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## Foreword

The history of every nation has showed that the national economy undergoes both the stage of growth and the stage of crisis, and each stage involves problems that are specific to that period. If there are problems, there have to be solutions to the problems as well. Scientists and researchers are those who have to identify the causes, to project potential consequences and to find rational solutions to the problems.

Scientists persistently apply new methods and technologies in their research, which allows conducting the research in a qualitative way and achieving credible results.

In number 9 of the journal, the authors of papers focus on such urgent problems as optimal routes among municipal education institutions in Rezekne municipality, development of accommodation services in Rezekne city, the market of local Rezekne artisans, territorial marketing for seaports of the Baltic Sea region, competitiveness of Latvian social networks, theoretical aspects of innovation for overcoming crises, theoretical and practical aspects of small and medium enterprises, factors that affect customer satisfaction and others.

The editorial board believes that our journal, too, made, makes and will make its contribution to economic growth in Latgale, Latvia and the entire European Union.

The research papers can be useful to professionals who are interested in various social science problems and solutions to the problems, and to university teaching staff, master and doctoral students, researchers and company representatives.

The editorial board wants to mention that a range of authors emerged whose papers have been published in several or even in all the nine issues of the journal and looks forward to further cooperation with the authors as well as would be glad to expand the range of authors, dealing with new urgent problems and their solutions.

The editorial board thanks the authors of papers, the peer reviewers and the cooperation partners for their contribution to the journal.

***Dr.oec. Anda Zvaigzne***  
*Chief Editor of the journal*

# GUIDING PRINCIPLES: THE ROLE OF SCIENCE IN THE ETHICS OF SUSTAINABLE DEVELOPMENT

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**Abstract.** *Science is essential to meet objectives and tasks for ethical sustainable development, as it lays the basics of new methods and technologies to identify global challenges for the future. Science can also significantly contribute to the ethics of sustainable development. It requires a wide-ranging understanding of science as such. Scientific cooperation should be encouraged in order to provide the ethics of sustainability. The aim of research is to give guiding principles of science for the ethics of sustainable development. The tasks of the research are to describe the ethical context of sustainability and to mark the role of science in the ethics of sustainable development. The methods of research are monographic, quantitative, deductive and inductive. The key result is: the drowned up science role for sustainable ethical development. Science is a crucial tool for the ethics of sustainable development, it is even more reasonable to allocate the mission of science education and provide people with tools which allow them to maintain a critical spirit related to scientific advances.*

**Keywords:** *ethics, sustainability, development, science, pillars of sustainability.*

**JEL code:** *D63, Q56, I38, F63.*

## Introduction

In line with humanity's present stage of development, the main contests of science in the 21st century relate to population growth and urbanization; global and regional environmental changes; the preservation of ecosystems and biodiversity; social disparities and living conditions of population. These statements are closely connected with sustainable development. Addressing all these challenges to the background of sustainable development requires breaking away from disciplinary limitations and establishing science-and-technology policies which stimulate global partnership and endorse the defragmentation and sharing of knowledge.

The ethical aspects of sustainability often remain implicit as most analyses focus on the economic, social, environmental and technical issues. Ethical context in the term of sustainability is considered as taking into account not only effectiveness, but also moral values and goals. Sustainability cannot be achieved without paying attention to its ethical dimensions. The aim of research is to give guiding principles of science for the ethics of sustainable development. The tasks of the research are to describe the ethical context of sustainability and to mark the role of science in the ethics of sustainable development. The methods of research are monographic,

quantitative, deductive and inductive. The key result is: the drowned up science role for sustainable ethical development.

Firstly, this paper clarifies the ethical context of sustainability. Secondly, it outlines the role of science in the ethics of sustainable development. These discussions clarify the questions of great significance for specialists and scientists, as well as politicians, non-governmental organizations and other citizens who search for a more sustainable society.

Sustainability is always an integrated process with multiple synergies and loops. Just as the social, environmental and economic dimensions of sustainability can reinforce each other, so do sustainable practices at work. That nevertheless proposes a set of principles to be used as a decision-making guide. These choices frequently are about technology and the approach allowing technologies to leave the laboratory without adequate debate and scrutiny, which results in complex dilemmas for the global community. The ethics of sustainability will help to change the decision-making process and ensure that the benefits of this kind of thinking will far outweigh any negative consequences for all generations.

### **The ethics of sustainable development**

Sustainability is an important idea being generally referred to and widely supported. It is usually considered as the stable pursuit of several things: ecological sustainability, social equity, health and economic welfare. It is grounded on the ethical commitment to not only the contemporary populations' well-being, but also the comfort and enhanced opportunities for future generations.

It is normal to set a question: why should we apply the basis of sustainability? To answer this question, there should be used such terms as interdependence rights and obligations. Every person in the world has a right to have their needs for food, housing and clothing met. The present population have a duty for the future generation to leave them a complete and functioning planet in at least as good state as they got it. The request of the sustainability framework therefore requires a better understanding of the ethical concepts.

The Whistler 2020 (Canada) sustainable community movement describes sustainability as "... a minimum condition for a flourishing planet in the long-term" (Kilbert et al. It becomes harder to define the term of "sustainability"., 2010). The word "sustainability" is used more and more frequently from a wide variety of perspectives and with a number of different purposes in mind. As a result, it becomes harder to define the term of "sustainability". Probably the best known basic definition of sustainability is stated in *Our Common Future*, also known as the *Brundtland Report*, from the

United Nations World Commission on Environment and Development (WCED) published in 1987: “..meeting the needs of the present without compromising the ability of future generations to meet their needs” (Kilbert et al., 2010). Many work has occurred since the *Brundtland Report* to explain the worldwide consensus about the goals of sustainability, development of subsequent and previous global efforts (such as *Agenda 21*, *The Earth Charter*, *The Rio Declaration*) on the aims, standards and models of sustainability.

Do ethical issues matter in sustainability? The most essential aspect is the planned responsibility of contemporary society for the quality of life of today’s population plus the preservation of resources, the environment and other ingredients needed for future population to also experience a good quality of life. It is a quite huge and daunting mission and requires enormous changes in the way of thinking, policy, and basic economic assumptions for its full implementation. At present, it could mean that wealthier, more technologically urban societies could have to contribute materially through a wide range of assistance programmes to increase the wealth of poorer nations. They have to aid them by rising the ability to provide the basic needs of their population. Accordingly, for the future generation it means guaranteeing the availability of a wide range of resources, for example, natural, cultural, educational and etc., providing a good quality of life.

At the end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, rationality became more and more important in economic studies. But at the end of the past century this perspective has changed and more attention was paid to the ethical aspect of the economy. Considering it, the analysis of core economic problems of the countries could get better.

One example of this new point of view is the work of Nobel Prize winner Amartya Sen (1999) *On Ethics and Economics*: it is the analysis of the economic impoverishment due to excluding ethical components of its analysis. The author also states that there are relevant advantages and improvements in the analysis when economics introduces ethical characteristics in its studies (Rogers, 2008).

Another contemporary author Elizabeth Anderson (2004) investigates the social relations of creditors and debtors what she calls the ethics of debt and the ethical assumptions of the economic theory. She describes the history of the ethical and moral dimension of debt from the Biblical time to the latest schools of economic thought.

However, when the economic analysis introduced such a concept as efficiency, the main objectives were the maximization of profits and efficiency in the allocation of resources. This new concept implied that the ethical base of the economy lost its importance. More relevance was given to the practical aspect of the economy. This point of view was changed just at

the end of the twentieth century and the interest in ethical issues of the economy was converted.

Professionals can reinforce the values of sustainability by multiple faces, first educating themselves about the choices that will make a difference and then seek changes – personal and structural – allowing these choices to take root. We cannot change our society if we ignore sustainability in one aspect of our lives. Instead, we must see and seek out contacts among diverse activities at home, at work, and in the society. Through a better understanding of the ethics of sustainability it becomes clear why the sustainability framework is not only an approach to answering many difficult problems we face, but why it is, in fact, the right approach, the right thing to do.

The issue of how to frame the ethical problems in constructive and fruitful ways is vital but underappreciated, as is especially applicable for problems that concern sustainability when popular discourse often defines problems as stark choices between economic or environmental goods. One of the most important tasks of the ethics in such situations is to ask questions that could help lead to good solutions. Philosopher Anthony Weston (1971) notes that “if we are to find the best solutions to our ethical problems, we first need to find the best problems” (Kilbert et al., 2010).

Ethical societies provide tools for thinking of problematic issues in a complicated world. Therefore it is a vital component of a successful and effective decision-making process. It is especially important for sustainability, which seeks to integrate diverse and sometimes conflicting ethical and practical goals.

The goal of the ethics of sustainability is to guide people in their efforts to address real global problems and build more socially, environmentally and economically sustainable institutions, practices and societies. The ethics of sustainability cannot succeed only in the realm of theory, because, as Kant famously declared, ought to imply can (Kilbert et al., 2010). Sustainability without ethics is an empty shell, e.g., sustainability lacks a generative purpose and ends serving as a guide for reflection if we do not reflect the culture, values, and methods to realize durability.

Sustainability is about ethics because it requests the existing people not only to consider the condition of the current impoverished population, but also the possible condition of future inhabitants. Obviously we are approaching the consequences of climate changes and resource depletion. Therefore, the question of our responsibility for the future is ethical responsibility to be addressed and better understood. Sustainability forces us to pay attention to the consequences of our behaviour in a way which is different from any other concept and as a result, developing ethical underpinnings of sustainability. That accordingly is essential to apply as a

solution for the number of problems being met or shall be faced by current and future individuals.

### **Science in the ethics of sustainable development**

Sustainability suggests that in the decision-making process societies, while having a good quality of life, have an obligation to ensure that both future societies and contemporary, less well-off societies are also able to achieve a standard of living in which their basic needs are met.

Science is universal and scientific knowledge is pure, so it is considered as a global public good. Science itself is a way of crossing national, cultural and mental borders (Stiglitz, 1999). It is more than a tool for the achievement of the ethics of sustainable development.

Science is a crucial tool for sustainable development, it is even more reasonable to allocate the science education mission for the ethics of sustainable development and to provide people with tools, which allow them to maintain a critical spirit related to scientific advances.

The creation of knowledge is as important as its spread through both formal education and the popularization of science. The more widespread knowledge is, the better possibility of its use and more chance that sustainability interest is actually being included in scientific plans.

The scientific community's responsibility is quite clear. It is not only responsible for development and gathering knowledge, but also for transmitting to decision makers and translating, so that public ethical aspects of sustainable development are achieved.

Scientific development and technological progress made it possible to use natural resources, taking into account environmental values of sustainability. However, the sustainable exploitation of natural resources is still a significant objective to be followed by the international scientific community. Science should contribute to reducing environmental vulnerabilities by recognising and using local capabilities to deal with the adverse effects of climate change. Science has to unconditionally presume the employment of ethics in the research of sustainability and preserve the principle of sharing and collectively exploiting information for all groups of the society.

Science is fundamental to promotion of the ethics of sustainable development, whether to provide tools for adaptation of current development plans or to endorse greater knowledge of the problems that affect society. We need more good examples to demonstrate that science can help eliminate poverty through contributions to natural resources, remembering the needs of the next generation and the formulation of new paradigms of sustainability.

An obligation arising from the progressively complex environment of the society's problems is to practice interdisciplinary methods over a combined approach, focusing on complementarities of the various areas of knowledge. In addition, the pursuit of overcoming boundaries among cultures is vital to social justice, ethical sustainable development.

Science contributes directly to the ethics of sustainable development. It also demonstrates that science requires a broad understanding of ethical aspects in the ethics of sustainable development. Science is essential to get in with the challenges of ethical sustainable development, as it lays the basis of new methods and solutions. It can clarify global problems for the future generation. Science spans from the understanding of human impact to the organization of social systems, particularly health and well-being, and to ways to meet the goal of poverty reduction. Science can offer answers that are testable and also provide the basis for a convincing decision-making process and actual influence assessments.

Science has an actual educational component. Increasing investments in education (support science education and scientific research; building up scientific infrastructure) will contribute to scientific progress and economic development. A stable allocation of resources in fundamental and applied science in line with individual state priorities is advisable to achieve sustainable growth in the long-term. Science can provide the basis of solutions to the ethics of sustainable development. Education is necessary for mind training, consideration of global problems, making choices and solving difficulties. It identifies the necessity to activate science at multiple levels and across disciplines to address current and future global changes.

The new possibilities of information and communication technologies provide online data transfer for scientific research. International cooperation in scientific research is also extremely significant in addressing sustainable development challenges and would promote the ethics of policy-making.

The environment, the economy and society are three pillars of supporting the sustainability framework. Sustainability is commonly considered as a requirement of the balanced pursuit of these pillars. It is grounded on the ethical commitment to the well-being and enhanced opportunities for the future generation. The concept of the ethics of sustainable development has to be planned for a try to endorse a new way of thinking, which may incorporate all sustainability pillars.

Suitable and complete ethics of sustainability must deal with the pillars of sustainability (see Fig.1). Building a sustainable world requires multidisciplinary cooperation with these pillars and at the same time cooperation with ethics. All these concepts are integrated into the scientific approach. It should be based on a wide understanding of science, which

provides the whole variety of disciplines from natural sciences to engineering, from social sciences to humanities, and addresses the social, economic and environmental dimensions of sustainable development.

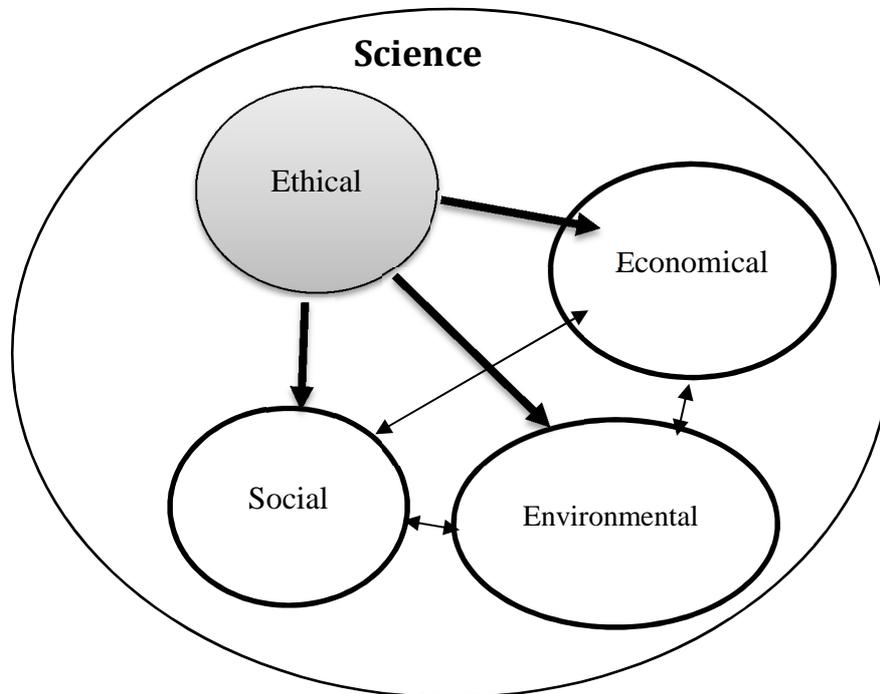


Fig. 1 The role of science in the ethics of sustainable development  
(Source: constructed by the author)

All these principles emphasize the individuals responsible for implementing technologies must be ready to address the possible consequences of their implementation. It requires policy-makers to reflect as many different choices as possible before acting and consider as fully as possible not just the likely but also possible outcomes of these actions. Individual human welfares, even the collective interests of a certain generation, are not complete, they are significantly limited by responsibilities for others, including those who are not yet born.

### Conclusions and suggestions

All forms of sustainability in society depend on the human conduct. Therefore, the ethical aspects of reality are of larger significance in ensuring sustainability. Ethical sustainability needs to be realized in order to get sustainable political and social systems and processes.

Sustainability is a meta-concept applied in the formation of the bases that are planned to be useful for real conditions to guide the government, organizations, citizens, etc. on a route where both the present and the future

generations can have the potential for a good quality of life. Sustainability has proved its stable power nowadays. Behaviour conducive to sustainability can be learned and passed to the future generations.

An aspect of sustainability is the attempt to integrate a diverse set of ethical principles and goals in both practice and theory. Thus, sustainability is not only a combination of different values, but also a combined scheme in which its parts cooperate to reinforce each other.

Sustainability offers traction to the idea that we are obliged to reflect to the future generation in our policies, interactions with the nature, production and daily decision-making. These are all matters that require an ongoing ethical discussion.

In order to summarize this discussion, it can be recommended to take into consideration following guiding principles of science for the ethics of sustainable development:

- achieving the ethical of sustainable development requires that its social, economic and environmental pillars are addressed in a balanced manner;
- open and equal access to scientific data and knowledge is vital for science to reach sustainable development;
- regional and international cooperation among sciences needs to be ensured, it plays an important role in ensuring sustainability;
- science education and capacity needs to be supported to make the ethical aspect of sustainability stronger;
- development programmes need to be based on combined scientific methods, guided by the targets of sustainability and must be grounded in the top accessible knowledge.

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# RESEARCH OF THE GERMAN AUTOMOTIVE INDUSTRY

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**Abstract.** *The title of the following research is “Research of the German automotive industry”. The German automotive industry and its well-being and growth is a key sector of the German economy. Therefore it is of importance to analyse this industry. The aim of this research is to provide an analysis of the German automotive industry and its growth. The tasks to achieve the set aim are as follows: turnover, production of motor vehicles and passenger and the strategy of internalization of the German automotive industry. The primary methods used in this research are: logically constructive method, analysis, descriptive method, document study and descriptive statistical methods. Based on these methods the turnover, production of motor vehicles and passenger and the strategy of internalization of the German automotive industry is analysed.*

*This research shows that the German automotive industry constitutes a growth industry between 2005 and 2015. Furthermore, it shows the importance of the strategy of internalization of the German automotive industry for its growth: the two-pillar strategy which consists of production on site and export. Due to the fact that the export numbers are stagnating on a high level in recent years the future focus of the German automotive industry should be set on the production abroad.*

**Keywords:** *domestic production, export, German automotive industry, production abroad, two-pillar strategy*

**JEL code:** *L62*

## Introduction

In the world, the global automotive industry is a key sector for many major country's economies. According to the International Organization of Motor Vehicle Manufacturers (OICA), the global production of motor vehicles amounted to 90.78 million units in 2015. (OICA, 2016) The consulting company A.T. Kearney estimates the contribution of the automotive industry to the global gross domestic product (GDP) at roughly 3%. (A.T. Kearney, 2013) The global GDP in 2015 amounted to USD 73.43 trillion. (World Bank, 2016) Consequently, the global GDP of the automotive industry amounted to around USD 2.2 trillion. These production numbers and global GDP of the automotive industry show that the global automotive industry is essential to the functioning of the global economy and a key driver to the well-being of the world population.

The German automotive industry is of crucial importance in terms of surplus value and employment, not only in Germany but also in Europe. At this point it is important to mention that the German Automotive Industry and the Automotive Industry in Germany are not the same thing. The German

Automotive Industry does not only comprise the economic activities in Germany but also the worldwide activities of German automotive companies such as production of cars abroad. This means that the worldwide production of the German Original Equipment Manufacturers (OEM) VW, BMW and Daimler is part of the German automotive industry. And vice versa foreign automotive companies which produce in Germany are part of the automotive industry in Germany. (Deutsche Bank Research, 2014)

The aim of this research is the analysis of the German automotive industry. The object hereby is the German automotive industry and the subject is factors which influence the German automotive industry. The main tasks to achieve the set aim are as follows: turnover, production of motor vehicles and passenger cars ("Passenger cars are motor vehicles with at least four wheels, used for the transport of passengers, and comprising no more than eight seats in addition to the driver's seat.") (OICA, 2016) and the strategy of internalization of the German automotive industry. The research period is from 2005 to 2015.

The Hypothesis of this research is: The German automotive industry constitutes a growth industry.

To achieve the aim of this work the following methods are used: logically constructive method, analysis, descriptive method, document study and descriptive statistical methods.

### **Turnover of the German automotive industry**

In Germany, the automotive industry is the largest component of the manufacturing sector and generates around 20% of its overall turnover. The automotive industry includes the production of motor vehicles, the production of trailers and bodies and the production of automotive parts and accessories. (VDA, 2016) The companies that make up the German automotive industry had a cumulative global turnover of EUR 404.8 billion in 2015. (Statista, 2016) This turnover is higher than that of any other industry sector in Germany. The next two largest sectors are mechanical engineering (EUR 236 billion) and the food and animal food industry (EUR 148 billion). Even the turnover of these two sectors combined is lower than the turnover of the automotive industry. (Statistisches Bundesamt, 2016) The total turnover of the automotive industry grew by EUR 97.1 billion from 307.7 billion in 2006 to EUR 404.8 billion in 2015 which is a percentage increase of 31.6% which constitutes a compound annual growth rate of 3.1%. (Statista, 2016)

Figure 1 shows the domestic turnover and the turnover abroad of the German automotive industry from 2005 to 2015. Around two thirds of the turnover, EUR 263.4 billion, are generated abroad, predominantly in the

European Union. The domestic turnover amounted to EUR 141.3 billion. (Statista, 2016)

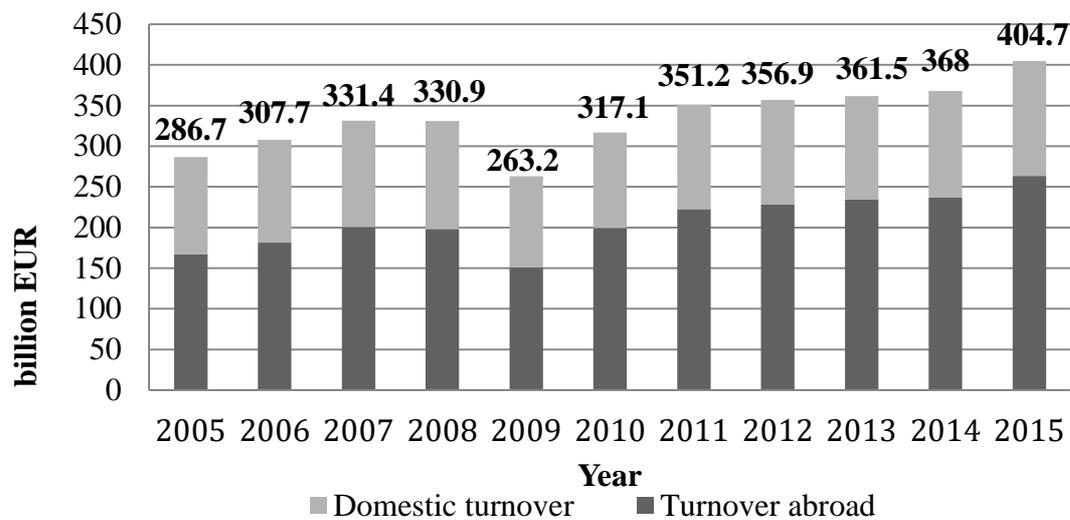


Fig.1 Domestic turnover and turnover abroad from 2005 to 2015 in billion EUR  
(Source: Statista, 2016)

Manufacturing of motor vehicles generated around 78% of the overall turnover, EUR 318.6 billion. The production of trailers and bodies generated EUR 10.4 billion and the production of automotive parts and accessories EUR 75.8 billion. (VDA, 2016)

This high turnover of the German automotive industry proves that the automotive sector is crucial for the German industrial sector and the German economy. Furthermore, it is shown that the largest part of the German automotive industry is the production of motor vehicles, which has a share of more than three quarters of the overall turnover. It is interesting to mention that the German automotive industry generates more turnover abroad than in Germany. This shows the German automotive industry's high dependence on the international market.

### **Production of motor vehicles and passenger cars**

In the automotive industry, it is common to measure the economic development based on produced, sold or newly registered units. This unit-based measurement has the advantage that the data can be collected based on time intervals, for instance on a monthly basis. Furthermore, it is relatively easy to collect data. The disadvantage, however, is that there is no differentiation in quality or value between the different types of vehicles such as the distinguishing between luxury cars or compact cars. This is why the real index of production is a better indicator to measure the economic

development of the automobile industry. It takes into account the differences between value and quality as well as suppliers' production in Germany.

For the countries of the European Union Eurostat calculates the index of production of the automobile sector. Furthermore, data on production is available. This way, information on different countries can be compared.

However, analysis of the difference in production between German automobile producers in Germany and abroad is limited to the calculation by the number of units because that is the only data available abroad. Furthermore, by this measure, the index of production by country does not take into consideration origin of the producing companies operating in any given country. (Deutsche Bank Research, 2014)

The heavy international reliance on German production companies is neglected when using this index. German producers manufactured 15.1 million passenger cars worldwide. Compared with 2014, this was an increase of 1.3%. Within Germany 5.7 million units were produced. Abroad 9.4 mill. units were built. (Statista, 2016)

### **Production of motor vehicles and passenger cars in Germany**

Germany is one of the largest motor vehicle producers in the world. Measured by production number, Germany was the fourth largest producer in 2015 with an output of 6.0 million vehicles. Germany accounted for around 7% of the world's motor vehicle production. Regarding the European Union 27 (excluding Croatia), Germany has a share of 28% and is the largest producer in the EU followed by Spain (2.7 mill.) and France (2 mill.). (OICA, 2016) (Statista, 2016)

In comparison to the production number, the real index increased faster. This indicates increase in product quality in the automotive industry in Germany. In 2013 the production of vehicle units was 15.5% higher than in 1991. However, the real index of production was 81% higher in 2013 than it was in 1991. The underlying reason for this development were value based quality improvements of the cars such as more qualitative interior fittings, for instance. (VDA, 2016) (Deutsche Bank Research, 2014)

As mentioned above, 5.7 mill. out of the 6 mill. motor vehicles produced in 2015 were passenger cars. (OICA production statistics, 2016) Since the German reunion in 1990, the automobile production in Germany has grown from 4.7 mill. to 5.7 in 2015, which was an increase of around 21%.

In 2015, 4.4 mill. passenger cars were intended for export. This is an export rate of 77%. This means that 77% of the automobiles produced in Germany were sold to other countries. (VDA, 2016)

On the other hand, many elements and components are imported from other European countries. The surplus value share of European suppliers of an average car produced in Germany is more than 40%. (VDA, 2014)

### **Facilities and production of passenger cars abroad**

The worldwide motorization rate has constantly increased since 2005. And especially in emerging economic regions such as Asia or South America, motorization rates in most countries are higher than average. (OICA, 2016) This means that individual mobility grows worldwide. Furthermore, trade barriers between certain countries distort competition. This negatively impacts the export sector and the consumers in import markets. Due to growing individual mobility, trade barriers and increasing globalization, German automotive companies have built factories in foreign countries and continue to do so. (Bundesministerium für Wirtschaft und Energie, 2016) There are over 2,000 production facilities of the German automotive industry all over the world. Since 2010 more passenger cars have been produced abroad by German producers than in Germany itself. In 2015, 9.4 million units were produced abroad. The complete on-site manufacturing process of German business groups, also known as “Konzerne”, constitutes 62% of their overall production of passenger cars. The nation with the highest production outside Germany is China with 4 mill. passenger cars.

In European countries, 3.3 mill. units are produced. The production in the NAFTA countries amounted to 1.2 mill. and in South America to 0.5 mill. In South America, the production registered a decline in 2014, due to a recession in Brazil. (VDA, 2014) Most of the growth in production through the German automotive groups is generated in foreign countries, not in Germany. (VDA, 2016)

### **Comparison: production abroad and domestic production**

Production abroad gained increasing importance in the last few years and is an integral part of globalization and a long-term strategy of German global players in the automotive industry. In 2000, production abroad amounted to 4.2 million units. (VDA, 2016) In the period from 2000 to 2015 production increased about 124% to 9.4 million units. This is a compound annual growth rate of 5.16%. Due to the fact that the interior fittings of the produced cars abroad constantly improve, the qualitative increase should be even higher than the growth of units.

