opportunity not to make social insurance contributions, if their income calculated as the difference between operating revenues and expenditure is below the minimum monthly object of social contributions (equalling to the amount of the minimum salary, which is EUR 370 in 2016). In case income exceeds the minimum object of social contributions, a self-employed person may make MSSIC from the minimum object of social contributions. As income for the majority of self-employed persons is small and does not exceed the minimum object of contributions, they do not join the social

insurance system, and thus, remain without any social guarantees in the future. Moreover, making of social contributions from the minimum object of contributions does not guarantee sufficient social services in the future. It means that in the future there will be a part of population in Latvia who reaching the retirement age would not have earned even the minimum pension determined by the state. The research **hypothesis:** the present social insurance system of Latvia leads to a situation that a large part of self-employed persons do not make MSSIC, and thus are not socially insured. The research **aim** is to study the necessary changes to the state social insurance system to increase social guarantees of self-employed.

The following research **tasks** serve for the achievement of the research aim: 1) to analyse data on the trends of self-employment in Latvia and other EU Member States; 2) to analyse problematic aspects of social insurance for self-employed persons in Latvia; 3) to compare the state social insurance system for self-employed persons in Latvia and Lithuania; 4) to provide

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recommendations to improve the state social insurance system for self-employed persons.

The research covers the period 2008-2014, sometimes a shorter period is analysed due to the lack of data. The study employs monographic and descriptive statistical methods.

Research results and discussion

1. Trends of self-employment in the EU Member States

In general, almost 15% of employed people in the EU Member States are self-employed

persons. The share of self-employed persons of total employees greatly differs among the Member States (Table 1). The highest share is registered in Greece (30.8% in 2014), while the lowest one in Luxembourg and Denmark (7–8%). Analysing the closest neighbouring countries, Poland has traditionally demonstrated high level of self-employment; though, the level has slightly decreased during the recent years.

Table 1

The share of self-employed persons in the EU Member States of total number of employed (from 15 to 64 years), %

Range No	Country	2008	2009	2010	2011	2012	2013	2014
1	Greece	28.5	28.8	29.3	30.1	31.1	31.7	30.8
4	Poland	18.5	18.4	18.8	18.8	18.5	18.2	17.9
	European Union	14.6	14.6	14.6	14.5	14.6	14.5	14.5
21	Latvia	8.7	9.8	9.9	10.1	10.3	10.5	10.6
22	Lithuania	10.2	10.2	9.1	9.0	9.6	10.5	10.6
25	Estonia	7.7	8.2	8.2	8.3	8.5	8.8	8.9
27	Denmark	n.d.	n.d.	7.1	8.5	8.4	8.9	7.9
28	Luxembourg	6.2	7.3	7.1	7.8	8.0	8.0	7.7

Source: Eurostat data, 2015

In the Baltic States, the share of self-employed persons is one of the lowest ones among the EU Member States. The lowest share is registered in Estonia (8-9%), which ranks the country in the 25th position among the Member States. In 2008-2009, the highest share of self-employment among the Baltic States was observed in Lithuania; though, in recent years, Latvia has outpaced Lithuania in terms of self-employment. Latvia ranks in the 21st position among the Member States, moreover, the share of self-employed persons grows more rapidly in Latvia than in other countries (from 8.7% in 2008 to 10.6% in 2014). An especially fast increase was registered in 2009, which was related with the decrease in jobs and a respective growth in the share of self-employed due to the economic crisis. However, in Latvia, a slight

increase in the share of self-employed persons remains also in the after-crisis period.

Several researchers have studied reasons for the increase in the share of self-employed. Already in 1999 A. Supiot wrote about new employment trends in Europe. Essential factors promoting the increase of self-employed or independent business persons are as follows: 1) employers' wish to reduce their obligations towards employees and simultaneously labour costs through not making social insurance contributions; 2) well-educated young employees themselves choose self-employment to reduce their expenses in social insurance schemes, as the high social insurance contributions are lower the possible benefits gained through different allowances and pensions. The trends of this "new employment" raise problems to social policy-makers of any country (Westerveld, 2012).

2. Trends of self-employment in Latvia

As indicated above, the share of self-employed persons in Latvia has gradually increased during the recent years. This is also

evidenced by the data of the Central Statistical Bureau (CSB) of the Republic of Latvia (Table 2): increase from 5.4% in 2008 to 6.8% in 2014 (from 8.7% to 10.6% respectively according to the Eurostat data).

Table 2

Primary employed population of Latvia by employment status in the period 2008-2014, number (thou.), share (%)

Indicator	Unit	2008	2009	2010	2011	2012	2013	2014
Primary employment, TOTAL	thou.	1054.9	908.5	850.7	861.6	875.6	893.9	884.6
incl. employees	thou.	946.8	803.8	752.9	763.9	776.1	790.4	782.4
	%	89.8	88.5	88.5	88.7	88.6	88.4	88.5
Employer (owner)	thou.	36.6	34.2	33.5	31.5	34.1	37.5	35.2
	%	3.5	3.8	3.9	3.7	3.9	4.2	4.0
Self-employed person	thou.	57.4	56.5	52.3	56.6	57.4	58.2	59.8
	%	5.4	6.2	6.1	6.6	6.6	6.5	6.8
Unpaid family workers	thou.	14.1	14	12	9.6	7.9	7.5	7.1
	%	1.3	1.5	1.4	1.1	0.9	0.8	0.8

Source: CSB data, 2015

The definition of self-employed person explains the discrepancy between the data. The Central Statistical Bureau of the Republic of Latvia considers a self-employed person to be a person who works in own business, professional practice or farm for the purpose of earning a profit and who does not employ any other persons. According to the Eurostat definition, **self-employed persons** are the ones who work in their own business, farm or professional practice. Therefore, according to the CSB data, the level of self-employment is significantly lower compared with the Eurostat data. In fact, the number of self-employed persons should also include a large part of employers (owners) who are accounted according to the CSB data. In addition, Table 2 shows only primary employed persons. More common trend is to be an employee and at the same time to earn income as self-employed person.

In the economic downturn period, Latvia experienced a significant decrease in the number of employed persons, reaching the lowest level in

2010 (850.7 thousand employed persons). Accordingly, the number of employees decreased, leading also to a decrease in the share of employees, i.e. from 89.8% in 2008 to 88.5% in 2014. The share of self-employed and the share of employers (owners) increased, in turn. In Latvia, the share of self-employed grew both during the crisis and after-the-crisis periods, thus, part of population being unable to find work became permanent self-employed persons or even employers (owners).

3. Trends in social insurance of self-employed persons

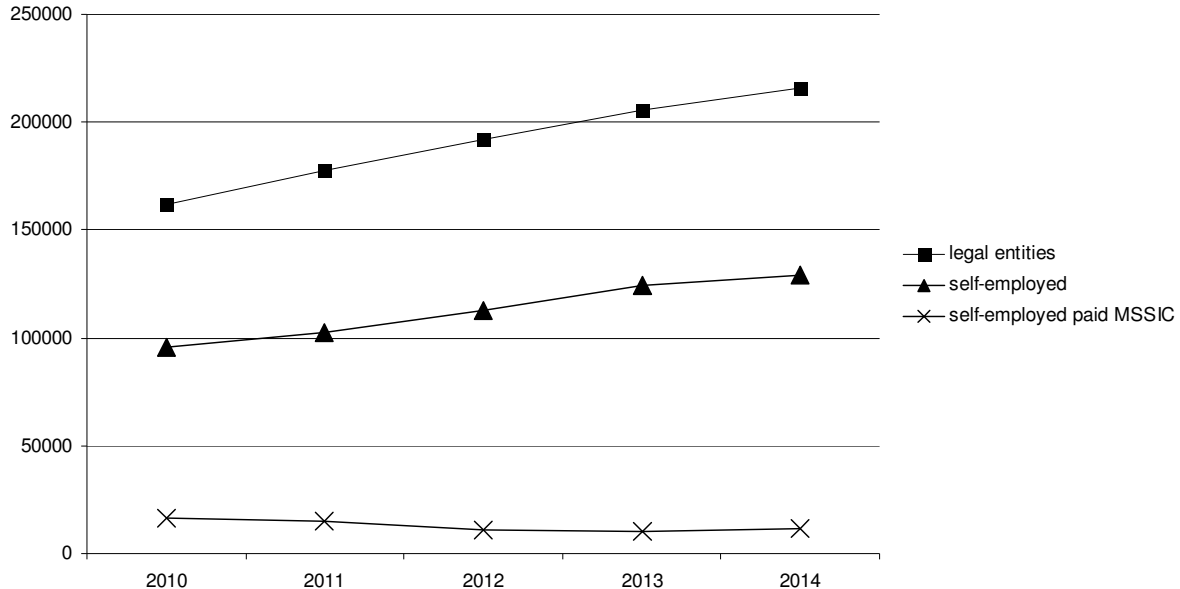
The State Revenue Service (SRS) data on self-employment differ from the CSB data. The reason for discrepancies is that the SRS displays data on all natural entities having registered economic activity. These persons include also the self-employed people who actually are not doing active business; although, they have registered it. However, the number of such inactive self-employed persons is considerably decreasing

from 2014, and especially it decreased in 2015, due to the introduction of the minimum annual income tax payment of EUR 50 in 2014 independent of the income size.

According to the SRS information, on 1 January 2015, there were 129 124 performers of economic activity registered in Latvia. The number of socially insured self-employed persons, in turn, was considerably smaller as only the persons making MSSIC are socially insured. In the last quarter of 2014, only 11 466 self-employed persons or only 8.9% of registered tax payers – natural entities made MSSIC. Practically, the share is even smaller, since in Latvia, not only natural entities registered by the SRS make the MSSIC as self-employed persons; the contributions are made also by the owners of agricultural farms (around 28 thousand) and fishery farms (around 100) as well as individual merchants (around 12 thousand). It should be considered that part of self-employed persons is

exempted from the MSSIC, for example, farmers at the retirement age and disabled people of Groups 1 and 2. However, the general conclusion is that only a small percentage of self-employed persons make MSSIC, thus, insuring themselves socially.

Analysing the period from 2010 to the end of 2014, it is seen that the number of taxpayers in Latvia is generally increasing (Figure 1): legal entities by 7.5% on average per year, natural entities – by 7.9% per year. Moreover, taxpayers – natural entities are nearly 60% of the number of legal entities. Hence, natural entities as performers of economic activity make a very significant share of taxpayers. Consequently, the state social insurance of these natural entities reveals a worrying trend as the share of insured persons has rapidly declined during the period analysed, i.e. from 17.2% in 2010 to 8.9% in 2014.



Source: SRS data, 2015

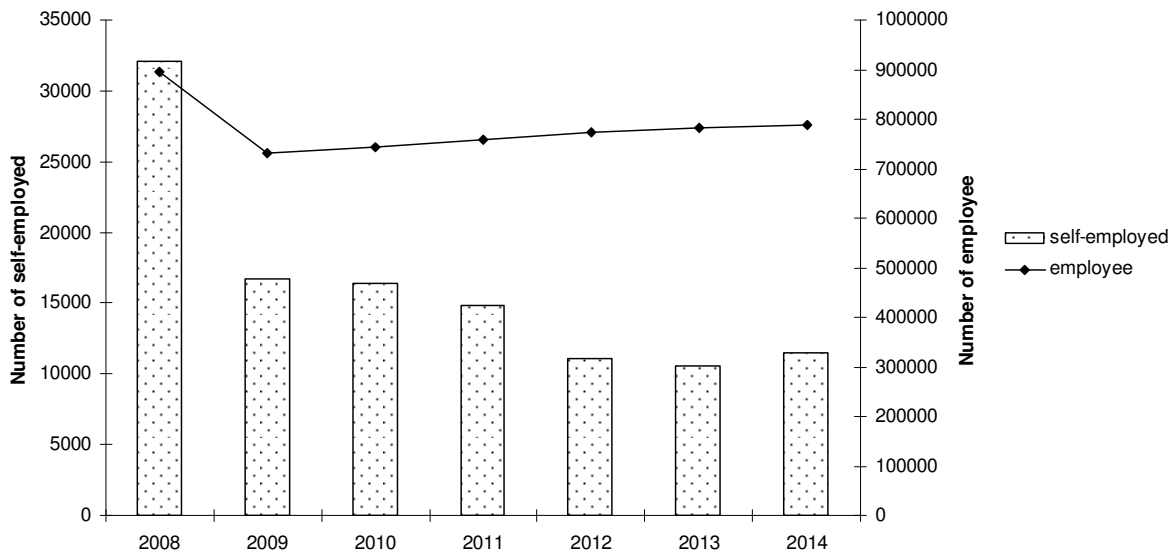
Fig. 1. The number of registered taxpayers by legal entities, natural entities and self-employed persons making MSSIC in Latvia

Comparing social insurance of employees and self-employed persons, it has to be recognised that the essential decrease in the number of socially insured persons both as employees and

self-employed persons has been the result of the 2009 financial crisis in Latvia (Figure 2). However, the number of employees gradually and slightly increases from 2010, while the

number of socially insured self-employed persons continues to decrease with every year; an

increase was observed only in 2014 (+8.3% compared with 2013).



Source: the SRS data, 2015

Fig. 2. The number of socially insured self-employed persons and employees in Latvia

According to the SRS data, about 30% of self-employed persons are also employees and receive regular income in the form of salary, thus, they are appropriately insured. Though, only a part from the remaining 70% of self-employed persons is involved in the state social

insurance system. Hence, it may be concluded that the majority of self-employed persons in Latvia are not socially insured at all; besides, even those who make MSSIC pay relatively small amounts, most often from the state minimum salary.

Table 3

Social insurance contributions made by self-employed persons in Latvia

Indicators	2008	2009	2010	2011	2012	2013	2014
Total MSSIC, mln EUR	2037.8	1806.5	1590.0	1794.9	1936.6	1980.1	2053.8
Self-employed persons making MSSIC, mln EUR	12.1	11.2	9.3	10.6	11.1	11.1	11.7
Share of self-employed persons making MSSIC, %	0.59	0.62	0.58	0.59	0.57	0.56	0.57
Number of self-employed persons making MSSIC	32114	16677	16407	14888	11110	10587	11466
Average annual amount of MSSIC made by 1 self-employed person, EUR	376.78	671.58	566.83	711.98	999.10	1048.46	1020.41
Minimum annual amount of MSSIC for self-employed persons, EUR	779.62	936.84	865.80	1076.40	1108.44	1098.60	1192.68
Contributions made from the minimum amount of contributions, %	48.3	71.7	65.5	66.1	90.1	95.4	85.6

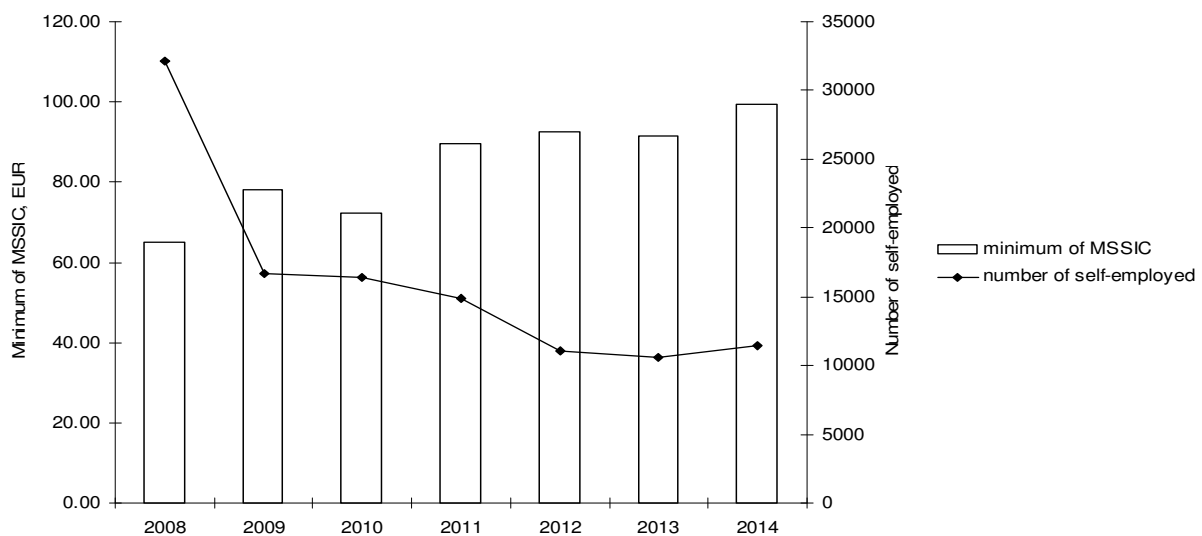
Source: authors' calculations based on the CSB and SRS data

In 2014, the total amount of MSSIC made in Latvia has grown very slightly, i.e. by 0.79% (from EUR 2037.8 mln to EUR 2053.8 mln) compared with 2008; so after the economic crisis it has returned to the 2008 level. In contrast, contributions made by self-employed have decreased by 3.31% (from EUR 12.1 mln to EUR 11.7 mln) within this period with a simultaneous decrease of the share of contributions made by self-employed in total MSSIC (decrease from 0.59% to 0.57%). In addition, mandatory contributions made by self-employed are very small given the fact that self-employed account for 1/10 of all employed persons in Latvia.

A positive trend is the increase in the amounts of contributions calculated as average per one insured self-employed person – from EUR 376.78

in 2008 to EUR 1048.46 in 2013, with a slight decrease in 2014 (EUR 1020.41). Consequently, the ratio of actually made contributions against the minimum annual amount of contributions has increased from 48.3% in 2008 to 85.6% in 2014. This allows concluding that the share of self-employed persons making contributions on a regular basis increases compared with those make MSSIC for several months per year.

Deterioration of the situation in the sphere of self-employed social insurance requires searching for its reasons. The economic crisis which undeniably very heavily affected Latvia, left traces also on the financial position of entrepreneurs and self-employed persons and their ability to insure themselves socially.



Source: the SRS data, 2015

Fig. 3. Number of self-employed persons making MSSIC and minimum of MSSIC

Figure 3 displays a reverse connection between the increase of minimum amount of MSSIC made by self-employed persons and the decrease in the number of insured self-employed persons. Such trend essentially threatens the state social insurance system and social insurance of self-employed. Partially, the possibility introduced in Latvia in 2010 allowing self-employed persons to choose either paying a licence fee or a micro-enterprise tax (MET), which includes also MSSIC, instead of the general

tax payment regime explains the decrease in the number of self-employed making MSSIC. However, this is not the only reason for the decline in the number of socially insured self-employed persons.

At present, self-employed persons in Latvia may choose among three tax payment regimes: 1) general procedure; 2) licence fee, which is a constant payment depending on the field of activity and ranging between EUR 43 and EUR 100 per month; and 3) micro-enterprise tax,

which is 9% of all operating revenues. Moreover, social insurance of self-employed persons essentially differs among these tax regimes. Table 4 provides different possibilities of the state social insurance for self-employed and comparison of these possibilities with the situation in Lithuania.

Various types of craftsmen and providers of individual services, for example, beauty services, are eligible to a licence fee, which includes also social insurance contributions (65% of the licence fee payment). The licence fee for craftsmen is

small (EUR 43), and thus, MSSIC of self-employed are very small – EUR 28 per month; while the licence fee for self-employed - service providers is up to EUR 100 per month, thus, the MSSIC may reach EUR 65 per month. However, the MSSIC calculated from the licence fee are 2-3 times smaller compared with the contributions made by self-employed persons consistent with the general tax regime. In addition, all licence fee payers are insured only for two types of insurance: pensions and disability.

Table 4

Comparison of self-employed social insurance system in Latvia and Lithuania in 2015

Indicator	Latvia			Lithuania	
	any self-employed	paying a constant license fee	paying MET	any self-employed (1)	with business license (2)
Maximum annual revenue	Not limited	EUR 50 000	EUR 100 000	Not limited	EUR 45 000
Minimum MSSIC	If the income (revenues - expenses) is below the minimum salary, MSSIC are not made	License fee, depending on the field EUR 43-100 per month, from which 65% are redistributed as MSSIC, so MSSIC are EUR 28-65 per month	MET is 9% of revenues, from which 72.4% are redistributed as MSSIC, so MSSIC are 6.52% of revenues	MSSIC are made from ½ of income (revenues – expenses). Rate 28.5% + 9%	MSSIC are made from ½ of the minimum pension (from EUR 56). Rate 28.5% + 9%
Types of insurance	Pension, sickness and maternity, disability, parental insurance	Pension, disability	Pension, sickness and maternity, disability, accidents at work and occupational diseases, unemployment, parental insurance	Pension, maternity, health insurance	Pension, health insurance
Main problems	Most of self-employed persons are not subject to social insurance	Social insurance is very small, and includes only 2 types: pension and disability insurance	Covers all types of social insurance, depending on earnings	Self-payments can be quite large	Social insurance is very small, and includes only 2 types: pension and health insurance

Source: authors' construction based on the laws of the Republic of Latvia and the Republic of Lithuania

Self-employed persons, who choose to pay a micro-enterprise tax, are insured for all six types of state social insurance. Besides, their amount of insurance directly depends on the revenues earned from the performed economic activity, as the micro-enterprise tax is calculated from the revenues and 72.4% of paid tax is redistributed as MSSIC. A positive aspect is that recently the redistribution in favour of MSSIC has increased

compared with the period between 2010 (introduction of MET) and 2014, when 65% of the micro-enterprise tax payments were redistributed in favour of MSSIC.

Problematic situation is with those self-employed persons who choose to pay taxes consistent with the general procedure. According

to the statistics, only a very small part of them make MSSIC, since the law allows not making contributions until their monthly income reaches the minimum object. Therefore, a large part of self-employed persons are not included into the state social insurance (SSI) system.

In Lithuania (Table 4), self-employed persons of the two groups are included into the state social insurance system: Group 1 makes MSSIC from half of their income, while self-employed having received a business licence and belonging to Group 2 make MSSIC from the object which is equal to half amount of the state minimum pension. Similar to Latvia, in case of paying a licence fee the insurance of Group 2 self-employed persons is relatively small; however, they are involved in it and are forced to ensure their social security at least on a minimum amount.

In 2015, Lazdina (2015) within the scope of her Master's thesis conducted an inquiry to identify factors hindering the willingness of self-employed persons in Latvia to participate in the state social insurance system and changes required for enhancing people to make social contributions. The research results demonstrate that only about 25% of self-employed persons make contributions as they wish to care about their social security. The majority or 67% do so only because the law imposes such an obligation. Additional reason why social contributions are made is a desire to receive higher parental insurance or maternity benefit. In such cases, contributions are made temporarily before the receipt of the planned benefit; here the aim is to increase the amount of benefit. In contrast, small amount of income allowing not making contributions mandatory or inability to afford making contributions due to their large minimum amount are the most frequently mentioned reasons why self-employed persons decide not to make contributions. According to the survey results, self-employed persons were encouraged to participate in the social insurance system if the

insurance procedure would allow them to make contributions in the amount people can afford to do so. The research concludes that self-employed persons are interested in the insurance system which involves completely all self-employed people regardless of their income level and make contributions commensurate to their income.

Therefore, it leads to a conclusion that the social insurance system for self-employed in Latvia requires changes by involving a wider range of self-employed people. Moreover, in Latvia starting from 2017 consistent with the amendments to the law "On State Social Insurance" every employee will be subject to the social insurance at least in the amount of minimum salary, while no changes are planned regarding the state social insurance of self-employed persons. Hence, making of mandatory state social insurance contributions will not encompass all employed people.

Self-employed persons with the income below the minimum object of contributions and simultaneously being employees and making MSSIC at least from the minimum salary might be exempted from making mandatory state social insurance contributions. A gradual introduction of MSSIC is required regarding the other self-employed persons whose income is below the minimum object of state social contributions. In this case, the minimum object of MSSIC could equal to a half of the minimum salary. For example, in 2016, the minimum object of MSSIC could be EUR 185 ($\frac{1}{2}$ of EUR 370), contributions made by a self-employed person – EUR 56.57 ($185 * 30.58\%$). Similar to the case of a licence fee, the insurance could also cover pension and disability types of insurance. Therefore, it would be possible to achieve a situation when every self-employed person is included into the state social insurance system and regularly makes accruals for own security; so avoiding temporary joining to the state social insurance system before the receipt of social services.

Conclusions and recommendations

- 1) The number and dynamics of self-employed persons greatly differ by the EU Member States; in recent years, the share of self-employed in the EU countries accounts for 14.5% on average of total employed people.
- 2) In Latvia, social insurance of self-employed persons becomes a more topical problem since the number of self-employed is relatively large (10.6% of total employed people in 2014). Moreover, the number is increasing lately with the decrease in the number of self-employed making social contributions (from 17.2% in 2010 to 8.9% in 2014).

3) In Latvia, only a small part of registered performers of economic activity is socially insured, while in Lithuania, the state social insurance system covers all self-employed persons.

4) In Latvia, the inclusion of all employed people in the state social insurance system requires a gradual introduction of MSSIC also for self-employed persons whose income is below the minimum salary by determining the minimum object of MSSIC smaller compared with the general procedure, for example, half of the minimum salary.