In contrast to production abroad, domestic production increased in the period from 2000 to 2015 by only about 12%. Since 1998 the production has always been above 5 mill. units with the exception of 2009, due to a

worldwide recession. (VDA, 2016) Domestic production stagnates on a high level - above 5 mill. units per year - with slight deviations depending on economic activity.

Between 2010 and 2012 the difference between domestic and production abroad was particularly high. In 2010, production abroad surpassed domestic production for the first time. Figure 2 depicts the production of passenger cars abroad and in Germany in 2015. The production abroad was 65% higher than domestic production.

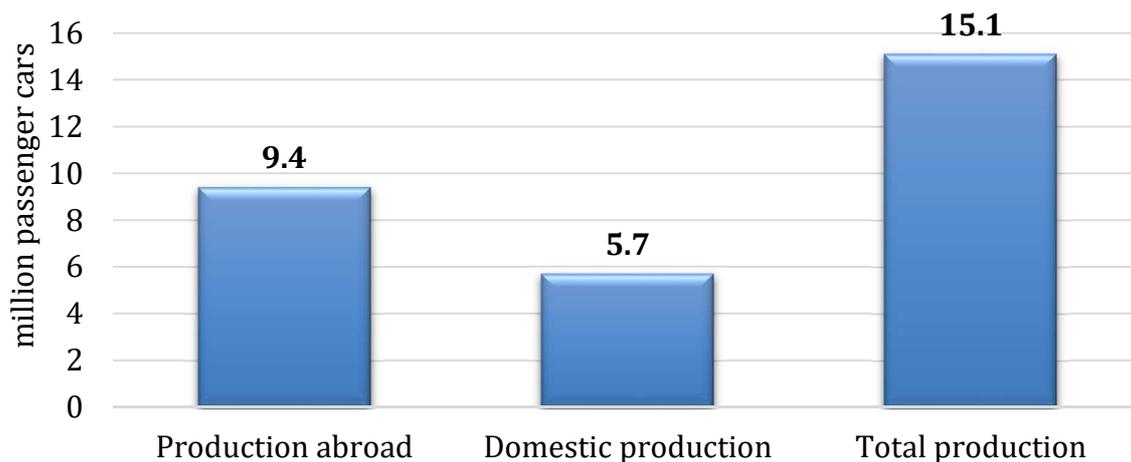


Fig. 2 Domestic turnover and turnover abroad from 2005 to 2015 in billion EUR  
(Source: VDA, 2016)

This was mainly due to the creation of new production facilities and an increase of the production abroad following the global economic crisis in 2009. These effects apply especially to China and the NAFTA region.

These numbers and economic development underscore the production activities of German automobile companies abroad and its importance. (Deutsche Bank Research, 2014)

### **Two pillar-strategy of the German automotive industry**

The German automotive industry acts globally. An important key to success of the German automotive industry is its strategy of internationalization. The export figures and numbers of produced passenger cars abroad show that trade with foreign countries and the production abroad are crucial for the German automotive industry. The German automotive industry was able to assert itself against international competition in recent years. In the largest car markets such as Western Europe, China and the U.S., German companies were able to increase or at least maintain their share of the licensing of new passenger cars. Twenty

years ago, following the economic boom of German reunification, the automobile sector in Germany slid in a depression. Experts and market observers had predicted a negative future of the German automobile industry then. In this light, the positive development since then is noteworthy. This success was achieved because the product range fit the demands of the consumers. Passenger cars made by German corporate brands are considered as world leaders in safety, capacity, comfort, diversity, design, reliability and image. (Deutsche Bank Research, 2014)

The globalization strategy of the German automotive industry is based on a two pillar-strategy: export and localization.

### Export

In 2015, 4.4 mill. passenger cars were exported. (Statista, 2016) This number constitutes two thirds of the overall production of cars in Germany. This means that two thirds of turnover are generated by export. The value of the exported vehicles and vehicle parts in 2015 was EUR 226 billion. Vehicles and vehicle parts amounted to the highest value of export products, followed by machines (EUR 170 billion) and chemical products (EUR 108 billion). (Statista, 2016) Overall, the automotive industry’s share of all of Germany’s exports was about 19%. (Statista, 2016) These qualitative and quantitative numbers highlight the German automotive industry’s dependence on exports.

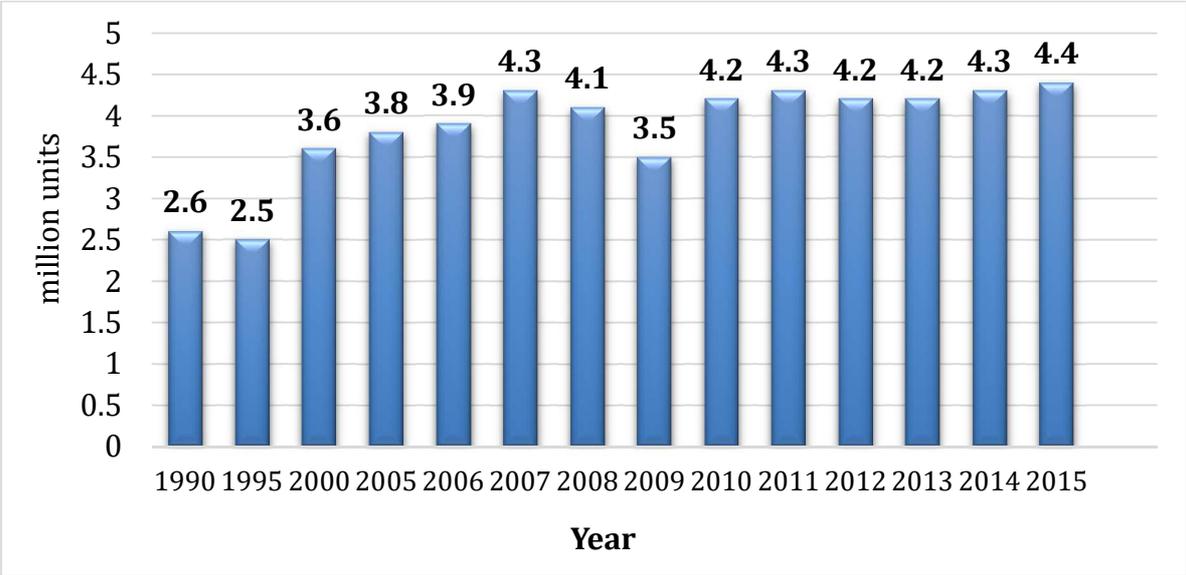


Fig. 3 Development of the German export of passenger cars  
(Source: Statista, 2016)

Figure 3 depicts the development of the exports of passenger cars. The number of German passenger cars grew by 70% from 1990 (2.6 mill.) to

2015. However, for a few years now, the export numbers have been constant with only small increases. For example, the number of exports of passenger cars in 2007 amounted to 4.30 mill. Compared with the year 2015, this means an increase of 2.6% in eight years.

Furthermore, the year with the highest export numbers was in 2011 with 4.52 mill. exported passenger cars. (Statista, 2016) Demand is increasingly satisfied by production on-site in places like China.

Most of the exported cars, 63%, go to other European countries, 2.8 mill. units. Out of this number 2.4 mill. are exported within the European Union. The second biggest export market is America where 17% of the exported passenger cars are sold. Sixteen per cent of passenger cars are sold to Asia, while Africa as well as Australia and Oceania receive 2% each of the exported cars. (VDA, 2016)

**Localization**

Trade barriers complicate the exports in some countries and lower the competitiveness of the location Germany. For example, the customs and import duties in India are higher than 100%. Many countries try to protect or increase their own local surplus value through high import and production requirements. This is a reason why production abroad is crucial for the German automotive industry.

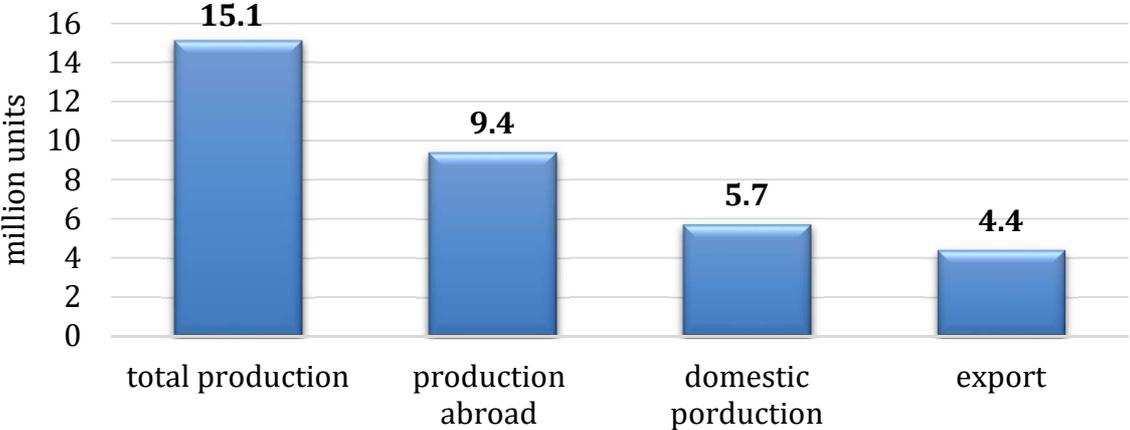


Fig. 4 Production and export overview in 2015  
(Source: VDA, 2016)

The second pillar besides export is the production on-site, the localization of the German automotive industry abroad. As mentioned above, more German-made cars are produced abroad than in Germany: 9.3 million abroad and 5.6 mill. in Germany. There are also over 2,000 production facilities abroad. Additional parts of the localization process abroad are the development of new markets and the diversification of preliminary work.

Many parts and components are bought abroad. Especially in the 1990s, producers outsourced many components of their surplus value chain to suppliers and other upstream sectors abroad. Thereupon the gross surplus value of the production value decreased from 33% in 1991 to around 25% in 2001. In 2011, the gross surplus value of the production came to around 25%. (Deutsche Bank Research, 2014) Four of the top ten import countries in this sector are eastern European countries: the Czech Republic, Hungary, Poland and Slovakia. The main import countries, however, are Spain and France. (Deutsche Bank Research, 2014) Furthermore, car producers and suppliers have been increasing their production activity abroad. Because of this, the numerical production of passenger cars of German companies abroad has increased and the domestic production has stagnated on a high level. The automotive sector has also doubled down on research and development activities abroad. (Deutsche Bank, 2013)

A recent Deutsche Bank study suggests this trend of localization and the production through German car producers abroad will continue in the future. (Deutsche Bank Research, 2014)

### **Conclusions and suggestions**

*Hypothesis was proved to be true.* The hypothesis: the German automotive industry constitutes a growth industry was proved to be true. The German automotive industry constituted a growth industry in the research period 2005 to 2015.

*Significance of the automotive industry for the world economy.* The automotive industry is a key sector for the world economy. The global production of motor vehicles amounted to 90.78 million units in 2015. The contribution of the automotive industry to the global gross domestic product (GDP) is estimated at roughly 3% which equates to around USD 2.2 trillion in 2015. In the global perspective, the automotive industry constitutes a growth market. The regions with the highest production are Asia-Oceania, Europe and the NAFTA states. The countries with the highest production are China, the U.S., Japan and Germany. The biggest OEMs worldwide are Toyota and VW.

*Significance of the German automotive industry.* The German automotive industry is of crucial importance in terms of surplus value and employment, not only in Germany but also in Europe. In Germany, the automotive industry is the largest component of the manufacturing sector and generates around 20% of its overall turnover. German producers manufactured 15.1 million passenger cars worldwide in 2015. Within Germany 5.7 million units were

produced. Abroad 9.4 mill. units were built. In 2015, 4.4 mill. passenger cars were exported.

*Globalization strategy of German OEMs. Two pillar-strategy of the German automotive industry.* The German automotive industry acts globally. An important key to success of the German automotive industry is its strategy of internationalization. The export figures and numbers of produced passenger cars abroad show that trade with foreign countries and the production abroad are crucial for the German automotive industry. The German automotive industry was able to assert itself against international competition in recent years. In the largest car markets such as Western Europe, China and the U.S., German companies were able to increase or at least maintain their share of the licensing of new passenger cars. Twenty years ago, following the economic boom of German reunification, the automobile sector in Germany slid in a depression. Experts and market observers had predicted a negative future of the German automobile industry then. In this light, the positive development since then is noteworthy. This success was achieved because the product range fits the demands of the consumers. Passenger cars made by German corporate brands are considered as world leaders in safety, capacity, comfort, diversity, design, reliability and image.

The globalization strategy of the German automotive industry is based on a two pillar-strategy: export and localization.

*Focus of the German automotive industry should be set on the production on site.* This proposal is addressed to German OEMs which are economical worldwide active. The focus of the strategy of internationalization should be led on the two-pillar strategy. It was proven to be successful and is essential for the growth of the German automotive industry. However, the export numbers are stagnating on a high level. This means that the future potential for the German automotive industry is lying in the production abroad. There exist various growth markets worldwide like China, India or Mexico. In these areas, the German OEMs should increase their investments and production on site.

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# OPTIMAL ROUTE DETECTION BETWEEN EDUCATIONAL INSTITUTIONS OF REZEKNE MUNICIPALITY

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**Abstract.** *Information about the merger of schools or their optimization periodically appears in the society. It is believed that an ideal school network is not yet ready. The paper provides an analysis of the locations of educational institutions by their availability. Theoretical research has been conducted and mathematically the shortest route has been calculated among different educational institutions. The paper also provides mapping of these educational institutions and a location analysis of the educational institutions at different levels. The main goal of the paper is to show the possibilities of applying mathematical models in solving practical tasks – to determine the shortest route among the educational institutions. This study describes an optimization method called Simulated Annealing. The Simulated Annealing method is widely used in various combinatorial optimization tasks. Simulated Annealing is a stochastic optimization method that can be used to minimize the specified cost function given a combinatorial system with multiple degrees of freedom. In this paper, the application of the Travelling Salesman Problem is demonstrated, and an experiment aimed to find the shortest route among the educational institutions of Rezekne Municipality is performed. It gives possibilities to analyse and search an optimal school network in Rezekne Municipality. Common research methods are used in this research: the descriptive research method, the statistical method, mathematical modelling.*

**Keywords:** *Educational institutions, Rezekne Municipality, Optimization, Travelling Salesman Problem Simulated Annealing.*

**JEL code:** C63

## Introduction

Information about school optimization periodically appears in the Latvian society. It is believed that the ideal school network is not ready. The Ministry of Education and Science commissioned the company "Jāņa Sēta" to perform the mapping of educational institutions. In a follow-up study, in Bauska Municipality, there can be seen both students' routes and the most populous and economically most active municipalities, that helped the municipality authority take the decision that secondary schools should be retained only in Bauska. When "Jāņa Sēta" develops a similar map for all of Latvia, then the ideal network of schools will be seen (Kuzmina, 2016). The paper only looks at basic schools and secondary level schools. The children

of Rezekne Municipality have possibility to choose among 13 basic schools and 6 secondary schools. After school they can attend: one sports school for children and youth, one art school for children or one centre for children and youth ("Educational institutions," 2016). The paper offers the analysis of the locations of educational institutions based on their availability. The theoretical study has been carried out and the shortest route among different educational institutions is calculated mathematically, the mapping of these educational institutions and different levels of analysis of the locations of educational institutions are performed (e.g. to find the opportunities for basic school or kindergarten graduates to have access to education as close as possible to the place of residence) (the authors used data from ("Educational institutions," 2016).

The authors define the following levels of educational institutions:

Level 1: Primary schools; Level 2: Secondary schools.

The authors have developed the software that allows finding the shortest route among various educational institutions in Rezekne Municipality with the purpose to optimize and determine the shortest route among the educational institutions. A multi-tiered architecture and overlapping in the characterization of educational institutions is offered.

The main aim of the research study could be the development of recommendations and an analysis of the potential educational network optimization. The research study was carried out using Visual Studio capabilities in programming.

Common research methods are used in this research: the descriptive research method, the statistical method, mathematical modelling.

### **Theoretical background of the research study**

Simulated Annealing (SA) is a stochastic optimization method used for the optimization of an objective function (energy). It allows finding the global extreme for the function that has local minimums. The SA principle was announced in a classical work (Kirkpatrick et al., 1983) and developed in other works (Laarhoven & Aarts, 1987), (Otten & Ginneken, 1987), (Granville et al., 1994), (Ingber, 1993).

SA is based on the analogy of statistical mechanics and, in particular, the solid-state physics elements. A practical example from metallurgy can be given – what happens to the atomic structure of the body if lowering its temperature or, in other words, if it is rapidly cooled. Rapid temperature reduction can lead to an unsymmetrical system structure, or in other words, to a sub-optimal position (with errors). Cooling ultimately leads to a condition where the system curdles or freezes, and thermal equilibrium sets in.

The so-called Metropolis procedure (Kirkpatrick et al., 1983) determines iterative steps, which control the best solution to be achieved. This algorithm is used in atomic equilibrium simulation at the given temperature. On each step of the algorithm, the atom is raised by a small probabilistic movement (shifting):  $x_i + \zeta$ , and system energy change  $\Delta E$  is calculated.

- If  $\Delta E \leq 0$ , then the movement is accepted and configuration with altered states of atoms is used as the initial state for the next step.
- If  $\Delta E > 0$ , then the probability that the new state will be accepted is:

$$P(\Delta E) = e^{-\frac{\Delta E}{kT}} \quad (1)$$

where  $k$  – Boltzmann's constant,  $T$  – temperature parameter.

Using the energy system as a target function and defining the states of the system with  $\{x_i\}$ , it is seen that the Metropolis procedure generates a series of states for the given optimization problem at a particular temperature.

To use the SA method practically, the following must be specified:

1. The target function  $W$  (analogous to energy surface), whose minimization is the purpose of this procedure.
2. A possible set of solutions according to the energy surface or the physical state of the system.
3. Configuration conditions, the variation generator.
4. The control parameter  $T$ , which characterizes an artificial system temperature, and the cooling mode (annealing schedule) that describes how the temperature will be lowered.

The SA algorithm is based on the Boltzmann's probability distribution:

$$\Pr(e) \sim e^{-\frac{E}{kT}} \quad (2)$$

This expression specifies that if the system is in thermal equilibrium at a temperature  $T$ , then its energy is probably divided among all the different energy states  $E$ . Even at low temperatures, there is a possibility that the system may be found in a high energy state. The system has an adequate probability of moving from a local energy minimum state to a better, more global, minimum.

Further, as the SA algorithm application, the well-known combinatorial task will be offered – the Traveling Salesman Problem (TSP).

The TSP task is to find the minimum route among  $N$  cities – entering into each city only once and, in the end, returning to the original city. This is a

well-known combinatorial task that can be solved with a variety of combinatorics or graph theory techniques. In literature TSP solving methods with the SA algorithm are also provided (Cook, 2011), (Coughlin & Baran, 1985), (Applegate et al., 2006), (Grabusts, 2000).

Let us define the distance matrix  $D = (d_{ij}), i, j = 1, 2, \dots, n$ , - distance between cities  $i$  and  $j$ . Each route can be represented as an element  $\pi$  of all permutations among  $n$  city sets. If a possible route set consists of all the cyclical permutations, then in total there are  $\sqrt{(n-1)!}$  such permutations. The objective function is defined as follows:

$$C(\pi) = \sum_{i=1}^n d_{i\pi(i)} \quad (3)$$

The TSP task is to minimize the objective function in all possible permutations. If  $n$  cities are located in a 2-dimensional Euclidean space and  $d_{ij}$  is a Euclidean distance between cities  $i$  and  $j$ , then  $C_{opt}^{(D)}$  is the shortest route for a given distance matrix  $D$ .

To use the SA algorithm for such a type of tasks, some concepts have to be introduced. For each route we can define the neighbour as a route set that can be reached from the current route during one transition. Such a neighbouring structure mechanism for the TSP is called  $k$ -opt transitions. In the simplest case - a 2-opt transition is based on the fact that two cities are selected on the current route and the sequence in which the cities between these pairs were visited, is reversed (see Figure 1).

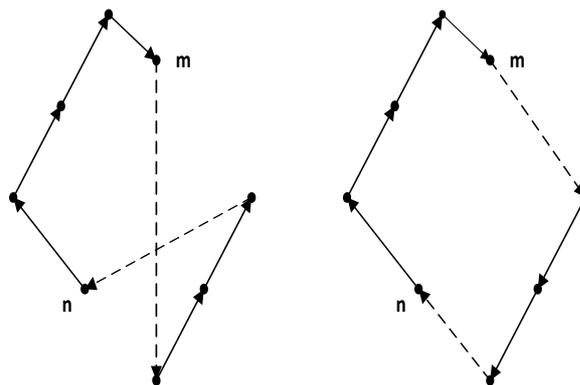


Fig.1 2-opt example (on the left – the current route, on the right – after reversing the sequence between  $m$  and  $n$   
(Source: authors' construction)

Route neighbours are now defined as a set of cities that can be reached from the current route through the 2-opt transitions (i.e.  $\sqrt{(n-1)n}$  such neighbours).

## Experimental research

In the research, different levels of educational institutions, educational institutions and their GPS coordinates were defined, the shortest route among educational institutions was computed by means of the SA algorithm and the depiction of educational institutions on geographic maps was carried out.

Level 1. Primary schools (see Table 1.)

Table 1 Denotation and GPS coordinates of primary schools  
(Source: Google Maps)

No.	Name of primary schools (in Latvian)	Latitude	Longitude
1	Audriņi ( <i>Audriņu pamatskola</i> )	56.587559	27.242635
2	Bērzgale ( <i>Bērzgales pamatskola</i> )	56.629493	27.516288
3	Feimaņi ( <i>Feimaņu pamatskola</i> )	56.272112	27.042613
4	Gaigalava ( <i>Gaigalavas pamatskola</i> )	56.734361	27.06622
5	Jaunstrūžāni ( <i>Jaunstrūžānu pamatskola</i> )	56.695701	27.235483
6	Kruķi ( <i>Kruķu pamatskola</i> )	56.405302	27.00685
7	Liepas ( <i>Liepu pamatskola</i> )	56.419436	27.206095
8	Rēzna ( <i>Rēznes pamatskola</i> )	56.435283	27.552322
9	Rikava ( <i>Rikavas pamatskola</i> )	56.622145	27.044503
10	Sakstagals ( <i>Sakstagala Jāņa Klīdzēja pamatskola</i> )	56.534155	27.144494
11	Verēmi ( <i>Verēmu pamatskola</i> )	56.574573	27.366389

The SA algorithm, in this case, was carried out in 22 steps. The shortest route computed by means of the algorithm was 251 km (see Figure 2). The depiction of educational institutions on the map is shown in Figure 3.

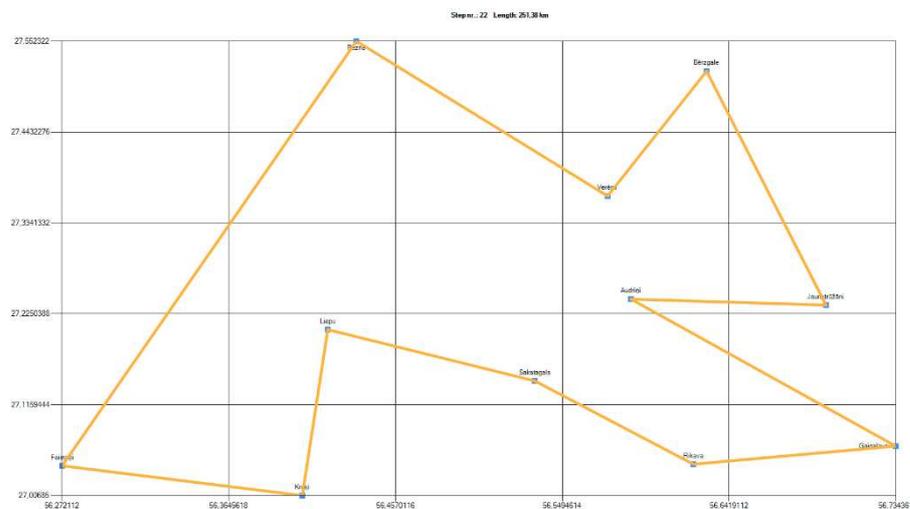


Fig.2 The shortest route among primary schools computed by means of the SA algorithm (Source: authors' construction)

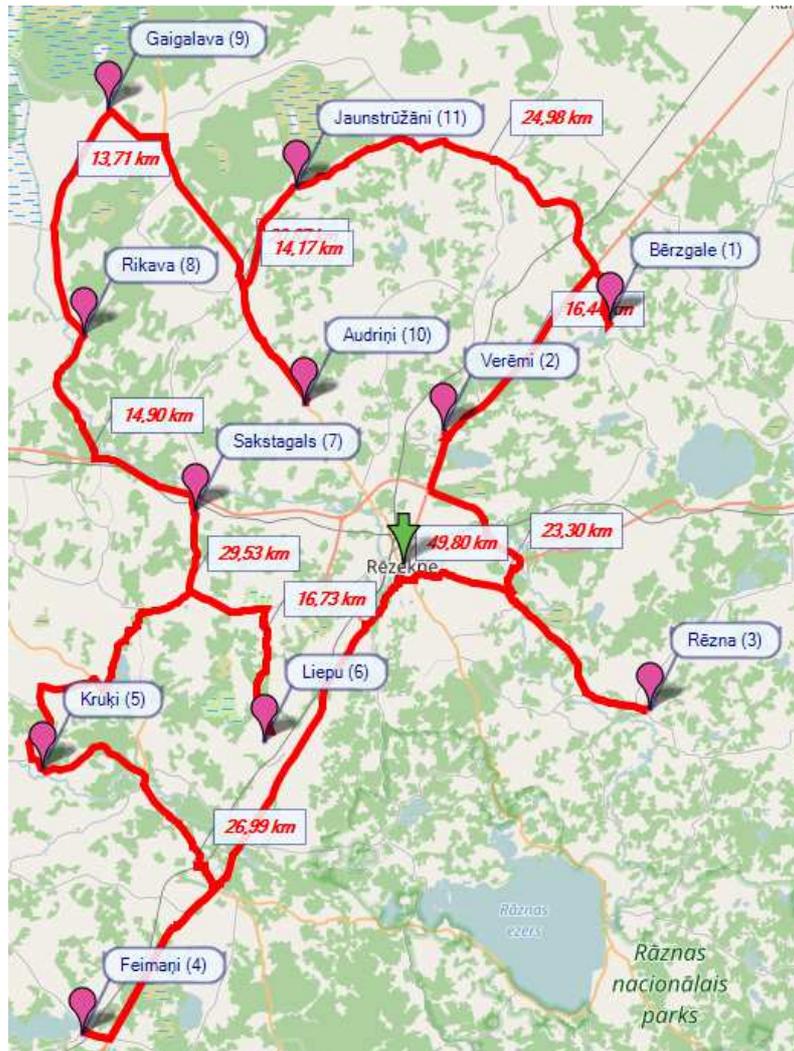


Fig.3 Depiction of the shortest route among primary schools on Google Maps (Source: authors' construction)

Level 2. Secondary schools (see Table 2)

Table 2 Denotation and GPS coordinates of secondary schools (Source: Google Maps)

No.	Name of secondary schools (in Latvian)	Latitude	Longitude
1	Dricāni ( <i>Dricānu vidusskola</i> )	56.649232	27.182524
2	Kaunata ( <i>Kaunatas vidusskola</i> )	56.331737	27.543208
3	Makašāni ( <i>Lūcijas Rancānes Makašānu Amatu vidusskola</i> )	56.587671	27.315964
4	Malta ( <i>Maltas vidusskola</i> )	56.347054	27.157439
5	Nautrēni ( <i>Nautrēnu vidusskola</i> )	56.71153	27.412196
6	Tiskādi ( <i>Tiskādu vidusskola</i> )	56.405377	27.007207

The SA algorithm, in this case, was carried out in 17 steps. The shortest route computed by means of the algorithm was 162 km (see Figure 4). The depiction of educational institutions on the map is shown in Figure 5.