Bibliography

1. CSP dati (2015). (*Data of Central Statistical Bureau of Latvia*). Retrieved: http://data.csb.gov.lv/pxweb/lv/Sociala/Sociala__ikgad__nodarb/NB0090.px/?rxid=cdbc978c-22b0-416a-aacc-aa650d3e2ce0. Access: 04.01.2016.
2. Lazdina, M. (2014). *Pasnodarbinato personu socialas apdrošināšanas problematiskie aspekti Latvija (Problematic Aspects of Social Insurance for Self-Employed Persons in Latvia)*. Master's Thesis, p. 92.
3. Par Mikrouzņēmumu nodokļa likuma praktiskas īstenošanas gaitu un rezultātiem, kā arī mazas saimnieciskās darbības veiceju sociālo nodrošinājumu (2015). (On Progress and Results of Practical Implementation of the Micro-enterprise Tax Law as well as on Social Security of Performers of Small Business). LR Labklājības ministrijas Informatīvais ziņojums (Informative Report of the Ministry of Welfare of the Republic of Latvia). Retrieved: <http://tap.mk.gov.lv/lv/mk/tap/?pid=40335618&mode=mk&date=2014-10-21>. Access: 04.01.2016.
4. Percentage of Self-employed Adults by Sex, Age Groups, Number of Children and Age of Youngest (2015). Eurostat. Retrieved: <http://appsso.eurostat.ec.europa.eu/nui/show.do>. Access: 04.01.2016.
5. Supiot, A. (1999). The Transformation of Work and the Future of Labour Law in Europe: A Multidisciplinary Perspective. *International Labour Review*, 138 (1), pp. 31-46.
6. VID dati (2013). (Data of SRS). Retrieved: <https://www.vid.gov.lv/default.aspx?tabid=11&id=78&hl=1>. Access: 04.01.2016.
7. Westerveld, M. (2012). New Self-Employed: An Issue for Social Policy, *European Journal of Social Security*, 14(3), pp. 156-173.

FORMATION OF THE ACCOUNTING POLICY FOR SUBSIDIES IN AGRICULTURAL COMPANIES: IMPACT ON FINANCIAL RESULTS

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Abstract. Agricultural business has many specific features from which one of the most important is business subsidies. Agricultural companies use two types of subsidies – subsidies related to assets and subsidies related to revenue. The analysis of features and practical experience of accounting of subsidies in agricultural companies has led to conclusion that while forming the accounting policy for subsidies two options are possible – when subsidies are registered once they are received or when receivable subsidies are registered. The results of research show that subsidies accounted based on cumulative principle improve the financial indicators of agricultural companies comparing to the option of formation of accounting policy for subsidies when the subsidies are registered in accounting only when they are receive.

Key words: subsidies, accounting policy, financial result, asset, revenue.

JEL code: Q14

Introduction In order to stimulate economic growth state authorities use various measures – creation of public infrastructure, implementation of “soft” measures/projects, subsidies for businesses. State’s intervention into market functioning is crucial in cases when the market cannot solve the problems itself or when solving problems without the state’s intervention would take much more time (Park, 2012; Grilli, 2012). One of forms of state intervention is direct support for business. The following forms of direct support for business are mostly mentioned: subsidies; loans with little interests or discounts for interests; state’s guarantees; purchase of shares or another capital displacement with favourable conditions; exemption from taxes or other obligatory payments or their reduction; supply of land, services or products with favourable conditions (Sternberg, 2014). From the microeconomic point of view, subsidies are one of the main measures dedicated to maintain the financial stability (Nawaz, 2010). Due to its specifics agricultural business is one of the most risky businesses but its manufactured products are vital for the society. This leads to a demand to ensure successful development of such business supporting it from national and international funds.

The European Union (further - EU), the USA and Japan dedicate tens of billions of dollars every year only for agricultural subsidies including direct payments for farmers (Schaffer et al., 2009). Part of subsidies are substantial payments or periodic payments dedicated to compensate loss of revenue or incurred expenses; other subsidies are dedicated to support investments in order to gain economic benefits; others are dedicated for investments which will bring economic benefits only to future generations (Aleksneviene et al., 2013). Monea et al. (2010) state that receipt of subsidies for agricultural subjects can also be significant in preparing financial statements and these authors provide two motives for such statement: 1) if the subsidy was received a suitable method for its accounting must be found; 2) it is preferred to provide the information how much of such support was used by the company during the reporting period. This would ensure fair evaluation and comparability of data provided in financial statements of business subjects.

Conducted research show that there are varieties of subsidies. Their correct interpretation and choice of suitable option of accounting methodology remains relevant in forming the accounting policy which ensures real and correct picture presentation in financial statements.

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The object of the research is accounting policy for subsidies.

The aim of the research is to determine the impact of alternative formations of accounting policy for subsidies to financial results after conducting an analysis of features of formation of accounting policy for subsidies.

The tasks of the research: 1) to provide the theoretical backgrounds for description and recognition of subsidies; 2) to explore the features of formation of accounting policy for subsidies in agricultural business subjects and to determine possible options; 3) to evaluate the impact of alternatives of formation of accounting policy for subsidies to financial results.

Research methods: analysis and synthesis of scientific literature, standard regulations and practical experience, logical abstraction, modelling, calculation methods of financial indicators.

Research results and discussion

1. Description of subsidies

The analysis of scientific literature leads to conclusion that agricultural business is unimaginable without grants and subsidies (further – subsidies). Lithuanian 21 Business Accounting Standard Grants and Subsidies (BAS 21) state that subsidy for a company are purposive support for a company from state or municipal authority if the company has met conditions required from the support provider or will meet such conditions in the future. This standard describes subsidies for companies as purposive support from state or municipal authorities not only from Lithuanian authorities but from various foreign state and municipal (or with equal status) authorities as well as main providers of subsidies. In this standard, subsidies also include grants, various other support types from these institutions and assets received gratis. However, state support the exact amount of which cannot be determined or separated from

main activities of the company is not attributed to subsidies in this standard.

Regulation (EU) No 549/2013 of the European Parliament and of the Council state that subsidies are current and unpaid which are dedicated for resident manufacturers by state or EU institutions. Subsidies can be given in order to influence: a) production level; b) prices of products or c) wages for production factors. This document also describes investment subsidies as state or remaining world sector capital transfers in money or in kind for other institutions, residential or non-residential, which are dedicated to fund all expenses of procurement of fixed assets or its part.

Scientific literature describes subsidies more specifying their proved benefits and meaning. Oxford Dictionary describe subsidy as an amount of money which is given from state or state institutions to help an industry field or business keeping low price of products or services. Schaffer (2009) explains subsidies are monetary payments provided by state to local company or industry, seeking economic or social goals. Schwartz and Clements (1999) describe subsidies as measures of economic intervention which are used by states in all over the world seeking to compensate market deficiencies, exploit mass economy, and implement social policy goals. Sergejeva (2014) states that subsidies are purposive funding and received funds can be used only for subjects' purpose for which they were dedicated. Kirk (2014) illustrates the description of subsidies by following examples: 1) rural development measures that help farmers developing home-made production and encourage them to farm; 2) 20 percent subsidies to fund new factory and equipment; 3) loans without interests which encourage establishing companies inside territories of the country which are characterized by high unemployment rate. Some authors only supplement the description of subsidies by expected benefits: stimulation of research and development (Gorg and Strobl,

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2007), export competitiveness (Desai and Hines, 2008), increasing the effectiveness of production (Azzimonti et al., 2008), promoting ecologic activity (Kohn, 1997). The results of scientific empirical research exploring the economic benefits provided by subsidies are ambiguous. Some research show that subsidies improve company profitability (Desai and Hines, 2008) and reduce capital limitations for companies (Claro, 2006); meanwhile other research conclude that subsidies can lead to overproduction and decrease of effectiveness (Lopez and Galinato, 2007).

In conclusion, it might be stated that subsidies are free of charge support for companies from state institutions and the main tasks of subsidies are to: 1) develop national priority areas such as agriculture, municipal services etc.; 2) help companies coping with capital limitations, 3) support companies facing financial difficulties.

2. Formation of accounting policy for subsidies.

Scientific research related with formation of accounting policy for subsidies are dedicated to explain recognition criteria of subsidies and their accounting policy formation and presentation in financial statements for problem solving.

IAS 20 Accounting for government grants and disclosure of government assistance are dedicated for subsidies accounting. In Lithuania, the accounting of subsidies is regulated by BAS 21. Accounting of subsidies and its representation in financial accounting in specific regulation areas is also regulated by the IAS 41 Agriculture, BAS 18 Financial assets and financial liabilities, IAS 37 Provisions, contingent liabilities and contingent assets, IAS 9 Financial measures, BAS 7 Changes in accounting policies, accounting estimates and correction of errors.

For subsidies recognition in accounting, IAS 20 and BAS 21 provide two most important criteria. These regulations state that a subsidy

can be recognized only when there is a reasonable guarantee that a) business subject (receiver of subsidy) meets all subsidy granting conditions and b) the subsidy will be received (either there is a document about the decision made or there are other evidences that the subsidy will be granted). It is also noted that in case there are no evidences that the subsidy or its part will be received, the subsidy is registered into the account only once it is received.

As it stated in IAS 20 and BAS 21 the accounting recognizes two types of subsidies: 1) subsidies related to assets; these subsidies are provided in form of fixed assets or giving funds to procure, build or in other ways obtain fixed assets. While granting such subsidies additional conditions might be given related with type of assets, place or time during which the assets must be obtained or maintained; 2) subsidies related to revenue, which are given to compensate incurred expenses or loss of revenue; also subsidies which are not attributed to subsidies related to assets.

While forming the accounting policy for subsidies all conditions and circumstances which predetermine the attribution of subsidies to one or other group must be defined. While comparing international and Russian experience, Sytnik (2015) notices that in international practice the subsidies are being classified based on positions of financial accountability elements and are divided into revenue and assets subsidies. Meanwhile in Russia, subsidies are classified into subsidies for funding the expenses, consumption and capital investments.

As the subsidies have features of both owned capital and liabilities, IAS 20 emphasize that in accounting the subsidies can be registered by two methods: 1) capital method, when the subsidy is registered in accounting directly as owned capital; and 2) revenue method, when the subsidy is registered in accounting as revenue received in one or several periods.

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Due to the reason that subsidies are not shareholders' funds and they are received when company fulfils given liabilities, Stonciuvienė and Zinkeviciene (2006) ascertain that revenue method, in which subsidies are registered as revenue necessary to compensate related expenses, is more correct. Meanwhile, Monea et al. (2010) support capital method because a) state subsidies are free funding measure, thus, they must be registered in the accounting directly in benefit for shareholders; b) recognition of state subsidies as revenue in the accounting is not correct because that revenue were not earned.

Provisions in IAS 20 and BAS 21 for accounting of subsidies related to revenue are similar. IAS 20 state that such types of subsidies can be registered in other revenue article or they can reduce the expenses. BAS 21 divide subsidies related to revenue to subsidies dedicated to compensate loss of revenue and subsidies dedicated to cover incurred expenses. Subsidies dedicated to compensate loss of revenue are recognized as used by such part which is equal to lost revenue during the reporting period in the accounting. The amount in compensated revenue article is increased by this amount in Profit (loss) statement. Subsidies dedicated to compensate incurred expenses in the accounting are recognized as used by the amount equal to incurred expenses for which compensation the subsidies were gained. The amount in compensated expenses article is reduced by this amount in Profit (loss) statement.

In Stonciuvienė and Zinkeviciene (2006), Monea et al. (2010) opinion registration of subsidies in other revenue article facilitates the comparison of incurred expenses with other expenses which are not compensated by subsidies. If corresponding compensated revenue article is being increased by the amount of used subsidies, the amount of subsidies are presented together with revenue earned by the company or corresponding compensated expenses article is

being decreased by the amount of subsidies, the cost of manufactured production or services is being distorted.

International and national accounting regulations for subsidies related to assets are different. IAS 20 offer two options for accounting of such subsidies: revenue of future periods is recognized or accounting value of asset is reduced. BAS 21 edition which came into force from 2016 state that at the moment of primary recognition the subsidies are registered as liabilities in separate account. Later these subsidies reduce depreciation cost during the period of useful serving time of depreciable fixed assets. Uher and Nagy (2013) note that in Romania subsidies related to assets are accounted as revenue of future periods. Analogously, in China they are registered as future period revenue and are recognized as used in equal parts during all the serving time of fixed asset (Deloitte, 2006). In Portugal, at the moment of primary recognition subsidies related to assets are registered as owned capital. Later subsidies are attributed to revenue during the period of useful serving of depreciable fixed asset. If the subsidies are dedicated to non-depreciable fixed assets or fixed assets with unlimited serving time, they are considered to be ownership except in cases when there is a need to compensate and account losses related with value depreciation (Pereira et al., 2015).

Standards which regulate the accounting of subsidies foresee that accounting policy for subsidies must be formed based on cumulative principle. Accounting standards applied in the United Kingdom and Ireland (Kirk, 2014) state that subsidies can be accounted using two models: activity and accumulation. Based on activity model, subsidies are recognized as revenue in the following way: 1) a subsidy which does not raise specific conditions for future activity results for subsidy receiver is recognized as revenue once it is received; 2) a subsidy which has specific conditions for future activity

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results of subsidy receiver is recognized as revenue once these conditions are met. Kirk (2014) emphasizes that before mentioned revenue recognition criteria are met subsidies are recognized as liabilities, most often as revenue of future periods. The model of accumulation corresponds to IAS 20 accounting requirements for subsidies related to assets and subsidies related to revenue. Based on the opinion of Kirk (2014), the activity model pays more attention to correct assets and revenue presentation in the Balance sheet, meanwhile cumulative model is directed to revenue and incurred expenses conformation.

IAS 20 state that subsidies related to assets must be registered by indicated received assets value or real value if the value of these assets was not indicated. If indicated value of received assets substantially exceeds its real value, received subsidy and cost of assets procurement is registered by real value of such assets. If the value of assets is not indicated and its real value cannot be determined the value of received subsidy related with assets is zero. IAS 20 foresee real or nominal assets value, meanwhile accounting standards in Holland do not foresee any specific requirements for registering assets value, only state that estimation by real value more better reveals real economic situation (Deloitte, 2014).

Therefore, the analysis of international and national regulations of accounting for subsidies, practical experience and scientific research lead to conclusion that the formation of accounting policy for subsidies is influenced by the following aspects: type (purpose) of subsidy, moment of registering the subsidy in the accounting and method of subsidy recognition as used.

Moment of registration of subsidy in the accounting is an important part of accounting policy for subsidies because it influences the accounting not only by the subsidies themselves but also by settlements related with them. If substantial evidences that the subsidy will be

received exist a receivable subsidy must be registered in the accounting. However, if there is lack of evidences about receivable subsidy, such subsidy is registered only at the moment of its receipt, i.e. a received subsidy is registered at once. In this way, two groups of subsidies can exist in subjects' accounting – receivable and received subsidies which recognition as used has an important impact to the financial status of the subject.

Therefore the primary requirement while forming the accounting policy for subsidies is classification of subsidies to subsidies related to assets and subsidies related to revenue. However, the most important element in forming this part of accounting policy is recognition of subsidies as received or receivable because they in large part determines how the subsidies will be recognized as used. Such view to formation of accounting policy for subsidies leads to two options: first option is being formed when a foreseen subsidy independent on its purpose is registered in the accounting based on cumulative principle, i.e. subsidies are registered as receivable subsidies (further – G1), second option is being formed when it is chosen to register the subsidies in the accounting at the moment they are received (further – G2).

3. Impact of formation of accounting policy for subsidies to financial results

The goal of financial statements is to satisfy the need of users of information in financial statements to receive real and correct information about company financial status, results of activities and cash flows. Therefore, depending on the accounting policy which company chooses and applies in financial statements, meeting main accounting principles and valid regulations, various accounting objects can be evaluated and presented differently. Differences in formation of accounting policy for subsidies while choosing different options also

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influence the information about the subsidies presentation in financial statements.

While creating financial statements and accounting subsidies based on G1, the amount of receivable subsidies is registered in assets part in the Balance sheet. If used amount of subsidies related to revenue increases revenue it is registered in revenue article in Profit (loss) statement. If used amount of subsidies related to revenue decreases compensated expenses it has influence to those articles in which such expenses are reflected. Used amount of subsidies related to assets decreases depreciation costs of fixed assets. Unused receivable amount of subsidies is registered in Balance sheet equity and liabilities part in a separate article.

If the accounting is done based on G2, receivable subsidies are not being registered but use of subsidies in financial statements is presented analogously to the first option, only, comparing with G1, a moment of subsidies recognition as used may be different. Both options use equal presentation in Balance sheet of subsidies which are received but not yet used.

In order to reveal how information about the subsidies changes in Balance sheet and Profit (loss) statement, when mentioned options of subsidies accounting are applied, a comparison was made analyzing the data of N agricultural company and N farmer farm (Table 1).

Table 1

Result of changing the accounting policy for subsidies

Articles	N agricultural company			N farmer farm		
	G2	G1	± % G1 versus G2	G2	G1	± % G1 versus G2
Subsidies related to revenue: - Reporting year - Previous year	254 219 344 527	301 458 372 297	+18.6 +8.1	120 488 342 383	166 187 349 633	+37.9 +2.1
Other receivable revenue: - Reporting year - Previous year	- -	75 008 27 769	- -	- -	52 949 58 064	- -
Profit of reporting year: - Reporting year - Previous year	605 746 1 104 434	652 984 1 132 203	+7.8 +2.5	340 883 649 148	386 582 656 398	+13.4 +1.1

Source: authors' calculations based on N agricultural company and farmer farm data.

All subsidized assets in N agricultural company were procured before the analyzed period and subsidies related to assets are recognized as subsidies which decrease the expenses. During the analyzed period the company did not receive subsidies related to assets. N farmer's farm did not use subsidies related to assets.

In the research, financial statements corresponding to both options of accounting policy for subsidies were prepared. Using G1, i.e. registering receivable and received subsidies in the period in which the conditions were met in order to receive the subsidies, the amount of

subsidies in N agricultural company was 18.6 percent and for N farmer's farm 37.9 percent bigger than while applying G2, when subsidies were registered and recognized as used on the moment of their receipt. While applying G1 net profit of N agricultural company during the reporting period was 7.8 percent and in N farmers' farm – 13.4 percent bigger than while applying G2.

Financial indicators calculated based on the financial statements of N agricultural company and N farmer farm, which were prepared using

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two different options of accounting policy for subsidies are provided in Table 2.

Table 2

Analysis of financial indicators, calculated applying different options of accounting policy for subsidies

Financial ratios	N agricultural company			N farmer farm		
	G2	G1	±% G1 versus G2	G2	G1	±% G1 versus G2
Debt-to-equity ratio	3.25	3.39	4.3	12.85	13.22	2.9
Quick ratio	1.61	1.74	8.1	6.72	7.09	5.5
Debt-to-equity ratio, %	8.64	8.55	-1.04	4.28	4.21	-1.6
Gross production profit margin, %	69.8	70.5	1.01	50.7	51.9	2.4
Net profit margin, %	31.5	33.1	5.1	17.9	19.8	10.6
Return on equity, %	8.6	9.2	6.9	10.2	11.4	11.8
Asset turnover	0.25	0.26	4.0	0.549	0.554	0.9
Variable costs in gross revenue	0.81	0.79	-2.5	0.48	0.47	-2.1
Fixed costs in gross revenue	0.34	0.33	-2.9	0.37	0.35	-5.4

Source: authors' calculations based on N agricultural company and farmer farm data.

Quick ratios show that both analyzed agricultural subjects independent on applied option of formation of accounting policy for grants and subsidies, are able to cover short term liabilities by owned short term assets. Higher indicators were calculated in cases when cumulative principle (G1) was chosen for accounting of subsidies. Having high business risk in agriculture high indicator of financial leverage increases financial risk. When cumulative principle (G1) was chosen for accounting of subsidies, debt-to-equity ratio in N agricultural company was 8.55, meanwhile when subsidies were registered at the moment of their receipt (G2) this ratio was 8.64. Analogous situation was seen in N farmer farm: when the cumulative principle was chosen for accounting subsidies debt-to-equity ratio was 4.21, meanwhile when the subsidies were registered at the moment on its receipt this ratio was 4.28.

While calculating gross production profit margin the subsidies related to revenue are added both to gross production profit and sales revenue. Therefore it is clear that use of accounting policy while registering receivable subsidies leads to higher gross production profit

margin. Part of variable and fixed costs in gross revenue show the effectiveness of activities: when this indicator increases effectiveness of activities decreases, and vice versa. When accounting policy which registers receivable subsidies is applied, activity effectiveness in N agricultural company is 2.5 – 2.9 percent smaller (accordingly, in farmer's farm 2.1 – 5.4 percent smaller) comparing to the effectiveness calculated while using accounting policy which registers received subsidies.

In summary, it can be stated that choice of options of accounting policy for subsidies which allows forming the scenario of accounting policy reflecting best directions and results of company activities, can influence the decision making. After analyzing the financial statements of N agricultural company and N farmer's farm, prepared using different options of accounting policy for subsidies, it can be concluded that application of cumulative principle for subsidies accounting, i.e. when receivable subsidies are registered, which are recognized as used without waiting for money receipt allows both company and farmer's farm presenting more favourable information about their financial status and in

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such way increasing the possibilities of attracting investors.

Conclusions

- 1) The formation of agricultural accounting policy for subsidies depend on the following aspects – type (purpose) of subsidies, moment of subsidies registering in the accounting and method of subsidies recognition as used. Two types of subsidies are recognized in the accounting: 1) subsidies related to assets – received in form of fixed assets or in form of funds to procure, build or in other ways obtain fixed assets; 2) subsidies related to revenue – provided to compensate expenses or loss of revenue, as well as all other subsidies not attributed to subsidies related with assets.
- 2) The subsidies are registered in accounting based on conformation of received revenue and incurred expenses from the time point of view. While preparing financial statements unused part of subsidy is shown in separate article of a Balance sheet, meanwhile used

subsidy increases revenue or reduces expenses for which compensation the subsidy were obtained. The main factor influencing the formation of agricultural accounting policy for subsidies is the registration of subsidies in the accounting: either receivable subsidies are being registered, or subsidies are registered only once they are received. Therefore it can be concluded that in formation of accounting policy for subsidies two options are possible: when the subsidies are registered once they are received, or when receivable subsidies are registered.

- 3) The results of conducted research show that subsidies accounted based on cumulative principle improve the financial indicators of N agricultural company and N farmer farm comparing to the option of formation of accounting policy for subsidies when the subsidies are registered in accounting only when they are received.

Bibliography

1. Aleknevičienė, V., Stonciuvienė, N., Zinkevičienė, D. (2013). Determination of the Fair Value of a Multifunctional Family Farm: a Case Study. *Studies in Agricultural Economics*, Volume 115, pp. 124-133.
2. Azzimonti, M., de Francisco, E., Krusell, P. (2008). Production Subsidies and Redistribution. *Journal of Economic Theory*, Volume 142, Issue 1, pp. 73-99.
3. Claro, S. (2006). Supporting Inefficient Firms with Capital Subsidies: China and Germany in the 1990s. *Journal of Comparative Economics*, Volume 34, Issue 2, pp. 377-401.
4. Deloitte (2006). *Comparison of IFRSs and New Chinese Accounting Standards*. Retrieved: <http://www.iasplus.com/en/publications/china/other/pub1136>. Access: 28.12.2015
5. Deloitte (2014). IFRSs and NL GAAP — Highlighting the Key Differences. Retrieved: <http://www.iasplus.com/en/publications/netherlands/ifrs-vs-nl-gaap>. Access: 28.12.2015
6. Desai, M. A., Hines, J. R. (2008). Market Reactions to Export Subsidies. *Journal of International Economics*, Volume 74, Issue 2, pp. 459-474.
7. Regulation (EU) No 549/2013 of the European Parliament and of the Council. Retrieved: <http://eur-lex.europa.eu/legal-content/LT/TXT/?uri=CELEX:32013R0549>. Access: 07.01.2016
8. Gorg, H., Strobl, E. (2007). The Effect of R&D Subsidies on Private R&D. *Economics*, Volume 74, Issue 294, pp. 215-234.
9. Grilli, L. (2012). Do Public Subsidies Affect the Performance of New Technology-based Firms? *Prometheus*, pp. 97-111.
10. IAS 20 – *Accounting for State Grants and Disclosure of State Assistance*. International Accounting Standards Committee, London. Retrieved: <http://www.iasplus.com/en/standards/ias/ias20>. Access: 30.12.2015
11. Kirk, R. (2014). Accounting for State Grants. *Financial reporting. Accountancy plus*, No. 01. March 2014.
12. Kohn, R. E. (1997). The Effect of Emission Taxes and Abatement Subsidies on Market Structure: Comment. *International Journal of Industrial Organization*, Volume 15, Issue 5, pp. 617-628.
13. Lopez, R., Galinato, G. I. (2007). Should States Stop Subsidies to Private Goods? Evidence from Rural Latin America. *Journal of Public Economics*, Volume 91, Issue 5-6, pp. 1071-1094.
14. Monea, A., Monea, M., Cotlet, B., Ravas, B. (2010). Some Aspects Regarding Accounting for State Grants. Retrieved: http://www.usab-tm.ro/pdf/2010/xii3/fin_tur_30.pdf. Access: 28.12.2015

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15. Nawaz, A. (2010). Performance of Microfinance: the Role of Subsidies. *Savings and Development*, pp. 97-138.
16. *Oxford Dictionaries*. Retrieved: <<http://www.oxforddictionaries.com/definition/english/subsidy>>. Access: 05.01.2016
17. Park, J. H. (2012). What Determines the Specificity of Subsidies? *International Studies Quarterly*. Volume 56, pp. 413-426.
18. Pereira, J. M. (2015). The Impact of Accounting for State Grants on Equity Capital. *2nd Global Conference on Business, Economics, Management and Tourism*, Volume 23, pp. 1401 – 1404.
19. Schaffer, R., Earle, B., Agusti, F. (2009). *International Business Law and its Environment*. Mason: Southwestern Cengage Learning.
20. Schwartz, G., Clements, B. (1999). State Subsidies. *Journal of Economic Survey*, Volume 13, Issue 2, pp. 119–147.
21. Sergeeva, I. A. (2014). Accounting State Aid and Raw Materials Supplied. *Accounting in agriculture*, Volume 9, pp. 74-77.
22. Sytnik, O. E. (2015). The Accounting Treatment State Subsidies to Agricultural Organizations: the Russian and International Accounting Rules. *International periodic scientific journal Economy*, Volume J11517, pp. 87-96.
23. Sternberg, R. (2014). Success Factors of University-spin-offs: Regional State Support Programs Versus Regional Environment, *Technovation*, Volume 34, pp. 137-148.
24. Stonciuvienė, N., Zinkeviciene, D. (2006). Accounting of Subsidies: National and International Regulation Aspects. *International Scientific Conference: Accounting and Finance, Science and Studies*. Volume 1, Issue 5, pp. 188-191.
25. Uher, M., Nagy, C. M. (2013). Attracting the Necessary Funding for Romanian Agriculture. *Lucrări științifice*, Volume XIII, Issue 3. pp. 235-240.
26. BAS 21 *Grants and Subsidies*. Retrieved: <http://www.aat.lt/index.php?id=14>. Access: 28.12.2015

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PERFORMANCE OF INTERNATIONAL CREDIT UNIONS MOVEMENT

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Abstract. Credit unions are cooperative member-owned, not-for-profit financial organisations established to provide savings, credit and other financial services, and to attain economic and social goals of their members and local communities. They play a major role in providing micro-credits in many regions. At the end of 2014, there were 57 408 credit unions in 105 countries with more than 217.4 million members and approximately USD 1792.94 billion assets. This indicates on the necessity to analyse the performance of credit unions. The research aim is to identify the features and performance characteristics of the credit unions based on a particular insight into the operation of credit unions in the Baltic States. It was concluded that in many countries credit unions were operating at a loan-to-asset ratio which was much lower than the World Council of Credit Unions (WOCCU) requirements. Among the Baltic States, Lithuania is the leader in terms of credit unions as it almost twice outpaces Latvia, while Estonia considerably lags behind. In Latvia, credit unions have managed to preserve a stable increase related to attraction of savings and deposits. This means that the members trust credit unions and see the significance and convenience joining them. Similar conclusions may be drawn regarding the amount of disbursed loans.

Key words: credit unions, assets, savings, loans, regions.

JEL code: G18, G21, G23

Introduction

Credit unions and cooperatives play an increasingly significant economic and social role for supporting their members. They play a major role in providing micro-credits in many regions. Credit union membership is based on a common bond, a linkage shared by savers and borrowers who belong to a specific community, organisation, religion or place of employment. However, in some countries they face limitations as regards savings mobilisation from their members and provision of small loans to legal persons such as small businesses. It may be possible for micro-enterprises (or the individuals running them) to fall within a particular common bond but a general permission to lend to any micro-enterprise cannot exist as there would then be no difference between a credit union and a bank (Mazure, 2011).

At the end of 2014, there were 57 408 credit unions in 105 countries with more than 217.4 million members and approximately USD 1792.94 billion assets. This indicates on the necessity to analyse the performance of credit unions over the world. Many foreign and Latvian authors (Baltaca, Pirie, 2008; Croteau, 1967; Cuevas, Fisher, 2006; Dale, s.a.; Flannery, 1981;

Jaseviciene, Kedaitis, Vidzbelyte, 2014; Levisauskaite, Kaupelyte, 2003; Lopriore, Pati, 2012; Mavrenko, 2003; Mazure, 2011; Rackauskas, Levisauskaite, 2013; McKillop, Wilson, 2014) have analysed and discussed the role and activities of credit unions worldwide; though their studies have been aimed at different aspects of credit unions, mainly either providing a historical overview or the analysis of particular countries. Another important aspect, there are very few studies on credit unions in Latvia. The following hypothesis is advanced in the research: the performance indicators of credit unions do not always depend on the number of credit unions and their members. The research **aim** is to identify the features and performance characteristics of the credit unions based on a particular insight into the operation of credit unions in the Baltic States. To reach the aim, the following **tasks** are to be carried out:

- 1) to describe the essence and operation principles of credit unions;
- 2) to analyse financial information of international credit unions;
- 3) to evaluate the performance of credit unions in Latvia and Lithuania.

The information compiled by the World Council of Credit Unions, the Financial Capital and Market Commission of the Republic of Latvia, the Bank of Lithuania, scientific publications of foreign and local researchers, and other materials have been used for the purpose of the study. The research is mainly based on the monographic descriptive method as well as the methods of analysis and synthesis are used to study the problem elements and synthesise coherencies or formulate regularities.

Research results and discussion

1. Essence and operation principles of credit unions

Previous studies on the concept of credit unions reveal that this type of institution is a simple one having remained unchanged from the earliest organisations. Essentially, the members of a credit union function as a fiscal collective, coming together to create a non-profit financial institution. Members deposit funds for saving and the credit union makes loans available to its members (Mazure, 2011). Generally, credit unions tend to be made up of members with some sort of similarity, such as by profession. In some places, credit unions are called by other names, for example, in many African countries they are called "savings and credit cooperative organisations" to emphasise savings before credit. In Spanish-speaking countries, they are often called *cooperativas de ahorro y crédito*, while in Mexico they are typically called a *caja popular*. French terms for "credit union" include *caisse populaire* and *banque populaire*. Afghan credit unions are called "islamic investment and finance cooperatives" and comply with Islamic banking practices (Credit Union, s.a.).

Foreign researchers differently define the concept of credit unions; however, all the concepts are quite similar in terms of the

common features of credit unions such as membership principles, mutual assistance, voluntarism, social contribution, democratic governance and some other principles (Jaseviciene et al., 2014). Researchers from the University of St Andrews, UK have investigated that "credit unions are self-help cooperative financial organisations geared to attaining the economic and social goals of their members and their local community" (McKillop, Wilson, 2014). Credit unions rely on active participation of members to differentiate them from shareholder-owned firms, and to develop and support competitive advantage in the provision of savings and loan products and other ancillary services. Therefore, they cannot do business with the general public due to limitations based on serving a membership that is characterised by a common bond (McKillop, Wilson, 2014). This means that literature does not distinguish between single universally accepted definitions of credit unions.

In 1844, a group of weavers in Rochdale, England established the Rochdale Society of Equitable Pioneers. They sold shares to members to raise the capital necessary to buy goods at lower than retail prices, and then sold the goods at a savings to members. In doing so, they became the first credit union. The Rochdale Society formed the basis for the principles on which cooperatives around the world continue to operate. The original Rochdale Principles were officially adopted by the International Cooperative Alliance (ICA) in 1937 as the Rochdale Principles of Cooperation. Updated versions of the principles were adopted by the ICA in 1966 as the Cooperative Principles and in 1995 as part of the Statement of the Cooperative Identity (ICA, s.a.). The cooperative principles are guidelines by which cooperatives put their values into practice and their summary is reflected in Figure 1.



Source: author's construction

Fig. 1. The Rochdale principles for the operation of cooperatives

The International Cooperative Alliance recommends every cooperative and credit union to stick to the following principles:

- 1) voluntary and open membership – cooperatives are voluntary organisations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination;
- 2) democratic member control – cooperatives are democratic organisations controlled by their members, who actively participate in setting their policies and making decisions;
- 3) member economic participation – members contribute equitably to, and democratically control, the capital of their cooperative;
- 4) autonomy and independence – cooperatives are autonomous self-help organisations controlled by their members;
- 5) education, training and information – cooperatives provide education and training for their members, representatives, and employees so they can contribute effectively to the development of their cooperatives;

- 6) cooperation among cooperatives – cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures;
- 7) concern for community – cooperatives work for the sustainable development of their communities through policies approved by their members (The Rochdale Principles, s.a.).

The Rochdale principles determine that cooperative members have equal voting rights, i.e. one member - one vote. The economic participation principle means that members allocate surpluses for: developing their cooperative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership. The autonomy and independence principle, in turn, states that if cooperatives enter into agreements with other organisations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their cooperative autonomy. In addition, cooperatives have to

inform the general public about the nature and benefits of cooperation (The Rochdale Principles, s.a.).

It is believed that only the first six principles are the original Rochdale principles, while the last one has been added to specify and expand the responsibility of cooperatives for the society. In practice, every cooperative or credit union adapts and modifies these principles consistent with the state's standards, cultural peculiarities and legislative requirements.

Some words shall be also said about legal regulation of credit unions. The World Council of Credit Unions has established that "credit unions do not compete directly with banks that adhere to Basel II, in which case the focus should be on creating a strong risk-based supervisory system. In the appropriate environment, Basel II implementation may help establish regulatory neutrality and introduce a risk-sensitive capital and management framework for credit unions. However, prior to applying Basel II in any country, the credit union sector should have the opportunity to comment on the new regulatory requirement and complete a quantitative impact study to understand the potential ramifications of applying Basel II" (WOCCU, s.a). The same refers to Basel III requirements adopted in 2010.

2. Financial information analysis of credit unions

The World Council of Credit Unions acts as the leading voice for advocacy and governance on behalf of the international credit union community. The WOCCU continues to promote economic freedom and the sustainable growth of financial cooperatives across the globe through education, collaboration and community-based development projects (World Council of Credit Unions, 2011). The annual statistical report prepared by the World Council of Credit Unions,

Inc. is the only global source of data on the international credit union system (Table 1). These indicators demonstrate that credit unions continue to be a vibrant and growing presence around the globe, and continue to increase their influence and service to members. The number of credit unions, members served and market penetration indicate the movement's social impact in a particular country, while savings and loan figures help measure the degree to which those credit unions are serving members. The reserves and assets statistics help outline the relative stability of the institutions and their capacity to grow in the future (World Council of Credit Unions, 2014).

According to the World Council of Credit Unions, in 2014 the number of credit unions in the world and Europe amounted to 57.5 and 2.3 thousand respectively. The amount of credit unions assets has shown a steady growth in the world, while a decrease in the assets has been observed in Europe in 2011, i.e. by 2.8% compared with the previous year. The amount of attracted savings in the world has fluctuated in the middle of the period analysed, basically due to the world economic crisis consequences, while loans and reserves have ensured a steady growth throughout the whole period. The dynamics in figures for Europe do not coincide with the general assumptions on the consequences of the 2008 financial crisis. Here, as it is seen in Table 1, the figures have been fluctuating among the years and positions, for example, savings have grown in 2009, 2011 and 2013 compared with the previous periods, while the amounts of disbursed loans have decreased from 2008 to 2011 with a slight increase in 2012 and a following decrease from 2013. However, the largest amount of assets credit unions have accrued in 2014 equalling USD 1 792.94 billion.

Table 1

World Council of Credit Unions: affiliated credit unions, members and financial resources in the world and Europe for 2008-2014

Year	Credit unions	Members in USD mln	Savings in USD bln	Loans in USD bln	Reserves in USD bln	Assets in USD bln	Pene-tration, %
2008							
world	53 689	185.80	995.74	847.06	115.32	1 193.81	7.70
Europe	2569	8.73	21.40	14.21	3.38	24.96	3.70
2009							
world	49 330	183.92	1 145.85	911.75	119.74	1 353.60	7.60
Europe	2 418	8.50	22.92	13.86	3.45	26.35	3.60
2010							
world	52 945	187.99	1 229.39	960.10	131.66	1 460.55	7.50
Europe	2 394	8.25	22.19	13.02	3.10	25.35	3.50
2011							
world	51 013	196.50	1 221.64	1 016.24	141.31	1 563.53	7.80
Europe	2 321	8.13	21.31	11.94	3.14	24.64	3.50
2012							
world	55 952	200.24	1 293.26	1 083.82	161.81	1 693.95	7.72
Europe	2 320	8.57	22.59	12.03	3.36	26.45	3.67
2013							
world	56 904	207.94	1 433.31	1 135.17	171.63	1 732.95	8.06
Europe	2 390	9.20	24.37	11.89	3.70	28.74	3.93
2014							
world	57 480	217.37	1 470. 86	1 202.04	181.45	1 792.94	8.20
Europe	2 318	8.26	22.46	10.41	3.23	26.36	3.40

Note: no more recent data than for the year 2014 are available

Source: World Council of Credit Unions, 2008-2014

The highest penetration rate is observed in 2014 (8.2% in the world) and 2013 (3.93% in Europe). The high penetration rate is explained by the existence of multiple memberships by adults in more than one credit union and/or by youth accounts. Penetration rate is calculated by dividing the total number of reported credit union members by the economically active population aged 15-64 years.

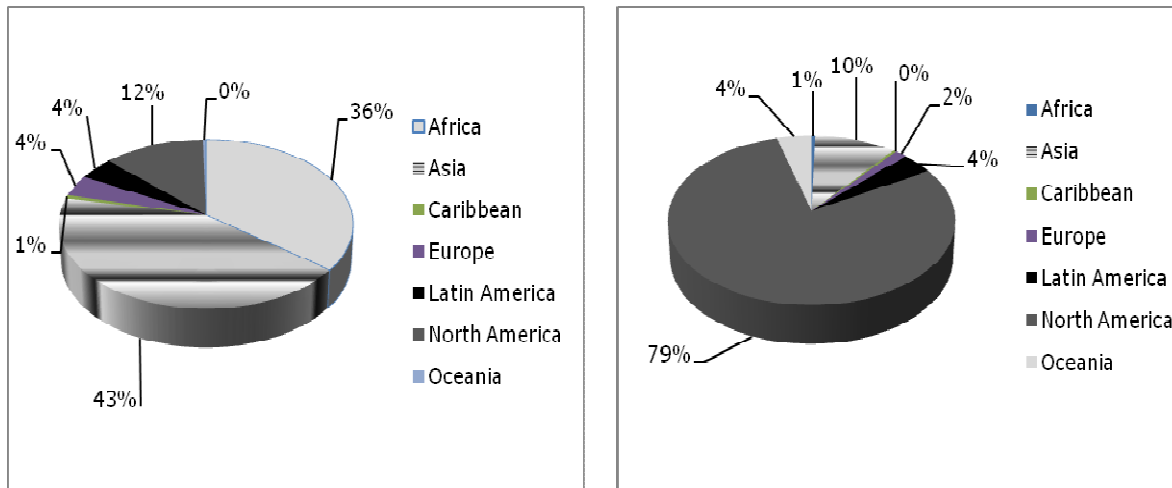
It is also worth analysing the worldwide spreading of credit unions and trying to juxtapose the number of credit unions, their assets, accumulated savings and disbursed loans. As McKillop and Wilson (2014) have stated "credit

unions have survived and grown over many years and in many countries, demonstrating what can be achieved by a volunteer-led not-for-profit movement" (Figures 2 and 3).

According to the above figure, 24 552 credit unions or 43% were located in Asia, followed by Africa with 20 422 credit unions or 36%. However, the North America dominates in terms of total assets (79%) but it has only 4% of worldwide credit unions. Asia ranks the second with 10%. This means that the number of credit unions does not correlate with the size of total assets. Most often, the credit unions of Asia and Africa provide only basic savings and loans;

another reason is the vast territory of these geographic locations which explains the high number of credit unions there. In contrast, credit unions in the North America which are full-service financial providers, are staffed by paid

employees, have hundreds of thousands of members and billions of dollars in assets (McKillop, Wilson 2014).



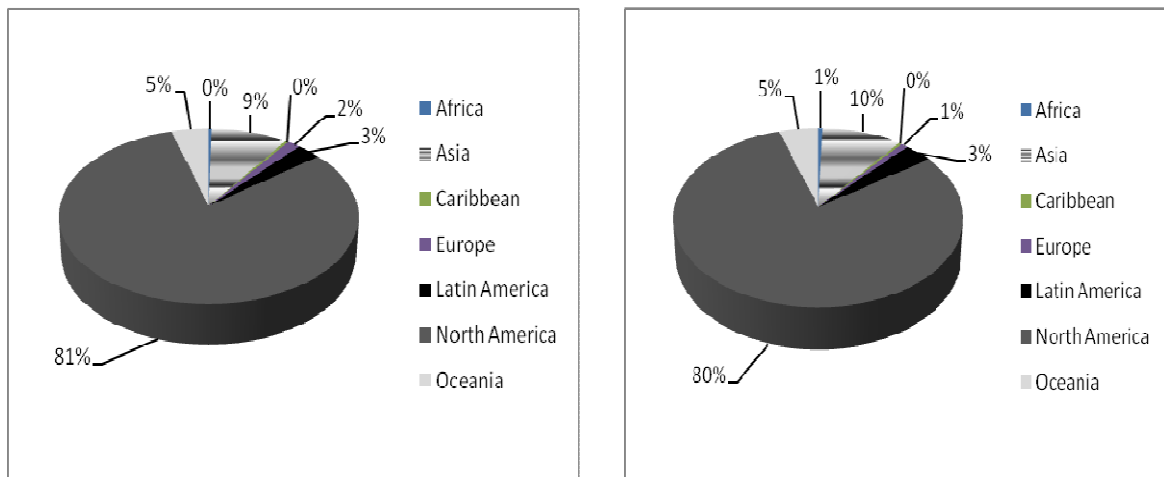
Source: author's construction based on the World Council of Credit Unions data, 2014

Fig. 2. Number of credit unions and amount of assets by continents in 2014, %

The comparison of savings and loans of credit unions over the world broken down by continents is presented in Figure 3.

The variation among the continents is very diverse ranging from 80-81% in the North America to less than 1% in the Caribbean countries and Africa. Again this percentage distribution shows that credit unions which are more legally and financially stable may attract more savings and provide more loans. In 2014,

an essential variation is also observed in the loan-to-asset ratio which ranges from 34.49% in Europe to 79.21% in Africa. This may be explained by the close difference in the total assets and loans amounts. The WOCCU (2012) suggests that this ratio for an efficiently operating credit union should be 70-80%. Hence, only two continents – Africa and Oceania – fall within this range; even the North America with its 67.62% lags in qualifying for this criteria.



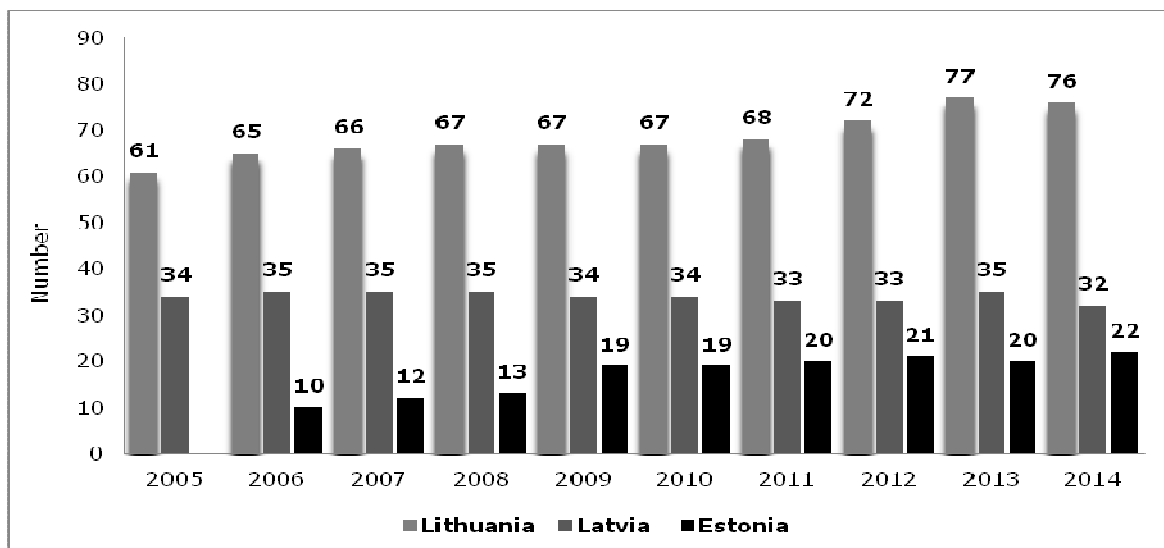
Source: author's construction based on the World Council of Credit Unions data, 2014

Fig. 3. Attracted savings and disbursed loans by credit unions by continents in 2014, %

3. Case study of credit unions in Latvia and Lithuania

In the Baltic States, credit unions resumed their activities and performance after these countries regained their independence. The first

credit unions there were established in the middle of the 1990s and further on the movement of credit unions started to develop faster by reaching their peaks quite recently (Figure 4).



Source: author's construction based on the Bank of Lithuania, Financial and Capital Market Commission of Latvia, WOCCU, 2014

Fig. 4. Number of credit unions in the Baltic States for the period 2005-2014

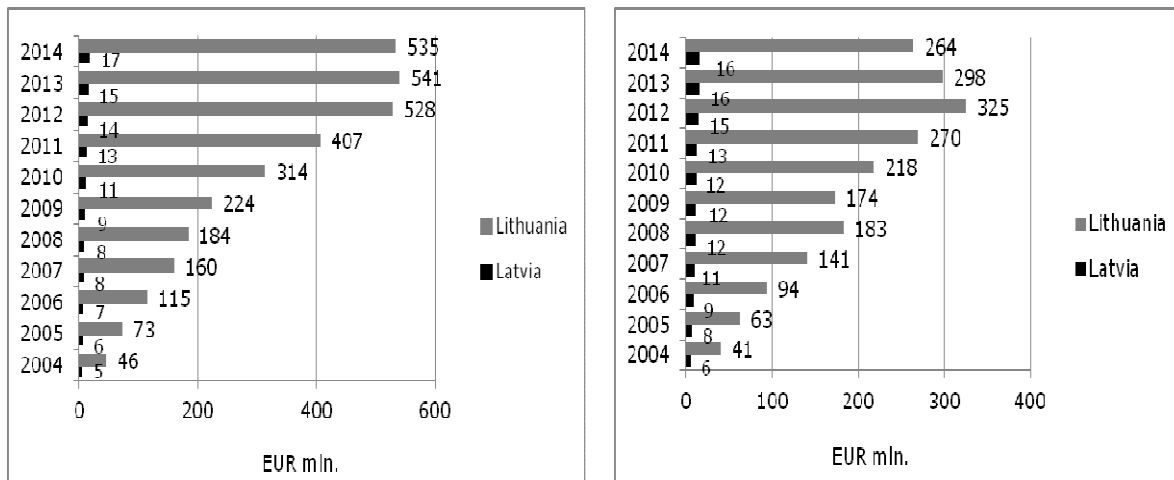
Lithuania is the leader in terms of credit unions as it almost twice outpaces Latvia, while Estonia considerably lags behind. The number of credit unions has not changed significantly during the period 2005-2011, yet, an increase of 5.9-6.9% is observed in 2012 and 2013 followed by a slight decrease in 2014 (1.3% as one credit union

became insolvent). In 2008, the number of credit unions increased to 67. This figure did not change till 2010 but starting from 2011, when establishment of credit unions started again, their number in Lithuania increased to even 77 as of the beginning of 2013.

Lithuanian researchers have concluded that in Lithuania, credit unions are often seen operating as small banks but their current governance structure is insufficient for the control of arising risks and, consequently, puts at risk the long-term sustainability of the sector. The financial services provided by credit unions in Lithuania are not exceptional, though among certain customer segments (in particular outside the major cities) they complement the range of financial services available to residents, increasing competition in the market. While being smaller and more flexible, in some cases credit unions can better satisfy the economic needs of their members; however, they become exposed to increasing risk (Jaseviciene et al., 2014).

In Latvia, the activity of credit unions peaked in the years 2006-2008 due to the economic ascent period and again in 2013. Currently, 32 cooperative credit unions operate in Latvia, of which approximately 25 credit unions operate in rural territories. Estonia has the lowest number of credit unions, as only 22 of them operated there in 2014. The number of credit unions has grown steadily from 10 in 2006 to 22 in 2014 or about 5% per year, the only exception being the year 2013 when the number of credit unions declined by one.