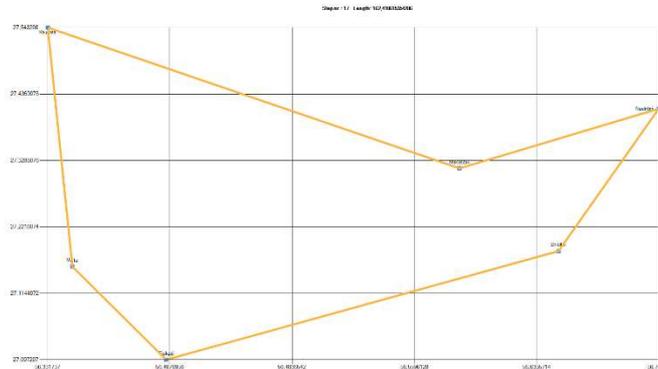


Fig. 4 The shortest route among secondary schools computed by means of the SA algorithm (Source: authors' construction)



Fig.5 Depiction of the shortest route among secondary schools on Google Maps (Source: authors' construction)

Similarly, statistics for 19 kindergartens and 3 special boarding primary schools was collected. How can it be used practically? Supposing that there is a need to find the optimal distance among secondary schools and primary schools, these educational institutions have to be depicted on the map with the purpose to analyze the potential children closeness to the educational institution. (see Figures 6 and 7).

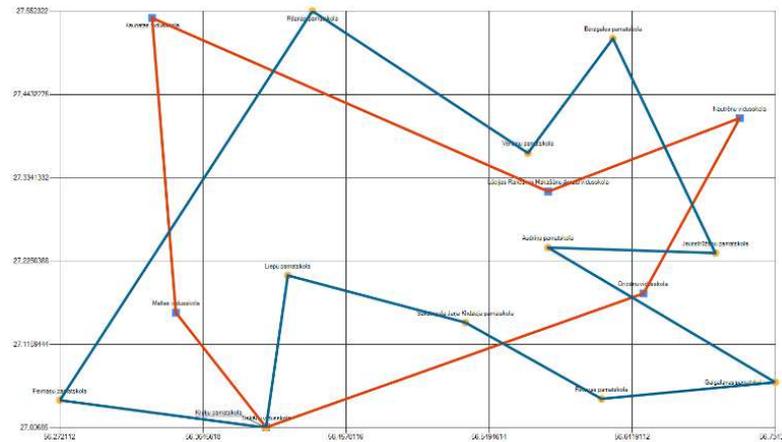


Fig. 6 The shortest route among primary schools and secondary schools computed by means of the SA algorithm (Source: authors' construction)



Fig. 7 Depiction of the shortest route among the two groups of educational institutions on Google Maps (Source: authors' construction)

The authors assume that the result is relatively simple for the heads of educational institutions. It is clear that for children, after finishing Jaunstrūžāni or Audriņi primary school, it is nearer to get education in Dricāni secondary school. But in this case, a theoretical modeling tool is offered, where one of the educational institutions is hypothetically excluded from the education system.

## Conclusions

The authors proposed that their simulation result should be simplified, but in case it is needed to exclude a school from the existing network of educational institutions, it would allow simulating the overlapping of educational institutions on the map and determining the potentially shortest route to the chosen educational institution for children.

In this paper the software that allows finding the shortest way or route among different educational institutions in Rezekne Municipality with the purpose to optimize and determine the shortest route among educational institutions has been developed. The aim of the research study was to develop a modelling tool for analysis of potential educational network optimization. Unfortunately, the results of the research paper raise an interest neither for the Rezekne District Council nor for the publishing house "Jāņa sēta".

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# TERRITORIAL MARKETING IN THE BALTIC SEA REGION PORT CITIES

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**Abstract.** *Today in the Baltic Sea region, territorial marketing plays a substantial role both for tourist attraction and local young families, a quality workforce and students' retention to the region, which is not easy due to the wide scope of work and travel opportunities in the European Union Member States. Territorial marketing aims to increase the prestige of a territory by attracting local and foreign subjects to the territory by creating an expressive image, maximal use of the territory's natural, material and technical as well as financial, labour and social resources. The Baltic Sea region countries have a lot in common: historical heritage of Soviet Union influence until 1991, which has left its impact both on their architecture, city planning and on peoples' mentality; joining the European Union in 2004 and since then struggling with common market side effects that force these countries to look for new ways to sustain their regional competitiveness. The current research focuses on exploring the experience of territorial marketing use in four Baltic Sea region port cities: Parnu (Estonia), Ventspils (Latvia), Klaipeda (Lithuania) and Szczecin (Poland). The research aimed to compare the territorial marketing approaches used in the four Baltic Sea region port cities and specifics of brand positioning for the cities. In the research work, desk study and the comparative method were applied to aggregate and interpret secondary data on the four cities' development trends. Analysis and synthesis methods were applied to investigate the elements of territorial marketing.*

**Keywords:** *territorial marketing, regional competitiveness, Baltic Sea region countries.*

**JEL code:** *R12, R58, M31*

## Introduction

Today the Baltic Sea region countries Poland, Latvia, Estonia and Lithuania alongside with other European Union (EU) Member States enjoy common market privileges that have become available for these countries since 2004 when they all became full members of the EU. Alongside with new market opportunities, these countries were also exposed to many negative side effects, e.g. the so called brain-drain of the young generation, which has had most dramatic consequences in Latvia and Lithuania and less dramatic, however still notable in Poland and Estonia. Therefore, the retention of young families, a quality workforce and students' to the four Baltic Sea region countries has become a serious problem, as a wide scope of work and travel opportunities in the European Union Member States are more compelling than put up with a modest lifestyle at home. It is scientifically proved that meaningful territorial marketing activities can increase the prestige of the

territory by attracting local and foreign subjects to the territory by creating an expressive image, maximal use of the territory's natural, material and technical as well as financial, labour and social resources. In the authors' opinion, the four Baltic Sea region countries have a lot in common: historical heritage of Soviet Union influence until 1991, which has left its impact both on their architecture, city planning and on peoples' mentality; joining the European Union in 2004 and since then struggling with common market side effects that force these countries to look for new ways to sustain their regional competitiveness. Thus, *the aim of the research* was to compare the territorial marketing approaches used in the four Baltic Sea region port cities – Parnu (Estonia), Ventspils (Latvia), Klaipeda (Lithuania) and Szczecin (Poland) and specifics of brand positioning for the cities. The authors have chosen to analyse these four cities because their geopolitical development has a lot in common due to 50 years being former port cities of the Soviet bloc countries. The specific *research tasks* were: 1) to characterize the social and economic indicators of Parnu, Ventspils, Klaipeda and Szczecin; 2) to characterize the territorial marketing approaches used for Parnu, Ventspils, Klaipeda and Szczecin cities' brand positioning. The research object was territorial marketing activities in the Baltic Sea region countries and the research subject was brand positioning for the cities of Parnu, Ventspils, Klaipeda and Szczecin.

For the current research, the authors have employed the following methods: theoretical literature studies, analysis and synthesis, the comparative analysis method. A graphical method was used for statistical display of the research data.

## **1. Social and economic indicators of Parnu, Ventspils, Klaipeda and Szczecin**

*Klaipeda* is located in the south-west part of Lithuania and often associates with a dolphinarium, which is one of the main tourism attraction places visited by 0.5 million people annually. The city is also a well-known medical tourism destination that offers a wide scope of medical services both for adults and children from Eastern Europe (Gaidule, 2017). Apart from the dolphinarium, attractive places to visit are also the old city with its narrow streets (Klaipeda Old Town, s.a), the Curonian Spit, which is a unique 98 km long, thin, curved sand-dune spit that separates the Curonian Lagoon from the Baltic Sea coast, on which one part of Klaipeda city is located.

*Parnu* is located in Southern Estonia and positions itself as a modern city that young people most often associate with the annual music festival „Weekend Festival Baltic”, which every year brings together thousands of people. However, Parnu cannot be characterized only as a place of

contemporary music events, as it also has a rich historical heritage of the city, which is popular with its legends, beautiful and untraditional architecture churches (Why to visit..., s.a.). Moreover, Parnu has meaningfully used the advantages of its geographical location and has created beautiful parks that are compelling for visitors who want to enjoy maritime landscapes with peaceful surroundings (Embracing the Estonian..., 2017).

*Ventspils* is located in the western part of Latvia and is famous not only for its successful industrial zone owing to the Freeport of Ventspils, but also for many entertainment and sightseeing places. The city's name literally means a "castle on the Venta", referring to the Livonian Order's castle built alongside the Venta River. In Ventspils, historical buildings harmoniously coexist with modern tourism attraction objects such as fountains and aqua entertainment parks. A unique symbol associated with Ventspils is a cow – there are many cows' monuments in full size, which are found in almost all urban corners, thus surprising guests everywhere. Moreover, the city has its own money – "venti", which is a special Ventspils cash currency, thus residents and tourists can use the advantage of many special venti offers, which proves that city is patriotic and is not afraid to show it by extraordinary approaches.

*Szczecin* is the capital and the largest city of the West Pomeranian Voivodeship in Poland. It is located near the Baltic Sea and the German border. Szczecin's architectural style is due to trends popular in the last half of the 19th century and the first years of the 20th century: Academic Art and Art Nouveau. The city has an abundance of green areas: parks and avenues – wide streets with trees planted in the island separating opposing traffic (where often tram tracks are laid); and roundabouts. Szczecin's city plan resembles that of Paris, mostly because Szczecin was rebuilt in the 1880s according to a design by Georges-Eugène Haussmann, who had redesigned Paris under Napoléon III (The History and Culture..., s.a.).

The main social and economic indicators of the four cities are aggregated in Table 1. According to the information in Table 1, as a major seaport and Poland's seventh-largest city, Szczecin is the biggest one also among the four Baltic Sea region cities and it has the largest population. However, Klaipeda is the leader in population density, which is higher than in Szczecin and significantly exceeds that in Ventspils and Parnu. This fact gives evidence of the distinctive city cult that has resulted from mono-centric development, thus today the major part of the population lives in the capital cities, while in other cities the population is significantly smaller. In Lithuania, regional development has always been polycentric and, despite the fact that Klaipeda is only the third largest city in Lithuania, the population there is almost four times larger than in the rest of the cities.

Table 1 The comparison of social and economic indicators of Klaipeda, Parnu, Ventspils and Szczecin  
(Source: Gaidule, 2017; Klaipeda city municipality (s.a.); Welcome to Parnu (s.a.); Par Ventspili (s.a.); 2017; Statistical Office in Szczecin (s.a.))

<b>Indicator</b>	<b>Klaipeda</b>	<b>Parnu</b>	<b>Ventspils</b>	<b>Szczecin</b>
<i>City area, km<sup>2</sup></i>	98.35	32.20	58.00	300.5
<i>Population (2017)</i>	151227	40705	39286	405413
<i>Population density/1 km<sup>2</sup></i>	1537	1264	677	1349
<i>Higher education institutions</i>	Klaipeda University, LLC International University, 7 colleges	Parnu College of the University of Tartu and several colleges	Ventspils University College and four regional affiliates of higher education institutions	In total: 14 – the most important are: University of Szczecin West Pomeranian University of Technology Maritime University Medical University
<i>Medicine centres</i>	9	2	2	12
<i>Unemployment, % (2016)</i>	6.4	6.0	6.7	6.8

The population of Parnu and Ventspils is approximately the same (around 40 thousand); however Ventspils' territory is almost twice as large as the territory of Parnu. This leads to a conclusion that the inhabitants of Ventspils can enjoy more free space, which generally creates a pleasant atmosphere. However, this fact means that Parnu can be characterized as a more developed urban environment with tall buildings, which means that urban residents are more mobile and are closer to each other (Gaidule, 2017). All the four cities provide college and university level studies, which is an important prerequisite for retaining young people here. The widest range of study opportunities are offered by Szczecin higher education institutions. The comparison of availability of medical services, which is expressed by the number of medicine centres per capita, leads to a conclusion that the best health care situation is in Klaipeda, while the smallest number of medical centres per capita is in Szczecin. As regards unemployment in the four cities, the authors conclude that in the four Baltic Sea region cities the unemployment rates, which range from 6.0 to 6.8%, are lower than the average unemployment in the EU, which was 8.1% in January 2017 (Unemployment statistics..., 2017). The finding that these cities have a lower unemployment rate than the EU and the Baltic States as a whole can be attributed to the fact that alongside with tourism attraction opportunities these all are port cities with a large proportion of jobs provided by the cargo

shipping related companies. All the four cities support industrial production, have adapted infrastructure and provide strategic resources and extensive intellectual capital, education and science potential.

After an evaluation of the social and economic indicators in Table 1, the authors conclude that all the four cities have potential to attract the main target audiences to the cities: businesses, citizens and tourists. All these cities provide the necessary infrastructure, education, health care and job opportunities, which are the main basic conditions necessary for the local people, so that they feel satisfied with their home and they avoid the need to go to study, work or live in another place.

## **2. Territorial marketing approaches used to promote Parnu, Ventspils, Klaipeda and Szczecin**

Each city creates its uniqueness through its brand image, which creates certain associations looking at these elements before we get to know the city itself. According to Kotler et al. (1999), regions and cities are characterized by their necessity to present a positive image, and for this reason they should adopt promotional programmes and actions.

Therefore, regions and cities have been, especially during the last twenty years, characterised by a plurality of efforts to define their vision, to construct their identity and to shape their images, in order to become more attractive to various 'customer' groups – new residents, businesses, and visitors. They are striving towards the creation of the most competitive and attractive image in order to attract potential target markets and so enhance their economic development (Territorial marketing..., 2013).

Generally, a brand is a lot more than just the product represents – the best brands build an emotional connection with the consumer. Strong brands don't just meet rational needs; they create an emotional reaction (Solomon et al., 2008). Accordingly, there can be different types of relationships a person might have with the product brand: self-concept attachment (the product helps to establish the user's identity); nostalgic attachment (the product serves as a link with the past self); interdependence (the product is a part of the user's daily routine); love (the product elicits emotional bonds of warmth, passion, or other strong emotions) (Fournier, 1998). An important dimension of a successful brand image is its positioning strategy. Positioning means developing a marketing strategy aimed at influencing how a particular market segment perceives a good or service in comparison to the competing brands.

To find out how Klaipeda, Parnu and Ventspils position their city brands, the authors have analysed secondary information data, which are aggregated in Table 2.

Table 2 The comparison of territorial marketing elements of Klaipeda, Parnu, Ventspils and Szczecin

(Source: Gaidule, 2017; Klaipeda city municipality (s.a.); Welcome to Parnu (s.a.); Par Ventspili (s.a.); 2017; Online Encyclopaedia of Szczecin (s.a.))

Territorial marketing elements	Klaipeda	Parnu	Ventspils	Szczecin
Logo of the city				
Coat of arms				
Flag of the city				
Motto of the city	Laisvu stiliumi (Free style)	Pärnu – Eesti Vabariigi sünnilinn! (Estonian native town) and Pärnu- just see	Ventspils - pilsēta rītdienai (Ventspils – a city with a promising future)	There is no formal motto, however local population uses “Szczecin – a floating garden”

According to Gaidule (2017), Klaipeda has managed to create the least conservative brand, as evidenced by the slogan “laisva stiliumi”, which can be translated as a “free style”. This fact points at the city’s ability to change, adapt and evolve. The same logo is composed not only of a slogan, but also its graphical part: a stylized ship, a symbol of moving forward, the anchor (stability) and smiling faces that squint their one eye, inviting them to join (Klaipedos miesto prekes, 2005). Overall, the logo creates a dynamic and moving impression. However, Klaipeda’s coat of arms and flag are more conservative and historically formed symbols. The flag depicts the coat of arms of the city fortress and guard towers. Both use the combination of two colours: red and yellow, thus creating a strong contrast and a bright and lively impression.

The first impression of Parnu territorial marketing elements associates with a common unifying blue colour that forms the backdrop of both the flag

and the emblem and logo. Parnu's coat of arms at first sight may seem quite unusual and hard to be explained, it contains a hand of God from heaven with a cross and the city's key. The ancient articles explain that the cross symbolizes the medieval church relics of the oldest cities of the church, while the key is a symbol of the city laws. There is a white cross on the flag, which symbolizes faith. The official logo has been intentionally created in the same colours, so that everything is coordinated, creating associations with the clean air and the sea. Thus, simplicity is emphasized everywhere, so that any person can easily write it down by hand (Symbols of Parnu, s.a.). The city has two slogans, one for Estonian local population, manifesting that Parnu is Estonia's native city with very ancient historical roots, but the second slogan in English "Parnu - just see" invites tourists to look at the beautiful city, convincing them that it is better once to see than many times to hear (Pärnu linn tunnuslause, 2016).

Ventspils logo comprises three philosophical aspects: historical (the castle), eternal (the sea), and dynamic (the brush-written name of the city). The unique handwriting directly illustrates the peculiar character of Ventspils. The design of the logo is free, friendly, open and dynamic. The colour combination depicts the sun and the city by the sea. All this makes the logo attractive and easily recognizable. The graphic mark of the city does not outshine the coat of arms for they complement each other. The former serves for city marketing and commercial purposes while the latter is used in formal occasions and has rather heraldic significance. The design of the logo allows using it along with the coat of arms (Ventspils simbolika, s.a.). The motto of the city is inspiring and associates with optimism about the future. In its marketing communication, Ventspils specially targets the young generation, emphasizing its good education opportunities and jobs available there.

"Szczecin – a floating garden" – logo created in 2008, reflects the vision of Szczecin's development by 2050. Szczecin is to be seen as "the floating garden, the green Venice of the north, the largest and most modern marina in the Baltic". Green and blue colours reflect the forests and water of the city. As the name is difficult to pronounce, the English transcript of the name is also included here (Hernik, 2013).

The modern coat of arms of Szczecin is: on a dark blue background (shield) red head of a griffin with a yellow (golden) crown and a yellow (golden) beak. By the middle of the thirteenth century, the coat of arms of the city was the prince sitting on a throne; from 1361 on the seals of the city administration you can see the head of a griffin in the crown; initially the griffin was on a white background, this was changed by the Swedes introducing the dark blue background (in 1660; from 1630 the town was occupied by the Swedes). In 1720 the city was attached to Prussia and in 1808 a new seal and coat of arms were introduced, in which the upper part

was covered with a Prussian eagle with spread wings. The crown head of the griffin returned to the coat of arms of Szczecin after 1915, and since then it is the most important and permanent element of the Szczecin coat of arms and the stamp of the city. The city flag reflects the colours of the coat of arms: dark blue and red (Online Encyclopaedia of Szczecin, s.a.).

### **Conclusions and suggestions**

After an analysis of territorial marketing elements, the authors conclude that Klaipeda, Parnu, Ventspils and Szczecin all have created their unique and original city brand images. There were no such elements of a city brand image that would overlap with the neighbouring countries' brand images. In terms of colours, Klaipeda and Parnu territorial marketing elements are more consistent – in the case of Klaipeda, red and yellow colours immediately have strong associations with the flag of Lithuania, which contains these colours, too. Parnu territorial marketing elements are also coherent, each of them keeping up with the blue colour, which complies with the overall philosophy of Parnu – a maritime climate, relaxation, a peaceful environment. The territorial marketing elements of Ventspils and Szczecin are not so coherent. In both cities, at first sight, the cities' logo images and colours do not fully comply with their coats of arms, flags and mottos. In the case of Ventspils, the motto is aimed at future and thus the logo elements could have been more dynamic and suggesting futuristic graphics, however, currently the conservative castle and eternal sea look rather static and the upward title "Ventspils" could have contained more energy and dynamics. In the case of Szczecin, the coat of arms and the flag of the city look fundamental, conservative and at the same time very coherent and expressive, however the logo of the city is in completely different colour combination, which rather associates with a modern art design and naturalness, which could better suit to Parnu city's philosophy, thus there is rather vague linkage with the philosophy of "Szczecin – a floating garden". Currently, the brands of the cities of Klaipeda, Parnu and Ventspils more focus on the enhancement of a "self-concept attachment" relationship with the target audience, while Szczecin elicits a strong emotional bond owing to rich colours alongside with a nostalgic feeling of a "floating garden". So, the floating gardens allow the city to be assessed as an area offering water attractions and green, flowering parks.

Further research directions should be focused on exploring opportunities how Latvian, Estonian, Lithuanian and Polish port cities could position themselves as a joint destination, since the success of a relatively smaller and, compared with other European regions, less attractive Baltic Sea region lies in the synergy of its countries' tourism potential and thus

provides a sustainable win-win solution in the conditions of global tourism competition.

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# EXAMINATION OF THE FEATURES OF LATVIAN SOCIAL NETWORKS FOR ENSURING COMPETITIVENESS

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**Abstract.** *In the era of information, the global network has become one of the ways for expanding entrepreneurship and, consequently, various kinds of network services have emerged as well. Social networks provide the spread of information, the positioning of a company and the company's communication with its clients. There is competition among such service providers, their services are diverse and the social networking opportunities offered are increasing; accordingly, the present research analyses opportunities to raise the competitiveness of social network services. The research aim is to perform an examination of the features of social networks in Latvia for ensuring the competitiveness of the social networks.*

*The research focused on the social networking features of and the opportunities offered by the following social networks: draugiem.lv, facebook.com, ok.ru, vk.com.*

*The research employed the following methods: analysis and synthesis, induction and deduction, the monographic method, document analysis, the graphic method and the sociological method – a survey.*

*The competitiveness of social networks is mainly determined by the functional diversity and innovations of the social networks. Any social network company has to use innovations to outperform its competitors in an oversaturated market by means of providing new networking features.*

**Keywords:** *competitiveness, competitive advantages, social networks.*

**JEL code:** *M10*

## Introduction

The presence of the global network in daily social life is very obvious – studies on the consumption of global network services prove it. In 2016, approximately 80% of the population of Latvia could be found and reached on the global network. The latest studies show that better reachability is observed in small countries in particular, which indicates that the population of Latvia are active Internet supporters and users. In 2016, 1 430 000 active Internet users were reported a month; about 800 000 individuals used the Internet in their computers, while roughly 400 000 used it in their phones and/or tablet PCs. These data are approximate, as part of the population used the Internet both in their computers and in some of their gadgets – phones,

tablets etc.; for this reason, the data overlapped (Biznesa augstskola Turība, 2016).

According to the Harvard Business Review 2015, 80% of the managers of the world's largest corporations were engaged online and had social networking sites (Hyder, 2017). This means that social networks are a popular means of communication not only in the social life among family members, acquaintances and friends but also with entirely unknown individuals as well as an important component of company activities and other processes. Digital marketing specialist Shama Hyder pointed out that a considerable change had occurred since 2010 when only 36% of the managers were "social". However, in the modern world, a strong leader has to learn not only how to follow social environment streams but also to make a difference and develop. The mentioned activity of corporation managers also requires social network owners to act in order to be able to compete in the Internet environment. However, it is also important that social media, especially social networks, are a tool for enhancing the competitiveness of other companies.

The key function of social media and therefore social networks is to provide the flow of information in various ways: "Following, friending, subscribing, sharing, and retweeting are just a few types of practices of engagement with users and content that determine how information flows in social media spaces. Using social media, any individual can subscribe to a wide range of information sources, traditional and others, and can potentially become a source of information for many others. Alternatively, users can also use these social spaces to re-create and reinforce traditional-hierarchical structures by continuing to rely on just a few information sources or by choosing to limit interactions to a select group of similar others. Patterns of connections among users within social media take the form of social networks. The structure of a network is an indicator of its unique patterns of information flow" (Himmelboim, Smith, Rainie, Shneiderman, Espina, 2017).

Even though communication technologies are used in the process of supply of information, the role and participation of an individual is emphasised: "In the traditional model, commercially – produced works such as books, television, and film were the raw materials we socially evaluated, interpreted, and used. In the new model, however, our thoughts, tweets, and inside jokes are themselves the raw materials that become monetized. It's not that Facebook and Twitter finally allow us to be social, but that these new mediums are wholly dependent on our sociability" (Childress, 2012). This means that the individual him/herself has changed the kinds of communication and the individual is the one that shapes the content, while the network performs the function of cooperation – it spreads the

information. For these reasons, competition among social networks is determined by the number of users and their activity.

The research aim is to perform an examination of the features of social networks in Latvia for ensuring the competitiveness of the social networks.

To achieve the aim, the following specific research tasks were set:

- to examine the theoretical aspects of company competitiveness and the ways of enhancing it;
- to identify the most popular social networks in Latvia and to perform an examination and a comparison of their features for ensuring the competitiveness of the social networks.

Research hypothesis: to identify whether the scope of features of the most popular social networks in Latvia is broad enough for ensuring the competitiveness of the social networks.

The research employed the following methods: analysis and synthesis, induction and deduction, the monographic method, document analysis, the graphic method and the sociological method – a survey.

The research used the theoretical findings of foreign scientists, Internet resources and survey data.

### **Theoretical aspects of company competitiveness and the ways of enhancing it**

There are various theoretical models that assist a company in enhancing its competitive advantages. Advantages a company has over other market actors or competitors are called competitive advantages (Kay, 1995).

Research studies on competitiveness refer to K.Ohmae's model that is based on trilateral relations among a firm, a target audience or clients and other firms – competitors. Ohmae's model is called the "3C" model. In the opinion of the author of the model, three key market actors – a buyer, a competitor and a firm – have to be analysed by using a "3C" strategic triangle. This technique assists a firm in developing a business strategy and sustainable competitive advantages (Ohmae, 1982).

J.Kay, an English economist, writes that the specific potential of a company and the use of this potential creates competitive advantages for the company. There are three kinds of specific potential of a company:

- 1) "organisational architecture";
- 2) "reputation";
- 3) "innovations" (Kay, 1995).

It is known that companies being innovative and persistently developing the qualities and quality of their products as well as using the newest technologies gain higher competitive advantages in their industry. Innovations also reduce costs and allow a company to lower prices on its

goods or services without an effect on its profit or even make a higher profit (Ohmae, 1982).

Such authors as V.Cespedes, A.D`Aveni and C.Lavelock point out that nowadays the intensity of competition increases persistently. This could be explained by an increase in market actor professionalism, the application of new global approaches and strategies, technological progress, market deregulation and overall globalisation that contribute to the globalisation of competition as well (Vandermerve, Lovelock, 1994).

One of the prerequisites for increasing the competitiveness of a company is the development of a strategy that is one of the basic functions of management; besides, the term strategy has to be referred to organisational activity and the kinds of management that could be employed to perform organisational tasks and achieve the goal of the company in relation to enhancing its competitiveness. One can distinguish seven forms of strategic management as effective ideas of competitiveness management for a company (Иванова, 2011).

Competitiveness enhancement management in a company is a kind of organisational management that is based on the human potential of highly motivated employees as the foundations of the organisation; it involves comprehensively developing relations with consumers to satisfy their needs through producing goods and services at a level that is close to ideal; it implements elastic regulation and modern changes in the organisation, which are in line with the pressure made by the surrounding environment and allow gaining competitiveness advantages that, in general, allow the organisation to survive and achieve its goals in a long-term. Identifying key success factors is one of the main priorities in designing a management strategy for enhancing the competitiveness of a company. The factors can serve as cornerstones in designing the competitiveness enhancement strategy, even though they could differ from industry to industry. Usually, three or four factors are specific to any industry, while one or two of them are the most important ones, and an analysis of the factors has to highlight them. The key success factors and the elements of the factors are enumerated below. Many of the factors are important for social network companies as well.

- 1) Factors related to technology: competence in relation to scientific research (research-intensive industries in particular); capability to introduce innovations in production processes; capability to introduce innovations in products; experts' role with regard to a specific technology.
- 2) Factors related to production: low production cost (economies of scale, effectiveness of build-up experience); product quality; high capital productivity; production facility locations guaranteeing low

costs; availability of an adequate and qualified labour force; high labour productivity (in labour-intensive industries in particular); low designing cost and technical support; production flexibility in case models and sizes change.

- 3) Factors related to distribution: a strong network of distributors/dealers; an opportunity to get revenue from retail trade; a distribution network of the company itself; fast delivery.
- 4) Factors related to marketing: a well-tested way of selling; convenient and available technical maintenance service; accurate execution of buyer orders; a broad assortment of goods; commercial art; attractive design and packaging; warranty.
- 5) Factors related to qualification: excellent talents: quality control know-how; design specialists; technology specialists; capability to create an accurate and clear advertisement; capability to produce a new product and spread it in the market fast.
- 6) Factors related to the organisation's opportunities: excellent information systems; capability to react to any change in market conditions; a competent management and know-how management.
- 7) Other factors: a favourable, positive image and good reputation; self-awareness as a leader; a convenient location; pleasant and kind service; access to financial capital; patent protection (ИВАНОВА, 2011).

Since social networks provide the flow of information, the content of it has to be referred to as an important factor. People's selectivity in choosing media is increasing. This choice is increasingly context dependent. Only the most appropriate medium for a particular need in a specific context will draw attention and invite to use it (van Dijk, 2006).

In view of all the above-mentioned factors, it is possible to develop an effective competitiveness enhancement strategy that is based on increasing the effects of positive factors and decreasing the effects of negative factors in the organisation's activities. The environment of social networks and communication is characterised by researchers as multifaceted, and it is organised by a number of actors: "The producers of communication networks operate on a market that is characterised by a convergence of formerly independent networks of tele-, data and mass communication that stimulates horizontal concentrations. The distinctive layers of these networks (infrastructure, transport and services) spur attempts of vertical concentrations by general media companies" (van Dijk, 2006).

Since an assessment of product and market opportunities as well as the competition situation for a company is performed at the analytical stage, the most appropriate strategy for enhancing the competitiveness of the company is determined based on all the factors (Šatrevičs, 2016). A number of

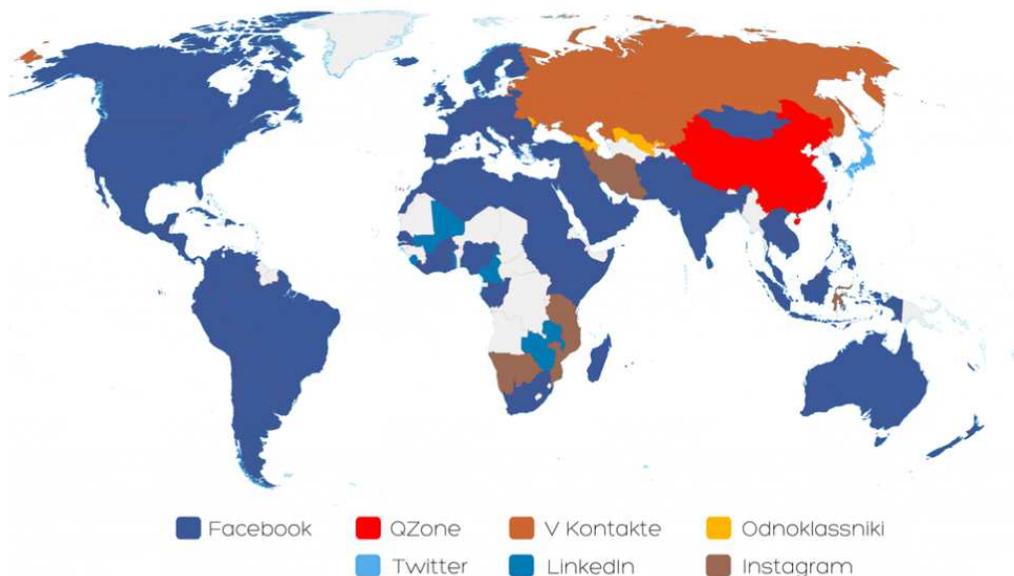
conceptual modules (matrixes) that assist companies in formulating market management strategies for enhancing their competitiveness have been developed, provided that the modules are applied adequately.

Any company, including any social network company, chooses its own competitiveness management strategy based on the situation in the industry. For example, sociologists have assessed the role of the social network Facebook in research: “Facebook isn’t just writing on friends’ walls, polking people and posting pictures: social scientists are using it as an innovative research tool. Facebook is a treasure trove of sociological data. Going beyond self-reporting, social scientists can actually observe how networks take shape over time. The social networking site also provides data on many aspects that could influence friendships, like the region of origin, high school, and interests” (H.N., 2011).

After analysing the success factors, the development of a competitiveness enhancement strategy for a company allows identifying the direction and the way how to move towards the goal, while the implementation of the strategy and its correction create conditions for the company to implement its development strategy based on its competitive advantage.

### **Comparison of the features of the most popular social networks in Latvia**

The most popular social network in the world in 2017 was Facebook. The Russian social network VK (“vkontakte”) was in second place, followed by Ozone – the most popular social network in Asian countries. Figure 1 shows a popularity map of social networks as of January 2017.



**Fig.1 Popularity map of global social networks as of January 2017**  
(source: *World Map of Social Networks*)

To identify the popularity and competitiveness of social networking service companies as well as the features they provide, 399 randomly selected residents of Latvia were surveyed in the spring of 2017. The survey was conducted using a Google form. Figure 2 presents the percentage distribution of social network accounts of the surveyed Latvian residents.

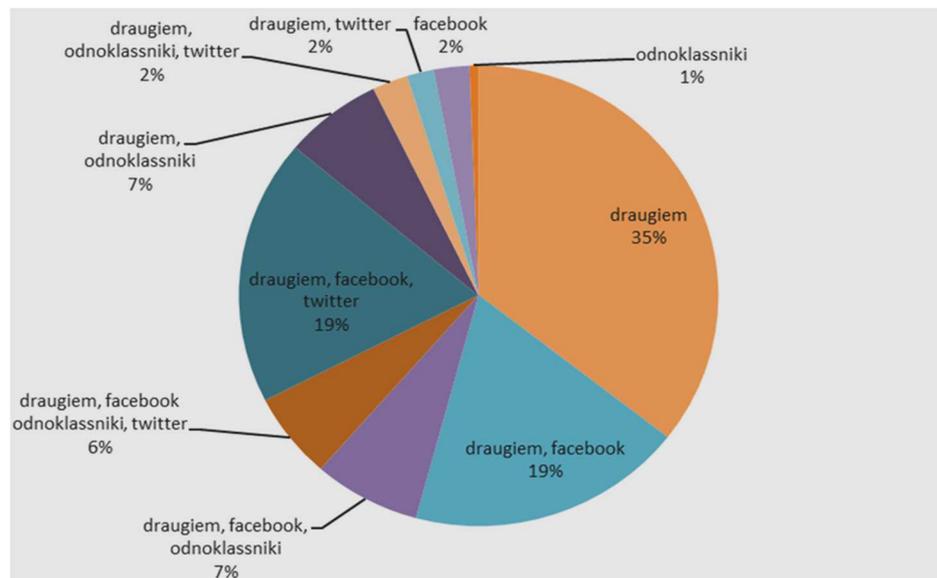


Fig.2 Percentage distribution of social network accounts of the surveyed Latvian residents in 2017 (n=339) (source: Larionovs, 2017)

As shown in Figure 2, 35% of the surveyed residents of Latvia had an account only in the social network Draugiem.lv. Of the surveyed residents, 19% had accounts in Draugiem.lv and Facebook, 19% in Draugiem.lv, Facebook and Twitter, 7% in Draugiem.lv, Facebook and Odnoklassniki, 7% in Draugiem.lv and Odnoklassniki, 6% in Draugiem.lv, Facebook, Odnoklassniki and Twitter, 2% in Draugiem.lv, Odnoklassniki and Twitter, 2% only in Facebook and 1% had an account only in Odnoklassniki.

The survey data allow concluding that only a third of the respondents income earners (employees, working pensioners and working students). Most of the respondents had a computer at home. The surveyed residents were mostly young individuals aged up to 25, had unfinished primary or secondary education as well as finished secondary education (educational attainments could be explained by the age of the respondents). Of the respondents, 84% used a computer every day. Only 10% used a computer one a week, 3% once a month and 3% did not use it at all. Of the respondents, 86% were registered in social networks, and the most popular ones were Facebook and Draugiem.lv. Most of the respondents published several photos in their social networks and had a lot of “friends”. All the surveyed individuals did not pay attention to Internet security and did not change their

password regularly; almost half did not do that at all. This is a problem, as any social network has to be secure, and its users have to be actively engaged in maintaining the security of their profile.

In the present research, an analysis of competitors was based on an examination of various features that provided the popularity and competitiveness of the social networks. Table 1 presents information on the user features of the analysed social networks.

Table 1 Most popular features of social networks for ensuring the competitiveness of the social networks in Latvia in the spring of 2017  
(source: Larionovs, 2017; draugiem.lv; facebook.com; ok.ru; vk.com)

Category	Features	Facebook	Draugiem.lv	Odnoklasniki	VK
Profile	Personal settings	Yes	Yes	Yes	Yes
	Animation	Yes	Yes	-	Yes
	Friend groups	Yes	Yes	Yes	Yes
	Following option	Yes	Yes	Yes	Yes
Text	Long text	Yes	Yes	Yes	Yes
	Text formatting	-	-	-	-
Commenting	Commenting	Yes	Yes	Yes	Yes
	Pictures in comments	Yes	Yes	Yes	Yes
	Comment rating	Yes	Yes	Yes	Yes
	Comment notifications	Yes	Yes	Yes	Yes
Media	Pictures	Yes	Yes	Yes	Yes
	Video	Yes	Yes	Yes	Yes
	Full-size photos	Yes	Yes	Yes	Yes
	Photo albums	Yes	Yes	Yes	Yes
	Photo editing	Yes	Yes	No	Yes
	Tagging friends in a photo	Yes	Yes	-	Yes
Post (timeline) features	Sharing	Yes	Yes	Yes	Yes
	Location	Yes	-	Yes	Yes
	Smileys	Yes	Yes	Yes	Yes
	Spell check	Yes	Yes	Yes	Yes
Other features	Advertising opportunities	Yes	Yes	Yes	Yes
	Chat	Yes	Yes	Yes	Yes
	Video chat	Yes	-	-	-
	Interest groups / associations	Yes	Yes	Yes	Yes
	Events	Yes	Yes	-	Yes
	Games	Yes	Yes	Yes	Yes
	Mobile version	Yes	Yes	Yes	Yes

Table 1 continued

	Private / business webpage	Yes	Yes	-	Yes
	Search	Yes	Yes	Yes	Yes
	Paid advertising opportunities	Yes	Yes	-	Yes
	Music albums (play list)	-	-	Yes	Yes
<b>Total features</b>		<b>29</b>	<b>27</b>	<b>23</b>	<b>29</b>

An analysis of the information shown in Table 1 reveals that Facebook and Vkontakte were more multifunctional than Draigiem.lv and Odnoklassniki. Draigiem.lv and Odnoklassniki had fewer features than Facebook and VK, which were competitors to the former ones. For example, Draigiem.lv lacked such features as location in timeline, video chat and messenger as well as music lists with an option to listen to the most favourite music (this feature was available in VK and Odnoklassniki).

### Conclusions and suggestions

1. Companies being innovative and persistently developing the qualities and quality of their products as well as using the newest technologies gain higher competitive advantages in their industry.
2. In 2016, approximately 80% of the population of Latvia could be found and reached on the global network. The most popular social network in the world in 2017 was Facebook. The Russian social network VK ("Vkontakte") was in second place, followed by Ozone – the most popular social network in Asian countries.
3. According to the survey data, 86% of the respondents were registered in social networks, and the most popular ones in Latvia were Facebook and Draugiem.lv.
4. In the research, an analysis of competitors was based on an examination of various features that provided the popularity and competitiveness of the social networks. The hypothesis proved to be true, as the scope of features of the most popular social networks in Latvia was broad enough for ensuring the competitiveness of the social networks. The analysis showed that the social networks Facebook and Vkontakte were more multifunctional (with 29 features) than Draugiem.lv (27 features) and Odnoklassniki (23 features).
5. The competitiveness of the social networks of Latvia is mainly determined by the diversity of their features and their innovations. Any social network company has to use innovations to outperform its competitors in an oversaturated market by means of providing new networking features.

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# THEORETICAL ASPECTS OF INNOVATION IN CRISIS MANAGEMENT

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**Abstract.** *In recent years, an increasing role is played by innovation in the operation of companies as well as there is a constant need for new scientific research studies on innovation in crisis management.*

*The research aim of the paper is examine the theoretical aspects of innovation in crisis management.*

*The present research employed the following methods: analysis and synthesis, induction and deduction, document analysis and the monographic and graphic methods.*

*The research results showed that in crisis management, innovations are classified into two categories: crisis and developmental innovations. The key indication of a crisis innovation is a solution to the company's survival and economic process stabilisation. The purpose of a developmental innovation is to raise the competitiveness of a product or the whole company in the nearest future in order to avoid a projected and potential company crisis.*

*Innovations aimed at overcoming a crisis could be associated with various company management and activity areas, beginning with production and sales processes through to management and control mechanisms.*

**Keywords:** *company, crisis, innovation, company crisis management.*

**JEL code:** *M10*

## Introduction

Market conditions and economic situations determine certain behaviours of market actors, including companies or individual business entities that function in the common system. With the economic processes developing and the capacity being built up, companies are increasingly subject to the requirement to increase production and management efficiency, strengthen the competitiveness of their products, introduce the latest technologies and use the most effective production and management techniques. Innovation and innovative activity are one of the alternative solutions that can ensure that the requirement is met.

Modern researchers A.V.Khramova and N.V.Tsopa point out that innovative activity is one of the most effective instruments for raising the technical and technological level of companies (Храмова, Цопа, 2015), which is the basis for enhancing competitiveness under the modern economic circumstances.

In Latvia, a lot of attention is paid to the problem of innovation at national level. Innovation is a priority defined in the Guidelines for National Industrial Policy for 2014-2020 (Nacionālās industriālās..., 2013), in which the innovation and increasing the capacity of it are one of the pillars that will contribute to the enhancement of competitiveness of manufacturing industries and increases in productivity and exports in Latvia. The key goals and the most important activities of the national innovation policy of Latvia are set in the Guidelines for the Development of Science, Technology and Innovation for 2014-2020 (Zinātnes un tehnoloģijas..., 2013) that highlight the importance of innovation in the economy of Latvia and, therefore, the issue of innovation is broadly discussed in the scientific and specific literature. However, crisis management is a relatively new sub-kind of entrepreneurship management and, consequently, a number of its aspects (including innovation) are little researched not only in Latvia but also in other countries.

Based on the above-mentioned considerations, the research aim of the paper is examine the theoretical aspects of innovation in crisis management.

To achieve the research aim, the following specific research tasks have been set:

- 1) to characterise the key kinds and specifics of innovation in crisis management;
- 2) to examine the areas where to introduce innovations for the purpose of overcoming a company crisis.

Research hypothesis: to identify whether various directions of innovation development are possible to overcome a company crisis.

The present research employed the following methods: analysis and synthesis, induction and deduction, document analysis and the monographic and graphic methods.

The paper used theoretical findings by foreign scientists, reports of the European Union and Global Innovation Index reports, data provided by the Central Statistical Bureau of the Republic of Latvia and Internet resources.

## **Research results and discussion**

The concept of company life cycle, which dates back to the 1960s, is employed by a number of theories that describe several development stages of a company. Although some recognised authors of company life cycle theories, e.g. I.Adizes (Adizes, 1988) and L.E.Greiner (Greiner, 1998), specify different numbers of company life cycle stages, they state unambiguously that the company life cycle stages are strongly sequential, where the end of one stage is the sequential and logical beginning of another one. Otherwise, the company either stagnates or is forced to end its economic activity.

The concept of company life cycle views a crisis as an unavoidable phenomenon for any company at any its life cycle stage. In the context of the concept of company life cycle, the period of transition from one stage to another could be regarded as a crisis situation in the company; a successful solution to it is the sequential beginning of a new stage or a shift to a new quality level in company management. Modern researchers such as A.Sakalas and R.Virbickaite often point out that a company crisis is “the unstable state of a company when usual business operations fail and the company’s performance curve goes down” (Sakalas, Virbickaite, 2011). A crisis is an extreme aggravation of contradictions in natural socio-economic processes in the system that endangers its viability and it is a complicated transitional state of the socio-economic system when foundations are laid to the restoration and further development of violations of economic rules (Сажина, 2015).

A precondition for overcoming a company crisis is the development of the company rather than economic growth. In his Economic Development Theory, J.A.Schumpeter considered and justified the semantic differences of two concepts: economic development and economic growth. J.A.Schumpeter asserted that economic growth represented an increase in the economic size of a system and processes that were sequential in time, while economic development was defined by him as a new kind of activity of the system, which was due to exploiting existing resources in a new combination. Such a new combination was called an innovation. J.A.Schumpeter introduced a new economic category in economic practice – innovations – that were also referred to as the main source of entrepreneurial profit which, in its turn, was key to development. “No development without entrepreneurial profit, and no development is possible without the latter (Шумпетер, 2008). Although J.A.Schumpeter’s theory focused on examining macro-level economic processes, it could be projected onto the economy of micro-level entities as well. According to findings by V.Z.Balikoev, economic growth involves quantitative changes in a system, while development – qualitative ones (Баликоев, 2014). Quantitative system changes in particular are often key to overcoming a company crisis successfully. Company crisis and crisis management researchers A.A.Belyaev and E.M.Korotkov have frequently emphasised that in modern economics, innovation has to be viewed as a necessary and most important element of crisis management (Беляев, Коротков, 2011), as the vulnerability of a company to a number of crisis factors, along with other aspects (scale and scope of company activity, the field of activity etc.), depends, as found by A.V.Zubkova, on the company’s innovative activity (Зубкова, 2010); besides, the innovative potential of the company is a prerequisite for avoiding or overcoming the crisis effectively (Шипович, 2011). Based on the above-mentioned researcher considerations

and findings, one can conclude that under the modern economic conditions, innovation is the basis for the development of a company and an element of an effective crisis management pillar.

In the modern world, there are a number definitions of the term innovation, which have emerged mainly because of diverse uses of innovation; however, all the definitions have one feature in common, as they refer to innovation as a process. A definition of innovation accepted in Latvia too explains that “innovation is a process, in which new scientific, technical, social, cultural or other ideas, products and technologies are embodied in a good or service that is demanded and competitive in the market” (Ekonomikas Ministrija, 2017). The Central Statistical Bureau of Latvia defines innovation as a “new or considerably enhanced product or process, new marketing techniques or new organisational techniques introduced in company practices, the organisation of a workplace or external relations” (Centrālā statistikas pārvalde, 2015). This means that the definitions of innovation stress one of the features that is important in the context of crisis management or the fact that an innovation has to be introduced – a new or enhanced product has to be on the market, as well as new processes, products, marketing and organisational techniques have to be actually used in company practices. Furthermore, such a novelty can be innovative only for a particular company because, in order for the novelty to be recognised an innovation, it is not mandatory for the company to be the first one that introduces the innovative product or process. It is important in the context of crisis management, as only an innovation introduced – a good or service that is demanded and competitive in the market – or actually used in company practices – results in efficient and rational use of the resources invested in innovative activities that are very constrained during any crisis and yields an expected effect in the crisis management process. In the context of crisis management, a full and complete innovation process is important to effectively overcome the crisis or reduce its negative consequences.

Innovation differs in field of activity, execution time and organisational and social effect. Any classification usually allows for overlap where the scope of one category partly coincides with that of another one (InnoSupportTransfer Rokasgrāmata..., 2005). For this reason, the scientific and specific literature provides diverse classifications of the kinds of innovation. According to a summary of classifications of innovation by researcher R.U.Muller (Мюллер, 2012), the kinds of innovation could be classified according to the following characteristics: significance, object, innovation degree, implementation place, developer, application field etc.

In Latvia, the kinds of innovation are divided according to a classification accepted by the Organisation for Economic Cooperation and

Development (OECD) (Guidelines for collecting ..., 2005), which distinguishes four most important kinds of innovation:

- **product innovation** (new or considerably enhanced goods or services, significant enhancements in technical specifications, components and materials, software, user-friendliness or other functional properties);
- **process innovation** (new or considerably enhanced production or supply techniques, significant changes in technologies, equipment and/or software);
- **marketing innovation** (new marketing techniques, including considerable changes not only in the design or packaging of products but also in the distribution and replacement of products or changes in price policies);
- **organisational innovation** (new organisational techniques in company entrepreneurship practices, the organisation of a workplace or external relations).

Such a classification is used by the Central Statistical Bureau of Latvia (Centrālā statistikas pārvalde, 2015). As pointed out by M.N.Kotsemir, A.S.Abroskin and D. Meissner in their research – an evolutionary discussion on the concepts and typology of innovation (Kotsemir et al., 2013) –, the OECD classification is often viewed as the key or classical kind of classification of innovation, particularly for the purpose of collection of statistical data.

Possibilities to overcome or avoid crisis situations depend on the innovative potential of a company.

Latvia is not currently ranked in top positions in the EU or globally with regard to the efficiency of innovative activity.

Every year the European Commission publishes an assessment of the innovation performance of every EU Member State, which is expressed as a ratio of the summary innovation index to the average EU-28 index of 2010. According to the European Commission, the innovation performance of Latvia in the period 2011-2016 was unsteady and much lower than the EU average. In 2016, Latvia scored 58.1, which was 43% lower than the EU-28 average. The innovation performance of Latvia was the lowest among the Baltic States as well (Figure 1).

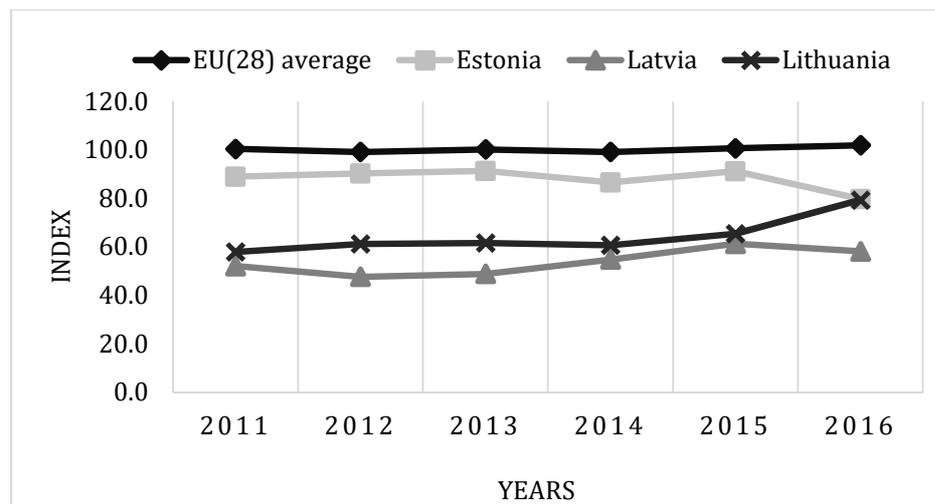


Fig.1 Innovation performance of the Baltic States and the EU average in 2011-2016 relative to that of the EU in the year 2010  
 (Source: compiled by the authors based on the European Innovation..., 2017)

In the 2016 report on the innovation performance of the European Union published by the European Commission (European Innovation..., 2017), Latvia was ranked as a moderate innovator. Latvia was placed in this group for the third consecutive year, while until 2013 it was at the top of the modest innovator group (European Innovation..., 2017).

However, in the 2017 Global Innovation index report published at the beginning of June 2017 that assessed the innovation performance of 127 economies, Latvia was ranked 33<sup>rd</sup> (The Global Innovation..., 2017). A comparison of rankings shows that Latvia was ranked six positions higher than Lithuania that was placed 40<sup>th</sup>, whereas Estonia with its 25<sup>th</sup> place was recognised as one of the most innovative countries in the world.

In Latvia, the key source of information on the innovative performance of companies is the results of regular surveys available in the database and reports of the Central Statistical Bureau (CSB). In accordance with the Cabinet Regulation of the Republic of Latvia "Regulations regarding the Official Statistical Programme 2017-2019" (Noteikumi par oficiālās..., 2016), a survey on innovative activity in entrepreneurship sector companies has to be conducted every two years and according to a single Eurostat methodology. At present, the CSB database provides statistical data on innovation in companies, which allows identifying the number of innovative companies and their proportion in the total active companies, as well as their distribution by field of activity, turnover, number of employees and kind of innovation and their expenditures on innovation (Centrālā statistikas pārvalde, 2015). It has to be noted that the available data are not broken by region, which hinders research on the innovative potential of companies in the regions of Latvia.

The statistical data on innovation in Latvia are collected in accordance with the Statistics Law of the Republic of Latvia, which provides that the data have to be collected once in two years. This negatively affects practices of research on innovative activity in Latvia because there is a lack of updated information.

If innovations are associated with the crisis management mechanism, crisis management theory classifies the innovations by purpose. Accordingly, as pointed out by a number of authors in their research and teaching aids, e.g. a group of authors: T.Averina, S.Barkalov, I.Surovcev and I.Nabiullin in their teaching aid entitled *Innovation Management* (Аверина, Баркалов, Суровцев, Набиуллин, 2010 ), a classification of the kinds of innovation by purpose gives an answer to a question regarding what an innovation is aimed at and whether the innovation (depending on the necessity) represents a solution to current (urgent) problems or achieving a future (strategic) goal. In the context of crisis management, there are two needs: to immediately overcome an economic crisis or any other crisis in the company and to avoid a potential and expected crisis situation. In crisis management, innovations are classified into two categories: 1) **crisis innovations** and 2) **developmental innovations**. The key indication of a crisis innovation is a solution to the company's survival and economic process stabilisation or, as pointed out by W.Gajda and V.Zaplatynskiy (Gajda, Zaplatynskiy, 2017), the restoration of a stable situation in the company. "After the transition into noncrisis mode of operation, the company can continue to innovate itself and move to the innovative type of development or entities continue to use innovations that have been introduced by crisis managers" (Gajda, Zaplatynskiy, 2017). The purpose of a developmental innovation is to raise the competitiveness of a product or the whole company in the nearest future in order to avoid a projected and potential company crisis. If effectively introducing developmental innovations in the company, it has to have a strong competitive advantage, which ensures that processes in the company run smoothly, without shocks (crises). Elements of the innovation process are planned depending on the need and the purpose of the innovation. According to W.Gajda and V.Zaplatynskiy, "innovation in crisis management has a slightly different purpose than innovation in the usual innovation management" (Gajda, Zaplatynskiy, 2017). The innovative potential of the company is assessed in a different way, as the resources of the company in a crisis situation are usually constrained, and the opportunities for exploitation of the resources considerably differ from those in a stable situation.