Further the author has analysed the financial performance of credit unions only in Latvia and Lithuania, since no such data were available for Estonia (Figure 5).



Source: author's construction based on the Bank of Lithuania and Financial and Capital Market Commission of Latvia, 2014

Fig. 5. Attracted savings and disbursed loans by credit unions in Latvia and Lithuania in the period 2004-2014, EUR mln

The analysis of the amount of attracted savings reveals a significant increase in savings from 2009. The annual growth rate is approximately 30%, even a more rapid increase was observed at the beginning of the analysed period. The increase from 2009 might be explained with higher interest rates for deposits ensured by credit unions compared with commercial banks. The amount of savings has started to decline from 2013, thus, reaching a negative increase rate in 2014 (-1%). Stricter monitoring requirements introduced by the

Central Bank of Lithuania followed by reduction of deposit rates may explain the decrease in the amount of deposits. Therefore, as the average deposit rates for standard deposits were 2.2% per year at the end of 2013, then a year later the interest rate for deposits was only 1.4% (Bank of Lithuania, 2014). The amount of disbursed loans has continuously grown between 2004 and 2008 with a decrease in 2009 by 5% compared with the previous year. The decline was observed due to the general deterioration of economic situation both in Lithuania and on external markets. The

years 2010 and 2011 produce an expressed increase in crediting when total amount of loans disbursed to the members of Lithuania credit unions grew by EUR 44 million in 2010 and more than EUR 52 million in 2011 or by 25% and 24% respectively compared with the previous years. In 2010, the Lithuanian Ministry of Finance, Ministry of Social Security and Labour, and a guarantee institution, INVEGA, selected the Lithuanian Central Credit Unions and the consortium of 57 credit unions to allocate LTL 50 million by 2015. The objective was to create 1000 new jobs, grant 1200 loans to individuals or SMEs and to deliver business training for 5000 people (Lopriore, Pati, 2012). This was the basic reason for the increase in loan amounts. Though, recently the figures have declined in Lithuania.

In Latvia, the amount of savings and loans is small compared with Lithuania. In 2014, the profits of credit unions totalled EUR 340 thousand, which was down by 4% compared with the previous year when profits amounted to EUR 354 thousand. During the reporting period, the performance of 15 credit unions was a profit of EUR 387 thousand, whereas the total losses of the remaining 17 credit unions amounted to EUR 47 thousand (Annual Report..., 2014).

Credit unions have managed to preserve a stable increase related to attraction of savings and deposits. This means that the members trust credit unions and see the significance and convenience joining them. The year 2010 is reflected as the peak year for attracting deposits, as the increase totals 23.91% compared with the previous year. The reason here could be the overcoming of the 2008 crisis and resuming of business activities. The growth is stable also in the following years, yet the speed is maintained within the range of 7.85-11.9%.

The main type of activity of credit unions is granting loans to their own members. More rapid increase in the amount of disbursed loans is seen at the beginning of the period analysed and after 2011. If in 2010 the increase was only 1.67%

compared with 2009, then the following years evidence an increase of 6.56% and 12.31%, respectively. However, in 2013 an opposite situation is observed and at the end of 2014 an increase is maintained only in the level of 1.89%.

Conclusions, proposals, recommendations

- 1) Credit unions are set up for specific groups of members, according to principles of territory, employment or mutual interests. A credit union is empowered to provide a range of financial services to its members, including receiving deposits and disbursing loans.
- 2) Credit unions are organised as non-profit credit institutions acting on the cooperative basis and providing services to their members. They are characterised by mutual support, democratic member control, voluntary, community-based, autonomy and independence and other the so-called Rochdale cooperative principles.
- 3) In many countries credit unions are operating at a loan-to-asset ratio which is much lower than the WOCCU guidance, even in the North America. This is due to intensified competition in the financial market, failure of credit unions in some countries to significantly embrace information technology and some other reasons.
- 4) The majority of credit unions are located in Asia and Africa; however, their performance ratios are much lower than those produced by credit unions in the North America.
- 5) Among the Baltic States, Lithuania is the leader in terms of credit unions as it almost twice outpaces Latvia, while Estonia considerably lags behind. In Lithuania, credit unions are often seen operating as small banks but their current governance structure is insufficient for the control of arising risks and, consequently, puts at risk the long-term sustainability of the sector.
- 6) In Latvia, credit unions have managed to preserve a stable increase related to attraction

of savings and deposits. This means that the members trust credit unions and see the significance and convenience joining them. Similar conclusions may be drawn regarding the amount of disbursed loans. The basic reason for using credit unions as borrowers are the low interest rates.

7) The research hypothesis, namely that the performance indicators of credit unions do not always depend on the number of credit unions

and their members, has been verified throughout the research.

8) Recommendations for improvement the activities of credit unions could be as follows: to strengthen the capacity of credit unions by uniting them in those which are more viable and loan-to-asset powerful.

Bibliography

1. Annual Report and Activity Report 2014 of the Financial and Capital Market Commission (2014). Retrieved: http://www.fktk.lv/attachments/article/5208/FKTK_gada%20paskats_2014_ENG.pdf. Access: 03.02.2016.
2. Baltaca, B., Pirie, G. (2008). Social Entrepreneurship: Cooperative Credit Union Model. Retrieved: http://www.ism.lt/mmrc/2009/T_Brigita%20Baltaca_Greg%20Pirie.pdf. Access: 05.01.2016.
3. Credit Union (s.a.). Retrieved: http://cultivate.coop/wiki/Credit_union. Access: 05.01.2016.
4. Croteau, J.T. (1967). Credit Unions: Theory and Practice. Journal of Financial and Quantitative Analysis. Volume 2, Issue 2, pp. 206-208.
5. Cuevas, C.E., Fischer, K.P. (2006). Cooperative Financial Institutions. Issues in Governance, Regulation and Supervision. Working Paper No. 82, World Bank, Washington D.C. Retrieved: http://www.icba.coop/images/stories/pdf/CuevasFischer_GovernanceCoopWP82.pdf. Access: 05.01.2016.
6. Dale, W.A. (s.a.). Using Credit Unions as Conduits for Micro-enterprise Lending: Latin-American Insights. Retrieved: http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_118277.pdf. Access: 05.02.2016.
7. Financial and Capital Market Commission (2014). Quarterly Reports. Retrieved: http://www.fktk.lv/en/statistics/credit_unions/quarterly_reports/. Access: 05.02.2016.
8. Flannery, M.J. (1981). Credit Unions: Theory, Empirical Evidence and Public Regulation: Discussion. The Journal of Finance. Volume 36, Issue 2, pp. 554-556.
9. International Cooperative Alliance (s.a.). Cooperative Enterprises Build a Better World. Retrieved: <http://ica.coop/>. Access: 20.12.2015.
10. Jaseviciene, F., Kedaitis, V., Vidzelyte, S. (2014). Credit Unions' Activity and Factors Determining the Choice of them in Lithuania. Ekonomika. Vol. 93(1), pp. 1392-1258.
11. Levisauskaite, K., Kaupelyte, D. (2003). Credit Unions in Lithuania, their Regional Development and Perspectives. Organizacijų vadyba: sisteminiai tyrimai, Nr. 26. Retrieved: <http://etalpykla.lituanistikadb.lt/fedora/objects/LT-LDB-0001:J.04~2003~1367183388979/datastreams/DS.002.1.01.ARTIC/content>. Access: 05.02.2016.
12. Lopriore, M., Pati, D. (2012) Microcredit and EU Cohesion Policy. Retrieved: http://www.eipa.eu/files/repository/eipascope/20120710144134_MLO_Eipascope2012.pdf. Access: 27.01.2016.
13. Mavrenko T. (2003). Development of Savings and Credit Unions in Latvia as a Part of Social Economy. VIIIth Spring Meeting of Young Economists, Leuven. Retrieved: <http://www.econ.kuleuven.be/smye/abstracts/p334.pdf>. Access: 15.01.2016.
14. Mazure, G. (2011). Development of Credit Unions as Instrument for Expansion of Crediting. In: *Rural Development 2011: Proceedings of the Fifth International Scientific Conference Volume 5 Book 1*, Kaunas: Aleksandras Stulginskis University, Lithuania, pp. 136-143.
15. McKillop, D., Wilson, J.O.S. (2014). Recent Development in the Credit Union Movement. Retrieved: http://www.st-andrews.ac.uk/business/rbf/workingpapers/RBF14_002.pdf. Access: 05.01.2016.
16. Rackauskas, M., Levisauskaite, K. (2013). Possible Changes in the Performance of Credit Unions According to New Central Bank Regulations. Taikomoji Ekonomika. Retrieved: http://vddb.library.lt/fedora/get/LT-eLABa-0001:J.04~2013~ISSN_1822-7996.V_7.N_2.PG_71-86/DS.002.1.01.ARTIC. Access: 15.01.2016.
17. Strengthening of the Credit Union Sector (2014). Discussion Paper by the bank of Lithuania. Retrieved: https://www.lb.lt/strengthening_of_the_credit_union_sector_discussion_paper. Access: 04.02.2016.
18. The Rochdale Principles (s.a.). Retrieved: <http://www.peoplesbookscoop.org/get-involved/members/the-rochdale-principles/>. Access: 21.12.2015.
19. World Council of Credit Unions (2008-2014). Statistical Reports. Retrieved: <http://www.woccu.org/publications/statreport>. Access: 05.02.2016.
20. World Council of Credit Unions (2011). Retrieved: <http://www.woccu.org/about/creditunion>. Access: 05.02.2016.
21. World Council of Credit Unions (s.a.). Technical Guide Credit Union Regulation and Supervision. Retrieved: <https://www.woccu.org/documents/RegSupTechGuide>. Access: 25.01.2016.

ASSESSMENT OF FACTORS INFLUENCING ENVIRONMENTAL TAX REVENUES

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Abstract. Although environmental tax revenues account for a relatively small share in the GDP and total tax revenues, environmental taxes play an important role in economy by increasing the state budget and offering more possibilities to allocate more funds to environmental protection. Nonetheless, factors of environmental tax revenues have little been studied, and the available studies are rather fragmented. The analysed research problem is thus the following: what are the factors of environmental tax revenues and what influence they have on revenues from these taxes. Research aim: to assess the scope of influence of the identified factors influencing the environmental tax revenues. Research objectives: 1) to identify the factors that influence variation in environmental tax revenues and develop their research methodology; 2) to assess the influence of factors of environmental tax revenues. The model for identification of factors of variation in environmental tax revenues in percent of GDP was developed. The following factors influencing the variation have been identified by using the model: GDP per capita, energy saving, sulphur oxide emissions, municipality waste generated, renewable energy production, regulatory quality, environmental protection expenditure per capita. Assessment of influence of the activities in the EU countries has determined that in Lithuania, same in several other European countries, GDP per capita has the greatest influence on variation in environmental tax revenues. Considerable influence has also been demonstrated by the renewable energy production and SO₂ emission. Regulatory quality, environmental protection expenditure and energy saving do not have any statistically significant influence. In other EU countries, environmental protection expenditure and energy saving have particular influence on variation in environmental tax revenues.

Key words: environmental tax, revenues, factors.

JEL code: H230; G380.

Introduction

Taxation of environmental protection is the most active and widely spread environmental protection policy. Researchers and environmentalists agree that economic measures, including taxation policy, might help achieve environmental goals but efficiency of such economic measures still depends on the instruments chosen. As such, assessment of influence of the environmental taxes in the Lithuanian taxation system should involve analysis and comparison of experience of foreign countries in integration of environmental taxes into their systems: identification of environmental taxes applied in foreign countries and analysis of variation in the country's environmental and economic indicators after introduction of these taxes or implementation of the environmental tax reform.

Politicians also take particular interest in environmental taxation and environmental taxes, as this is one of the main measures against global warming and rapidly increasing pollution in

the country (Morley B., 2012). Goal set by the UN Climate Change Conference 2015: to prevent the Earth from warming by more than 200 C. Implementation of this goal would mean that greenhouse gas (GHG) emissions would need to be reduced by 40-70% by 2050 and eliminated completely by the end of this century. Therefore, environmental taxes become even more important as a fiscal environmental instrument.

Environmental taxes are one of the means promoting increase in state budget revenues and provide more possibilities for allocating more funds to environmental protection. It is important to assess the importance of such taxes and determine whether such taxes indeed perform the intended functions or not. The importance of environmental taxes is defined as the capability of environmental taxes to perform their functions and implement the goals of reduction of the environmental pollution by raising the rates of taxes related to environmental protection. C. Castiglione, D. Infante, M. T. Minervini et al. (2014) have emphasized that application of

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environmental taxes is, in fact, considered to be a controversial policy measure. On the one hand, there is evidence that environmental taxes have positive effect, in pollution reduction in particular, for economically developed countries. On the other hand, environmental taxes are claimed to diminish the results of economic activity by distorting the production and consumption processes. It is important to perform detailed analysis of the factors that influence environmental taxation in order to determine the role of environmental taxes. Scientific literature provides rather comprehensive analysis of the influence of environmental taxation on the country's environmental protection and economy. Nonetheless, the analyses are often based on mere comparison of the environmental tax revenues with the environmental pollution indicators, such as amount of CO₂ in the country or GHG emission. Still, factors that determine environmental taxation, revenues collected, efficiency of such taxes, improvement of environmental protection in the country as well as economic and social influence of such taxes, are often disregarded and discussed very little (Castiglione C., Infante D., Minervini M.T., et al, 2014; Morley B., 2012; Skjelvik J.M., Bruvoll A., Ibenholt K., 2011; Im T., Wonhyuk C., 2010; Critical issues in ..., 2010). It is important to identify and analyse the factors that influence the environmental tax revenues and the economic and social effect of such taxes in the country in order to verify whether the environmental taxation functions properly in the country.

Research problem: there is no clearly indetificate what are the factors of environmental tax revenues and what influence they have on revenues from these taxes. Research object: environmental tax revenues. Research aim: to assess the scope of influence of the identified factors influencing the environmental tax revenues. Research objectives: 1) to identify the factors that influence variation in environmental tax revenues

and develop their research methodology; 2) to assess the influence of factors of environmental tax revenues.

Research methodology

Researchers analysing the factors that have influence on revenues from these taxes have suggested that environmental tax in percent of GDP should be used as an independent variable (Deacon R., Norman C., 2006; Dinda S., 2004; Harbaugh W., Levinson A., Molloy Wilson D., 2002; Kaufmann D., Kraay A., Mastruzzi M., 2010). To assess the factors that influence the environmental tax revenues, the authors suggest selecting variables from the following three categories: production and consumption, environmental quality, state regulation quality indicators.

It is important that both positive and negative factors are identified during assessment. C. Castiglione, D. Infante, M.T. Minervini (2014) have claimed that it is important to assess the emissions from any activity related to production and consumption processes. According to these authors, SO₂ emissions and municipal waste generated per capita are among the most important factors in assessment of emissions. Increasing amounts of waste would be accompanied by increasing environmental tax revenues. In assessment of environmental protection quality, it is important to also assess the primary renewable energy production. This indicator is important because the use of renewable energy leads to reduction in fossil fuel extraction, which is highly adverse in terms of environmental protection in a country. It is also important to assess how integration of renewable energy into energy production influences environmental tax revenues.

In assessment of the third category indicators, it would be beneficial to include the indicators of regulatory quality and environmental protection expenditure per capita into the model. Governance (regulatory) quality is a particularly

important measure of implementation of environmental policy. Environmental policy would be difficult to implement without government intervention, and regulatory functionality depends on the strength of institutional context. Institutional strength is tightly linked to the economic development level and has positive influence on the environment (Castiglione C., Infante D., Minervini M.T., et al., 2014). For these reasons, to assess the regulatory quality, the regulatory quality indicator ranging between -2.5 and +2.5 is included into the model. The higher is the value, the better formulated and the more enforceable the policy and legislation are (Kaufmann D., 2014).

The indicator of environmental protection expenditure correlates with environmental taxes only in countries with well developed economy and mature production and service sector, rather

than countries with weak economic development or transition economy (Castiglione C., Infante D., Smirnova J., 2014).

Correlation and regression analysis methods have been used in the research to assess the influence of environmental taxes on environmental protection. The developed regression model includes the factors which, according to foreign researchers and authors of this paper, reveal variation in indicators of environmental tax revenues the best. The model analyses the dependence between environmental tax revenues and the following variables: GDP per capita, energy saving, sulphur oxide emissions, municipality waste generated, renewable energy production, regulatory quality, environmental protection expenditure per capita. Dependent variable: environmental tax revenues. Regression model is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

where Y_{it} – total environmental tax revenues, percentage of GDP; α_0 – constant; X_1 – GDP (constant prices per capita) EUR; X_2 – energy saving in primary energy consumption, (thousands of tonnes of oil equivalent); X_3 – sulphur oxides emissions, tonnes; X_4 – municipality waste generated, kg per capita; X_5 – primary renewable energy (thousands of tonnes of oil equivalent); X_6 – regulatory quality; X_7 – environmental protection expenditure, per capita (constant prices) EUR, ε – is an unobserved error term.

Information of the Eurostat database for 13 year period (2000-2013) has been used for correlation and regression analysis. For more comprehensive and accurate research results, the following 8 countries have been chosen for

comparison to Lithuania: Germany (selected for being considered one of the countries which has implemented the ETR the most effectively; characterised by very strong economy, with its GDP reaching EUR 2809 billion in 2013); Norway, Finland Sweden (selected for being characterised by highly effective implementation of the ETR); Ireland (selected for its similarity to Lithuania); Latvia, Estonia (selected as the neighbouring Baltic countries, often compared to each other); Denmark (selected for having a highly developed taxation system and, probably, the largest number of environmental taxes).

Statistical application SPSS has been used for determination of correlation and regression relationship between the variables. The following criteria have been used for assessment of suitability of the model: adjusted coefficient of determination R^2 , p-value, Durbin-Watson criterion, ANOVA p-value, Regression and Residual and Studentized R^2 . Following assessment of the model suitability criteria,

correlation analysis of the relationship between the dependent variable and independent variables were performed. The correlation analysis has been used as the basis for determination of precision of the relationship between variables and verification of statistical significance of the correlation.

Following application of the regression model, its suitability for each individual country has been determined, and the obtained coefficient estimates and standardized beta coefficients allow making the conclusions on model suitability and interpreting the obtained results by determination of the factors which have influence on variation in environmental tax revenues. The data have then been stored with their standardized values to make the measurement scales uniform and compare all values to each

other irrespective of different units of measure. The index of variation in environmental tax revenues in percent of GDP has been developed for each European country analysed to show how the independent variables selected at the earlier stage influence the variation in environmental tax revenues in percent of GDP.

Assessment of factors determining variation in environmental tax revenues in the European countries

Multivariate regression model has been used to analyse the influence of GDP per capita, energy saving, SO₂ emission, waste production in the country, regulatory quality, environmental protection expenditure on the dependent variable of environmental tax revenues in percent of GDP in each country (Table 1).

Table 1

Values of suitability criteria of factors that influence variation in environmental tax revenues

Suitability criteria	Lithuania	Latvia	Estonia	Ireland	Denmark	Germany	Finland	Sweden	Norway
Adjusted R ²	0.968	0.338	0.730	0.133	0.632	0.794	0.426	0.863	0.916
p-value	0.000	0.217	0.022	0.355	0.050	0.010	0.156	0.003	0.000
Durbin-Watson criterion	2.169	2.147	1.712	1.948	2.394	2.415	1.877	2.725	2.396
ANOVA p-value	0.000	0.217	0.022	0.355	0.050	0.010	0.156	0.003	0.000
Regressors	2.768	0.381	1.686	0.108	1.750	0.337	0.349	0.207	1.417
Residual	0.410	0.167	0.240	0.094	0.357	0.036	0.126	0.014	0.067
Studentized R ²	0.022	0.312	0.128	0.657	0.149	0.046	0.259	0.054	0.043

Source: authors' calculations based on Eurostat data

The developed multivariate regression model applied to each European country analysed has shown that the adjusted coefficient of determination R² is the highest in Lithuania, Norway, Sweden, Germany, Estonia, and Denmark. It may be claimed that independent variables provide the best explanation for behaviour of the dependent variable in these countries. Y behaviour is explained by behaviour of 96.8% X it values in Lithuania, 91.6% – in Norway, 86.3% – in Sweden. Meanwhile, in

Latvia, Ireland and Finland, the adjusted coefficient of determination R² is very low, indicating that independent variables explain only a minor share of behaviour of the dependent variable.

Another important indicator – p-values, indicating whether or not Y depends on variation in X_{it} values. Calculations with 95% reliability show that p < 0.05 in Lithuania, Estonia, Denmark, Germany, Sweden and Norway, indicating that the model is suitable for these

countries, whereas $p > 0.05$ in Latvia, Ireland and Finland indicates that suitability of this models in these countries is doubtful indeed, in particular in Ireland, where $p=0.355$ and $R^2=0.133$.

It could be claimed on the basis of the Durbin-Watson criterion that there is no autocorrelation, as all countries have fallen within the [1.5;2.5] range. It could also be noticed that the number

of regressions in all countries is higher than the number of deviations, indicating that there are more correct forecasts than incorrect ones. Meanwhile, analysis of the studentized R^2 shows that R^2 are the highest in Latvia, Ireland and Finland, meaning that the distributions are not absolutely normal, leading to possibly large number of errors.

Table 2

Correlation matrix of the environmental tax revenues in percent of GDP and independent variables

Independent variables	Assessment criteria	Total environmental tax revenues, percentage of GDP					
		Lithuania	Estonia	Denmark	Germany	Sweden	Norway
X_1	R	-0.917	0.737	-0.803	-0.884	-0.938	-0.953
	p-value	0.000	0.001	0.000	0.000	0.000	0.000
X_2	R	0.521	0.635	0.647	0.673	0.138	-
	p-value	0.028	0.007	0.006	0.004	0.319	-
X_3	R	0.748	-0.696	0.840	0.611	0.852	0.854
	p-value	0.001	0.003	0.000	0.010	0.000	0.000
X_4	R	-0.755	-0.830	-0.791	0.005	-0.009	-0.370
	p-value	0.001	0.003	0.000	0.493	0.487	0.096
X_5	R	-0.849	0.872	-0.826	-0.871	-0.825	-0.437
	p-value	0.000	0.000	0.000	0.000	0.000	0.059
X_6	R	-0.149	0.707	-0.665	-0.456	-0.714	-0.805
	p-value	0.305	0.002	0.005	0.051	0.002	0.000
X_7	R	-0.871	0.790	-0.766	0.660	-0.730	-0.960
	p-value	0.000	0.000	0.001	0.005	0.002	0.000

Source: authors' calculations based on Eurostat data

Therefore, assessment of suitability of the developed model in the analysed European countries has determined that the model is suitable for Lithuania, Estonia, Denmark, Germany, Sweden and Norway; meanwhile, in Latvia, Ireland and Finland, the model lacks quality and is not suitable. As a result, the influence of the independent variables on the dependent variable is not analysed in this group of countries.

Data in Table 2 show a statistically significant and strong relationship between the variables, as the large share of variables is characterised by $p < 0.05$, and the major share of correlation

coefficients (R) between the independent variables and dependent variable are above 0.6.

In Lithuania, almost all independent variables have strong relationship with variation of environmental tax revenues in percent of GDP, while GDP has the strongest negative correlation relationship (-0.917). This means that with increasing GDP per capita, environmental tax revenues in percent of GDP show the downward trend. Environmental protection expenditure, renewable energy and waste generated also have very strong negative correlation relationship with the revenues, indicating that with more funds allocated to environmental protection to promote

introduction of new, environmentally friendly technologies and renewable energy production, the share of environmental tax revenues in per cent of GDP is reduced due to less damage to environment. Meanwhile, there is no reliable correlation relationship between regulatory quality in Lithuania and variation in environmental tax revenues in percent of GDP, as the correlation coefficient is equal to -0.149, and $p > 0.05$ indicates that the correlation data are statistically insignificant.

Other European countries – Norway and Estonia – same as in Lithuania, environmental protection expenditure and GDP have the strongest correlation relationship. In Norway, however, same as in Lithuania, the environmental tax revenues tend to reduce in case of increase of funds allocated to improvement of environmental protection and GDP growth. The situation is the opposite in Estonia. In Estonia, environmental tax revenues also grow with increase of environmental protection expenditure and GDP growth. Still, one of the reasons for such relationship is that GDP growth rate in Estonia is considerably higher than the growth rate of environmental taxes. Assessment of other independent variables show that Estonia is the country where the correlation

relationship between the factors and dependent variable is reverse compared to other countries, because Estonia is the only country that has seen growth of environmental tax revenue in per cent of GDP during the period 2000-2013. In Denmark, renewable energy (-0.826) and SO₂ emission (0.840) have the strongest relationship with renewable tax revenues in percent of GDP. In this country, growth in renewable energy production is accompanied by reduction in environmental tax revenues, as the renewable energy production is subsidized, naturally leading to reduction in revenues coming from the taxes. Meanwhile, increase in SO₂ emission is accompanied by increase in environmental tax revenues. In Germany, renewable energy production and GDP, respectively, -0.871 and -0.844, have the strongest negative correlation relationship. In Sweden, the strongest negative correlation relationship has been demonstrated by GDP (-0.938), positive – by SO₂ (0.852).