Prerequisites that contribute to the activation of innovative development or potential of a company for the purpose of increasing the

opportunities for coping with crisis phenomena, according to crisis management researchers A.V.Khramova and N.V.Tsopa, are as follows:

- effective governance of innovation processes;
- increase in the innovative activity of existing manufacturing companies, including individual facilities of the companies;
- stimulation of the development of innovative entrepreneurship and the establishment of an innovative infrastructure at national level;
- establishment of a system of activities aimed at strengthening and expanding the research and technological potential of the company;
- provision of qualified personnel for innovative activities.

This means that the most essential role in the crisis management process is played by innovative crisis management that is based on the application of innovative potential of the company. An innovative infrastructure, which encompasses the tangible, financial, creditworthiness, organisational and information elements of it, contributes to the expansion of innovative activity and the commercialisation of science- and technology-intensive products, thus assisting in tackling innovation policy problems in implementing crisis governance.

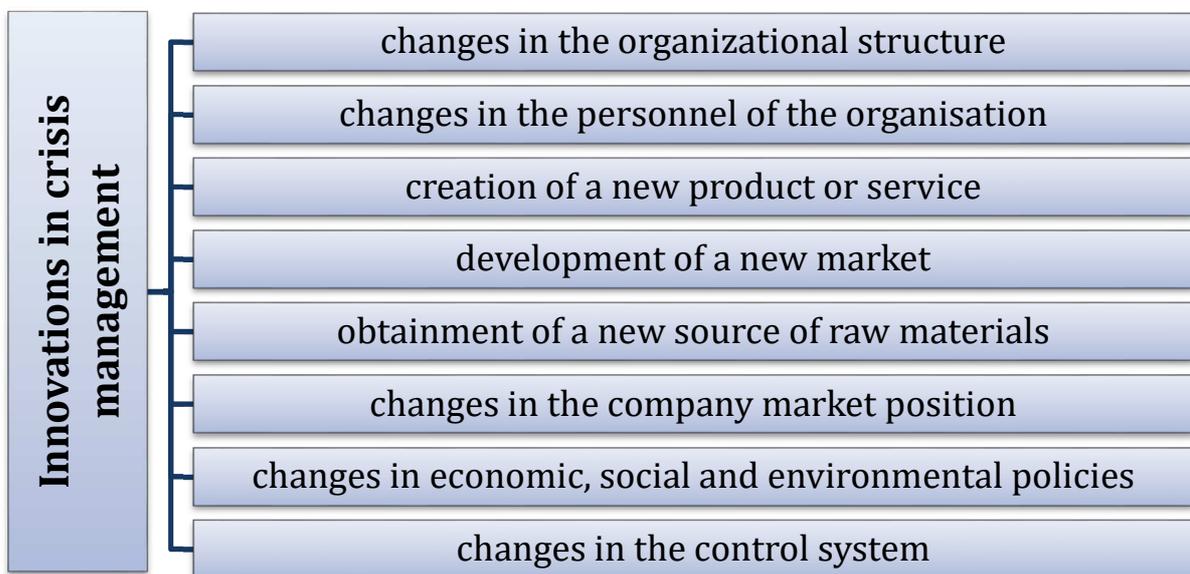


Fig.2 Potential directions of innovation development for the purpose of overcoming a company crisis

(Source: compiled by the authors based on Gajda, Zaplatynskyi, 2017)

Most authors who research innovation in the context of crisis management focus on the innovation as a means or instrument to be used to cope with a company crisis or avoid it. According to W.Gajda and

V.Zaplatynskiy (Gajda, Zaplatynskiy, 2017), innovation aimed at overcoming a crisis could be associated with various company management and activity areas, beginning with production and sales processes through to management and control mechanisms (Figure 2).

The issue of innovation in crisis management could be viewed from another perspective: the crisis management process itself could be based on innovative approaches or innovative instruments could be used in it as well. Such a methodological approach to researching innovation and crisis management has been often employed in the latest research studies. For example, innovative crisis management approaches and processes in construction have been researched by S.Sahin, S.Ulubeyli and A.Kazaza (Sahin, Ulubeyli, Kazaza, 2015). In their research, W.Gajda and V.Zaplatynskiy have examined the concept of innovation from the following aspects: 1) innovation as an instrument for enhancing crisis management activities and 2) innovation as the most effective tool for coping with the crisis. In general, crisis management is a relatively new science; therefore the scientific and specific literature most often and actively focus on the opportunities to use innovation particularly to overcome a crisis situation or avoid it, yet innovative crisis management and the introduction of innovations in the crisis management process in particular only start making modern scientists and practitioners interested in these fields, and at present the mentioned fields are little researched by both foreign and national researchers.

### **Conclusions and suggestions**

1. In crisis management, innovations are classified into two categories: crisis and developmental innovations. The key indication of a crisis innovation is a solution to the company's survival and economic process stabilisation. The purpose of a developmental innovation is to raise the competitiveness of a product or the whole company in the nearest future in order to avoid a projected and potential company crisis.
2. Every year, the European Commission publishes an assessment of the innovation performance of every EU Member State, which is expressed as a ratio of the summary innovation index to the average EU-28 index of 2010. According to the European Commission, the innovation performance of Latvia in the period 2011-2016 was unsteady and much lower than the EU average. In 2016, Latvia scored 58.1, which was 43% lower than the EU-28 average. The innovation performance of Latvia was the lowest among the Baltic States as well.
3. The hypothesis put forward in the paper proved to be true, as there are various directions of innovation development for companies aimed at overcoming a crisis that could be associated with various company

management and activity areas, beginning with production and sales processes through to management and control mechanisms.

4. In the context of crisis management, it is important that any innovation developed by a company contributes to the efficient and rational use of the resources invested in innovative activities that are very constrained during any crisis and yields an expected effect in the crisis management process.

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# THEORETICAL AND PRACTICAL ASPECTS OF PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES

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**Abstract.** *The number of small and medium-sized enterprises (SMEs) comprises a significant share in total number of enterprises in national economies, the SMEs are considered to be the backbone of economic growth, and most often their significance is valued by the gross value added and a number of new jobs created. Notwithstanding the established role of SMEs in national economies and the research studies conducted by Latvian scientists, the author considers that the theoretical and practical aspects of the SME's performance have not been sufficiently studied and published in Latvia. The purpose of the current study is to explore the theoretical and practical aspects of the SME's performance. The theoretical study is based on the analysis of the research publications, and the practical aspects are analysed using statistical information. General scientific research methods – information analysis and synthesis, the logical construction, monographic, data grouping and graphical representation methods – are used in the research. In the result, the theoretical aspects of the SMEs' performance are explored and the main indicators measuring the SMEs' performance are assessed.*

**Keywords:** *small and medium enterprises, measuring indicators.*

**JEL code:** M10, M20

## Introduction

SMEs have received great attention in recent years due to the important role they play in most national economies, in both developed and developing countries (Ahman, Alaskari, 2014) and they are important drivers of the economy (Bernaert, Poels, 2011; Forsman, 2008).

In Latvia, SMEs have a significant share in the total number of enterprises; they have an essential role in contributing to the gross domestic product and increasing the employment rate. In 2015, the average number of SMEs as a % of the total number of enterprises in the European Union (EU) and in Latvia was 99.8%. SMEs employed on average 66.8% of all private sector employees in the EU and 79.0% in Latvia in 2015. On average, SMEs produced 57.4% of the value added in the EU and 72.1% in Latvia (SBA Fact Sheet. Latvia, 2016). It is evident that the share of the people employed in SMEs in Latvia was 12.2 percentage points above and the share of output by SMEs 14.7 percentage points above the EU average. Overall, the SMEs have an important role in the economy of the EU and Latvia.

Notwithstanding the established role of the SMEs in national economies and research studies conducted by Latvian scientists (Ciemleja, 2010; Kantāne, 2013; Liše, 2013), the author considers that the theoretical and practical aspects of the SME's performance have not been sufficiently studied and published in Latvia.

The purpose of the research is to explore the theoretical and practical aspects of the SME's performance.

The tasks of the research:

- 1) to explore the theoretical aspects of the SMEs' performance;
- 2) to assess the main indicators measuring the SMEs' performance;
- 3) to draw conclusions.

General scientific research methods – information analysis and synthesis, the logical construction, monographic, data grouping and graphical representation methods – are used in the research.

In the current research, the theoretical study of the SMEs' performance is based on the analysis of research publications, and the SMEs' practical aspects are assessed using statistical information.

### **Theoretical aspects of SMEs**

SMEs are considered as a backbone of economic growth in all countries. They contribute to providing job opportunities, act as suppliers of goods and services to large organizations (Rahman, 2001; Anuar, Yusuff, (2011; Eggers et al., 2013). SMEs are defined by a number of factors and criteria, such as location, size, age, structure, organization, number of employees, sales volume, worth of assets, ownership through innovation and technology (Rahman, 2001). The SMEs can be described as catalysts of the future economy; hence, it is necessary to accelerate the growth of the SMEs and to improve their competitiveness (Forsman, 2008).

The Bolton Committee established in the UK (1971) has formulated definitions of "economy" and "statistics" of a small enterprise (Tonge, 2001). According to the definition of an economy, an enterprise may be considered small if it meets three criteria: 1) it has a relatively small market share; 2) it is personally run by the owner or co-owner without the mediation of a formal management structure; and 3) it is independent and is not a part of a larger company. The "statistics" definition stipulated that the size of a company was determined by the market share and the intensity of competition in the sector.

The subsequent research studies (Storey, 1994; Atkinson & Meagher, 1994) had pointed out the contradictions of the definitions of economy and statistics regarding the owner's ability to manage the company with more than 100 employees on his own, without management structures, as well as

regarding the possibilities to influence the level of market price and to get higher profits with a relatively small market share.

It should be noted that similar SME criteria do not exist in the world. For instance, in the US, it is officially defined that SMEs are enterprises employing between 1 to 500 people. A company corresponds to the small business category if it employs up to 100 workers; it corresponds to the micro-business category if it employs up to 20 workers (Fadahunsi, 2012).

In Latvia, the definition of a SME, or business category, is determined by the Regulations of the Cabinet of Ministers of December 16, 2014 (Kārtība, kādā komercsabiedrības deklarē..., 2014) in accordance with Article 2 of Appendix 1 of the EU Regulation No.651/2014 of June 17, 2014 (Commission Regulation (EU) No. 651/2014).

The criteria for SMEs were defined by the EC in 1996 and 2003 (96/280/EC; 2003/361/EC). The criteria to define the category of an enterprise is the number of employees and annual turnover, or the total value of balance. In 2003, when compared with 1996, the criterion *number of employees* was the same, though the criteria *annual turnover* and *total value of balance* had increased.

In accordance with the size and possibilities, SMEs have some specific features that could be characterised both as advantages and disadvantages. These characteristics fall in two main categories: *external environment and internal environment* (Cocca, Alberti, 2010).

Regarding the *external environment* (Garengo et al., 2005), SMEs operate in the conditions of high competition, in the insecure and rapidly changing market environment. The main aim of the SME is to survive in the market of competition (Levy et al., 1999). SMEs usually do not have control or influence over the market, therefore they have to adapt to the changes of the market (Hudson, 2001). SMEs can address particular market niches, as it is easier to focus on an exact known number of clients and to satisfy their needs with custom products and personalised services (Taticchi et al., 2008); the SMEs rely upon a limited range of clients and are closer to their customers thus developing more personalised and individual relations (Hong, Jeong, 2006; Maldifassi, Caorsi, 2014)

The lack of resources can be emphasised as one of the main problems and a typical characteristic of SMEs' internal environment, taking into account that the concept "resources" is reviewed not only from the point of view of staff, including the management, but also from the perspective of financial stability and security. Not only employees have limited skills (Singh et al., 2008), owners – managers do often lack management experience and organizational capacity, and that includes poor strategic planning and human resource management (Pansiri, Temtime, 2008).

SMEs have insufficient financial resources and there are difficulties ensuring financial stability (Levy et al., 1999; Watts, Baard, 2005). There is a strong relationship between entrepreneurs' knowledge (education level, work experience; knowledge of the functional requirements, self-esteem) and SMEs' performance (Omerzel, Antoncic, 2008).

The SME's size determines its organizational structure, which is not characterized by bureaucracy, as well as has a positive impact regarding flexibility, adaptability, and speed at which the organization can adapt to a changing environment (Garengo et al., 2005). SMEs often have great potential for innovation and possibility to meet the customers' requirements. An organizational structure with a few management levels promotes mutual relations, simplifies communication and provides the manager with a clear understanding of the processes, as well as with an opportunity to influence employees directly (Singh et al., 2008). Managers are often the owners of the company as well, and the control over the SME is mainly in the hands of one or a few people with a high level of autonomy (Pansiri, Temtime, 2008); the SMEs generally have a lower level of bureaucracy, which enables faster problem solving and better decision-making capacity (Vinten, 1999).

Success or failure of the SME's management can much be affected by organizational skills of the owner – manager, because decisions are largely based on the manager's personal skills and intuition rather than on analysis of the information. The owner – manager usually applies a personalized management style, following the “react and adapt” philosophy and “fire-fighting” strategies, focusing on the short-term goals, and do not engage in the strategic planning (Hudson et al., 2001b; Ropega 2011). SMEs often lack a long-term strategy or, if they do, it is unclear (Kueng, et al., 2000).

In Sweden, researchers indicate the following criteria defining the SME: personalised management; severe resource limitations in terms of management and manpower, as well as finance; reliance on a small number of customers and operation in limited markets; high innovative potential; a reactive, fire-fighting mentality; informal, dynamic strategies; and a flat and flexible organisation (Löfvin et al., 2014).

An interesting perspective regarding SMEs' operations, particularly regarding their financial performance, is provided by the Australian researchers (Wijewardena, et al., 2008) who have studied the skills (administrative and business skills) of owners/managers in relation to the company's life cycle stages and the company's sales revenue changes over three years. The researchers have concluded that there is a close link between the skills of owners/managers and the company's financial performance, as well their research confirmed the fact that the financial

performance is better in the companies where the owner/manager has entrepreneurial, not administrative skills.

The analysis of the literature performed by the author reveals peculiarities of functioning and characteristics of economic behaviour of SMEs regarding both the internal environment of operations, and their interaction with the elements of the external environment. Indeed, these peculiarities affect the SMEs' operations.

### **Assessment of SMEs' performance**

SMEs' performance indicators can be viewed as indicators of a business environment development in Latvia, as the SMEs are the most sensitive towards the changes in economic and legal environments, and towards political changes implemented by the government authorities. The role of SMEs in the EU in general and in the Latvian economy particularly can be assessed by analysing the number of SMEs, the number of people employed, and the gross value added.

Table 1 Characteristics of SMEs in Latvia and the EU  
*(calculated by the author, based on the SME Performance Review 2016)*

	2008	2009	2010	2011	2012	2013	2014e	2015e	2016e	2017e
<b>Share of SMEs</b>										
In Latvia	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
In the EU	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
<b>Share of employees</b>										
In Latvia	78.1	78.1	77.5	77.2	78.8	78.3	78.6	79.0	79.2	79.5
In the EU	66.9	67.6	67.4	67.2	67.0	67.0	66.7	66.8	66.8	66.9
<b>Share of value added</b>										
In Latvia	72.1	68.0	68.7	67.8	69.4	70.4	71.6	72.1	72.4	72.7
In the EU	58.5	58.7	57.5	57.8	57.4	57.7	57.5	57.4	57.5	57.6

e – estimates

An analysis of the data characterizing SMEs in Latvia and the EU (Table 1) shows that in the research period, the share of the SMEs in the total number of enterprises was on average 99.8% in the EU as well as in Latvia, and in the following years the share of the SMEs in the total number of enterprises would not decrease. The share of people employed by SMEs (within the total number of the employed population) and the share of value added (within the total gross value added) in Latvia exceeds the EU average,

however, both indicators tend to show a growth trend. SMEs are an important component of the ‘non-financial business economy’. In the research period, SMEs in Latvia, on average, have generated more than 70% of the value added, and the share of the people employed by the Latvian SMEs accounted for almost 80%. Hence, the share of total value added generated by Latvian SMEs and the number of people employed by the Latvian SMEs are more than 10 percentage points higher than the EU average. Most of that difference is explained by the importance of medium-sized firms.

The author considers as noteworthy a study by *Lursoft Ltd*, which analyses annual reports submitted by 30 186 enterprises operating for at least 11 years. Unfortunately, the information on this study is rather scarce in the public space. The study does not cover micro-enterprises, large companies, credit institutions, and insurance companies. According to the study, the net turnover of SMEs as well as the number of employees continuously declined, while the profit and the amount of taxes paid increased (Ķirsons, 2017).

The total net turnover of economic operators (commercial companies) in 2015, compared with 2007, has increased by EUR 7.65 billion or 15.8% (Statistics Database, 2017), however, on the contrary, the net turnover of more than 30 000 SMEs in 2015, compared with 2007, has decreased by EUR 2.11 billion or 13.86% (Figure 1).

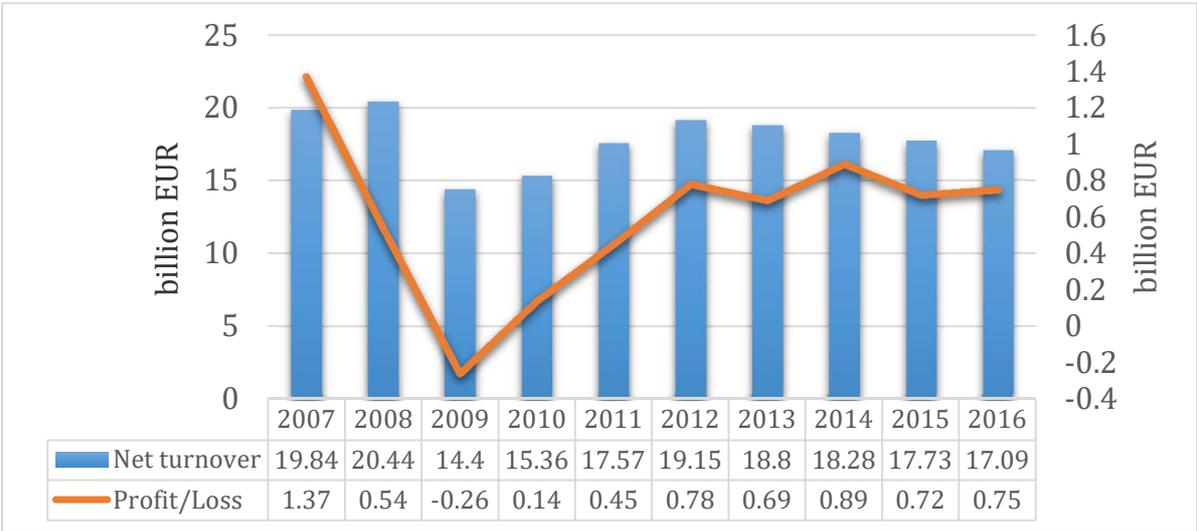


Fig.1 Net turnover and profit/loss of SMEs in Latvia in 2007-2016, billion EUR (calculated by the author, based on Ķirsons, 2017)

In 2016, the net turnover of the SMEs surveyed, compared with 2015, continued to shrink, suggesting that the experienced companies generally operate producing yet lower revenues. According to A. Brūvelis, a researcher of *Lursoft Ltd*, the fall in the net turnover was determined by the introduction

of micro-enterprise tax, as well as by the failures of the insolvency process, as, after the completion of the insolvency, the entrepreneurs were not prevented to re-establish new companies without any obligations (Kīrsons, 2017). Profits of the SMEs in 2016, as compared with 2015, has increased, though accounted for only 54.74% of the 2007 profit.

The number of employees in the surveyed SMEs from 2014 to 2016 has decreased, though the amount of tax payments per employee has increased (Figure 2).

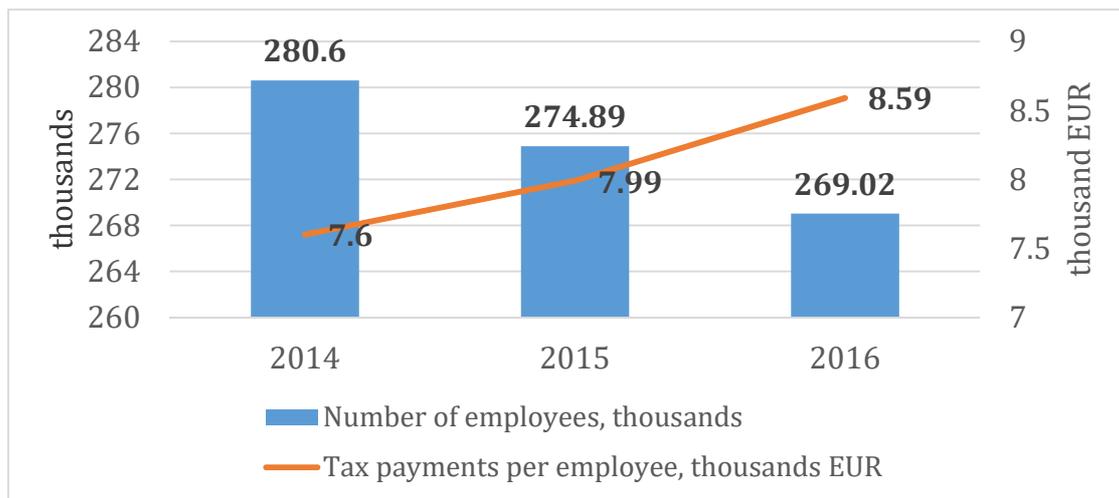


Fig.2 Number of employees and tax payments per employee in Latvian SMEs in 2014-2016  
(calculated by the author, based on Kīrsons, 2017)

One of the reasons of the decreasing number of employees could be the increasing use of various technologies in the economic operations of the companies, which determines the decrease in labour demand. As one of the reasons of increasing tax payments per employee, the increase in the average monthly wages of employees (Statistics Database, 2017) could be mentioned. Indeed, the changes in the minimum monthly wage and personal income tax during 2014-2016 could contribute to a reduction in tax payments per employee, as the minimum monthly wage in 2014, 2015, and 2016 was EUR 320, EUR 360 and EUR 370 respectively, while the personal income tax deducted from the wage or salary was 24% in 2014, and 23% in both 2015 and 2016. A. Brūvelis believes that “such a rise in the taxes paid along with the decreasing net turnover and the shrinking number of employees leads to a conclusion about a possible decrease of the share of *under-table wages and salaries*, and the increase of the rate of other taxes payable” (Kīrsons, 2017).

An analysis of statistically significant correlations between the net turnover of the SMEs, profits/losses, and the number of employees in 2007-2016 (Table 2) shows that a strong correlation ( $|r| > 0.5$ ) existed between the net turnover and the profit/loss. The causal link suggests that the

increase of net turnover would increase profits/losses. Changes in the number of employees in this case do not show statistically significant correlations with changes in net turnover and profit/loss.

Table 2 Matrix of correlations between SMEs' net turnover, profits/ losses and number of employees in 2008-2016  
(calculated by the author using SPSS, based on Kirsons, 2017)

	N	Net turnover	Profit/ Loss	Number of employees
Net turnover	10	-		
Profit/Loss	10	.783**	-	
Number of employees	10	.601	.066	-

\*\* . Correlation is significant at the 0.01 level (2-tailed).

In general, the results of the SMEs' performance demonstrate the impact of the national economic and fiscal policy, pointing to its favourable or hindering character, the state of the capital market, the level of development of infrastructure and the education system, as well as describe the efficiency of the national support policy and the orderly functioning of the legislation regulating business activities. The author believes that an analysis of the indicators measuring the SMEs' performance and their assessment, the publication and application of the research results would foster the development and implementation of the policies favourable for the development of the SMEs.

## Conclusions

SMEs can be referred to as catalysts of the future economy, they contribute to job opportunities, act as suppliers of commodities and services for large companies. Globally, the criteria defining SMEs differ. Peculiarities of the functioning of SMEs and their economic behaviour are determined by the factors of their internal environment (sufficient labour and financial resources and their rational use, the potential of innovation, the role of managers, etc.) and interaction with factors of the external environment (competition, customer relations, etc.). Indeed, these peculiarities have an impact on the SMEs' performance.

Both in the EU and in Latvia, SMEs account for a significant share of the total number of enterprises, they have an important role in generating GDP and providing employment; therefore, it is crucial to accelerate the growth of the SMEs and to improve their competitiveness. The SMEs' performance can be considered as an indicator of development of the business

environment in Latvia, as the SMEs utmost sensitively react to the changes in economic and regulatory environments, and in the policies implemented by national authorities.

According to a study by *Lursoft Ltd*, the net turnover of the SMEs as well as the number of employees continue to decrease, while the profits and the amount of taxes paid show a growing tendency. The author's research points out that changes in the number of employees do not show statistically significant correlations with changes in the net turnover and profit/loss of the SMEs.

As a general rule, the results of the SMEs' performance would point to the impact of the national economic and tax policies as being favourable or impeding, as well as characterize the efficiency of the national support policy and the orderly functioning of legal regulations. The author believes that an analysis of the indicators measuring the SMEs' performance and their assessment, the publication and application of the research results would foster the development and implementation of the policies favourable for the development of the SMEs.

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# THE EXPRESS WILL OF A PATIENT: TYPOLOGY BY NATURE OF ITS ORIGIN

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**Abstract.** *The patient's express will, in accordance with the nature of its origin, could be categorized into initial and derivative express will. However, the regulatory framework is insufficient in Latvia, considering the significance of these institutes in the civil-law protection of the patient's express will and their specificity of different legal nature.*

*The aim of the research is to carry out an analysis of the patient's express will types according to the nature of origin, to determine regulatory gaps and propose certain solutions for the elimination of the identified gaps. In order to achieve the aim, the following research tasks are set: 1) to analyse the patient's express will classification according to various classification criteria; 2) to study the legal nature of the patient's consent; 3) to assess the patient's refusal of a medical treatment and its legal consequences; 4) to analyse withdrawal by the patient as a derivative express will. The following research methods were applied in the paper: the semantic method; the grammatical method; the historical method; the comparative method; the systemic method; the teleological method. Research hypothesis: if all the patient's express will types based on the nature of origin are regulated in detail, the legal status of a patient in medical treatment legal relations will be improved and stabilized. Literature, regulatory acts and legal practice materials were applied in the research as information resources.*

*The author has developed the principles regarding the patient's express will types based on the nature of origin, which are in accordance with the legal system of Latvia and should be implemented in the regulatory framework, thus improving the civil law protection of the patient's express will.*

**Keywords:** *derivative express will, initial express will, patient.*

**JEL code:** *K32 Environmental, Health and Safety Law.*

## Introduction

Nowadays the express will of a patient is to be considered as a core of legal relations between a patient and a medical practitioner/ healthcare establishment. Further mutual legal relations of the above mentioned parties are directly and indirectly subordinated to express the will of a patient. An analysis has to be carried out to determine in what way the patient can express his will regarding his medical treatment. The types of classification of the express will of a patient, their peculiarities will be reviewed. It should be determined if the legal regulation ensures sufficient choice of types of expression and implementation of the express will by a patient.

One of the most significant classification criteria to categorize types of the express will of a patient is a nature of its origin. In accordance with a nature of its origin the express will could be categorized as follows:

- (1) Initial, i.e., a patient expresses his will to particular medical treatment first and foremost (a consent to a medical treatment or refusal of it as a prime and simple express will);
- (2) Derivative, i.e., a patient has the right to change his will by a withdrawal of the former express will (withdrawal). Thereby the withdrawal of the will of a patient should be distinguished specifically taking into account peculiarities of its legal nature.

In accordance with its form of establishment, the express will of a patient could be categorized as follows:

- (1) The will of a patient could be expressed directly, including in particular:
  - (a) the will that is expressed in the current moment and is characterized by the following: (i) the will comes directly from the patient; (ii) the will is expressed in the current particular moment; (iii) the will is established (fixed); (iv) the will is not presumed; (v) the patient is present and is able to express his will; (vi) only the patient himself has the right to withdraw this express will;
  - (b) the will of a patient could be established depending on the declaration that has been expressed earlier, i.e., the former express will of a patient;
- (2) the will of a patient could also derive from legal presumption, i.e., the presumed will of a patient – (a) in what way the patient would be willing to act in accordance with his interests, and (b) the presumption of the will of a patient.

Another criterion to categorize the express will of a patient is independence of the express will in a legal meaning of the term. In accordance with this criterion, the express will could be classified as follows:

- (1) an express will that could be qualified as an unilateral deal (for instance, a formerly declared express will of a patient regarding handling his own body after his death);
- (2) an express will that constitutes bilateral (multilateral) composition of a deal, i.e., that is directed towards establishment, amendment, or termination of legal relations (for instance, the consent of a patient to medical treatment).

Another way to classify the express will of a patient is to do that in accordance with a way the will has been established, as well as in accordance with independence of the express will in the legal meaning of the term. The above mentioned classifications and their legal nature will be investigated in further research studies.

The patient's express will, in accordance with the nature of its origin, could be categorized into an initial and a derivative express will. However, the regulatory framework is insufficient in Latvia, considering the

significance of these institutes in the civil-law protection of the patient's express will and their specificity of different legal nature.

The aim of the research is to carry out the analysis of the patient's express will types according to the nature of origin, to determine regulatory gaps and propose certain solutions for the elimination of the identified gaps. In order to achieve the aim, the following research tasks are set: 1) to analyse the patient's express will classification according to various classification criteria; 2) to study the legal nature of the patient's consent; 3) to assess the patient's refusal of a medical treatment and its legal consequences; 4) to analyse withdrawal by the patient as a derivative express will. The following research methods were applied in the paper: the semantic method; the grammatical method; the historical method; the comparative method; the systemic method; the teleological method. Research hypothesis: if all the patient's express will types based on the nature of origin are regulated in detail, the legal status of a patient in medical treatment legal relations will be improved and stabilized. Literature, regulatory acts and legal practice materials were applied in the research as information resources.

The author has developed the principles regarding the patient's express will types based on the nature of origin, which are in accordance with the legal system of Latvia and should be implemented in the regulatory framework, thus improving the civil law protection of the patient's express will.

### **Consent of a patient to medical treatment and its legal nature**

Content boundaries of consent of a patient to a medical treatment could be floating. A patient expresses his consent regarding his medical treatment. However the range of the express consent could be influenced, in the first place, by a patient himself in three ways: (1) a patient can expand boundaries of the express consent (for instance: a patient can accept the presence of other persons during a treatment or can invite other persons provided that the treatment is not interfered; a patient has the right to receive a mental care; a patient has the right to have the support of own family and other persons during a treatment (Pacientu tiesību likums- 5.p.7.d., 3.p.5.d., 5.p.3.d.); (2) a patient can narrow them down (for instance: a patient has the right to receive a medical treatment that is carried out only in the presence of the persons directly involved in a medical treatment (differentiation of persons involved in a medical treatment by narrowing down their number); a patient has the right to make a decision regarding particular methods of a medical treatment if the treatment process could be divided; a patient has the right to refuse or to terminate the participation in the process of clinical training (Pacientu tiesību likums - 5.p.7.d.; indirectly approved - 6.p.4.d.,

7.d.; 7.p.1.d.; 12.p.2.d.); (3) a patient has the right to declare his consent conditionally that would be considered as a new proposal (Civillikums, 1537.p.; Kalniņš, 2005, 175; Barak-Erez D., Correa R., Elliott M.a.o., 2008, 317-330). For instance, in the case *Evans v. the United Kingdom* the plaintiff was diagnosed an ovary tumour in 2000, as a result the surgery was required to remove her ovaries. However an opportunity to freeze the plaintiff's fertilized ova (freezing of unfertilized ova was not carried out in the particular healthcare establishment) was offered before the surgery. The decision had to be made fast, thus the plaintiff and her partner consented to the above mentioned freezing by signing a consent form and indicating names of each other. The relationship ended in 2002, and the plaintiff's former partner required destroying embryos, the plaintiff objected to his request. That resulted in the conflict of interests: the possibility to become a genetic parent versus the enforcement to become a parent. The Court had pointed out that the plaintiff's former partner had limited his consent with a condition that the embryos should be used only by both partners together, therefore the plaintiff's protest was declined (*Evans v. the United Kingdom*). However the opinion of particular judges was that the solitary possibility to become a genetic parent is more significant than a person's desire not to become a parent. Though the law had not ensured sufficient defence of the mentioned interests in this case (Joint dissenting opinion of judges Türmen, Tsatsa-Nikolovska, Spielmann and Ziemele).

Second, objective criteria that are taken into account by a patient while expressing his consent could limit the range of the consent. As an example, the following criteria could be mentioned: (1) the rights and legal interests of third parties, for instance, a principle of minimal risk to the donor - a patient as a recipient can receive only regenerative tissues and organs (except one kidney) from a living donor to be transplanted (Likums "Par miruša cilvēka ķemreņa aizsardzību un cilvēka audu un orgānu izmantošanu medicīnā" - 13.p.), not any tissues/ organs that are needed by a patient and that the patient would like to receive; (2) boundaries that are permitted by the legal system; those in some cases could be opposite to the law or, in the case where the legislative regulation does not exist, the state institution or the court have to fulfil the permitted boundaries of a conduct of a patient with a related content (for instance, the express consent of a patient to perform an active euthanasia is opposed to the law in Latvia and some other countries, yet there exists an opinion that it will be decriminalised in the future (See: *Rodriguez v. British Columbia (Attorney General)*, point 17, 170 - the Court has dismissed the appeal of a terminally ill patient to perform euthanasia because it is not allowed by the law; *Wakeford v. Canada (Attorney General)* - the Court has dismissed the action of the patient terminally ill by HIV/ AIDS to permit performing euthanasia, as it was

opposed to the law). For instance, the gender reassignment surgery was performed to a person without a legal regulation providing for such a case criteria on how a gender reassignment is to be certified and on the procedure on certification of a gender reassignment. The Court has ruled that the state institution or the court have to fulfil the term „gender reassignment” with the content, as the state has an obligation to perform a legal recognition of a gender reassignment by careful verification (LR Augstākās tiesas Administratīvo lietu departaments, 2008). The boundaries of the express consent of a patient could be influenced by other conditions, for instance, the faith in countries with stronger influence of religion (for instance, in accordance with Islam a person cannot freely deal with own body since a human body is considered to be a gift of the God (Brauer, Wiesemann, Biller-Andorno, 2008, 168; Bulow, Sprung, Reinhart, 2008, 423-430). Thus, when a patient consents to a medical treatment he can in a subjective way to define content boundaries of the express consent (to expand them, to narrow them down, or to establish conditions) however – within the objectively eligible framework of legal system.

Consent of a patient should be received by a medical practitioner before a medical treatment is started, taking into account its specific character (Pacientu tiesību likums, 6.p.1.d., 3.p.6.d.; Ārstniecības likums, 1937, 71.p.; Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, 5.p.1.d.; Law of Obligations Act, Estonia, P.759, 766 p.3.; Patienten-Charta, Switzerland, a.6; Law on the Rights of Patients and Compensation of the Damage to their Health, Lithuania, a.8.1; Patient’s Rights Act, Israel, a.13(A); Act on Health, Hungary, s.15 p.2; Law on the Rights of a Patient, Georgia, a.22 p.1; McHale, Fox, Murphy, 1997, 319). This approach is based on the fact that the physician is in touch with the own body of a patient, which should be controlled by a patient in accordance with his rights (Mason, 1994, 73; case: *Malette v. Shulman* ((1990) 67 DLR (4th) 321 (Ont CA)) (Canada), case: *Schloendorff v. Society of New York Hospital* ((1914) 211 NY) (ASV) - Kennedy, Grubb, 1994, 87). There are no strict rules regarding the time when the consent of a patient should be received – how long before the medical treatment is started. On the one hand, the minimal time boundary should be defined, i.e., the consent could be declared even shortly before the start of providing a medical service, given that a patient has had enough time to consider and to make a decision. On the other hand, the maximal acceptable time boundary should not be defined (indirectly confirmed – see: Белоусова), unless an incident occurs within the mentioned period of time that ceases the express consent of a patient that had been declared beforehand.

Two types of endorsements are defined in private law. The first is an endorsement before a deal/ an agreement; the second – a consent that is an endorsement by starting an action or even afterwards, thus it has a retroactive effect. Later endorsement could provide clarity on the subject of judicial character of the action, thus eliminating ambiguities in legal relations (Civillikums, 1434., 1435.p.; Torgāns, Grūtups, Višņakova, 1998, 41, 42). In medicine, solely consent of a patient is acceptable, not later endorsement. Although, there exists another opinion: if the consent to action in accordance with the law has been a precondition for validity of the legal act, then the act is not valid until its endorsement (Balodis, 2007, 155), subsequently it could be concluded that later endorsement by the patient is acceptable. Though this principle cannot function in medicine at all, since, for instance, performance of illegal surgery with receiving endorsement of a patient afterwards is unacceptable. A more rigorous approach is necessary in medicine, taking into account the character of medical intervention. In addition, it has been indicated that the legal act without necessary consent will not be considered as invalid in all cases; that would be done in order to protect the trust of third parties in validity of the legal act. In this case, the legal act will remain valid; nevertheless, civil sanctions could be imposed against the person that has concluded a deal without consent if the deal is not endorsed afterwards (Balodis, 2007, 155). The above mentioned argument is not applicable in medicine since the patient is protected to a larger extent than the third parties in this field. Therefore an action that has led to an illegal medical treatment and consequently has resulted in respective legal consequences to a medical practitioner/ healthcare establishment is to be considered illegal. Therefore, the application of different types of consent is limited in medicine, excluding the consent of a patient to medical treatment that is an endorsement by starting an action or even afterwards.

The following significant legal aspects of consent of a patient are being indicated when analysing its legal nature: (1) the consent of a patient relativises validity of a medical treatment, except the treatment of a patient without his consent or against his consent (legal function of a consent of a patient); it points out an imperative nature of consent of a patient; (2) the consent of a patient is conditional; three criteria are set for this case: (a) an ability of a patient to express his consent; (b) possession of an information by a patient; (c) voluntariness of a patient in expression of his consent; (3) the consent of a patient is not a sufficient condition to start a medical treatment (Kennedy, Grubb, 1998, 110-112; Montgomery, 1997, 227; Pattinson, 2006, 100,101; Mason, 1994, 75; Justickis) (for instance, the medical treatment is not to be performed barely in compliance with the subjective will of a patient; in the case of limited resources).

If a medical intervention is performed without the consent of a patient, that is considered to be infringement of the rights that leads to a civil liability. For instance, a five years old patient injured her hand at the garden gate in 2002. She was hospitalized; primary surgical manipulations of the injury were performed; during those the attending physician disconnected two fingertips of a patient that were initially amputated during injury; though he didn't provide this information to the mother of the patient as a legal substitute of the patient and didn't obtain her consent. The claim to the court was made, indicating that the physical mutilation was caused to the child in a result of illegal actions of the attending physician, therefore compensation to cover moral harm and losses due to the case should be collected. The Court with good reason ruled to decline the claim that was raised in this way, indicating that primary surgical manipulations of injury by the attending physician are not in a causal relation with a harm caused to health in a result of the trauma (LR Augstākā tiesa, 4.pk. 5.d., 6.d., 7.d.). The Court of Appeal also indicated that the bodily harm of the patient was not caused in a result of not providing information and of not obtaining the consent (LR Augstākās tiesas Civillietu departments). Nonetheless, in this case the attending physician had performed medical intervention to the patient without providing information to the substitute of the patient and without obtaining the consent; in this way the attending physician had illegally interfered integrity of the body of the patient thus infringing the rights of the patient (Ārstniecības likums, 41.p. (article is not in force); Pacientu tiesību likums, 3.p. 6.d., 6.p.1.d.; LR Satversme, 94., 95.p.). These arguments were not indicated in the claim. The attending physician would be discharged from his liability if it could be proved that his actions were justifiable, i.e., legal, or that the consequences of the harm were not causal to tolerated infringements. In cases where harm has occurred during a medical treatment, a medical practitioner has to prove that he has performed all duties in accordance with the professional requirements, or that the consequences of the harm to health are not casual to the tolerated infringements (Bitāns, 2009, 1.pk. 1.d.). In this particular case there exist a casual relation and actions of the attending physician are not justifiable, since the substitute of the patient was accessible and the life of the patient was not endangered (Ārstniecības likums, 49.p. (article is not in force); Pacientu tiesību likums, 7.p.8.d.). And the Health Inspectorate had applied administrative sanctions to the attending physician in this case (LR Augstākā tiesa, 4.pk. 6.d.). Therefore the above mentioned infringement of the attending physician has to be considered as a tort in the contractual relations between a patient and a medical practitioner/ healthcare establishment (Principles of European Tort Law, a.2:101, a.2:102 p.2; Civil Code, Germany, 1896, P.823 p.1. See also: Bar, Drobning, 2004, 25, 26. The cases where there is an ambiguity which civil

liability – a contractual or a tort liability – should be applied, are called a competition of contractual and tort liability. The preference is given to tort liability in Latvia (Bitāns, 1997, 96). In juridical literature a term „medical tort” is used as well. (See: Виноградов, 2003, 37)); in this case civil liability has to be applied to the medical practitioner/ healthcare establishment in accordance with Article 1635 of the Civil Law (as well as with Article 92 of the Constitution of the Republic of Latvia (See: LR Satversmes tiesa. Legal liability arises from the actions that are opposed to the rights, not from the legal, moral or other inconsistency of the actions. In the Constitution the term „adequate reimbursement” is used. The term should be interpreted as a compensation adequate to the infringement of the rights, including both material damage and immaterial harm; a compensation for immaterial harm is feasible in any case of the infringement of the rights (Butāns, 1999, 110,113)) (in the case described that is a liability to compensate moral harm).

There are cases in the Latvian case law where due attention is not paid to the condition to obtain the consent of a patient to a medical treatment. For instance, an under-age patient was hospitalized at night. A physician on duty haven't fulfilled his duties in an appropriate way. After the morning checkups of the patient it was recognized that the patient's medical condition was very bad. The patient was transferred to the intensive care, where she died in the evening. Evaluating the attending physician's negligence, it was indicated that he hadn't secured all the necessary examinations, hadn't observed the patient, hadn't provided the information to the patient's parents. The issue of not receiving consent of the substitute of the patient was not considered, although that demonstrates the quality of carrying out the professional duties by the attending physician and influences the physician's liability (See: LR Rēzeknes tiesa; LR Latgales apgabaltiesa; LR Augstākās tiesas Krimināllietu departaments).

### **Refusal of a medical treatment by a patient and its legal consequences**

A patient has the right to refuse a medical treatment (Pacientu tiesību likums, 6.p. 4.d.) - that is one of the ways to express his will. These rights are derivative from the rights to life, including three components:

(1) the integrity of life: first, inviolability of life against instant danger to life or against the actions that are considered to be life threatening (a war, a homicide, terrorist activity, and others); second, against criminal actions that are not directly aimed at the death of a person but could or lead to it (criminal actions against the environment, criminal actions concerning negligence to work safety issues, and others);

(2) the rights to handle a life, i.e., voluntarily to create threats to life that are not aimed at occurrence of the death; those could be manifested as: first, refusal of a medical treatment when the life is endangered because of medical indications; second, removing of tissues/ organs for transplantation; third, medical trials; fourth, some professional activities; fifth, saving of life when it is not within professional duties of a person;

(3) the rights to life saving: to request assistance from qualified professionals when a person is not able to save his life himself (Капинус, 2006, 103,118,119).

Refusal of a medical treatment derives from the rights over one's own body. A patient has the self-determination rights to consent to or to refuse a medical treatment. The rights of a patient to refuse a medical treatment are not restricted even in the case if that endangers the health or life of the patient, without prejudice to a public interest (See also: *Pole v. Region 2 hospital Corporation*; *A.C. v. Manitoba (Director of Child and Family Services)*). In the case a patient refuses a medical treatment it is provided that a medical practitioner has only two obligations: (1) to inform about possible negative consequences of the refusal; (2) to encourage visiting another physician (*Pacientu tiesību likums*, 6.p. 5.d.). In this case the patient has to take a responsibility over the possible harm to his health or life. Consequently, a patient has the right to refuse a medical treatment even regardless possible harm to health and danger to life since it is manifestation of his self-determination rights.

It is essential to recognize when the rights of a patient to refuse a medical treatment arise. On the one hand, a patient of age 14 – 18 has the rights of the express consent, though, on the other hand, these rights are limited since the express consent to refuse a medical treatment is defined as a more relative in comparison with another – consent to a medical treatment – in this case (*Pacientu tiesību likums*, 13.p. 2., 3.d.). The express consent (including a refusal of a medical treatment) by a person of a majority age, having legal capacity to act is the one with the strongest force provided that there are no shortcomings of the express consent.

There are cases where a current refusal of a medical treatment by a patient of a majority age, having legal capacity to act is limited for the reason of debatable provisions. First, in Hungary a patient can refuse a medical life support treatment only in the case where in accordance with a conclusion by the council of doctors the death of a patient is imminent in a short time due to his terminal illness and regardless relevant medical treatment (*Act on Health, Hungary*, s.20 p.3, 4). On the one hand, refusal of a life supporting medical treatment denotes possible imminent death of a patient. It has to be admitted that “the right of unassisted decision over own death is one of the utmost boundaries of the self-determination rights of a patient” (Kovaļevska,

2008, 15). On the other hand, the Supreme Court of the United Kingdom in the case *McKay v. Berystedt* ruled that any adult and well informed patient, not only a terminally ill patient, has the right to refuse life support (Kennedy, Grubb, 1994, 1276). The approach that would extend rights of a patient in the case of particular health conditions even with negative consequences for the patient is not supported within a current model of legal relations between a medical practitioner and the patient, although refusal of a life supporting medical treatment is the most endangering to the health and life of the patient.

Second, in Hungary a pregnant patient cannot refuse life supporting medical treatment if there is a chance of successful pregnancy (Act on Health, Hungary, s.20 p.3, 4). Subsequently the following issue arises: what is more relevant in the situation when refusal of medical treatment (especially life supporting treatment) by a patient affects rights and legitimate interests of third (thus far – potential) parties. There was the following case in Germany in 1992. A pregnant woman was injured in a car accident. The injuries resulted in brain death. Though an unborn person (foetus) was unharmed, the life functions of the patient were supported by the medical equipment. The legal substitutes of the decedent person filed a petition to the Court, requesting to terminate the life support of the patient. The Court didn't have time to rule the case, because the possibility to support the life functions of the patient expired and the unborn person (foetus) died. Though an opinion of the legal science in this case tended to favour the rights to life of the unborn person (foetus) (Baumgarten, 2000, 296-301). There are cases recorded in the USA where the Court rules to proceed with the medical treatment against the will of a pregnant patient in order to save the life of the unborn child (foetus) (Miller, Hutton, 2004, 470). Thus, there exists occasions when refusal of a medical treatment by a patient affects the rights of third parties. The predominance of the rights should be assessed in a case of interference of rights.

Refusal of medical treatment by a patient is not limited regarding the time when the will of a patient should be expressed, i.e., the patient could express his will to refuse medical treatment before it is started as well as during the treatment (*Pacientu tiesību likums*, 6.p.4.d.). The only differences concern a legal nature of the refusal of medical treatment by a patient. The refusal of a medical treatment by a patient during the treatment should be considered as a withdrawal of the patient with its particular features since the consent of a patient to medical treatment had been received initially. On the one hand, „*pacta sunt servanda*” principle exists in the private law; on the other hand, there are particular cases where unilateral deviation of the contract is acceptable (*Civillikums*, 1587., 1589.p.). It could be concluded that the moment when the refusal of medical treatment is expressed by a patient

affects merely legal nature of the express will of a patient: that is either a refusal or a withdrawal.

Substantiation of the decision of a patient to refuse a medical treatment is not required notwithstanding that the refusal of the treatment could lead to negative consequences for a patient. It is not substantial if the reason for the decision is a rational, an irrational, unknown, or even non-existing, providing that a patient is of a majority age and having legal capacity to act (Kennedy, Grubb, 1998, 113). In accordance with the principle of private autonomy the justification of the refusal of a medical treatment by a patient or lack of its justification does not affect legal validity of the express will whereas there are no shortcomings in the express will itself.

It is necessary to specify the extent of a medical treatment the patient has the right to refuse. First, a patient has the right to refuse a particular method of medical treatment if it is possible to divide the process of medical treatment in separate stages without refusing a treatment in general (Pacientu tiesību likums, 6.p.4.d.). Second, a patient can refuse a medical treatment overall (Pacientu tiesību likums, 6.p.4.d.). Therefore refusal of a medical treatment by a patient could be absolute or partial in accordance with the extent of the refusal.

### **Withdrawal by a patient as a derivative express will**

The right of a patient to change own decision is retained, while expressing the will regarding the medical treatment, i.e., consenting to a medical treatment or refusing it. Thus the self-determination right of a patient is not restrained after the will regarding the treatment is made. Withdrawal of the express will of a patient could mean one of the following: (1) either it is a withdrawal of the express will without expressing a new will (since withdrawal is not presumption of an opposite decision); (2) or it means a consent to a medical treatment (in case the refusal of medical treatment had been expressed initially, but currently the patient expresses consent to the treatment); (3) or it is a refusal of a medical treatment (if initially it was a consent to it). Nevertheless, there are certain features of a withdrawal as the express will of a patient. These features differentiate the withdrawal from mere consent to a medical treatment or a refusal of it. First, a withdrawal is performed in the case of the will that have been already expressed; that reflects the derivative legal nature of a withdrawal. Second, in the case of withdrawal, the former express will is being cancelled and a new express will can be formulated; that points out a composite nature of a withdrawal. Third, in the case of a withdrawal of the existed express will the opposite express will could be provided; that illustrates a turning nature of a withdrawal. It could be concluded that the consent to a medical treatment or

the refusal of it are not considered as the objective and final express will of a patient, while the patient is envisaged to have subjective rights to change the decision by withdrawing it, i.e., by the express will of derivative, possibly composite, and turning nature.

There are no limits on how often a patient can withdraw the express will. However a patient should act reasonably while withdrawing the express will, i.e., to avoid subjective action without objective justification that could result in losses to a medical practitioner/ healthcare establishment. For instance, in Hungary, a patient has to cover expenses that have occurred to the provider of medical services if the will of a patient has been withdrawn without a valid justification (Act on Health, Hungary, s.15 p.6). The occurrence of losses constitutes obligation of a patient to objective justification of the withdrawal. The objective change of circumstances or obtaining information about the circumstances unknown before that would've been resulted in another decision by a patient if known in advance could be admitted as the proper reasons for an objective justification. The patient shouldn't be determined to negative consequences just because he objectively changes his decision withdrawing the former express will. Only indirect references to this principle could be found in the legal regulatory framework in Latvia - for instance: (1) the refusal to participate or termination of participation in the clinical training process shall not adversely affect the attitude of the medical practitioner towards further medical treatment of the patient (Pacientu tiesību likums, 12.p. 2.d.); (2) it is prohibited to punish a patient or otherwise directly or indirectly cause him unfavourable circumstances, if the patient is protecting his rights (Pacientu tiesību likums, 3.p.4.d.). In the third part of Article five of the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine it is defined that a patient has rights "(...) freely withdraw (...)" (Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, a.5 p.3) will at any time, thus indirectly indicating inadmissibility of negative consequences. Hence it could be concluded that an objective withdrawal of the express will of a patient cannot result in negative consequences to the patient.

The following issue arises while analysing the express will of a patient in relation with his medical treatment: are there any restrictions regarding the utmost moment until which a patient has the right to withdraw the express will. It is attempted to strengthen the principle of stability of civil relations in private law; this principle is reflected in much more specific indications rather than merely permission of unilateral deviation (Torgāns, Grūtups, Višņakova, 1998, 41. Article 1432 of the Latvian Civil Law defines: if someone has expressed his consent he has accepted an action with all its

legal consequences and cannot further limit his consent (Civillikums)). However, a patient is envisaged to have the right to withdraw his express will at any time (Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, a.5 p.3; Act on Health, Hungary, s.15 p.6; indirectly – Pacientu tiesību likums, 6.p. 1., 4.d.; „(...) as well during the procedure (...)” – the case: Ciarlariello v. Schacter (Kennedy, Grubb, 1998, 119; Health Care Consent Act, Ontario, Canada, s.14; Patient’s Rights Act, Norway, s.4-1 p.2)) regardless the start or a stage of medical treatment taking into account a specific character of a medical treatment and a character of its intervention.

Restrictions to a withdrawal by a patient could be acceptable only in exceptional cases related with actual inability to change the sequence of events due to the irreversible effects. For instance, it is possible to withdraw consent to remove tissues/ organs for transplantation only until the beginning of the procedure. Thus, a derogation of the principle of private law is created since a rather liberal approach to the withdrawal right of a patient is envisaged, restraining the rights exceptionally in the case of the irreversible effects of the sequence of events.

It is necessary to identify boundaries to a withdrawal of the express will of a patient. As distinct from the initial expression of a will where a patient sets its boundaries himself, the question in the case of a withdrawal is about a cancellation of the decision already made. Thus, a withdrawal by a patient already has the boundaries that are set before. In the case the patient expands or narrows down the range of his express will by withdrawing it that will result in a double express will, which will consist of the initial and the derivative express will. Thus, it could be concluded that the withdrawal by a patient has strict (specific, determinate) boundaries as distinct from the relative ones defined in the initial express will.

### **Conclusions and suggestions**

In accordance with the nature of its origin, the express will of a patient could be classified as one of the following:

- (1) initial, i.e., a patient expresses his will regarding particular medical treatment first and foremost (a consent to a medical treatment or refusal of it as a prime and simple expression of a will);
- (2) derivative, i.e., a patient has the right to change his will by a withdrawal of the former express will (withdrawal). Thereby the withdrawal of the will of a patient should be distinguished specifically taking into account peculiarities of its legal nature.

There are basic general principles regarding the initial express will of a patient defined in the legal regulation in Latvia. Particular legal nuances

should be defined more precisely. However, there are only indirect references to a withdrawal as a derivative express will of a patient in the part where the nature of origin of an express will is analysed. The above mentioned regulation is insufficient, taking into account the significance of the concept with regard to legal defence of private law and peculiarities of its legal nature.

The author proposes to make the following amendments to the Law on the Rights of Patients of the Republic of Latvia by introducing Article 6<sup>1</sup> and defining basic principles of a withdrawal of the express will of a patient:

- (1) A patient has the right to withdraw the express will any time except a situation when the irreversible effects of the sequence of events have taken place.
- (2) The express will of a patient expires if it is duly withdrawn in an appropriate form by a patient.
- (3) A withdrawal of the express will of a patient is not considered to be a presumption of the opposite decision.
- (4) A patient withdraws the express will in writing.
- (5) In a situation when a patient due to objective circumstances is not able to express a withdrawal in writing, the attending physician invites two witnesses of a major age, having a legal capacity to confirm by their signatures the decision made by a patient.
- (6) A withdrawal of the express will of a patient should not cause negative consequences to the patient.