Analysis of the beta coefficients and the level of their significance (p-value) have determined that GDP per capita has particularly high influence on environmental tax revenues in percent of GDP in all European countries (Table 3).

Table 3

Models of factors that influence variation in environmental tax revenues

Countries	Regresssion Models
Lithuania	$y = 0.512 - 0.430x_1 - 0.004x_2 - 0.033x_3 + 0.006x_4 + 0.003x_5 + 1.110x_6 - 0.002x_7$
Estonia	$y = 3.32 + 0.102x_1 - 0.688x_2 - 0.005x_3 - 0.001x_4 + 0.416x_5 + 0.003x_6 + 0.00x_7$
Denmark	$y = 3.533 - 0.075x_1 + 0.288x_2 - 0.00x_3 + 0.005x_4 + 0.00x_5 + 2.863x_6 - 0.003x_7$
Germany	$y = 5.606 - 0.095x_1 + 0.002x_2 + 0.001x_3 + 0.003x_4 + 0.00x_5 + 0.002x_6 - 0.02x_7$
Sweden	$y = 3.661 - 0.034x_1 + 0.001x_2 + 0.001x_3 - 0.001x_4 - 0.00x_5 + 0.86x_6 + 0.03x_7$
Norway	$y = 4.143 - 0.01x_1 + 0.003x_3 + 0.000x_4 - 0.00x_5 - 0.071x_6 - 0.001x_7$

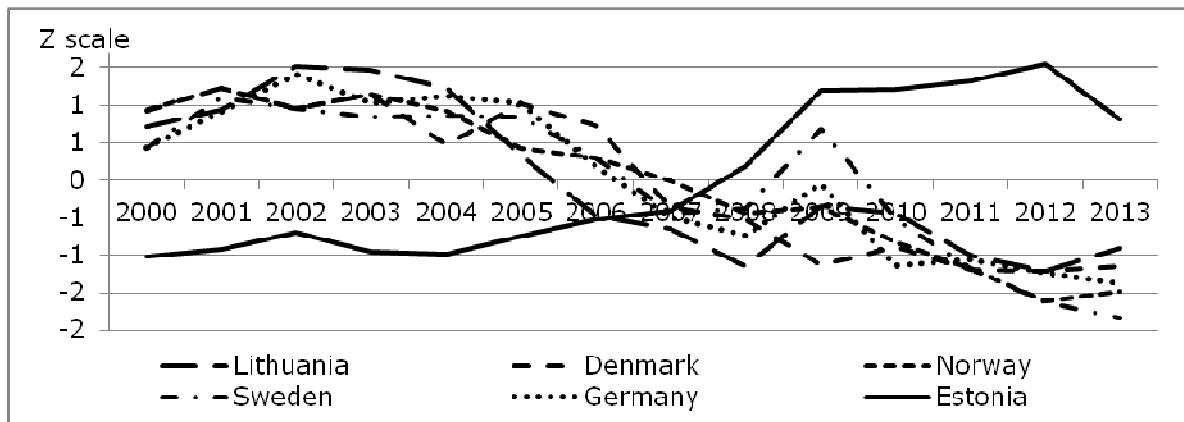
Source: authors' calculations based on Eurostat data

During economic growth, i.e. GDP per capita growth, the share of environmental taxes in percent of GDP would change the most in Lithuania, and would change insignificantly in other European countries. GDP per capita, renewable energy production and SO₂ has the greatest influence on variation in environmental tax revenues in percent of GDP in Lithuania. It could be claimed that with each EUR 1000 growth in GDP per capita, the share of environmental tax revenues in per cent of GDP would decrease by 0.43% point. Assessment of the influence of renewable energy production has shown that increase in renewable energy production in Lithuania leads to increase of environmental tax revenues in percent of GDP by 0.003% points. One of the reasons for such variation could be the fact that increase of environmental tax revenues leads to increasing share of taxes allocated to promotion of renewable energy production. Meanwhile, increase of SO₂ emission by 1000 tonnes would lead to decrease of environmental tax revenues in percent of GDP by 0.03% point. Regulatory quality factor also provides positive result in terms of variation in environmental tax revenues in percent of GDP. Nonetheless, the statistical data significance level is slightly above 0.05 ($p=0.082$). It has been determined that such factors as regulatory quality, environmental protection expenditure and energy saving do not have any statistically significant influence on variation in environmental tax revenues in percent of GDP. The authors

believe that such influence of the factors on environmental taxation indicates rather weak environmental policy enforced in Lithuania.

In Estonia, regulatory quality has the greatest influence on environmental taxation, indicating that Estonian government cares about environmental policy formation. In this country, energy saving also has considerable influence: each increase of energy saving by 1000 tonnes of oil equivalents would lead to reduction of environmental tax share in percent of GDP by 0.688% point. This is due to the fact that energy saving provides positive result to the influence on environment. Consequently, increasing energy saving leads to reduction in emissions and, in turn, reduction in environmental tax revenues. Meanwhile, in Germany, Sweden and Norway, both GDP per capita and environmental protection expenditure have particularly high influence on variation in environmental tax revenues.

Standardized values show clear directions of variation in environmental tax revenues in percent of GDP index. In Lithuania, Denmark, Norway, Sweden, and Germany, the index of variation of environmental tax revenues in percent of GDP throughout the analysed period 2000–2013 demonstrated the downward trend, whereas in Estonia, development of the index was completely opposite to other countries, i.e. Estonian index of variation of environmental tax revenues in percent of GDP demonstrated the upward trend (Figure 1).



Source: authors' construction based on Eurostat data

Fig. 1. Environmental tax revenues in percent of GDP index

It could be claimed that although the Lithuanian environmental tax share in percent of GDP is among the lowest in the EU, the Lithuanian index of variation in environmental tax revenues follows the direction of the index in other European countries.

Conclusions

- 1) For analysis of the factors that have influence on environmental tax revenues, the environmental tax share in percent of GDP has been used as the independent variable. Variables from the following three categories have been used for selection of the factors that influence the environmental tax revenues: production and consumption, environmental quality, state regulation quality indicators.
- 2) The model for identification of factors of variation in environmental tax revenues was developed. The following factors influencing the variation have been identified by using the model: GDP per capita, energy saving, sulphur oxide emissions, municipality waste generated, renewable energy production, regulatory quality, environmental protection expenditure per capita. The obtained results

have been compared to the comparable results of the foreign countries (Germany, Norway, Finland, Sweden, Latvia, Estonia, Ireland, Denmark).

3) It has been determined that in Lithuania, same in several other European countries, GDP per capita has the greatest influence on variation in environmental tax revenues. Considerable influence has also been demonstrated by the renewable energy production and SO₂ emission. Regulatory quality, environmental protection expenditure and energy saving do not have any statistically significant influence on variation in environmental tax revenues in percent of GDP. In other EU countries, environmental protection expenditure (Germany, Sweden, Norway) and energy saving (Estonia and Denmark) have particular influence on variation in environmental tax revenues.

4) Although the share of environmental tax revenues in GDP is the lowest in Lithuania, compared to EC-28 countries, the index of variation of environmental tax revenues in percent of GDP in Lithuania has shown very similar variation trend, same as in other European countries.

Bibliography

1. Castiglione, C.; Infante, D.; Minervini, M. T. et al. (2014). Environmental taxation in Europe: What does it depend on? *Cogent Economics & Finance*, Volume 2, Issue 1, 2:967362.
2. Castiglione, C., Infante, D., Smirnova, J. (2014). Is There Any Evidence on the Existence of an Environmental Taxation Kuznets Curve? The Case of European Countries under Their Rule of Law Enforcement. *Sustainability*, Volume 6, pp.7242-7262.

3. Deacon, R., Norman, C. (2006) Does the Environmental Kuznets curve describe how individual countries behave? *Land Economics*, Volume 82, no 2, pp. 291–315.
4. Dinda, S. (2004). Environmental Kuznets Curve Hypothesis: A survey. *Ecological Economics*, Volume 49, Issue 4, pp. 431–455.
5. Dutt, K. (2009). Governance, Institutions and the Environmental–Income Relationship: A Cross-Country Study. *Environment, Development and Sustainability*, Volume 11, Issue 4, pp.705-723.
6. Harbaugh, W., Levinson, A., Molloy Wilson, D. (2002). Re-examining the Empirical Evidence for an Environmental Kuznets Curve. Retrieved: <http://harbaugh.uoregon.edu/Papers/EnvironmentalKuznetsCurve.pdf>. Access: 10.10.2015
7. Im, T., Wonhyuk, C. (2010). Performance Tools and their Impact on Pollution Reduction: an Assessment of Environmental Taxation and R&D. *International Review of Public Administration*, Volume 15, Issue 3, pp. 53-65.
8. Kaufmann, D. (2014). The Worldwide Governance Indicators. The World Bank Group. Retrieved: <http://info.worldbank.org/governance/wgi/index.aspx#doc>. Access: 10.10.2015
9. Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The Worldwide Governance Indicators: A Summary of Methodology, Data and Analytical Issues. (Working Paper No. 5430). Retrieved: <http://siteresources.worldbank.org/INTMACRO/Resources/WPS5430.pdf>. Access: 10.10.2015
10. *Critical Issues in Environmental Taxation. International and Comparative Perspectives.* (2010). Edited by Soares C.D., Milne J.E., Ashiabor, H., Kreiser L., Deketelaere, K. Oxford: Oxford University Press, pp. 37–56.
11. Morely, B. (2012). Empirical Evidence on the Effectiveness of Environmental Taxes. *Applied Economics Letters*, Volume 19, Issue 18, pp. 1817–1820.
12. Skjelvik, J. M., Bruvoll, A., Ibenholt, K. (2011). Greening the Economy: Nordic Experiences and Challenges. Nordic Council of Ministers. Copenhagen. p. 171.

DEVELOPMENT OF REVENUE AUTHORITY ORGANIZATION PRINCIPLES WHICH ARE BASED ON PROCESS MANAGEMENT

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Abstract. Effective and efficient organization of public administration and reorganization is one of the goals of policy-makers and practitioners. This paper examines the processes of reorganization in the State Revenue Service in Latvia as a tool for authorities to achieve strategic objectives in order to make proposals for the planning activities of structural reforms. The aim of this study is to examine the processes of reorganization in the State Revenue Service (SRS) as a tool for authorities to achieve strategic objectives in order to make proposals for the planning activities of structural reforms. The research is mainly based on the monographic descriptive method as well as the methods of analysis and synthesis. Main results are related with identification of procedures and approaches for reorganization and structural changes in tax and customs administration. It can be concluded that for the organisational structure, which is modelled according to the processes linked with units, it is possible to make precise analysis showing how the reorganization process will change performance indicators and to clarify important factors. This research identifies need for the internal regulation and the respective procedure for implementing structural changes is described in the paper.

Key words: tax and customs administration, reorganization, process management.

JEL code: H83, H11

Introduction

Striving for excellence in work, the SRS is aware of the importance of reorganization in this process and tries to use both the most suitable theoretical approaches as well as experience of different countries. With each strategic initiative the SRS shows that the reorganization process is not an end in itself but a prerequisite for the institution's activities and a tool for achieving its objectives. With every year the overall performance of the authority increases as well as its productivity. As an important international recognition can be considered the fact that the Organisation for Economic Co-operation and Development (OECD) in its publication "Tax administration 2015. Comparative information on the OECD and other advanced and emerging Economies" (OECD, 2015) in the section on strategic management issues and six national examples of good practice together with developed countries, such as Australia, New Zealand, South Africa, Britain and the United States, has included the Latvian State Revenue Service as well. Although the SRS has made a huge effort in improving the strategic management, insufficient attention was so far

devoted to the structuring of reorganization process.

Different aspects of Public's Sector's Efficiency and Effectiveness has been viewed in scientific paper by several authors (Curristine T. et al., 2007; Kersule L. et al., 2011; Maguire F., et al. 2013) as Efficiency and Effectiveness indicators most directly affect Public Administrations reorganization's process and therefore structure of institutions. World Bank Group (2003), Kidd and Crandall (2006) and Yasui (2009) show in their research that national governments choose the approach how to make customs and tax administration's institutional structures, based on national policies. Such authors as Mavlutova et.al. (2014) and Zarbafi (2011) note the transfer of the New Public Management ideas from Business to Public Administration. SRS statistics confirm the impact of Efficiency on institution's structural changes.

As the hypothesis being put forward - reorganization process based on the performance management system is essential and integral part of integrated human resources management. The aim of this study is to examine the processes of reorganization in the State Revenue Service (SRS) as a tool for authorities to

achieve strategic objectives in order to make proposals for the planning activities of structural reforms.

To achieve this aim, the following objectives are pursued:

- to analyse the existing advantages and disadvantages of the reorganization process in the SRS;
- to describe the reorganization principles having main impact on the performance indicators;
- to develop a model for implementing the reorganisation process, which is based on the process management system, in order to improve the performance management in organisation.

The information compiled by SRS statistic, scientific publications of foreign and local researchers, and other materials have been used for the purpose of the study. The research is mainly based on the monographic descriptive method as well as the methods of analysis and synthesis.

Research results and discussion

Regarding public administration efficiency, the emphasis is placed mainly on effective human resources management, which means calculating the optimal number of employees necessary to perform the current functions, forecasting the number of employees for the near future including their education and qualification (Petersons M. et al., 2014) and retaining the most talented professionals. In turn, by knowing the objectives and tasks of the organization, it is possible to plan human resources necessary in the future. Attracting the most talented (Petersons M. et al., 2014) people to the public administration sector is not considered only a problem of single state in the 21st century. As stressed by Buligina et al. (2014): "A high priority in the EU policy is establishing closer links among education, training, and work for skills upgrading and employability. This requires

Jelgava, LLU ESAF, 21-22 April 2016, pp. 342-343 innovative and integrated approaches by the involved parties at all levels", including planning of human resources, providing for an adequate organizational structure.

In order to raise awareness that the changes are necessary, significant amount of work should be done, starting with the identification of functions and tasks, defining objectives and key indicators, assessing the necessary resources including evaluation of the necessary and existing structure, and finally, assessing the current performance and developing proposals for the desired effect. The desired effect can be efficiency improvement, productivity increase or both these factors, which have been brought to the agenda of the SRS relatively recently (Petersons M. et al., 2013). Kersule et al. (2011) in their turn point out to the equally important issue as "to determine the reasonable balance between employee commitment and performance of organization". Reorganisation is a comprehensive process that results in establishing the optimal structure to ensure the desired effect. However, the structural change must not be an end in itself but only should be used as a mean to ensure better performance. This means that the institution's structure has to correspond to certain functions and objectives of the institution, which should be developed before structure development rather than vice versa.

In the field of tax administration, institutional changes are mainly initiated in accordance with the government's decisions; and as of 1990 the main trend is integration of the tax administration and customs as well as integration of other related tax administration functions. Structural reforms are mainly implemented according to the revenue agency model. First autonomous institutions combining the direct and indirect tax administration were created in Peru (1988) and Denmark (1990). Each country uses its own motivation for reforming its tax administration and setting up its revenue agency with regard to the tax and customs authorities as

key components of the public sector. The increase of tax revenues and the positive conditions created by synergy are used as the main arguments for implementing the reforms. Ensuring trust to the public administration and implementation of public reforms are used as additional arguments; tax administration reform is usually mentioned as the most visible result of the successful reform carried out by the government. It should be noted that the integrated model for tax administration, which is mentioned in the recommendations of the International Monetary Fund (IMF) and World Bank (WB), belongs to the New Public Management (NPM) concept and is indirectly recommended by the EU as well.

The expected results are usually determined qualitatively rather than quantitatively - the expected policy result from the autonomy:

- efficient management of human resources and lower corruption risks (integrity);
- better exchange of information among the structural units of the joint body.

A study conducted by the World Bank presented the performance of joint tax and customs administrations in Denmark, Canada, Latvia, Colombia, the Netherlands and Ireland as well as reforms they have implemented, noting two reasons - to increase the tax collection efficiency (the Netherlands, Latvia and Colombia) and its productivity (Denmark) or both above mentioned together (Canada (until 2003)). According to this approach, the integration efficiency is evaluated by using the parameters of revenue collection - amount of tax revenue collected and reduction of potential tax fraud etc. but productivity characterizes the resources of public and private sectors being spent on each unit of the collected revenues. Unlike in Denmark, where the collection productivity is positioned as the main reason, in Latvia it is often stressed that the integration of customs and tax administration is implemented by

Jelgava, LLU ESAF, 21-22 April 2016, pp. 342-344 improving its operational efficiency, reducing the possible risk of tax evasion, increasing integrity level and the amount of revenue collected.

Arguments used for the establishment of single tax and customs administration and autonomous functioning of this authority are political trust, depoliticisation; as benefits are mentioned: creation of flexible structures, budget appropriation flexibility, corruption risk reduction and efficiency increase, for the payer - better service, saving of costs and time.

All these arguments cannot be measured on a quantitative scale. As pointed out by Kidd, M. et al. (2006), there are technical difficulties - lack of multiannual data before and after the reforms, it is not possible to determine the impact of autonomy or integration as well as there are several variables and other factors, whose impact on the revenue increase cannot be evaluated. Integrity (indicators of lower corruption levels and ethical compliance) and financial autonomy are used as additional indicators for the efficiency. It is assumed that converting the tax-type structure into a revenue agency automatically means cost reductions. It is also considered that the speed of information exchange increases, IT system integration is ensured and taxpayers spend less time interacting with the agency.

Danish tax authorities are mentioned as the best example of efficient structural changes in international practice. Reforms of tax administration in this country reduced the costs by 15% from 2006 to 2013, while the number of employees decreased by 25% from 2006 to 2013. Despite the resource reductions, tax administration performance is improving, which is confirmed by, inter alia, reduction of the tax gap (The Danish Ministry of Taxation, 2015). In turn, Uganda is mentioned as an example of failure (Yasui T., 2009), where it was not possible to identify any indicators that have changed after the reforms were implemented. It is virtually impossible to find direct analogues in the sector

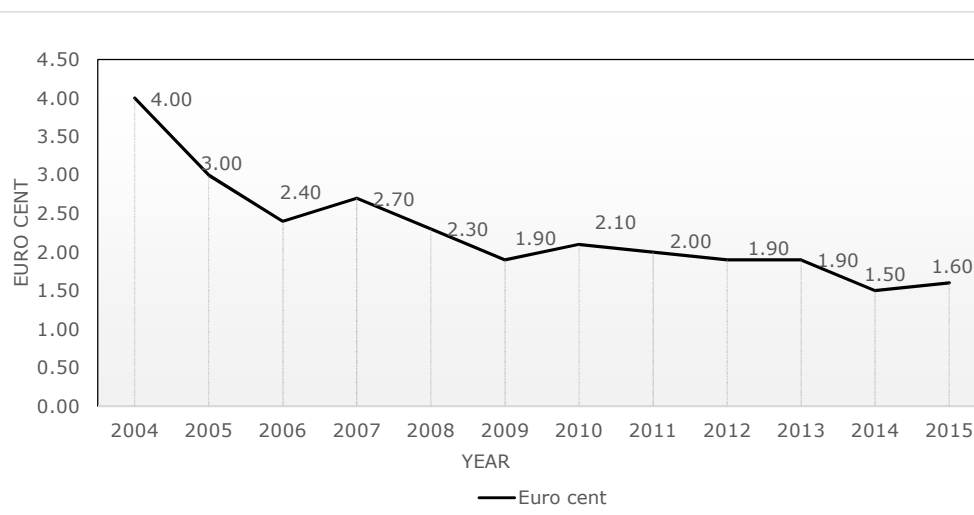
of institutional reforms as very much depends on historical traditions and national regulatory bodies. Therefore, there is a segmented taxpayer approach (US, Australia), a functional approach (joint tax and customs administration), an integration into the Ministry of Finance and matrix integration (Great Britain). Without institutional reforms it is also possible to close the regional offices (consolidation), use approach of administration mergers as well as reorganization and automation of processes. Recent examples - creation of competence centres in Estonia (2012), optimization of regional institution network in Finland (2011), merger of tax, customs and social security contribution administrations in Hungary (2010), setting targets of cost reduction by 8% and administration cost reduction by 25% in Denmark (2010).

Assessment of the State Revenue Service

Development Results

In Latvia it is often stressed that the Customs and Tax Administration merger has taken place

Jelgava, LLU ESAF, 21-22 April 2016, pp. 342-345 following the Danish model; however, the authors believe that the main motive for the SRS establishment was to increase its efficiency - risk of fraud, honesty degree, the amount of revenues and compliance with the law, in contrast to Denmark, where productivity motive was set as a priority (World Bank Group, 2003). The SRS also believes that the most important argument for fulfilling the expectations of legislator and the government is the efficiency (Curristine T. et al., 2007) - the amount of taxes collected and the fight against the shadow economy (Schneider F., 2014). Although the issue of public sector productivity is very controversial (Maguire F. et al., 2013), one of the productivity indicators - the cost per collected euro (Figure 1) is no less important for the SRS.



Source: authors' construction based on the SRS information

Fig. 1. The cost per each collected euro

The SRS cost per each collected euro has decreased from 3.4 euro cents in 2004 to 1.5 euro cents in 2014. This indicator is positively affected by an increase in revenues, reduction of expenses, or both simultaneously. The statistics show that the most important SRS cost reduction

has taken place during the crisis in 2009 - as a result of budget consolidation, which also provided for significant restructuring measures. However, reduction of resources related to revenue collecting alone does not show significant signs of positive effect the

reorganization measures would have on the productivity of the SRS work. Currently SRS structure, functions and tasks are affected by two significant and directly reflective elements - public administration expenditure budget reduction and reorganization initiated in the SRS as well as review of the functions at the national level. Since its founding in 1993, the SRS implements structural reforms periodically. In 2009 the number of SRS Deputy Director General positions was reduced from four to two returning to the structure with four positions of Deputy Director General in 2012. Reduction of positions was applied to around 700 long-term vacancies; around 100 positions were opened after some time. Structural changes resulted in termination of the employment relationship with 191 employees. For example, the SRS IT Department was included in the Administrative Department in 2010 but in 2011 it became a separate department again. The subordination of Excise Department was changed from the SRS Deputy Director General in Tax Area to the SRS Deputy Director General for Customs in 2010 but at the end of 2013 the subordination was changed to SRS Deputy Director General in the Area of Combating Crime. In 2015, the functions of Excise Department were divided among the Tax Department, the Tax Control Department and the newly created Department for Movement of Excisable Products, which remained subordinated to the SRS Deputy Director General in the Area of Combating Crime. In 2012, the subordination of Finance Department was changed from the SRS Director General the SRS Deputy Director General in Administrative Area but in 2013 it was returned to the SRS Director General.

Improvement of the reorganization process for achieving the desired effect

Reorganization is usually based on a political decision related to the fight against tax evasion (the Netherlands), efficiency increase (Estonia, Denmark) or cooperation improvement among

Jelgava, LLU ESAF, 21-22 April 2016, pp. 342-346 departments of the institution (Latvia) (World Bank Group, 2003).

The efficiency of reforms can be assessed by the changes in performance indicators, service delivery standards (customers using electronic services, application processing time, waiting time, declaration processing time, tax refund time, the waiting time in line, customs declaration processing time), customer surveys and satisfaction indicators. However, most studies about the reorganization are related to the business environment and the use of this approach in the public administration is controversial. For example, Mavlutova et al. (2014) offer their own corporate restructuring algorithm or Zarbafi (2011) states that work productivity decreases during the internal reforms in the organization.

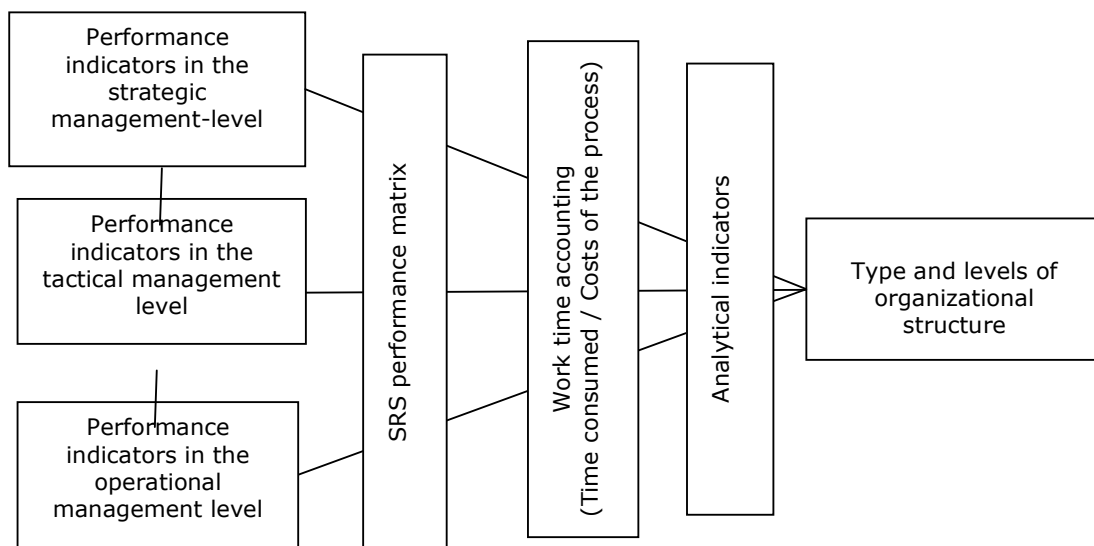
Each process has its own indicators - the collected debts, the current debts to be collected, tax revenue against the potential tax revenue, tax liability etc. Costs associated with fulfilment of taxpayer obligations or collection costs of tax administration are usually used for efficacy evaluation. However, technically there may be differences in the tax burden and the potential tax burden that undermine making comparisons at international level. Integrated tax and customs administration model with financial intelligence functions can be used to compare agency models used in Estonia and/or the Netherlands.