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# TALENT MANAGEMENT AS A NEW FORM OF SUSTAINABLE HUMAN RESOURCES MANAGEMENT

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**Abstract.** *Even though several researchers investigated the topic talent management, only few presented it with relation to the subject sustainability. A sustainable approach is a key criterion for the implementation of a successful talent management process. To do so, it is important to understand the current needs of students, which represent the talents. The aim of the research study is to develop the awareness of sustainable talent management and to find out what conditions must be met by employers to be seen as an attractive and long-term employer on the part of students, which represent the talents and future leaders. Research methodology consists of a literature review followed by an empirical investigation using an online student survey. The results of the student survey, however, are intended to help understanding the position of students in this topic today. What are the working needs and conditions that are important to them, and what are imperative requirements from the students' point of view to secure a long-term commitment to a company? Overall, the present paper includes 24 sources of literature, the results of an online student survey with 132 participants from 18 countries, 6 figures and tables.*

**Keywords:** *future leaders, sustainable talent management, talent, talent management, talent management process.*

**JEL code:** M12

## Introduction

Successful talent management is seen in various surveys as one of the biggest challenges in organizations in the upcoming years. Studies such as, e.g., 'Creating a dynamic and sustainable talent ecosystem', which was conducted by the Center for Creative Leadership in the year 2015 (Chandrasekar et al., 2015), confirm this and have already shown that companies are struggling to implement effective talent management. Talent management must be pursued as a holistic process in which sustainable implementation plays an important role and should therefore be implemented and understood as a part of corporate culture. The aim of a talent management strategy is to form a powerful unit with sustainable competences, which according to a study by Strandberg Consulting provides the following advantages for the enterprise: Better ability to anticipate and manage risks

- Increased innovation and opportunity identification
- Early access to new markets with sustainable products and services
- Enhanced problem solving and more effective decision-making

- Greater ability to respond to changing economic conditions
- Improved employee attraction, retention and engagement (Strandberg, 2015).

In order to achieve this, the implementation of sustainable talent management can prove to be supportive. However, for such an implementation, it is no longer sufficient to pass this work to the HR department, but should be accepted as a task for all participants. A sustainable talent management requires growing together and open communication between the Human Resources (HR) and all other departments and hierarchies. For this reason, appropriate conditions must be created in order to build up the necessary framework for a sustainable talent management concept.

However, to perform talent management sustainably, it is imperative to identify the needs of the target group, the talents. The author has dealt extensively with this topic over a period of several months in order to ask information about the awareness of talent management among students and to find out what conditions must be met by employers to be seen as an attractive and long-term employer on the part of students, which represent the talents and future leaders.

**The aim of the research study** is to develop the awareness of sustainable talent management and to find out what conditions must be met by employers to be seen as an attractive and long-term employer on the part of students, which represent the talents and future leaders.

To achieve this aim, several tasks were defined: study of some theoretical aspects about sustainable talent management, formulation of a list of questionnaire; evaluation of the results; development of conclusions and suggestions.

**Object of the research study:** talent management.

**Subject of the research study:** factors influencing talent management.

**Research period:** November 2016 – January 2017.

**Hypothesis of the research study:** Talent management is a useful measure to attract students.

**Methods used in this research study are as follows:** online students survey, evaluation and analysis of surveys, graphical analysis, logical and abstract constructive methods, content analysis, reference methods.

## **Research results and discussion**

### **Definition of talent**

When you look up the term *talent* in Duden (the name, Duden' stands for standard reference work on the German language and guarantees the highest level of lexicographical competence.), you will find the definitions:

a) “Ability, that enables someone to unusual or above-average performance in a particular field, especially in the artistic field” or b) “someone who has talent” (Dudenverlag, 2016).

In specialized literature, there are countless definitions of the concept of talent. Armin Trost, a German psychologist and professor for human resource management, for example, recognizes a “[...] strong performance and success, coupled with a high degree of discipline” and “[...] pronounced fun in the exercise of their cause” (Trost, 2012). Several scientific literatures mention terms such as *high potential* or *top performer*” (Ritz et al., 2011). Others believe that: “Everyone in an organization has talent, even if some have more talent than others. Talent management processes should not be limited on the favoured few” (Armstrong, 2007). The authors of *The War of Talent* agree with that opinion and define the expression as follows: “Talent in the most general sense, is the sum of a person’s abilities – his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgment, attitude, character, and drive. It also includes his or her ability to learn and grow” (Michaels et al., 2001). In the modern models of talent management, talents are defined as employees with “high potential and high competence, regardless from the current performance” (Enaux et al., 2011).

In this paper, the term *talent* is used in the sense of the following definition: “Talent consists of those individuals who can make a difference to organizational performance, either through their immediate contribution or in the longer term by demonstrating the highest levels of potential” (Holbeche, 2009). This definition recognizes talents as a competitive advantage, because they bring the company forward through their special skills and competences. This provides a clear demarcation of talented employees from the rest of the workforce. However, the pure focus on these talents could lead to a conflict, which triggers motivation and declines corporate identification among the other employees, caused by low training opportunities or increased fluctuation rates. Therefore, it is extremely important to identify and motivate these talents in a targeted way, without blocking the development possibilities of other employees.

### **Definition of talent management**

Many experts define talent management differently. “Some see it as static, some as organic. Some see it as operational, others as strategic. Some see it as integral to the performance management system, while others see it as distinctly separate. Some see it as applying to everyone, while others see it as segmenting” (Blass et al., 2008). According to the definition of Creelman, talent management is: “The process of attracting, recruiting and retaining talented employees” (Creelman, 2004). Others describe talent management

as a strategic core process and an indispensable necessity to promote business success (Bednarczuk et al., 2008). And Capelli defines talent management as: “Getting the right people with the right skills into the right job” (Capelli, 2008).

There is no uniform definition for talent management, so the term *talent* allows a wide range of interpretations. However, authors agree that just filling the positions with appropriate candidates is not enough to perform talent management, effectively or sustainably. Therefore, Armstrong considers that: “Talent management is the use of an integrated set of activities to ensure that the organization attracts, retains, motivates, and develops the talented people it needs now and in the future” (Armstrong, 2007). Continuous communication between the top-level management, middle-level management, the HR department and all other employees is a prerequisite for a holistic and sustainable talent management within the company.

### **Dimension of sustainability in relation to talent management**

“For many people, the first thing that comes to mind when sustainability is mentioned is the environment – and it is quite accurate to think that such issues as pollution, recycling, climate change, energy and water conservation, and stewardship of natural resources are all listed at the top of the sustainability agendas of businesses. In fact, however, sustainability is about more than the environment” (Savitz et al., 2013). From a business perspective, sustainability has been defined as a “company’s ability to achieve its business goals and increase long-term shareholder value by integrating economic, environmental, and social opportunities into its business strategies” (Wirtenberg et al., 2007). However, one of the most famous and probably the most common definition is the Brundlandt definition. It was defined by the United Nations in 1987 as follows: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987). That means, that today’s generation should live according to their needs, but without destroying the chances of the future generations. The definition was characterized by politicians, businessmen and representatives of society and is rated as a kind of model in relation to the sustainable decisions (Weber, 2012). Although some experts felt this claim to be critical (Taylor et al. 2002), the majority is convinced that this definition covered most aspects of sustainability (Dale et al., 2001). According to Taylor, the definition of the UN is not entirely correct, as it is difficult to determine the future needs of the next generation, which probably differ from the needs nowadays. In addition, the citizens of

developed countries feel a very different need than the inhabitants of a developing country (Taylor, 2002). At any rate, the Brundlandt definition led to a rethinking of economic development, as economic development had focused on the current wealth creation up to that point. “The assumption was that economic growth was about using environmental and human resources to create needed products and services that would generate profits, jobs, tax revenues, and an expanding pool of wealth – and that development of this kind could be safely pursued without fully considering the present-day environmental or social impact of the production process or the products themselves, much less the impact of those on the welfare of future generations” (Savitz et al., 2013). However, the use of natural resources is high and growing (Wackernagel et al., 1996). Back in 2010, the World Wide Fund for Nature calculated the consumption level on 1.5 planets. This means, you needed 1.5 planets to meet the needs of today’s generation. This way of life can’t be sustainable, because we are constantly living beyond our means. It is obvious that there is a problem which needs to be solved very quickly, since sustainable development cannot be realized, by the lifestyle we are living. For sustainable development, a rethinking of the people is mandatory. Especially organizations are at the focus, when it comes to high resource consumption. For enterprises, sustainable action has even a decisive advantage, namely cost reduction (Ludwikowski, 2010). The economical use of resources means lower costs. Therefore, the implementation of ecological sustainability does not necessarily require a conflict.

In the meantime, sustainability has been found in almost all business areas that have an impact on the economy, society, or the environment. The Triple Bottom Line Model refers to these three areas, but factors such as the industry in which the company is located and the products or services it offers play an important role, whereas the number of departments or business units are less important (Savitz et al., 2013). The authors Savitz and Weber stated: “Some departments will have impacts on the environment; others will have social and economic impacts on the communities in which you operate; and some may have impacts in all three areas” (Savitz et al., 2013).

“Sustainability in a talent management context is about organizations developing their future leaders, manager, specialists and employees from the talent potential within.” (iXerv, 2016). This is not solely about recruiting talents from outside of the company, but especially of identifying and subsequently promoting and developing those who are already in the company.

Today, many companies believe that both sustainability and corporate responsibility are imperative to generate and retain talents. “Some companies such as UPS, Praxair, Verizon, the Carlyle Group and MGM have

gone so far as to create a Chief Sustainability Officer role within their organizations. Young leaders of the world are expecting more than a paycheck and want to make a positive impact on society” (Carter, 2016).

Regarding sustainability in terms of talent management, it was mainly HR, which contributed a great deal to this. “In the context of sustainability, the key to recruiting and staffing that make up talent management is providing the right people with the right mental models and values, in addition to their functional expertise” (Wirtenberg et al., 2007).

Sustainable thinking and action is an integral part of today’s society. That is why it is no surprise that business strategies of the most successful companies in the world have put the focus on sustainability, and of course this also applies to talent management. Taking a closer look at the corporate landscape, it can be seen that more companies regardless of size and industry do the same (Savitz et al., 2013).

For example, the Best Practices Institute (BPI) has recently visited the United Nation’s (UN) Global Compact to gain insight into the sustainability principles that have proved their worth at the UN Global Compact.

These 10 principles include:

- Support human rights
- Ensure you are not complicit in human rights abuses
- Respect collective bargaining rights
- Eliminate all forms of forced labour
- Abolish child labour
- Eliminate discrimination in the workplace
- Take a precautionary approach to environmental conflicts
- Promote greater environmental responsibility
- Invest in eco-friendly technologies
- And uphold a zero-tolerance policy towards bribery and all forms of corruption (Carter, 2016).

Today’s generation is aware of its responsibility with regard to environmental and social aspects. For this reason, it is not only earning and promotion opportunities that play a decisive role in the selection of the employer, but also whether the company proves to be a good corporate citizen, and understand sustainability as a part of the corporate culture.

### **Methodology of the student survey**

The aim of this survey is to determine the status quo of the understanding of talent management in the organization: where are students in this topic today, what is particularly important to them at the company, and what are the prerequisites from the student’s point of view to secure a long-term commitment to a company?

In empirical social research, online surveys are assigned in the context of the written survey. In this case, no pre-made questionnaire will be sent by mail, but the respondents will fill out an Internet questionnaire. The advantages of this method of investigation can be explained as follows:

- The survey is cost-effective and it is also possible to evaluate larger amounts of data with reasonable effort.
- The questionnaire can be created and adapted individually. Specific function, e.g., conditions of question elements can be incorporated. Consistency checks are also programmable.
- The interviews are carried out quick and the immediately stored data can be used directly for interim results and evaluations.
- Experimental surveys with differentiated question versions are possible.
- Different open source software for the creation and evaluation is/are available on the market.

However, this research method also has disadvantages. These include:

- Distortion of the sample relationship since only Internet users are taken into account. The population of the Internet users differs in many questions from the general population.
- The response rate may be very small, since they are more impersonal
- No control over who fills out the questionnaire.

### **Results of the student survey**

In the case of a lack of potential executives, the talents have to be picked up or caught early. Therefore, talent management should not only target people who are already in the labour market, but should also involve the future leaders, the students. This quantitative survey was to find out how strongly the experience values or the degree of awareness of talent management with today's students is pronounced. In addition, this empirical study is intended to help interpret the needs of this target group to companies, so that the organizations can prepare for it at an early stage.

The evaluation of the survey shows the participation of 132 students from 18 countries. The most represented nations were Germany with 56.1%, Lithuania with 15.2%, Turkey with 6.1%, Latvia with 5.3% and the Czech Republic with 3.0%.

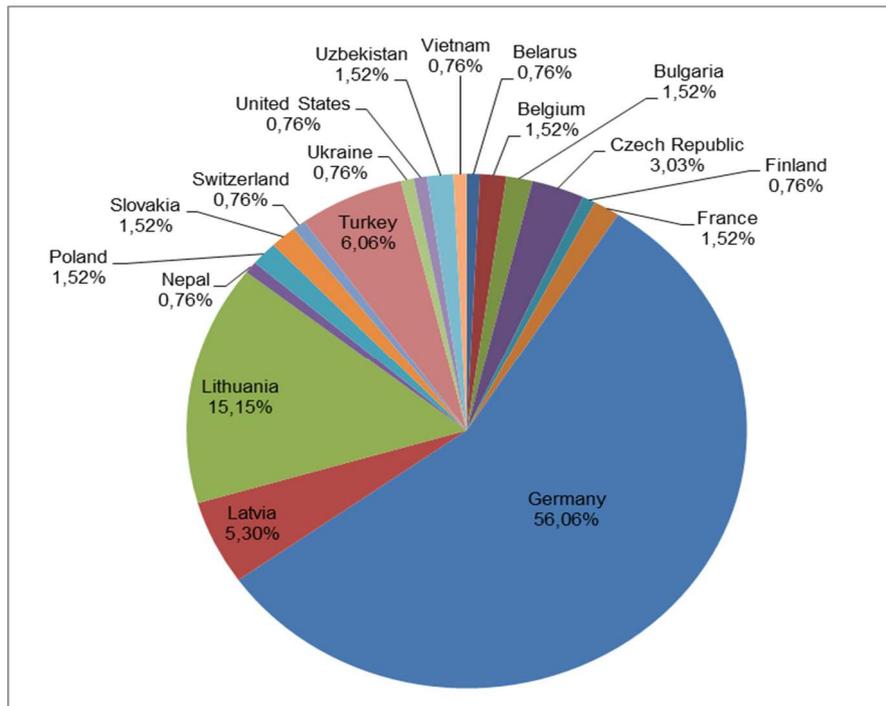


Fig.1 Proportion of participants in the student survey  
(Source: author's data, 2016)

Most of the survey participants were bachelor students. With a percentage of 74.2%, this group accounted for almost  $\frac{3}{4}$  of the respondents, while 24.2% of the respondents were master students and 1.5% were those who already had a master's degree and were in the process of selecting a new degree or were undergraduate.

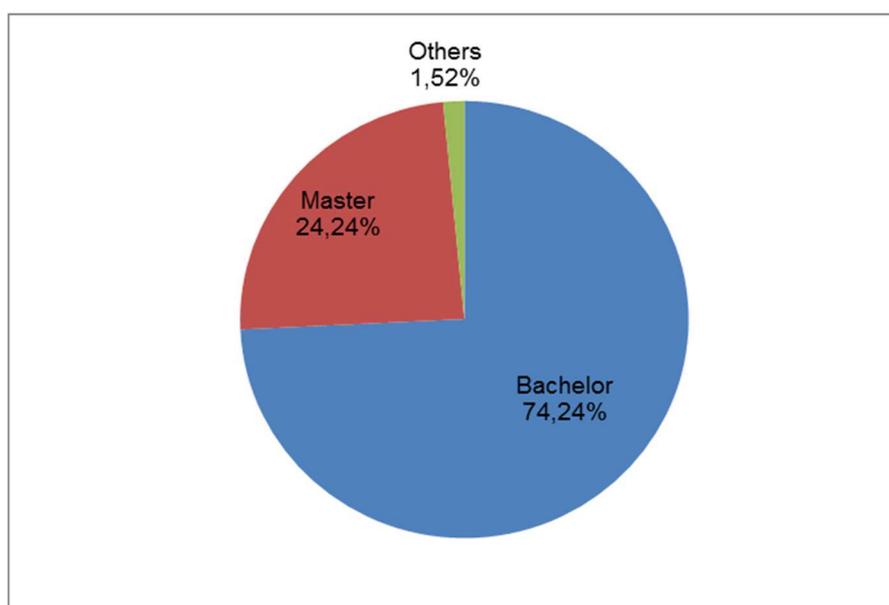


Fig. 2 Proportion of participants and their current study level  
(Source: author's data, 2016)

The question of *'Have you heard of talent management'* was rejected by 68.9%, and only 31.1% answered in the affirmative.

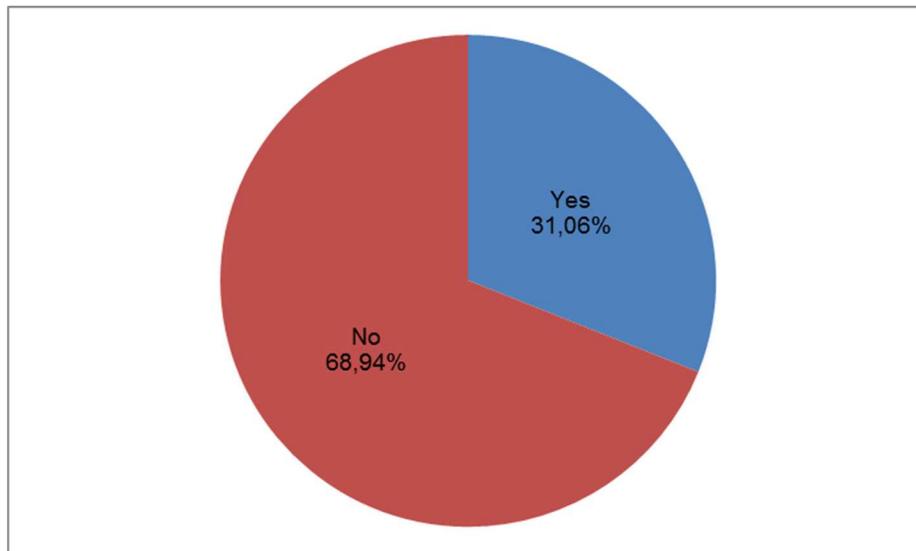


Fig.3 Responses to the question *'Have you heard of talent management?'*  
(Source: author's data, 2016)

83.7% of those who were in a bachelor study answered this question with *'no'* and 16.3% with *'yes'*. The answers from the Master's students were quite different. 75% answered with *'yes'* and only 25% with *'no'*. For the remaining 1.5% who had either already completed a master's degree or were undergraduate, 50% had answered this question with *'yes'*, and the other 50% answered with *'no'*.

To the question No. 4 *'Are you or have you been working in a company that is performing talent management?'*, there were 124 participants (93.9%) who had never worked in a company that was performing talent management. Only 8 students (6.1%) of the respondents, could answer this question with a *'yes'*. It should also be mentioned that of the 6.1% who answered this question with a *'yes'*, 75% were students studying for a master's degree and 25% for a bachelor's degree. It was also apparent that 75% were students from Germany, 12.5% were students from Finland and 12.5% were from Belarus.

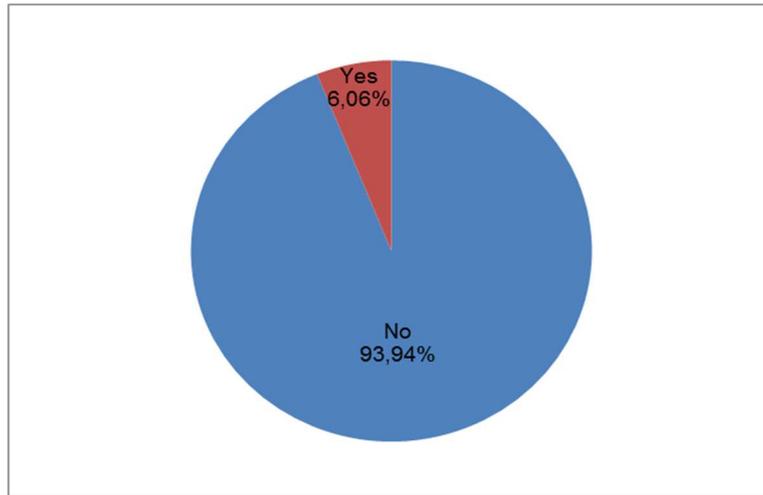
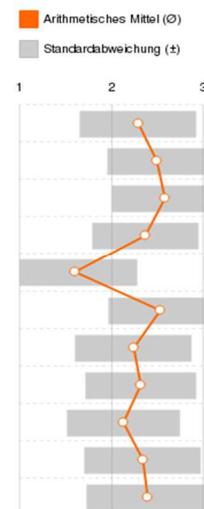


Fig.4 Responses to the question 'Are you or have you been working in a company that is performing talent management?'  
(Source: author's data, 2016)

To the question 'How important are the following points to you?', which has been compiled as an evaluation table with 11 different aspects, the students were able to choose among three options (1 = Not that important, 2 = Important, 3 = Very important). For most of the students who participated in this survey, 'Career and development opportunities' (61.9%), 'Work environment' (57.9%) and 'Training opportunities' (48.4%), were the most important aspects in business. In the 'Important' column, innovation (60.3%), corporate culture (55.6%) and work insurance (54%) were of great importance. As 'Not so important' was applied with distance on-site child care with 50.8%. However, for 13.5% of the participants 'Innovation' and for 10.3% 'Corporate culture' did not play an important role.

Table 1 Responses to the question 'How important are the following points to you?' (Source: author's data, 2016)

	Not that important (1)		Important (2)		Very important (3)			
	Σ	%	Σ	%	Σ	%	Ø	±
Working hours	12x	9,52	66x	52,38	48x	38,10	2,29	0,63
Salary	3x	2,38	57x	45,24	66x	52,38	2,50	0,55
Career and development opportu...	5x	3,97	43x	34,13	78x	61,90	2,58	0,57
Diversified work	6x	4,76	67x	53,17	53x	42,06	2,37	0,58
On-site child care	64x	50,79	48x	38,10	14x	11,11	1,60	0,68
Work environment	5x	3,97	48x	38,10	73x	57,94	2,54	0,57
Corporate culture	13x	10,32	70x	55,56	43x	34,13	2,24	0,63
Job insurance	9x	7,14	68x	53,97	49x	38,89	2,32	0,60
Innovation	17x	13,49	76x	60,32	33x	26,19	2,13	0,62
Social guarentees	11x	8,73	61x	48,41	54x	42,86	2,34	0,63
Training opportunities	12x	9,52	53x	42,06	61x	48,41	2,39	0,66



In question No. 6 ‘*Under which conditions can you imagine to stay with an organization over a long term?*’, the participants were able to choose three reasons.

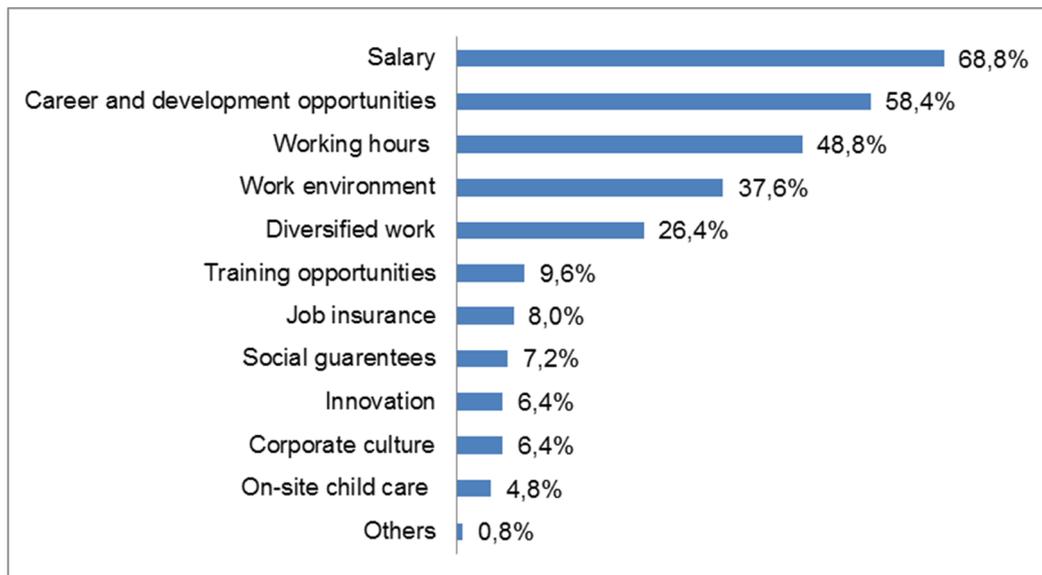


Fig.5 Responses to the question ‘Under which conditions can you imagine to stay with an organization over a long term?’

(Source: author’s data, 2016)

The analysis (figure 5) showed that for 68.8% of the students, the salary was the most important aspect in order to retain with an enterprise in the long term. With 58.4%, the ‘*Career and development opportunities*’ were the second most important criterion. ‘*Working hours*’ were also important for 48.8% of the students. However, the ‘*Work environment*’ with 37.6% and ‘*Diversified work*’ with 26% were not playing an unimportant role in order to secure the retention of employees.

### Conclusions and suggestions

Talent management becomes a critical success factor that is gaining in importance. Companies will not be able to avoid the integration of successful talent management to fill key positions with appropriate candidates in the future. Talent management must be pursued as a holistic process in which a sustainable implementation plays an important role and should therefore be implemented and understood as a part of corporate culture. The author agrees with Creelman,D (2004) that the sustainable talent management is the process of attracting, recruiting and retaining talented employees. The aim of a talent management strategy is to create a powerful unit that can adapt to the constant changes in business environment to survive as an organization. For such an implementation, it is no longer sufficient to pass

this work to the HR department, but should be accepted as a task for all participants.

However, important is also the fact that to perform sustainable talent management, it is imperative to identify the needs of the target group, the talents. By analysing and comparing the empirical findings according to the theoretical framework, a student survey conducted could reveal the students' current understanding, experiences, and personal interests regarding talent management. The evaluation showed that a large proportion of the students (68.9%) had not previously heard of the term talent management. And 75% of those who had already heard of talent management were master students. This could lead to the conclusion that the subject of talent management is not yet of any particular importance in the bachelor's degree. In this connection the author suggests to include the course "Sustainable talent management" in some bachelor's study programmes that are oriented on management studies. In spite of so small part of respondents, who answered on this question these answers show a positive trend in performing talent management in the companies.

Even more explosive were the results on the question of the experience regarding talent management in companies. Here, it was 93.3% who had not had any experience with talent management in organizations. This could be since most companies did not perform talent management or had not explicitly communicated it both within and outside the company.

The results regarding the needs and requirements of the students show that above all the career and training possibilities, salaries as well as the aspects of working environment and working hours were particularly important for students. For example, for 68.8% of the students, the salary and for 58.4% the career and development opportunities were essential factors to stay with an enterprise in the long term. These factors are very important in sustainable talent management as well.

It can be said that according to the student survey, development opportunities and attractive salary are still very much in demand today, but they are no longer sufficient to be seen as an attractive employer by today's talents. The generation that is entering the labour market today must be given the opportunity to help shape and co-ordinate the balance between work and leisure time or their personal development in the company.