To identify its functions and tasks, the SRS has divided its operation into three levels - tasks, processes and process performance. Consequently, each task has its sub-processes with their own operational activities. As a result, each structural unit has specific knowledge of the processes and operational activities. Consequently, regulating their work in this way the SRS ensures that processes and even operational activities do not overlap. Job description of each employee reflects the operational activities he/she is responsible for as his/her professional duties in the position of a

state official (Petersone M., 2013). Simultaneously with identification of ideas for processes, the SRS has also initiated working-time accounting in order to obtain comprehensive information about how resource intensive is each of the processes, and how much does it cost. However, the cost accounting, which is related to the processes, is not ensured. As a result, measures, which are inseparable from the cost accounting including the reorganization processes and should result from the above mentioned information, are useless because the invested resources are not balanced with regard to the expected results.

Traditionally, strategies of organizations reflect the objectives to be achieved and the key indicators. For the performance management the

Jelgava, LLU ESAF, 21-22 April 2016, pp. 342-347 SRS ensures the substantive quality of performance indicators by linking them with the process management system by establishing the SRS performance matrix, where each indicator is linked to one process and operational activities. The SRS performance matrix lists the group of performance measures (output) (Petersone M. et al., 2015). Creation of the SRS performance matrix in correlation with the SRS work accounting system each other would offer an innovative approach to the reorganisation process of organisation creating the system allowing to identify what processes and how many processes each employee has performed, workload of each department and to model changes in the organizational structure, if necessary (Figure 2).



Source: authors' construction

Fig. 2. The reorganization process model based on the performance management system

Strategic failure, failure to achieve the goal, and situation, when the goal is reached but the action has not been sufficiently efficient, can trigger the necessity for reorganization. However, the reorganization process of organisation is always accompanied by great employee resistance to change; hence, it is the last instrument to be used for achieving the organization's goals. When launching structural reforms, it should be assessed how the existing model of structure undermines the goal that has

been set. If the organizational structure is created according to the principle of processes linked with the structural units, it is possible to make a precise forecast of how the reorganization process will change investment indicators, output indicators and analytical indicators and to respect the principles of reorganization, such as:

- responsibility for functions of the entire organization;

The possibility for the SRS to withdraw from the implementation of processes which are not delegated to the SRS by law. For example, the forecasting of budget revenue is a competence of the Ministry of Finance, which has received an appropriate amount of financial resources. Since the SRS has not received resources for such function, it uses the resources allocated for other functions.

- enforcement of laws and regulations, which may disproportionately increase the resources necessary to complete the process;

For example, the SRS performs responsibilities imposed by laws and regulations that are useless and do not affect the outcome. In this case the SRS would be expected to initiate amendments to legislation by eliminating the useless activities. For example, the SRS should assess the financial situation of the taxpayer before granting the payment deferral but in practice the SRS has limited possibilities for assessing the financial situation of the taxpayer; several documents are required, the resources are used to ensure this process.

- responsibility for functions of the reorganized unit;

There should be convincing arguments for dividing or combining several units regarding such questions as to which of the new units will be responsible for the function and if this function is relevant for the respective unit. For example, merging the Unit of Public Benefit Organization Administration with the Unit of State Officials Data Administration accelerates acquisition and exchange of information among the state institutions and the SRS.

- process optimization possibilities, including process automation possibilities;

For example, within one process initial preparation of the "Decision on overdue tax payment reinforcement" was automated but it should be prepared manually repeatedly.

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Automation of this process from 2011 to 2014 made it possible to save at least 2 200 hours per year or one employee's time per year on average.

- the possibility of duplication of the delegated tasks and processes;

For example, if the reorganization process overlaps with other units or only information on continuing the process in the recent practice or possibilities of centralization of the process is assessed.

- not only the basic process optimization but also support and overall process optimization;

For example, personnel qualification improvement is mainly HRD (Human Resource Department) competence but the assessment should also contain information about the SRS units which could be affected by overlapping of the mentioned support process.

- internal standards for work accounting;

Since each of the SRS units is responsible for their workload measurement, it is possible for the respective units to evaluate the workload related to the specific processes and consequently the necessary number of employees according to the criteria being advantageous to these units;

- internal reorganization scale effects;

For example, by merging several SRS customer service centres not only the number of employees and registered taxpayers should be assessed in case of merger but also the potential savings in rent as well as expenses related to the transportation, moving and storage of taxpayers' files.

Unfortunately, very often it is not possible to obtain reasonable evidence regarding the effect to be achieved through structural reforms, thus, reorganization can become an end in itself rather than a precondition and tool for achieving the goals of institution. This means that the overall performance of the institution cannot be

improved and the efficiency of its work cannot be maximized. On the contrary, structural change may be harmful and the related expenses - useless. For example, after a series of structural changes the SRS has not evaluated, whether it has achieved the desired effect and how the structural changes affect tasks and processes of the SRS.

When deciding on the need for structural changes, internal procedures or rules of procedure are necessary in order to determine the system for implementing the structural changes. The procedures should specify the unit(s), which organize(s) and justify(ies) the need for a reorganization process, officials, who evaluate the necessity and decide on the structural changes, normative documents justifying their action (process evaluation, service reports, orders etc.), procedures of document approval and coordination. In addition, the procedure should also be made for the way how the regulatory documents will be registered in the record-keeping system helping to identify the documents directly related to the structural changes.

Conclusions, proposals, recommendations

- 1) The structural changes have to be justified by an assessment of the current situation and planned effects, which should be achieved in case of structural changes. The process of implementing structural changes must be based on procedures for identifying, updating, assessing, describing and documenting tasks and processes delegated to the units.
- 2) For the organisational structure, which is modelled according to the processes linked with units, it is possible to make precise analysis showing how the reorganization process will change investment indicators, output indicators and analytical indicators, and to clarify important factors, such as:
 - responsibility for functions in the entire organization;

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- enforcement of laws and regulations, which may disproportionately increase the resources necessary to complete the process;
- responsibility for functions in the reorganized unit;
- process optimization possibilities, including process automation possibilities;
- the possibility of duplication of the delegated tasks and processes;
- not only the basic processes but also support and general processes;
- internal standards for work accounting
- effects of internal reorganization.

3) The SRS has introduced working time accounting for all processes; however, task tracking for processes still is not implemented. Consequently, the measures, which are inextricably linked to the processes and which should be drawn from that information, are useless - the result of the process and human resources required for its implementation still are not determined, the invested resources are not balanced with expected results.

4) In assessing the cost accounting procedures, the necessary expenses should be recorded according to the operational processes, rather than as it is traditionally done by units, which would change the accounting procedures according to the tasks and processes defined by the SRS.

5) The SRS, like any public body need the internal regulation, which would determine the procedure for implementing the structural changes. The procedure should specify the unit(s), which organize(s) and justify(ies) the need for a reorganization process, officials, who evaluate the necessity and decide on the structural changes, legislative documents justifying their action (process evaluation, service reports, orders etc.), procedures of document approval and coordination.

6) Integrated human resource management approach incorporate organization reorganization principles which correlate with

those fields of activity, which can also be based on the process approach, such as personnel, finance, risk and quality management.

Bibliography

1. Buligina, I., Sloka, B., Dzelme, J., Tora, G. (2014). Triple Helix for Vet: New Challenges for Public Administration in Latvia. *Marketing and Sustainable Consumption, Rural Development and Entrepreneurship, Home Economics: International Scientific Conference "Economic Science for Rural Development 2014"*, Latvia, Jelgava, 24-25 April, 2014. Jelgava: Latvian University of Agriculture, 2014, pp. 217-225. ISBN: 978-9934-8466-2-5, ISSN: 1691-3078.
2. Curristine, T., Lonti, Z., Joumard, I. (2007). Improving Public Sector Efficiency: Challenges and Opportunities. *OECD Journal on Budgeting*, Volume 7, No. 1, OECD 2007. ISSN 1608-7143. Retrieved: <http://www.oecd.org/gov/budgeting/43412680.pdf>. Access: 12.11.2015.
3. Kersule, L., Sloka, B., Skruzkalne, I. (2011). Motivation Impact on Employee Performance. *New Socio-Economic Challenges of Development in Europe 2010: International Conference on New Socio-Economic Challenges of Development in Europe*. Latvia, Riga, 07-09 October, 2010. Riga: University of Latvia, 2011, pp. 205-211. ISBN 978-9984-45-363-7.
4. Kidd, M., Crandall, W. (2006). Revenue Authorities: Issues and Problems in Evaluating their Success. *IMF Working Paper, WP/06/240*. Washington D.C. Retrieved: <http://www.imf.org/external/pubs/ft/wp/2006/wp06240.pdf>. Access: 21.09.2012.
5. Maguire, F., McBean, B., McLean, J., Thorpe, J., Sacks, D., Keogh, P., Bowden, T., McMaster, T., Peake, T. (2013). Improving public sector productivity through prioritisation, measurement and alignment: New approaches for how the public sector improves productivity. Retrieved: <https://www.pwc.com/gx/en/psrc/pdf/pwc-improving-public-sector-productivity-through-prioritisation-measurement-and-alignment.pdf>. Access: 12.11.2015.
6. Mavlutova, I., Sarnovics, A., Olevsky, G. (2014). Business Restructuring as a Tool of Financial Strategy of a Company. *The 8th international Scientific Conference "Business and Management 2014": Selected Papers*, Lithuania, Vilnius, 15-16 May, 2014. Vilnius: Vilnius Gediminas Technical University, 2014, pp. 101-108. ISBN:978-609-457-649-2, ISSN: 2029-4441. Available from: 10.3846/bm.2014.014
7. OECD (2015). Tax administration 2015. Comparative information on OECD and other advanced and emerging economies. Retrieved: http://www.keepeek.com/Digital-Asset-Management/oecd/taxation/tax-administration-2015_tax_admin-2015-en#page2. Access: 29.10.2015.
8. Petersone, M. (2013). Features of Process Management in Customs. *Creating a Future: communication, education, business: XIV international scientific conference*, Latvia, Riga, 30 May 2013. Riga: Ltd "University Turiba", 2013, pp.209-220. ISSN 1691-6069.
9. Petersone, M., Ketners, K. (2013). Institutional Division of Customs Administrations. *Production and Cooperation in Agriculture. Finance and Taxes: International Scientific Conference "Economic Science for Rural Development"*, Latvia, Jelgava, 25-26 April, 2013. Jelgava: Latvian University of Agriculture, 2013, pp.207-213. ISBN 9789934830464. ISSN 1691-3078.
10. Petersone, M., Ketners, K., Krastins, A. (2014). Regulatory Framework for Operation of Latvian Tax and Customs Experts and Opportunities for Education. *Finance and Tax, New Dimensions in the Development of Society: International Scientific Conference "Economic Science for Rural Development 2014"*, Latvia, Jelgava, 24-25 April, 2014. Jelgava: Latvian University of Agriculture, 2014, pp.91-98. ISBN 978-9934-8466-0-1. ISSN 1691-3078. e-ISSN 2255-9930.
11. Petersone, M., Ketners, K., Krastins, A. (2014). Talent Management in Public Administration Institutions: the Case of Latvian Customs. *The 8th international Scientific Conference "Business and Management 2014": Selected Papers*, Lithuania, Vilnius, 15-16 May, 2014. Vilnius: Vilnius Gediminas Technical University, 2014, pp.145-153. ISBN 978-609-457-650-8. e-ISSN 978-609-457-649-2. ISSN 2029-4441. e-ISSN 2029-920X. Available from: doi:10.3846/bm.2014.019
12. Petersone, M., Krastins, A., Ketners, K. (2015). Development of System of State Revenue Service Performance Indicators. *Economic Science for Rural Development, No.37: 16th International Scientific Conference "Economic Science for Rural Development": Finance and Taxes*, Latvia, Jelgava, 23-24 April, 2015. Jelgava: Latvia University of Agriculture, 2015, pp.190-200. ISBN 978-9984-48-180-7. ISSN 1691-3078. e-ISSN 2255-9930.
13. Schneider, F. (2014). Estimating the Size of the Shadow Economy: Methods and Problems; and the Latest Results for the Baltic Countries, July 2014. Retrieved: http://www.sseriga.edu/files/content/presentation_friedrich_schneider.pdf. Access: 11.11.2015.
14. The Danish Ministry of Taxation (2015). Skatteadministrationen sammenlig-net med andre lande. Retrieved: http://www.skm.dk/media/1179106/skatteoeconomisk-analyse_skatteadministrationen-sammenlignet-med-andre-lande_230215.pdf. Access: 29.10.2015.
15. World Bank Group (2003). Supporting Institutional Reforms in Tax and Customs: Integrating Tax and Customs Administrations. A study prepared by PLS RAMBOLL, Copenhagen, and supported by the Danish governance Trust Fund. Access: 11.10.2012.
16. Yasui, T. (2009). Cooperation between Customs and Tax administrations: Lessons Learned from Revenue Authorities. Retrieved: <http://www.wcoomd.org/files/1.%20Public%20files/PDFandDocuments/research/revenue.pdf>. Access: 21.09.2012.
17. Zarbafi, M.E. (2011). *Responsible Investment and the Claim of Corporate Change: A Sensemaking Perspective on How Institutional Investors May Drive Corporate Social Responsibility*. NEW YORK: SPRINGER, p.281.

TAXATION OF PENSIONS IN THE BALTIC STATES

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Abstract. Pension systems of the three Baltic States have very much in common. These commonalities are induced by their common past, similar socio-economic environment and common prevailing development trends. However, some certain elements of pension system design vary significantly among the countries. Quite interesting variations can be found in the taxation-related aspects: sources of financing pension budgets (taxes and social insurance contributions), tax incentives for stimulating personal voluntary pension savings, tax rates for statutory and voluntary pensions in payment.

The author has studied the national pension legislation (laws, Cabinet regulations), academic literature and statistical data sources. The research is limited to old-age pension benefits, not covering disability and survivors' pensions. The effective tax rates on pensions are highest in Latvia and lowest in Lithuania, both for mandatory and voluntary pensions, following the same pattern as labour taxation in the region.

Key words: Baltic States, pensions, income tax, tax incentives, fiscal welfare.

JEL code: H55, H71, H75

Introduction

The research objects of this study are pension systems of Estonia, Latvia and Lithuania, and, more narrowly, those elements of these systems that relate to the fiscal welfare dimension. They are a very beneficial object for comparative studies, since the three Baltic States have very much in common, making it even interesting to find differences and discrepancies.

Pension reforms in the region started in the mid of the 1990s and now all three countries have modern three pillar pension systems.

The vast academic literature dedicated to pension reforms in Estonia, Latvia and Lithuania, or – in a broader context – in the post-communist Central and Eastern European countries (e.g. Tavits, 2003; Aidukaite, 2003, 2006, 2009 and 2011; Rajevska, 2015) is focusing mainly on the transformation paths of social security systems, discussions on welfare state concept etc.

The approach of this paper is close to the research performed by Lithuanian scholars (Skackauskiene, 2013; Skackauskiene & Tuncikiene, 2014) for labour income taxation in the Baltic States: a consolidated review of existing regulatory standards, rates and principles.

The material in this paper is a synthesis of information from numerous sources:

1. ASISP (Analytical Support on the Socio-Economic Impact of Social Protection Reforms) annual national reports on pensions, health and long-term care for Estonia, Latvia and Lithuania written by country experts: Andres Võrk, Lauri Leppik and Gerli Paat-Ahi (Estonia). Inara Bite and Ruta Zilvere (Latvia) and Teodoras Medaiskis and Danguole Jankauskiene (Lithuania).

2. Information from the specialised web-sites:

- www.pensionikeskus.ee (held by the Central Depository of Estonia);
- www.manapensija.lv (held by the Central Depository of Latvia);
- www.pensijusistema.lt (held by the Ministry of Social Security and Labour of Lithuania);
- www.vsaa.lv (held by the State Social Insurance Agency of Latvia);
- www.sodra.lt (held by the State Social Insurance Fund Board of Lithuania);
- www.socmin.lt (web-site of the Ministry of Social Security and Labour of Lithuania).

3. Laws

- State Pension Insurance Act (Estonia), RT I 2001, 100, 648;
- Social Tax Act (Estonia), RT I 2000, 102, 675;
- Income Tax Act, RT I 1999, 101, 903.

- Funded Pensions Act (Estonia), RT I 2004, 37, 252;
- Law on State Pensions (Latvia), adopted on 02/11/1995;
- Law on State Social Insurance (Latvia), adopted on 01/10/1997;
- Law on State Funded Pensions (Latvia), adopted on 17/02/2000;
- Law on Personal Income Tax (Latvia), adopted on 11/05/1993;
- Law on State Social Pension Insurance Pensions (Lithuania), I-549, adopted on 18/07/1994;
- State Social Insurance Law (Lithuania), I-1336, adopted on 21/05/1991;
- Republic of Lithuania Law on Personal Income Tax, NIX-1007, adopted on 02/07/2002.

4. Statistical data are obtained from online databases of national statistical bodies: Statistics Estonia (www.stat.ee), Central Statistical Bureau of Latvia (Centrālā statistikas parvalde, CSP, <http://www.csb.gov.lv>) and Statistics Lithuania (Lietuvos statistikos departamentas, <http://www.stat.gov.lt>).

The research is limited to old-age pension benefits, not covering disability and survivors' pensions. The effective tax rates on pensions are highest in Latvia and lowest in Lithuania, both for mandatory and voluntary pensions, following the same pattern as labour taxation in the region.

Research results and discussion

1. Overall design of old-age pension systems in the Baltic States

Estonia, Latvia and Lithuania entered their new eras of independence with identical old-age security systems, inherited from the Soviet period. They also faced very similar transition-related challenges. The processes of radical economic and political reforms were accompanied by reforming the old soviet social security system. Some reforms have been commenced already in 1990 in all three Baltic States, starting from introducing of social insurance contributions

(social tax) and financial separation of the social insurance system from other budgetary expenditures. The second wave of pension reforms in the second half of the 1990s was very much influenced by the World Bank seminal report "Averting the Old-Age Crisis: Policies to Protect the Old and Promote Growth" (World Bank, 1994). The paper has introduced the concept of three-pillar pension system and actively propagated the substantial shift to privatization of mandatory pensions. By the beginning of this century, the structure of pension systems in all three countries included:

- Pillar I: a state-managed compulsory pension scheme, operating on the pay-as-you-go principle, financed by social insurance contributions ('pension tax'), and offering earnings-related benefits;
- Pillar II: a privately-managed, compulsory, and fully-funded pension scheme, financed by social insurance contributions;
- Pillar III: privately managed voluntary pension schemes, in the form of pension funds or insurance policies offered by insurance companies.

Pillars I were created by reforming the existing state pension schemes, while pillars II and pillars III were introduced as completely new schemes. The purpose of this paper does not involve any thorough analysis of the elements of the Baltic pension systems and pension benefit computation procedures, those interested may refer to the author's other recent publications (Rajevska 2014, 2015).

2. Funding of pension budgets

Pensions are financed from social budgets replenished by social insurance contributions made by insured persons and their employers (in Estonia the term "social tax" is used). For some categories (e.g. self-employed, unemployed persons, those on sick-leave or maternity or child-care leave, working pensioners etc., the

contributions are made in accordance with special rules). In Latvia, the so-called 'pension supplements' – one euro per one pre-reform year of service record that were assigned to those

retired before 2012 - are financed from the general state budget.

Generic rates for persons participating / not participating in mandatory funded pillar (pillar II) are given in the below two tables.

Table 1

Rates of social tax (social insurance contributions) for persons NOT participating in pillar II (generic case) in the Baltic States, as in December 2015

	Social insurance contributions (% of gross earnings)			
	paid by		total	of them to pensions
	insured person	employer		
Estonia	-	33	33	20
Latvia	10.5	23.59	34.09	20
Lithuania	9	30.8	39.8	26.3

Source: author's compilation from national social insurance agencies data

The highest rate of social insurance contributions is observed in Lithuania but at the same time this country has the lowest income tax on employees' salaries, so the total tax burden

on wages is the heaviest in Latvia. The division of contributions between employees and employers is the least beneficial to Latvian employees as well.

Table 2

Rates of social tax (social insurance contributions) for persons participating in pillar II (generic case) in the Baltic States, as in December 2015

	Social insurance contributions (% of gross earnings)					
	paid by		total	of them to pensions		
	insured person	employer		total	1st pillar	2nd pillar
Estonia	2	33	35	22	16	6
Latvia	10.5	23.59	34.09	20	15	5
Lithuania	10	30.8	40.8	27.6	24.6	3

Source: author's compilation from national social insurance agencies data

As it can be seen from the above tables, in Estonia and Lithuania, pillar II participants make additional contributions, making their net earnings lower compared to those not participating in pillar II. Until quite recently, Estonia was the only country in Central and Eastern Europe to increase the total contribution rate when introducing pillar II, using both the so-called "top-up" and "carve-out" methods simultaneously (Leppik & Vork, 2006). Lithuania followed suit starting from 2014. Besides that, in Lithuania, the state makes extra payments to pillar II pension fund from general budget (financed by other taxes), i.e. pillar II in that

country is financed by three sources: person's mandatory social insurance contributions, additional personal contributions made by workers (like in Estonia), and state subsidies to pension funds from the state budget (the amount of state subsidy is the same for all covered by the scheme, irrespective of the actual personal wage, it is calculated from the average wage in the country, in 2015 it was EUR 6.61 per month per person), (A similar scheme can be found also in Estonia but there it relates only to a very specific case: the so-called 'parental pension'. The state makes additional contributions from the general budget to II pillar II pension funds for one parent (either a mother

or a father). The amount of the contribution is set 4% of the countrywide average insured wage (in 2015 – EUR 31.71), this is the amount that the state transfers to pension funds for one parent. Such additional contribution is paid from the date of childbirth until the child becomes three years old, regardless of the fact whether the parent has returned to work or not.). However, those Lithuanian pillar II participants who joined the system before 2013 were allowed to continue participation in pillar II under old rules (that were similar to Latvian scheme), i.e. with no additional personal contributions and with no state subsidy, and this option was chosen by 64.5% (684 thou.) of pension funds participants. One third (33.2%) of pre-reform pillar II participants (352.5 thou.) have joined new scheme: increased personal contribution in return for additional state subsidy (*Figures from State Social Insurance Fund Board of the Republic of Lithuania (SoDra) statistical data website <http://atvira.sodra.lt/en-eur/index.html> (retrieved on 20/12/2015).*

Estonian and Lithuanian legislators, in contrast to their Latvian counterparts, allowed some degree of flexibility to pillar II participants, offering more than one scenario to the participants.

3. Taxation of pensions in payment – pillar I and pillar II

In Estonia, all mandatory pensions paid from pillar I and pillar II are taxed by income tax (in 2015 – 20%, the same rate remains in force in 2016) but there is an additional tax allowance for pensions. The tax-free income for pensioners in 2014 was EUR 374 per month (consisting of general tax exempt income EUR 1,728 per year, plus additional tax exempt for the state pension – EUR 2,520 per year). If the payments start in the middle of the year, the additional tax exemption calculated for the pension payments is also made for the months preceding the beginning of the payments. The tax exempt levels are regularly revised, thus, in 2016 the monthly tax-free

income for pensioners was raised by EUR 395 per month.

Average pension levels are below this threshold: in Quarter 3 of 2015 (the latest available data at the time of writing this paper), the average Estonian old-age pension was equal to EUR 370.90, so the effective tax rate on pensions is very low.

In Latvia, state pensions (i.e. payments from pillar I and pillar II) are subject to income tax – 23% (rate for 2015 and 2016). The tax-free income for pensioners is also higher than for those in working age and amounts to EUR 235 per month (EUR 2,820 per year). Pensions, assigned before 1996 (i.e. in accordance with the former Law on State Pensions) are not taxed irrespective of the amount.

In contrast to Estonia, the majority of Latvian pensions lie above this line – in Quarter 3 of 2015, the Latvian average old-age pension was equal to EUR 273.00 (net), which means that the effective tax rate on pensions is significantly higher.

In Lithuania, no income tax is levied on pension benefits paid from statutory pillar I and pillar II schemes (meanwhile, the average old-age pension in Quarter 3 of 2015 was equal to EUR 246.90).

4. Taxation of pensions in payment – pillar III

Taxation of voluntary pillar III pensions is also different in the three study countries.

In Estonia, pillar III pension benefits are taxed at 0%, 10% or 20% rates depending on the duration of the participation in the scheme, age of retirement and way of taking out the benefit.

There is no age restriction on the time of finishing the accumulation phase and commencing the pay-out phase: a person can receive payments from the voluntary funded pension whenever s/he wishes. However, a full income tax rate of 20% is applicable for all sums withdrawn from the insurance contract or pension

fund before the person becomes 55 years old, unless the person has become fully and permanently incapable of work. In such case, tax incentives are applicable: 10% income tax is charged on the payments from pension fund and no income tax at all is charged on lifetime payments from an insurance company (annuity) paid monthly or quarterly.

After the person has become 55 years old, the payments are taxed with 20% income tax if less than 5 years have passed since the conclusion of the contract or first acquisition of redeemable units. In the case that more than 5 years have passed, single and fixed-term payments are taxed with 10% income tax, while lifetime payments from an insurance company (annuity) are not taxed with income tax.

In Latvia, the benefits can be received from pillar III pension plans only after the person becomes 55 years old (unless s/he is granted with the first degree of disability). The payments are taxed with income tax at 10% rate.

In Lithuania, the rules are similar to Estonian ones: pension benefits paid from pillar III voluntary funds can be received at any age and are levied with 15% income tax but become tax-free if a person:

- holds savings in a pillar III pension fund for at least 5 years and reaches the age of 55 at the time of payment of the benefit (and the pension savings agreement was concluded before 31 December 2012); or
- holds savings in a pillar III pension fund for at least 5 years and reaches the age which is five years earlier than the threshold for the old-age pension at the time of payment of the benefit (if the pension savings agreement was concluded after 1 January 2013).

5. Tax incentives for voluntary pension savings

Voluntary funded pension schemes function almost uniformly in all three countries. National pension legislations are designed to motivate

people to save in pillar III, what differs are the rates and bases for return of income tax on the contributions paid to private pension funds.

In Estonia, for contributions of up to EUR 6,000 or 15% of gross earnings income tax (20%) is returned.

In Latvia, for contributions of up to 10% of gross earnings income tax (23%) is returned. But if a person accumulates pension savings by making contributions both to a pillar III pension plan and to a lifetime insurance cover, s/he may double the base for income tax return: up to 10% for contributions to a pension fund plus up to another 10% for contributions to an insurance company.

In Lithuania, for contributions of up to 25% of gross earnings income tax (15%) is returned.

Although the overall approach is absolutely similar, the figures vary between countries, Lithuania offering the most generous incentive for voluntary accumulations.

Conclusions, proposals, recommendations

- 1) Pension systems of the Baltic States have a lot in common, including the general structure and functional role of the three pillars, overall approach to financing pension budgets and taxation mechanisms.
- 2) Pension budgets in all three Baltic States are financed from social insurance contributions ("social tax"), the highest rate being observed in Lithuania and the lowest in Estonia. In Estonia and Lithuania, pillar II participants pay additional contributions, making their net earnings lower compared to those not participating in pillar II.
- 3) In some specific cases, pensions are partially financed also from the general state budget in all three Baltic States.
- 4) Lithuania is the only Baltic country, where statutory pensions are not subject to any tax. Both in Estonia and Latvia, pillar I and pillar II old-age pensions are subject to income tax (20% in Estonia and 23% in Latvia).

Pensioners are granted with higher tax exempts than persons in working age.

5) Tax exempt threshold in Estonia is higher than the average pension level, i.e. the majority of pensions are not taxed. Meanwhile in Latvia, tax exempt line is below the average pension.

6) The most elaborated regulation of taxation of pillar III pensions can be found in Estonia, the least flexible rates are observed in Latvia.

7) All three countries offer similar mechanisms of tax incentives for accumulating individual voluntary pension

savings in pillar III pension funds or insurance companies, providing income tax returns for pension contributions.

8) All things considered, the pension-related effective tax rates are the highest in Latvia. They should be revisited in order to learn lessons from Estonian and Lithuanian examples.

Bibliography

1. Aidukaite, J. (2003). From Universal System of Social Policy to Particularistic? The Case of the Baltic States, *Communist and Post-Communist Studies*, Vol. 36 (2003), pp. 405-426
2. Aidukaite, J. (2006). Reforming Family Policy in the Baltic States: The Views of the Elites, *Communist and Post-Communist Studies*, Vol. 39 (2006), pp. 1-23
3. Aidukaite, J. (2009). Old Welfare State Theories and New Welfare Regimes in Eastern Europe: Challenges and implications, *Communist and Post-Communist Studies*, Vol. 42 (2009), pp. 23-39
4. Aidukaite, J. (2011). Welfare Reforms and Socio-Economic Trends in the 10 New EU Member States of Central and Eastern Europe, *Communist and Post-Communist Studies*, Vol. 44 (2011), pp. 211-219
5. Bite, I. (2012). Annual National Report: Pensions, Health Care and Long-term Care. Latvia 2012. Retrieved: http://socialprotection.eu/files_db/1261/asisp_ANR12_LATVIA.pdf. Access: 10.01.2016
6. Jankauskiene, D. & Medaiskis, T. (2012). Annual National Report: Pensions, Health Care and Long-term Care. Lithuania 2012. Retrieved: http://socialprotection.eu/files_db/1255/asisp_ANR12_LITHUANIA.pdf. Access: 09.01.2016
7. Leppik, L. & Vork, A. (2006). Pension Reform in Estonia. In Fultz, E. (ed.). *Pension Reform in the Baltic States*. Budapest: International Labour Organisation. pp. 17-142.
8. Medaiskis, T. & Jankauskiene, D. (2013). Country Document: Pensions, Health and Long-term Care. Lithuania 2013. Retrieved: http://socialprotection.eu/files_db/1334/LT_asisp_CD13.pdf. Access: 09.01.2016
9. Rajevska, O. (2014). Adequacy of Pensions in the Baltic Region. *Regionalais Zinojums (Regional Review)*, Vol. 10, pp. 41-51
10. Rajevska, O. (2015). Sustainability of Pension Systems in the Baltic States. *Entrepreneurial Business and Economics Review*, Vol. 3(4), pp. 7-21
11. Skackauskiene, I. (2013). Peculiarities of Labour Income Taxation in the Baltic States. *Entrepreneurial Business and Economics Review*, Vol. 1(4), pp. 57-69
12. Skackauskiene, I. & Tuncikiene, Z. (2014). Comparative Evaluation of the Labour Income Taxation in the Baltic States, *Procedia - Social and Behavioral Sciences*, Vol. 110 (2014), pp. 439 - 449
13. Tavits, M. (2003). Policy Learning and Uncertainty: The Case of Pension Reform in Estonia and Latvia. *The Policy Studies Journal*, Vol. 31(4), pp. 643-657
14. Vork, A. & Paat-Ahi, G. (2013). Country Document: Pensions, health and long-term care. Estonia 2013. Retrieved: http://socialprotection.eu/files_db/1372/EE_asisp_CD13.pdf. Access: 09.01.2016
15. Vork, A. & Segart, S. (2012). Annual National Report: Pensions, Health Care and Long-term Care. Estonia 2012. Retrieved: http://socialprotection.eu/files_db/1221/asisp_ANR12_ESTONIA.pdf. Access: 09.01.2016
16. World Bank, (1994). *Averting the Old Age Crisis: policies to Protect the Old and Promote Growth*. Oxford: Oxford University Press.
17. Zilvere, R. (2013). Country Document: Pensions, Health and Long-term Care. Latvia 2013. Retrieved: http://socialprotection.eu/files_db/1415/LV_asisp_CD13.pdf. Access: 09.01.2016

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FRAMEWORK FOR ANALYSIS OF LATVIAN CORPORATE BOND MARKET DEVELOPMENT

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Abstract. Global financial crisis introduced the changes in both global and local banking sectors with its supply of loans for the corporate segment. The development of the government bond market in Latvia took place parallel to the transformation in the banking sector. Both processes have resulted in the changes in Latvian corporate bond market - the number of corporate bonds outstanding on NASDAQ Riga has risen to 43 (NASDAQ Riga, 2016). Still the skewness to the corporate bond issues done by the financial sector, small size of the issues outstanding and low liquidity on the secondary market provide the challenging background to the question: How developed is Latvian corporate bond market? The aim of this article is to provide the reasonable framework to measure the development of Latvian corporate bond market. The paper discovers that while most of the researchers introduce and apply descriptive elements to analyse small size corporate bond market of a developing country, the study of the World Bank (2006) and Wyman (2015) present the comparative factor frameworks, which can be used as a tool to analyse Latvian corporate bond market development. The paper argues that Financial Sector Development Indicators (FDSI) study and the study by Wyman (2015) are rare attempts to standardize the assessment of corporate bond market via the variables introduced covering various dimensions, which should be applied for Latvian corporate bond market analysis.

Key words: corporate bond market, development, indicators, issue.

JEL code: G23, G24

Introduction

In Latvia, the debt market has started its development in 1993. However, the number of issuers is still small, the size of the issues is limited and the secondary market activity is low. In the pre-crisis period of 1993-2010, two types of corporate bond issues were issued in the market: mortgage bonds and corporate bonds not linked to mortgages. By 2012 only 2 corporate bond issues remained listed on NASDAQ Riga with no mortgage bonds present. The development of Latvian corporate bond market in the period of 2012-2016 has been quick but very different from its historical trends: the banking sector issuers form 75% of all the number of issues outstanding, first quasi-sovereign issuer is present in the market (NASDAQ Riga, 2016). The very diverse and unsynchronized development of Latvian corporate bond market and its recent growth form the need to identify the level of the development of Latvian corporate bond market. While many academic studies on corporate bond markets are present, no study provides a clear framework to measure the development of the corporate bond market of an emerging economy. Moreover, no

study on Latvian corporate bond market development is present.

The aim of this article is to provide the reasonable framework to measure the development of Latvian corporate bond market, determine the current stage of the development of Latvian corporate bond market and provide further suggestions for the development of Latvian corporate bond market for the regulatory authorities and market participants. The author hypothesise that the development of Latvian corporate bond market should be analysed by the comparative factor analysis framework. The author explores the existing academic literature on the topic.

Latvian corporate bond market development

Historically, Latvian debt market is represented by three types of securities: government bonds, mortgage bonds and corporate bonds. The first group has strong dominance being the oldest and the most active on the primary and secondary market (State Treasury, 2015). The development of this segment can be characterized as "stable growth" with the Republic of Latvia continuing borrowing on both domestic and international markets. Mortgage bond market, which has attracted most

of the corporate issuers during the period of increased bank lending, has not been active since 2008 (Financial and Capital Market Commission, 2015).

The third segment of the corporate bonds started its development in 1998 when Eksportkredit had issued bonds with the face value of LVL 15 million or the biggest public issue of that time in Latvia (Apsitis G., et al., 2003). Strong development of the economy in 2003-2007 made a positive impact on the whole bond segment: the activity increased not only on the mortgage bond segment but also in the corporate debt securities. According to the statistics of Latvian Central Depository, the biggest issue made by the non-financial borrower in 2007 was by Alta Real Estate Partners (Latvian Central Depository, 2015). The amount borrowed on the market by the real estate company reached EUR 15 million. The other corporate issuers of the same year were Telekom Baltija (EUR 7 million), ELKO Grupa (EUR 6.5 million) and Apex Investments (EUR 5.5 million). Smaller amounts were borrowed by real estate companies Happy Trails (EUR 3.5 million) and Pilsetmaju instituts "Urban Art" (EUR 2.5 million) (Bloomberg, 2015). From all the issues made in 2007, only Apex Investments has listed its 5 500 bonds on NASDAQ Riga Bond list (NASDAQ Riga, 2015). Pleika-Izika stresses that the investor risk appetite declines substantially during the recession economic cycle periods, which was the case of Latvian economy in 2009-2010 (Pleika-Izika K., 2009). This view is supported by the study of Arteta, which reveals that crises conditions can prevent the normal credit capital flow to the corporate (Arteta C., 2005). The development and investment on Latvian corporate bond market was minimal during those years as investors shifted for safer assets or even asset classes.

After-crisis trends in Latvia corporate bond market have developed Latvian corporate bond market where 98% of all the issuers in the period

Jelgava, LLU ESAF, 21-22 April 2016, pp. 357-358 2010-2015 represent financial sector companies mostly banks (NASDAQ Riga, 2015). During five-year period, non-financial sector companies made only 6 out of 62 issues: Elko Grupa, Acme Corporation, Baltic Dairy Board and Latvenargo. Today, Latvia has the most developed local corporate bond market in the Baltics with its 43 corporate bonds listed on NASDAQ Riga, while no corporate bond is listed on NASDAQ Vilnius and one corporate bond is listed on NASDAQ Tallinn (NASDAQ Riga, 2016). While looking more developed when compared to the Baltic region, the small scope of the market, skewness to the financial sector issuers and small numbers of the issue are triggering the comparative success to the Baltic peers. The later stipulates the need for a framework to measure the level of development of Latvian corporate bond market.

Analysis of Latvian corporate bond market development

The precondition for the market existence is the presence of supply and demand factors as well as infrastructural setup; still those variables do not disclose the development gap between markets. There is a need to introduce the dimensions of the analysis in order to analyse the development of the corporate bond market. There are various attempts to analyse the development of the corporate bond market of the country. The vast majority of the researchers concentrate on the qualitative analysis of the development of the corporate bond market while few provide more numerical measure in the form of ratios. The author divides academic studies analysing the level of the development of the corporate bond market into two groups:

- 1) descriptive factor analysis: Fabella and Madhur (Fabella R. et al., 2003), Burger and Warnock (Burger J. D. et al., 2005), Braun and Briones (Braun M. et al., 2006), Stewart (Stewart A., 2009), and Dittmar and Yuon (Dittmar R.F. et al., 2008);

2) comparative factor analysis: the research by the World Bank introducing Bond market development indicators (World Bank, 2006; Wyman O., 2015).

Descriptive factor analysis framework

Descriptive factor analysis frameworks provide the dimensions for assessment of the current situation of the corporate bond market. Size of the market and legal framework are the two corporate bond market factors covered by the numerous descriptive factor analysis studies.

Fabella and Madhur apply the following framework as the descriptive factor analysis of the corporate bond market:

- size of the bond market;
- secondary market turnover;
- maturity structure of government bonds;
- investor base;
- tax treatment of bonds;
- market infrastructure:
- primary issuance method
- secondary market transactions
- cross-country electronic connection
- qualitative assessment of the legal and regulatory framework (Fabella R. et al., 2003).

Burger and Warnock add macroeconomic factors:

- influence of rule of law;
- creditor rights;
- fiscal balance (calculated as a percent of GDP and averaged over a 20-year period);
- country size (as measured by the log of GDP);
- growth rates (annual GDP growth over the preceding ten years) (Burger J. D. et al., 2005).

Eichengreen and Leungnareumitchai concentrate their study on the size factor. The descriptive factor analysis of the authors is extended into comparative field, where they find that larger countries have better capitalized, in relation to the GDP, bond markets. The study

Jelgava, LLU ESAF, 21-22 April 2016, pp. 357-359 also argues that the development of corporate bond market is related to the banking sector, where the countries with more competitive, better-capitalized banking systems have larger markets. The factors, which are influencing the development of the bond market, are institutional quality such as level of corruption, introduction of internationally recognized accounting standards by the companies (Eichengreen B. et al., 2004).

Developing its own comparative factor analysis framework Stewart analysed well-functioning developed bond markets and revealed that the following features were important for the market development:

- an infrastructure that supports organized, efficient and effective operations of both the primary and secondary bond markets;
- the existence of a proper regulatory framework;
- credit rating agencies;
- effective settling and clearing facilities;
- a well-functioning banking system;
- an efficient 'REPO' market;
- active market makers (dealers);
- a well-defined benchmark yield curve (Stewart A., 2009).

The quality of property rights and contracting institutions was found as a non-influencing factor of the development of the corporate bond market by the study of Braun and Briones (Braun M. et al., 2006). The research stresses that the bond market development has positive correlation with GDP per capita as a measure of general economic development. The presence of institutional investors in the market is positively correlated with the development of bond markets. Study finds other factors of minor importance: macroeconomic aspects, country size effect, the existence of fixed setup.

Macroeconomic indicators of the country as the ones influencing the development of the corporate bond market segment were proved by Burger and Warnock (Burger J. D. et al., 2005)

and Eichengreen and Leungnareumitchai (Eichengreen B. et al., 2004). Burger and Warnock have revealed that countries with stable inflation rates and strong creditor rights have more developed local bond markets and rely less on foreign-currency-denominated bonds, where the ability to borrow internationally in the local currency helps to avoid the pitfalls of a currency mismatch and thus may further stabilize macroeconomic performance (Burger J. D., et al, 2005). Eichengreen and Leungnareumitchai add that stable exchange rate does influence bond market development through lower currency risk and thus encourages foreign market participants (Eichengreen B. et al., 2004).

The study of Dittmar and Yuan analyse the corporate bond market segment in the relation to sovereign one. The study indicates that securities of the sovereign bond segment act as benchmark for the corporate bond market and promote it (Dittmar R.F. et al., 2008). Little interconnection between corporate and sovereign segments was found by the study of Eichengreen and Leungnareumitchai (Eichengreen B. et al., 2004).

Comparative factor analysis framework

While most of the descriptive corporate bond markets studies: Fabella and Madhur (Fabella R. et al., 2003), Burger and Warnock (Burger J. D., et al, 2005), Braun and Briones (Braun M. et al., 2006), Stewart (Stewart A., 2009), and Dittmar and Yuon (Dittmar R.F. et al., 2008) concentrate their research on discovering areas that have an influence and/or foster the development of the corporate bond market, those studies do not provide the metrics for actual measurement of the level of development or the progress of development of the corporate bond market of the country.

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The study of the World Bank provides another attempt to standardize the assessment of corporate bond market via the variables introduced (World Bank, 2006). As compared to the studies of Fabella and Madhur (Fabella R. et al., 2003), Burger and Warnock (Burger J. D. et al., 2005), Braun and Briones (Braun M. et al., 2006), Stewart (Stewart A., 2009), and Dittmar and Yuon (Dittmar R.F. et al., 2008), there are important limitation factors to be mentioned, which can influence the results of FDSI: lack of macroeconomic factors, regulation framework, development of the banking sector. As seen in Table 1, FSDI model introduces four dimensions to access and monitor the bond market: size, access, efficiency and stability.

Size dimension represents the most common measure used in the academic studies- relative comparison of the elements of the bond market to GDP: Fabella and Madhur (Fabella R. et al., 2003), Burger and Warnock (Burger J. D. et al., 2005), Braun and Briones (Braun M. et al., 2006), Eichengreen and Leungnareumitchai (Eichengreen B. et al., 2004). The FDSI study discovers that high income OECD countries have substantially larger bond markets, whereas the developing countries have difficulty utilizing international markets (World Bank, 2006). Among the reasons mentioned is limitation of the management of fiscal and exchange rate policies in the developing countries. The FDSI study suggests that to overcome the size constraint for the small countries and develop bond markets, they should issue bonds in foreign countries and foreign currencies, or develop common securities exchanges and spread the infrastructure costs among members.

Financial sector development indicators (FSDI)

Size	Efficiency
Ratio of private sector bonds to GDP	Quoted bid-ask spreads(10-yr government bond yield)
Ratio of public sector bonds to GDP	Turnover of private sector bond on securities exchange
Ratio of international bonds to GDP	Turnover of public sector bond on securities exchange
Dummy variable: Existence of bond market	Settlement Efficiency Index
Dummy variable: Existence of corporate bond market	
Access	Stability
Government bond yield (3 months and 10 years)	Volatility of sovereign bond index
Ratio of domestic to total debt securities	Skewness of sovereign bond index
Ratio of private to total debt securities (domestic)	Ratio of short-term to total bonds (domestic)
Ratio of new corporate bond issues to GDP	Ratio of short-term bond to total bonds (international)
New corporate bond issues (\$ billion)	Correlation with German bond returns
	Correlation with US bond returns

Source: World Bank (2006)

The second dimension characterizes how low the cost of capital is and how easily domestic companies can access it (World Bank, 2006). The study reveals that bond issuance in high-income OECD countries account for nearly 90% of the corporate bond issues globally. Corporate bond issues in developing countries are still small by global standards.

Efficiency dimension targets liquidity of the secondary bond market by measuring the spread with benchmark. Efficiency factor is widely present in other analyses of the corporate bond market: the turnover in the secondary market, the number of secondary market transactions is analysed by Fabella and Madhur (Fabella R. et al., 2003); operation in the secondary market and a well-defined benchmark curve is introduced by Stewart (Stewart A., 2009).

The last dimension is analysed by measuring volatility, skewness, maturity structure and correlation between bond returns (Stewart A., 2009). The results of the study show that the larger markets are more efficient and provide more trouble-free access to the capital. Fabella

and Madhur analyse stability by introducing maturity structure of the market (Fabella R. et al., 2003).

The research by Wyman provides another comparative framework for corporate measuring corporate bond market development (Wyman O., 2015). The paper names various factors that can influence the development of the corporate bond market such as issuers and investors' ability to access corporate bond markets, perceived risk of the market framework, relative cost and returns from participating in the market, and ability for them to effectively find a match for their supply or demand. While stressing that it is difficult to include and measure all the factors affecting the development of the corporate bond market, the research suggests a set of proxy metrics that can be used to evaluate the success of and progress in corporate bond market development. The factors are divided into 4 groups: ability to access, perceived risk of market framework, relative costs and returns of participating and ability to effectively match supply & demand. The research provides the metrics for measuring the

development of the corporate bond market development. The research suggests adding more metrics for other areas of capital markets

Jelgava, LLU ESAF, 21-22 April 2016, pp. 357-362 (e.g. equity markets), thus, giving a broader analysis on the capital market of the country.

Table 2

Generalized sequencing of corporate bond market development

Stage 1	Stage 2	Stage 3
Set up basic market infrastructure Establish benchmark curve through government bond issuances Develop institutional investors	Introduce corporate bond issuances Establish wholesale credit market/establish credit ratings system	Reduce issuance costs and accelerate issuance timeline Promote growth of asset management industry Promote among issuers an investor relations culture and ability to manage compliance of covenants
Establish regulatory body to govern securities markets	Restrict permissible investments for institutional investors Establish market standards Standardize minimum level and frequency of documentation and disclosure	Some relaxation of investment criteria for institutional investors Evolve regulations to better reflect regional/international standards and meet evolving stakeholder needs Test legal system
Issuers: government, quasi-government	Issuers: government/quasi, financial institutions, largest corporates	Issuers: government/quasi, financial institutions, medium – large corporates
Investors: foreign investors, banks, domestic institutional investors	Investors: foreign investors, banks, domestic institutional investor	Investors: foreign investors, banks, domestic institutional investors, domestic retail investors
Stage 4	Stage 5	
Introduce more sophisticated financial instruments Enhance investor/issuer awareness Development of a domestic swap curve Ability for repos – securities borrowing/lending	Introduce (regulatory) approval processes for international issuers Potential linkages of domestic market with international markets	
Continue to relax investment criteria for institutional investors Refine regulations to adapt to more complicated market structure and instruments Adopt "prudent man's rule"	Potential bilateral or international treaties to facilitate and govern cross-border capital flows Extend capital account liberalization	
Issuers: government/quasi, financial institutions, wider range of local corporates	Issuers: government/quasi, financial institutions, wide range of corporates	
Investors: foreign investors, banks, institutional investors, retail investors, alternative investors	Investors: foreign investors, banks, institutional investors, retail investors, alternative investors	

Source: Wyman O. (2015)

While providing the metrics to measuring the corporate bond market development, the research by Wyman is expanding into providing the stages of development of the corporate bond market in the country (Wyman O., 2015) (Table 2). The stages as the additional framework for corporate bond market analysis are important for relating Latvian corporate bond market to the peer countries.

Conclusions, proposals, recommendations

1) Latvian corporate bond market development cannot be measured without the application of the relevant framework. Despite the number of studies done on the sovereign bond market, which is typically analysed in relation to the macroeconomic performance of the country, the corporate bond market

attracts comparatively less attention of the researchers. The academic literature available despite the quantitative analysis performed does not provide the clear framework for the measurement of the corporate market development. The latter provides the significant challenge to provide the framework for quantitative measurement of the level of development of Latvian corporate bond market.

2) The author divides the existing academic research on the development of the corporate bond market into two groups: a) descriptive factor analysis: Fabella and Madhur (2003), Burger and Warnock (2005), Braun and Briones (2006), Stewart (2009), and Dittmar and Yuon (2008); b) comparative factor analysis: the research by the World Bank introducing Bond market development indicators (2006), Wyman (2015). The studies share similarities in their findings as well the controversial conclusions. The study of Braun and Briones (2006) stresses that the bond market development has positive correlation with GDP per capita, while other factors as macroeconomic aspects, country size effect, the existence of fixed setup, are not influencing. Controversially the studies of Burger and Warnock (2005) and Eichengreen and Leungnareumitchai (2004) find other macroeconomic indicators such as stable inflation rates and stable exchange rate as the ones influencing corporate bond market development. While the study of Dittmar and Yuan (2008) stresses the importance of the sovereign bond segment which acts as benchmark for the corporate bond market and promotes it, the interconnection between corporate and sovereign segments was found

Jelgava, LLU ESAF, 21-22 April 2016, pp. 357-363 as minor by the study of Eichengreen and Leungnareumitchai (2004).

3) Reviewed descriptive factor analysis studies lack a set of a general framework of the factors to measure the development of the corporate bond market. Comparative factor analysis studies provide more structured approach and divide the influencing factors into several dimensions, while proposing metrics for evaluating the corporate market development of the country.

4) The World Bank Financial Sector Development Indicators model provides a structured quantitative assessment of a corporate bond market, thus, providing an opportunity to compare several bond markets not only on the qualitative but also on the quantitative basis. The determinants of the framework are grouped into four categories: size, access, efficiency and stability. The important drawbacks of FDSI are lack of transparency in the methodology. There is a need to introduce additional assumptions, which can result in a subjective interpretation of FDSI. The research by Wyman (2015) provides another comparative framework for corporate measuring corporate bond market development. The paper divides the factors measuring the development of the corporate bond market of the country into four groups: ability to access, perceived risk of market framework, relative costs and returns of participating and ability to effectively match supply & demand thus making it comparable to FDSI model. Additional to metrics for measuring the development of corporate bond market in the country, Wyman provides the stages of development of the corporate bond market in the country, which provides an additional framework for peer analysis.

Bibliography

1. Apsitis, G., Ascuks, I., Cerps, U., Kokorevics, G., Ozols, G., Sedlenieks, A., Zulgis, H. (2003). *Vertspapiru tirgus zinibas (Knowledge of the Securities Market)*. Riga: Jumava.
2. Arteta, C.O. (2005). Does Bond Market Development Help Reduce the Cost of Crises? Evidence from Developing Countries. *International Finance Discussion Paper 794, Board of Governors of the Federal Reserve System*.

Jelgava, LLU ESAF, 21-22 April 2016, pp. 357-364

3. Bloomberg. Retrieved: https://bba.bloomberg.net/?utm_source=bloomberg-menu. Access: 15.12.2015.
4. Braun, M., Briones, I. (2006). The Development of Bond Markets Around the World. *Manuscript*. Universidad Adolfo Ibanez.
5. Burger J. D., Warnock F. E. (2005). Foreign Participation in Local-Currency Bond Markets. *Darden Business School Working Paper No. 05-07*.
6. Dittmar R.F., Yuan K., (2008). Do Sovereign Bonds Benefit Corporate Bonds in Emerging Markets? *The Review of Financial Studies*, Volume 21, Issue 5, pp. 1983-2014.
7. Eichengreen, B., Luengnaruemitchai P. (2004). Why Doesn't Asia Have Bigger Bond Markets? *NBER Working Paper No. 10576*.
8. Fabella, R., Madhur, S. (2003). Bond Market Development in East Asia: Issues and Challenges. *ERD Working Paper*, Volume 35, ISSN 1655-5252.
9. Financial and Capital Market Commission. Retrieved <http://www.fktk.lv/en/statistics/credit-institutions/quarterly-reports.html>. Access: 15.12.2015.
10. Latvian Central Depository. Retrieved: www.nasdaqbaltic.com/en/csds/latvian-csd/. Access: 10.12.2015.
11. Pleika- Izika, K. (2009). The Development of Debt Securities Market in Latvia. *Working Paper*. University of Latvia.
12. NASDAQ Riga. Retrieved: <http://www.nasdaqbaltic.com/market/?pg=bonds&lang=en>. Access: 26.12.2015, 16.01.2016.
13. State Treasury of Latvia. Retrieved: <http://www.kase.gov.lv/l/iekseja-aiznemuma-vertspapiri/57>. Access: 22.12.2015.
14. Stewart, A. (2009). The Development of Bond Markets in Barbados, Jamaica and Trinidad & Tobago. *Working paper*. The Sir Arthur Lewis Institute of Social & Economic Studies.
15. World Bank (2006). Financial Sector Development Indicators. Bond market development Capital Markets indicators. *Working paper*. Financial Sector Operations and Policy.
16. Wyman O. (2015) Accelerating Emerging Development Corporate Development Corporate Bond Markets. *Working paper*. World Economic Forum.

RECOGNITION OF DAIRY CATTLE AS BIOLOGICAL ASSET IN THE ANNUAL REPORTS OF ESTONIAN DAIRY FARMERS

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Abstract. Annual reports are supposed to offer users of information relevant and true information about the assets of a reporting entity, biological assets included. Various methods can be employed to recognise biological assets in reports; however, the information supplied should be understandable for the users of report while also being compliance to minimum disclosure requirements. The article studies recognition of dairy cattle as a biological asset in the annual reports of Estonian dairy farmers. The aim of the article is to study the relevance of established hypotheses and explain whether recognition of dairy cattle in the annual reports of Estonian dairy farmers complies with the accounting practice of accounting entities and whether audit requirements, owners and structure of annual reports, applicable in Estonia, will have any effect on recognition of dairy cattle for reporting purposes. By general rule, annual reports observe the chosen accounting practice requirements for the purposes of recognition of dairy cattle. The study also confirmed the hypothesis that audited reports offer users of information a better overview of dairy cattle accounting principles and the pre-requisites that affect fair value but also more detailed information about the changes and adjustment of value of group of biological assets over the reporting period. Establishment of a standard structure for annual reports has ensured uniform format of such reports; however, the contents of such reports is not uniform, which makes comparison difficult.

Key words: biological assets, biological assets disclosure, dairy cattle, annual report.

JEL code: M41

Introduction

In Estonia, accounting entities will be required to recognise biological assets, dairy cattle included, according to internationally recognised financial reporting standards or good accounting practice of Estonia, for the purposes of accounting and reporting, and for that purposes, small and medium sized companies will be required to observe a specific set of standards (International Financial Reporting Standard for Small and Medium-sized Entities, hereinafter the SME IFRS). After having used the information from annual reports of Estonian agricultural companies, the authors observed that methods employed to disclose biological assets were highly different. The same fact has been identified by various authors (Concalves and Lopes, 2014a, 2014b). Transition to assessment of biological assets at their fair value has resulted in both positive and negative circumstances that influence reporting information (Hinke and Starova, 2014). The influence of audit, above all, the size of audit companies, has been investigated by several authors who have disclosed positive information on the quality of

reporting information; however, this was not revealed in a study by Concalves and Lopes (2014a, 2014b). Important users of financial year information are owners of companies and thus, it was considered important to study whether there are relations between owners and disclosure of information in annual reports. Since 2010, annual report structure, including standard templates, incl. a note on standard biological assets, is applicable in Estonia, allowing for the submission of standard uniform reports (Visberg and Parts, 2010).

The following hypotheses were established for the study:

- Estonian dairy farmers comply with selected annual reporting practice requirements for the purposes of recognition of dairy cattle as a biological assets in standard statements of annual reports and notes thereto;
- annual reports to be audited will give users of information a more detailed overview of accounting principles, used in companies for the purposes of dairy cattle recognition, and changes in composition of assets during the reporting period;

- comprehensibility of accounting principles, used to disclose biological assets in annual reports, will depend on owners of companies;
- based on the structure of annual reports, applicable in Estonia, annual reports will provide users of information true and fair view of the principles that are used to assess dairy cattle as biological assets and changes in composition of assets during the reporting period;
- establishment of standard structure for annual reports provided for the submission of uniform and comparable information in annual reports and notes thereto.

Annual reports for the last completed financial year, 2014, of Estonian companies having milk quota, were included in the study. As sole proprietors, involved in milk production, are not required to submit reports to public registers, it was not possible to use their information for the purposes of the study.

The following methods were used in the study: observation, empirical observation, personal observations, descriptive statistics and correlation analysis.

Research results and discussion

1. Recognition of biological assets for the purposes of annual reports

At the end of each financial year, an accounting entity is required to prepare an annual report which consists of the annual accounts and the management report (Article 14, subsection (1) of the Accounting Act (AA)). The purpose of the annual accounts is to give a true and fair view of the financial position, economic performance and cash flows of the accounting entity, which can be used for the purposes of adoption of economic decisions (Article 15, subsection (1) of the AA). Information, submitted in annual accounting reports, must comply with either national accounting practice, chosen by accounting entity, or international financial reporting standards (Palea, 2013). Dairy farmers,

who have issued securities that have been admitted by regulated stock markets of Estonian or a contract country of the European Economic Area for trading, must comply with the provisions of international financial reporting standards (IFRS/IAS) for the purposes of compilation of annual accounting reports. By general rule, international accounting practice is intended to be observed by small and medium sized enterprises that do not take part in stock markets (Palea, 2013). The Accounting Act of the Republic of Estonia does provide that the Estonian good accounting practice consist of guidelines of the Estonian Accounting Standards Board that should be observed by accounting entities. However, Estonia has been in legislative vacuum for years as the aforementioned guidelines are not legal acts, intended for compulsory implementation, and these could be ignored.

International Accounting Standard IAS 41 *Agriculture* defines biological asset as a living animal or plant (IAS 41, Clause 5). An entity shall recognize a biological asset or agricultural produce when, and only when (1) the entity controls the asset as a result of past events (2) it is probable that future economic benefits associated with the asset will flow to the entity; and (3) the fair value or cost of the asset can be measured reliably (IAS 41, Clause 10). The same definitions have been established with the Estonian Good Accounting Practice and guidelines of the Estonian Accounting Standards Board ASBG 7 *Biological Assets* (ASBG 7, Clause 6 and Clause 12).

Accounting principles must be assigned in an enterprise for every class of biological assets; for the purposes of assignment of accounting principle one must consider that biological assets, subject to reliable assessment by means of reasonable cost and effort must be recognised at their fair value minus estimated sales expenses upon both initial recognition and on balance sheet dates to follow (ASBG 7, Clause 13). Fair value represents the amount that will allow sell

or buy the asset in a transaction between knowledgeable, interested and independent parties (Hinke and Starova, 2014). In the case of absence of active market, the assessment of fair value may rely upon (a) the most recent market price, on the assumption that transaction was concluded between independent parties and there have been no considerable changes in economic environment between the date of transaction and balance sheet date; (b) market price of analogical or sufficiently similar assets, which has been adjusted by the influence of existing differences; and (c) value derived on the basis of comparative analysis, carried out in agricultural sector (Hinke and Starova, 2014).

Fair value of biological assets can be reliably measured by employing the method of discounted cash flows; for the purposes of implementation of this method the cash flows, resulting from the use of assets in an enterprise will be discounted at market interest rate (Sedlacek, 2010). There are certain doubts, concerning the different models for the calculation of fair value, which may result in distorted calculation results (Palea, 2013).

Biological assets will be recognised on balance sheet at acquisition value (purchase price), minus accumulated depreciation and possible discounts, resulting from decline in value of assets if the assessment of fair value is not possible by employing reasonable costs and efforts (Sedlacek, 2010). Acquisition value can be also treated as fair value of biological assets in the following situations: (a) assets have not undergone considerable biological transformation after acquisition; and (b) effect of biological transformation on cost of the value is negligible (ASBG 7 Clause 23).

Biological assets must be recognised in Estonian annual accounting reports by basic groups, which allow for classification as consumables or assets kept for sales and bearer assets (ASBG 7, Clause 35). Bearer assets

include dairy cattle that will be recognised on balance sheet as a group of tangible assets.

Description of material accounting principles will be disclosed in annual accounting reports (ASBG 15, Clause 12).

Accounting entities that recognise biological assets with fair value method must disclose the following in annual reports (ASBG 15, Clause 41):

- description of sets of biological assets;
- analysis of change of balance of biological assets over the reporting period;
- methods applied to identify fair value and assumptions that played material role in identification of fair value;
- profits and losses resulting from initial recognition of agricultural produce, generated during the year under reporting, and adjustment of fair value, as consolidated amounts.

Accounting entities that recognise biological assets with acquisition value method will disclose the following in annual reports (ASBG 15 Clause 43):

- description of assets, recognised at acquisition value, and explanation of reasons for neglecting fair value method as a reliable evaluation tool;
- depreciation methods and rates applicable;
- analysis of change of balance of biological assets over the reporting period.

The auditing requirements are laid down by the Auditors Activities Act (Article 91, 92) and the Commercial Code (Articles 190 and 328). The purpose of audit is to enhance the reliability and credibility of financial statements for the intended users (Handbook ..., 2015). Gearemynck and Willekens (2003) concluded that the auditors' report adds value to financial reporting information by providing reasonable assurance about the degree to which the annual report represents economic phenomena faithfully.

Standard format for annual reports, applicable since January 2010, established common rules and requirements for all the accounting entities to be observed for the purposes of complication of basic annual reports and notes thereto; thus, information made available for users of annual accounts is uniform and allow for easy comparison (Visberg A-E., Parts, V. 2010). The requirement for three mandatory notes (accounting principles, payroll expenditures and related parties) as a part of standard structure will contribute to submission of non-uniform information to users of information. Disclosure of all the other records and components of standard structures (incl. biological assets, current and fixed assets) as notes to annual accounts is voluntary.

2. Recognition of dairy cattle as biological asset in annual accounts of Estonian dairy farmers

Estonian companies that were in possession of milk quota at the end of September 2014 represented the general sample/population of the study, 229 enterprises matched the definition. A random sample was established for the study and annual reports for 2014 of every third company were included in the study. Two of the selected companies had failed to submit their annual reports to the Commercial Register. One company reported income from sales of milk; however, bearer biological assets were not shown on the balance sheet; notes to the annual accounts lacked any information about the accounting principles, applicable to dairy cattle. As the consequence, the final sample included 72 companies. The permissible error at 95% confidence level was 9.58%. All the accounting

entities, included in the sample, used Estonian good accounting practice. None of the auditors of the companies were included in BIG 4. Four group reports were included in the sample.

Sales revenues of the companies, included in the sample, ranged from EUR 63,042 through EUR 7,763,529; five companies received sales revenues from outside Estonia. The value of bearer biological fixed assets, incl. dairy cattle, on balance sheet varied from EUR 33,473 (33.5% of the value of total assets) to EUR 4,412,552 (20.7% of the value of total assets).

Table 1 shows the evaluation criteria for the accounting principles, their respective bases and evaluations. Nine operators (12.5% of the sample) had failed to describe the accounting principles, applicable to biological assets, incl. dairy cattle, in compulsory note. The table demonstrates the chosen accounting principles, yet without specifications. Readers of reports will have trouble in understanding highly laconic information. Most reports do include a statement that "dairy cattle will be recognised at fair value"; however, in 43.7% of the cases the pre-requisites, which affect the determination of fair value, have not been shown. The reports did not show what is understood as market price/value. Enterprises most frequently err against the requirement to open the description of each set of biological assets. More than half (55.6%) of operators had not provided this type of information; reports of only 17 operators provided such reporting information in a format, understandable for consumers. One company in the sample used acquisition value to recognise dairy cattle, yet failed to depreciate the value of dairy cattle.

Table 1

Distribution of evaluation criteria of accounting principles and evaluations on the basis of annual accounts of the Estonian dairy farmers for 2014

Bases for the criterion	Evaluation criterion, evaluation	Number	Percentage of respondents
ASBG 15 clause 12	Description of general accounting principles for biological assets, shown in notes to accounting principles (N=72)		
	Not available	9	12.5
	Available	63	87.5
ASBG 7 clause 13	Accounting principle for biological asset in structural table (N=72)		
	Not available	6	8.3
	Fair value	42	58.3
	Acquisition value	1	1.4
	Not clear whether fair value or acquisition value	23	32.0
ASBG 15 clause 41(c)	Assumptions that affected the determination of fair value (N=71)		
	Not available	31	43.7
	Market value	8	11.3
	Market value minus sales costs	26	36.6
	Based on transaction involving similar objects/assets	1	1.4
	Evaluation/decision of management board	5	7.0
ASBG 15 clause 41(a)	Description of each set of biological assets (N=72)		
	Not available	40	55.6
	Available, but unclear	15	20.8
	Exhaustive overview	17	23.6
ASBG 15 clause 41(b)	Analysis of changes in balance of biological assets, a structural table in note		
	Structural table unavailable	9	12.5
	Structural table meets the requirements	36	50.0
	Structural table does not meet the requirements	27	37.5

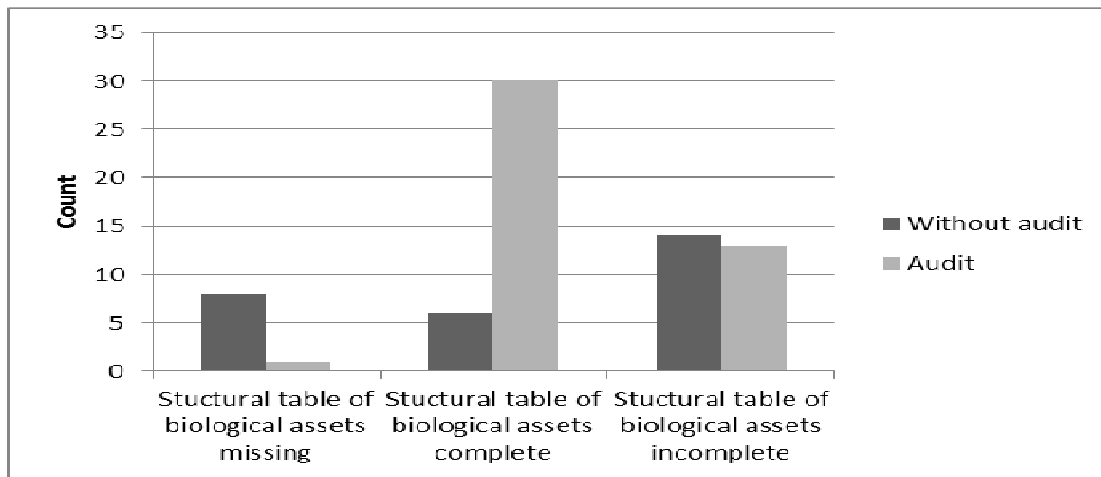
Source: authors' calculations based on the sample of annual reports of companies

Correlation analysis was used to identify weak links of statistical importance between disclosure of accounting principles and presentation of biological assets method in standard table at 1% level of significance ($r=0.289$; $p=0.14$) and between disclosure of accounting principles and pre-requisites that affect the identification of fair value at 5% level of significance ($r=0.360$; $p=0.002$).

The established standard format for annual reports requires submission of uniform information. The presentation of structural table

of biological assets did not meet the requirements among 37.5% and was not reflected at all among 12.5% of the sample. Such a situation is due to a fact that structure of biological assets is not a mandatory element.

Figure 1 depicts links between biological assets note's standard structure and audit. It is clearly understandable that standard structure met the requirements in 68.2% of audited reports (in total, 44 annual reports were audited). The same result for un-audited annual reports was merely 21.4%.



Source: authors' construction based on the sample of annual reports of companies

Fig. 1. Audit control and presentation of changes in structural table of biological assets (N=72)

Correlation analysis identified the following links of statistical importance for the purposes of audit:

- average positive link to recognition of biological assets by means of a standard structure ($r=0.490$; $p<0.000$, at 5% level of significance);
- weak positive link to recognition of biological assets by means of a standard structure ($r=0.302$; $p<0.10$, at 1% level of significance);
- weak positive link to pre-requisites that affected the identification of fair value ($r=0.289$; $p<0.14$, at 1% level of significance).

The study did not demonstrate considerable statistical links between owners and biological assets for the purposes of conforming information, disclosed in annual reports.

The opinion that establishment of a standard structure for annual reports will contribute to more uniform and easily comparable information, included in annual reports, was partly confirmed. The reports overall do have a uniform structure. Biological assets were recognised in balance sheet, with one exception. Certain conflicts were identified among the standard notes. For example, information on sales revenues from sales of dairy cows was disclosed, yet the

analysis did not include adjusted fair value, resulting from the sales of animals. In many cases, analysis of change of balance of biological assets only included one line, either "Miscellaneous adjustments" or "Profit/loss resulting from adjustment of fair value". According to the authors, lack of substance in reports may occasionally result from non-mandatory nature of guidelines of the Estonian Accounting Standards Board. Most reports only included the following description: *"Biological asset is a living plant or animal. Biological assets with a fair value that can be reliably assessed at reasonable costs and efforts will be recognised, upon both initial recognition and on balance sheet dates to follow, at their respective fair value, minus estimated sales costs. Biological assets which fair value does not have reliable estimation will be disclosed by employing acquisition value method."*

Examples from reports:

- 1) "Explanations concerning adjusted value of biological assets are available from the appropriate notes to annual accounting reports". Explanations are not given.
- 2) "Biological assets have been recognised at fair value, which was determined on the basis of market value minus sales costs". Followed by explanation that the fair value of biological

assets has been established by the management board at fixed prices; in another case – fair value will be established by the management board.

3) "Fair value and acquisition value of assets will be used to recognise biological assets. Value has been established at the end of the year on the basis of market value."

4) "Biological assets have been recognised at fair value, which is based on real value of appraised assets."

Conclusions

- Requirements of chosen accounting practice are observed for the purposes of recognition of dairy cattle; however, there are some deficiencies. Lack of substance in reports may occasionally result from non-mandatory nature of guidelines of the Estonian Accounting Standards Board. Reports are often quite laconic in wording and usually repeat the wording of the guidelines of the Board. Most often, description of each set of biological assets is missing. Positive relations between presentation of accounting principles

of biological assets and pre-requisites that affect the determination of fair value are statistically weak.

- The hypothesis that audited annual reports will provide users of information with a better overview of principles for accounting for dairy cattle and pre-requisites that affect fair value, was statistically proven; the same goes for more detailed information on adjustment of value of group of biological assets during the reporting period.
- The study showed that the comprehensibility of accounting principles, used to disclose biological assets in annual reports, didn't depend on owners of company.
- Statistically weak positive correlation exists between the presentation of accounting principles and standard structure i.e. structural table of biological assets.
- Establishment of a uniform standard format for annual reports has contributed to uniform format of such reports; however, the substance remains non-uniform and is difficult to compare.

Bibliography

1. Concalves, R., Lopes, P. (2014a). Accounting in Agriculture: Disclosure Practices of Listed Firms. FEP Working Papers, n. 530, pp. 1-31.
2. Concalves, R., Lopes, P. (2014b). Firm-specific Determinants of Agricultural Financial Reporting. *Procedia – Social and Behavioral Sciences*, Volume 110, pp. 470-481.
3. Gaeremynck, A., Willekens, M. (2003). The Endogenous Relationship Between Audit-Report Type and Business Termination: Evidence on Private Firm in a Non-Litigious Environment. *Accounting and Business Research*, Volume 33, Issue 1, pp. 65-79.
4. Handbook of International Quality Control, Auditing, Review, Other Assurance and Related Services Pronouncements. (2015). IAASB Handbook Volume 1. Retrieved: <http://www.ifac.org/publications-resources/2015-handbook-international-quality-control-auditing-review-other-assurance>. Access: 28.12.2015.
5. Hinke, J., Starova, M. (2014). The Fair Value Model for the Measurement of Biological Assets and Agricultural Produce in the Czech Republic. *Procedia Economics and Finance*, Volume 12, pp. 213-220.
6. International Accounting Standard IAS 41 Agriculture (2008). Retrieved: <http://www.fin.ee/aruandluskorraldus>. Access: 28.12.2015
7. Palea, V. (2013). IAS/IFRS and Financial Reporting Quality: Lessons from the European Experience. *China Journal of Accounting Research*, Volume 6, pp. 247-263.
8. Raamatupidamise seadus (Accounting Act) (2002). Retrieved: <https://www.riigiteataja.ee/akt/130122015065>. Access: 04.01.2016.
9. Raamatupidamise Toimkonna Juhend RTJ 15 Lisades avaldatav informatsioon (Estonian Accounting Board Guideline ASBG 15 Disclosures in the Notes) (2011). Retrieved: <http://www.fin.ee/aruandluskorraldus>. Access: 28.12.2015
10. Raamatupidamise Toimkonna Juhend RTJ 7 Bioloogilised varad (Estonian Accounting Board Guideline ASBG 7 Biological Assets) (2011). Retrieved: <http://www.fin.ee/aruandluskorraldus>. Access: 28.12.2015
11. Sedlacek, J. (2010). The Methods of Valuation in Agricultural Accounting. *Agric. Econ. – Czech*, Volume 56 (2), pp. 59-55.
12. Visberg, A.-E., Parts, V. (2010). Electronic Annual Accounts in Estonia: Initial Implementation. *Science and Studies of Accounting and Finance: Problems and Perspectives*, No 1(7), pp. 239-244.