As a result, there is still a huge need for action in the area of talent management, as currently mainly large and global operating organizations are performing a uniform, holistic and sustainable talent management approach. However, even small and medium-sized companies will have to pursue talent management in the future if they want to remain competitive in the long term. In summary, it can be said that talent management, which is on a sustained basis, is an important aspect in the filling of critical positions

that will ensure the corporation's competitiveness and, in some cases, reduce recruitment costs if the talent pool is both a qualitative and quantitative combination of corporate strategy and HR processes. However, it must be also borne in mind that once talent management has been implemented, it is not a completed project, but must be developed repeatedly. In order to react flexibly to the dynamically evolving environment and the resulting change processes, it is necessary to attract and retain suitable talents for the constantly changing expectations and requirements.

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# FACTORS INFLUENCING CUSTOMERS' SATISFACTION AND THEIR ASSESSMENT

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**Abstract.** *Tourism in many countries and in particular cities is one of the most attractive business forms that enhances the expansion of supply and increases competition. Consequently, the quality of services is the key to a customer's choice. However, a complex character of SPA hotel services makes it necessary to explore not only the service quality, but also its mutual connection with other business processes. The research study is carried out within the framework of the RTA research grant "Assessment of hotel service development possibilities in Rezekne city". The aim of this research is to explore and assess the factors affecting satisfaction of the SPA hotels' customers, and correlations between service quality indicators. To evaluate factors influencing customers' satisfaction, an expert – client ("mystery guest") questionnaire was developed. Its practical approbation was carried out conducting a survey in three SPA hotels: Pühajärve Spa & Holiday Resort 3\* (Otepää, Valgamaa, Estonia), Hotel Jūrmala Spa 4\* (Jurmala, Latvia), Spa Vilnius Anykščiai 4\* (Anykščiai, Lithuania). In the result, the conclusion was made that the questionnaire makes it possible to successfully assess the SPA hotel's business processes and its connection with the quality of services. The attributes identified in the 1<sup>st</sup> response area are the most important to the customers, though their quality is not proper. The management should pay the most attention to these factors and should accept management decisions to improve them. At the same time, these factors, according to Kano's model, are either "must-be" (directly affect a customer and shape the essence of the service), or "quantitative" (customer's satisfaction increases by increasing the quality of the indicator) in the opinion of the SPA hotel visitors.*

**Keywords:** customer satisfaction, SPA hotel, Hotel Jūrmala Spa 4\*, Pühajärve Spa & Holiday Resort 3\*, Spa Vilnius Anykščiai 4\*.

**JEL code:** Z32

## Introduction

The International SPA Association has defined the SPA as a place to indulge into well-being through a variety of professional services that encourage the renewal of mind, body, and spirit (ISPA's Definition of Spa..., 2016). SPA services is one of tourism products where demand and supply increase, accordingly determining a need to ensure a high quality service, innovation and products, which relate with the current market trends and requirements, that is – demographic changes and changes in consumer

behaviour, safety, demand for authentic offers, environmental protection, etc. A study carried out by the National Education Development Agency (Skaistumkopšanas nozares apraksts, 2015) confirms that the demand for SPA services increases, respectively, the competition among service providers grows.

Hotel chains, operating successfully in the global housing market, have developed their own evaluation criteria. Every visitor during his/her stay in the hotel (or after) can assess the company's services filling in a questionnaire. Consequently, valuable information is obtained providing an opportunity to improve the quality of services and, in the result, to increase competitiveness.

The aim of this research is to explore and assess the factors affecting satisfaction of the SPA hotels' customers, and correlations between service quality indicators.

The following tasks were set to achieve the aim:

- to study theoretical aspects of the factors that affect customers' satisfaction;
- to develop a questionnaire for evaluation of the customers' satisfaction;
- to test the questionnaire, and to analyse the survey data obtained.

The methods applied in the research: logical and constructive, synthesis and analysis, an empirical survey.

Object of the research: assessment of the SPA hotel business processes and service quality. Subject of the research: customers' satisfaction.

Hypothesis: Development of a new model for assessment of the hotel services quality with focus on improvement of the hotel business processes and service quality will contribute to a higher "perceived quality" assessment of the newly established Rezekne SPA hotel by its customers.

### **Theoretical aspects of factors influencing customers' satisfaction**

"Perceived quality" assessment of the SPA hotel's services depends on an accurate choice of the factors (elements) affecting a customer's satisfaction (defining survey data processing methods, techniques for management decision-making and hotel business process improvement, etc.).

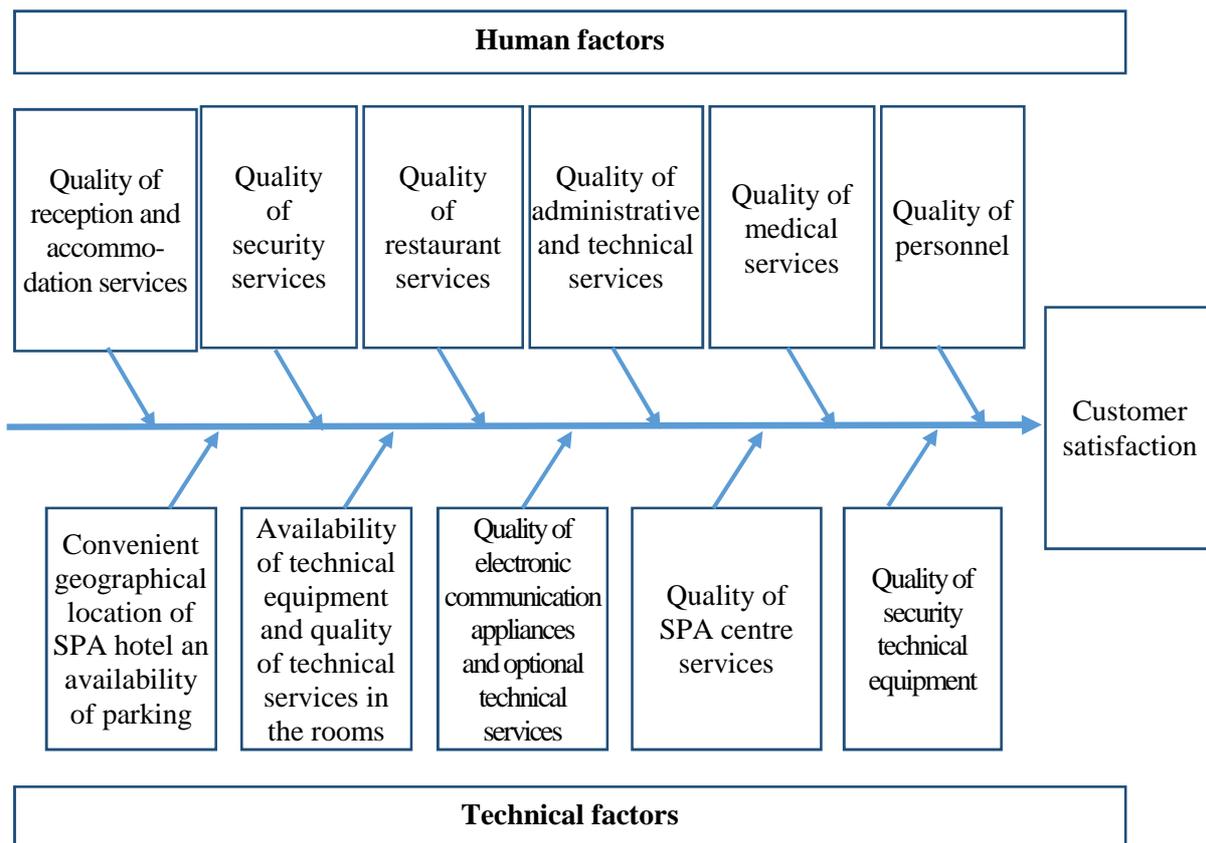


Fig.1 Ishikawa's Cause and Effect Diagram reflecting factors affecting the customers' satisfaction with SPA hotel services  
(Source: compiled by the authors, based on Ishikawa, 1990)

After an assessment of a number of SPA services valuation models that reflect factors influencing customer's satisfaction, the authors chose the following:

- Ishikawa's Cause and Effect Analysis (diagram) that allows to perform a logical analysis of impact factors, although it does not provide a numerical equivalent of significance of the factors;
- Noriaki Kano's model for evaluation of service significance (importance) of SPA Hotels, assessing the SPA hotel services from an expert point of view;
- Linking the factors affecting SPA hotel guests' satisfaction with specific business processes (Wu, Liang, 2009).

Further in the paper, these models and their usability for SPA services evaluation will be described.

Ishikawa's Cause and Effect Diagram (also called "a fishbone diagram") is a systemic approach based on the graphical display, which, in a compact form, allows arranging in logical order causes of a variety of events. The given method was developed by Kaoru Ishikawa (Ishikawa, 1990) and for the first time was applied in the Japanese steelworks industry in the

1950s. Based on his research, Ishikawa concluded that a particular case is rarely based on a one single reason and absolutely not on the one reason, which seems obvious. Possible causes should be mainly sought for in the following four areas: man, machine, method, material (so-called “four M” areas).

At the same time, practical application of this method provides a certain freedom to choose one’s own areas of reasons that reflect the specific aspects of the SPA hotel organization, and a particular research problem. Now, such areas of reasons as “environment”, “management”, etc. are often added to the original ones.

Analysis of the SPA hotel services and the experience of the global hotels made it possible to identify a number of human and technical factors that affect customers’ satisfaction (Wu, Liang, 2009).

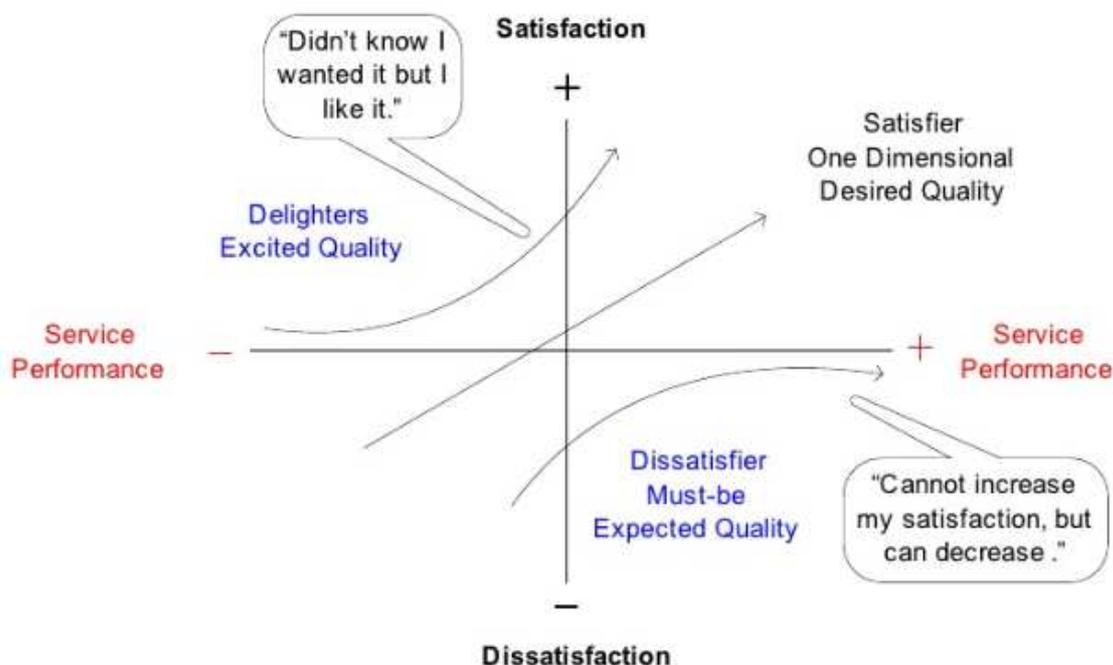


Fig. 2 Kano’s model: three main categories of factors (attributes) affecting customers’ perception of the offered service  
(Source: Kano, 1996)

In Figure 1, Ishikawa’s Cause and Effect diagram is provided, reflecting the above mentioned factors (without dividing them in elements) that affect customers’ satisfaction with the SPA hotel services.

To assess services of the selected SPA hotels, the authors have used an adapted Ishikawa’s diagram reflecting the customer’s satisfaction and the factors influencing it.

Significance (importance) of different service attributes to the customer defines the range of neutral area, consequently – the higher is the

significance, the lower will be the extent of neutrality of the customer regarding the proposed service.

Kano has identified 3 categories of attributes that influence the customer's perception of the services offered (Kano, 1996). He has noted that certain elements of service can lead to the positive or negative customer's reaction.

***“Quantitative” factors of the service - O*** (OMAIR is an international abbreviation (see explanation further in the text) that is used to describe the factors influencing customers' satisfaction) (Ramanathan, Ramanathan, 2011). In this case, the customer's satisfaction (i.e., known customer's value) increases along with improvement of a quantitative or qualitative factor. As we see in Kano's model (Fig. 2), dependence of the customers' satisfaction on such factors is reflected by a line drawn in a 45 degree angle from a ground zero. These factors sometimes are also called “steady”.

***Must-be service qualities (threshold attributes) - M***. These are the main attributes that directly influence the customers and they are the essence of the services offered. Customers have acceptable minimum standards, so the must-be qualities have to be satisfied first. If the hotel wants to survive in today's competitive environment, they have to do everything to offer particularly these attributes of the service.

As examples of the hospitality service (SPA Hotel is a product of hospitality area) the speed of serving guests upon their arrival and at their departure from the SPA hotel, comfortable rooms, quality furniture and bed linen, cleanliness in the rooms and public spaces, SPA area, friendly and attentive staff attitude, safety, healthy meals, and others shall be mentioned. These elements are critical because they can cause a negative customers' reaction in case the service standards are violated. If the customers' requirements in this regard are not respected, the “perceived quality” significantly decreases.

***Unexpected (excitement attributes, or attraction qualities) factors - A***. These factors can cause a positive reaction, if the customers' expectations from the SPA hotel are satisfied and even surpassed. Absence of a certain service (product) attribute will not affect a client, because she/he just does not expect it. As an example, a diversity of the offer in the hotel SPA centre's sauna area and existence of a pool-bar, room service, beverages and flowers generously placed in the guests' rooms, and different additional services could be mentioned.

Additional services allow the SPA hotel to excel in comparison with analogue hospitality businesses. Hotel customers will not oppose free additional services (flowers, snacks, etc.), they will be pleasantly surprised by finding them in their rooms.

**Neutral, or indifferent categories** – I. The factors that make up a maximally neutral zone and do not significantly affect customers' response. Those include colours of hotel staff uniforms, a colour palette of the hotel interior, etc. These elements are not worth of spending a huge management effort on, as they have a little influence on the customers' satisfaction.

**Reverse qualities** (factors influencing customers' satisfaction) – R. Presence or absence of a certain attribute of the service can lead to equally both satisfaction or indifference, or even dissatisfaction among certain guests. This group of factors occur due to the heterogeneity of the surveyed customers.

Using Kano's model for evaluation, the SPA hotel can identify the impact of own actions on a customer's perceived value of service; it can instantly find out which are the service's attributes that have to be basic (must-be); what are qualities that could become "an icing on the cake" attracting customers; what are indicators that should be accurately dosed by analysing the costs of achieving them and estimating increase in the number of buyers (quantitative values). Furthermore, it can be identified that some of the service qualities are of low significance, so the money for their creation is spent in vain.

Taking into account that the customers' needs are determined by the conditions, the efficiency of the service strategies should be conditional, too.

The authors, on the basis of Ishikawa's principles described above, including hotels' service quality assessment models used by the leading global hotel networks (Bojanic, Rosen, 1994), Kano's model for assessing the significance of various hotel services, etc., have defined a certain set of factors affecting hotels' customers' satisfaction. Based on the above mentioned, the authors have developed an expert ("mystery guest") questionnaire to assess the factors influencing SPA hotel's customers satisfaction and mutual correlations among these categories.

The factors were divided into 11 groups (Table 1). *Factors influencing a SPA hotel's customer satisfaction* are defined and provided for development of the expert ("mystery guest") questionnaire with the aim to assess the satisfaction with the services provided. In the third column of the table, a respective category of factors in accordance with Kano's classification is indicated, as identified by the experts. In some cases, two possible categories are provided, if it cannot be determined unequivocally.

**Table 1 Factors affecting customers' satisfaction and their categories in the SPA hotel**  
(Source: compiled by the authors)

No.	<i>Factors affecting a SPA hotel's customers satisfaction</i>	<i>The factor's categories in accordance with Kano model (experts' opinion)</i>	<i>Connection of the factor with business processes and activities of the SPA hotel</i>
<b>1.</b>	<b>Impressions arriving at the SPA hotel</b>		
1.1.	SPA hotel is easy to find	Quantitative/ Must-be	Communication and dissemination of information in external and internal environment. Marketing and market forecast.
1.2.	Convenience of car parking at the SPA hotel (space available, lighting, etc.)	Must-be/ Reverse	Development and design of basic and additional services. Additional services' processes.
<b>2.</b>	<b>Human factors</b>		
2.1.	Quality of reception and accommodation services department		
2.1.1.	Speed and efficiency of reception and accommodation department operations.	Quantitative/ Must-be	Guest service cycle (providing a service)
2.1.2.	Responsiveness of the reception and accommodation service staff during a guest's stay	Must-be	Guest service cycle (providing a service). Personnel management
2.1.3.	Speed and efficiency of checkout procedures	Quantitative/ Must-be	Guest service cycle (providing a service)
2.1.4.	Presence of concierge service	Unexpected/ Indifferent	Processes providing additional services
2.2.	Security		
2.2.1.	Efficiency and quality of the SPA hotel's security service	Must-be	Development and design of basic and additional services. Ensuring the safety of life.
2.3.	Quality of the SPA hotel's restaurant service		
2.3.1.	Ability to provide 24h catering service	Unexpected	Development and design of basic and additional services. Processes providing additional services
2.3.2.	Variety of meals offered in the restaurant menu	Quantitative	
2.3.3.	Evaluation of food quality	Must-be	
2.3.4.	Speed of service	Quantitative	
2.3.5.	Attention and responsiveness of the restaurant staff	Must-be	
2.3.6.	Presence of a breakfast offer	Must-be	
2.3.7.	Assortment of a breakfast offer	Reverse/ Unexpected	
2.4.	Quality of administrative and technical services department		
2.4.1.	Cleanliness of the lobby and public space	Must-be	Development and design of basic and additional services. Guest service cycle (providing a service)
2.4.2.	Quality of daily room cleaning service and cleanliness of the room	Must-be	

Table 1 continued

2.4.3.	Quality of bed linen	Must-be	
2.4.4.	Towels and replacement of towels in bathroom	Must-be	
2.4.5.	Presence of towels in the SPA centre and towels replacement possibility.	Reverse/ Unexpected	
2.4.6.	Compliance with hygiene requirements in the SPA centre (e.g., an opportunity to rinse seats in the bath area, etc.)	Must-be	
2.5.	Presence and accessibility of the SPA centre		
2.5.1.	Availability and accessibility of medical services at the hotel	Must-be	Processes ensuring basic and additional services
2.5.2.	Existence of SPA services offer and its diversity	Quantitative / Must-be	
2.5.3.	Existence of beauty treatments and its diversity	Reverse / Unexpected	
2.5.4.	Existence of sauna area and diversity of sauna services	Quantitative / Must-be	
2.5.5.	Existence and diversity of the pool area	Quantitative / Must-be	
2.5.6.	Existence and diversity of massage services	Quantitative / Reverse	
2.5.7.	Lounge existence	Reverse / Unexpected	
2.5.8.	Existence of fitness centre	Quantitative / Must-be	
2.5.9.	Existence of pool-bar	Reverse / Unexpected	
2.6.	Quality of hotel staff work in general		
2.6.1.	Attentive service	Must-be / Reverse	Guest service cycle (providing a service). Processes ensuring additional services. Personnel management
2.6.2.	Communicability and responsiveness of the staff	Must-be	
2.6.3.	External appearance of the staff	Must-be	
3.1.	Quality of technical appliances		
3.1.1.	Temperature of the room and bathroom, presence of air-conditioner	Quantitative / Must-be	Guest service cycle (providing a service)
3.1.2.	Quality of sound isolation in the room	Quantitative/ Must-be	
3.1.3.	Presence and proper functioning of TV in the room	Must-be /Reverse	
3.1.4.	Presence of bathroom equipment and its usability, comfort in the bathroom	Must-be	
3.1.5.	Presence and proper functioning of refrigerator and minibar in the room	Reverse	
3.1.6.	Comfortable furniture in the room	Must-be / Reverse	
3.2.	Presence and proper functioning of electronic communication equipment		
3.2.1.	Presence and proper functioning of communication system in the room	Must-be	Guest service cycle

Table 1 continued

3.2.2.	Presence and quality of <i>Wi-Fi</i>	Reverse/ Must-be	Processes ensuring additional services
3.2.3.	Computer access in the SPA hotel	Reverse/ Unexpected	
3.3.	Additional services related with technical assistance		
3.3.2.	Presence of shoe-polishing machine	Unexpected/ Reverse	Processes ensuring additional services
3.3.3.	Laundry services	Unexpected/ Reverse	
3.4.	Presence of technical appliances needed for ensuring safety and security		
3.4.1.	Security control equipment or video cameras in public areas	Unexpected	Processes ensuring additional services
3.4.2.	Presence of individual safe-boxes	Reverse/ Must-be	
3.4.3.	Electronic door lock with a safety lock inside the room	Reverse	

The fourth column of Table 1 includes SPA hotel's business processes and activities related to the indicated hotel service quality factors.

### **Development of an expert-customer („mystery guest”) questionnaire**

Based on the studies described above and analysis of different service quality evaluation models, including models of C. Grönroos and A.Ravald (Grönroos, Ravald, 2011), T.G.Vavra (Vavra, 1997), A. Parasuraman, V.A.Zeithaml and L.L. Berry (Parasuraman et.al.,1984)., D. Vojanic and L. Rosen (Војанић, Rosen,1994), A. Gavrilova (Гаврилова, 2011), M.Kobjak and S.Skobkin (Кобяк, Скобкин, 2008), Т.Ропомарева and М.Супрјагина (Пономарева, Супрягина, 2005), S.Skobkin (Скобкин, 2005), D. Uiler and D.Chamber (Уилер, Чамберс, 2009), N. Kano (Кано, 1996), as well as the quality assessment models used by the leading global hotel networks, a new model for evaluation of the hotel's service quality was developed with focus on the improvement of the hotel's business processes and service quality.

The model is based on the significant advantages of the above mentioned models and is adapted with regard to the specifics of the SPA hotel services. Choosing factors related to the SPA hotels' customer satisfaction with the services provided (in this case an expert-customer "mystery guest" questionnaire) and selecting attributes to be included in the questionnaire, the first, "must-be", "quantitative" and "reverse" factors in accordance with Kano's model were considered. It was also necessary to consider a range of "unexpected" factors as they, in many ways, determine an image of the hospitality company and have a positive impact on the visitors' loyalty.

One of the fundamental differences of the proposed model is that a client (an expert - "mystery guest") assesses not only the quality level of a particular attribute - "perceived quality of the service provided", but also

“degree of importance” of each given factor from the point of view of a particular expert-customer (“mystery guest”) – “expected quality”.

Further, the “importance” and “perceived quality” of the factors will be explained as assessed by the experts – SPA hotel customers – the staff (2 lecturers) of the Faculty of Economics and Management of RTA (SPA hotels were evaluated within the RTA research grant “Evaluation of hotel service development possibilities in Rezekne city”) during the survey. They go to these SPA hotels, use their services and evaluate according questionnaire. This survey was organized according Rezekne Academy of Technology scientific grant “Assessment of hotel service development possibilities in Rezekne city” and Rezekne city municipality choose our lecturers as expert for this survey. These expert has necessary knowledge’s, skills, experience and age. According it survey conform with objective evaluation of SPA hotels. Within the research project, it was established that, to test the SPA hotel expert-customer (“mystery guest”) questionnaire, a sample of three hotels would be chosen – one in each of the Baltic States within a radius of 270 km from Rezekne. In the result, the following SPA Hotels were selected: *Pühajärve Spa & Holiday Resort 3\** (Otepää, Valgamaa, Estonia), *Hotel Jūrmala Spa 4\** (Jūrmala, Latvia), *Spa Vilnius Anykščiai 4\** (Anykščiai, Lithuania).

In the proposed SPA hotel service quality evaluation model and survey, 46 attributes (factors) were selected and divided into 11 subgroups (Table 2). To evaluate the factor’s “importance”, a 10-point scale was used (1 – absolutely unimportant; 10 – extremely important; 2 to 9 points correspond to the level of importance or unimportance of a given factor). An evaluation of the “perceived service quality” was carried out on a 10-point scale (1 – very bad service; 10 – excellent service; intermediate points are 2 to 9).

According to the Kano model, the dimension “Importance-Quality” is the key management decision-making tool according to the expert-client (mystery guest) survey results. Based on the information gathered, it is possible to define group (in accordance with groups of factors defined) and integral (in the SPA hotel in general) indicators of the SPA hotel service quality in order to perform regular monitoring and to track dynamics of changes of these indicators. Though, the most important thing is that the data obtained allow identifying the most critical areas that need service improvement, require proper management decisions, and call for implementation of remedial actions in these areas.

The choice of “central” lines is individual for each hotel, and is defined in accordance with responses to these questions:

- what are the values of “importance” factors that would make the management to consider these factors as utterly important for the

- customers, and what are the values of “quality” factors that are acceptable in the particular hotel;
- what are the resources (tangible and intangible) the management is ready to channel for improvement of the service factors’ quality, where they are proved to be lower acceptable standards;
  - what are the results of statistical data processing of the expert-customer (“mystery guests”) survey results in comparison with the internal standards of the hotel in relation with “importance”, “quality” and other aspects of service factors.

### **Conclusions and suggestions**

After processing the experts’ questionnaires, the factors included in the 1<sup>st</sup> response area are identified. Those factors are the most important to the visitors, but they are not of sufficient quality in visitors’ opinion, so these factors have to be treated with the greatest attention by the hospitality company’s management in order to make appropriate management decisions with an aim to improve these factors (for example, “What are your impressions upon arrival at the *Pūhajarve Spa & Holiday Resort?*”).

The factors included in the 2<sup>nd</sup> response area also are of certain importance to the customers, still their quality is assessed as sufficiently good and additional actions are not required at the moment (for example, “What are your impressions upon arrival at the *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai?*”).

Quality of the factors included in the 3<sup>rd</sup> response area is valued highly, although they are of less importance, therefore no further actions are required (for example, existence and diversity of beauty treatment services in the *Pūhajarve Spa & Holiday Resort*, *Hotel Jūrmala Spa*, and *Spa Vilnius Anykščiai*).

The factors included in the 4<sup>th</sup> response zone has low importance and low quality, thus, it is a call for the management to make proper decisions in order to improve these factors, although this is not a primary task (for example, lack of a pool-bar in the *Pūhajarve Spa & Holiday Resort*, *Spa Vilnius Anykščiai*).

The factor “*impressions upon arrival at the SPA hotel*” is very important to the customers (“importance” – 10), particularly – is it easy to find the hotel and is it convenient to park a car at the hotel (“importance” – 9.5) in case she/ he arrives with a personal car. It is relatively easy to find *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai*, as there are signs entering the city, as well as in the largest streets of the cities (actual perceived quality – 8). Instead, it was not so easy to find *Pūhajarve Spa & Holiday Resort* (actual perceived quality – 7), because there were no signs on the largest roads (there was a

sign just next to the hotel), although the hotel's parking was the most spacious and comfortable in comparison with other two hotels (actual perceived quality – 10).

The hotels' evaluation according to the category "*human factors*" was performed by the experts in a range of aspects.

"*Reception and accommodation services quality*" was assessed. In the experts' opinion, the factors related with speed and efficiency of the reception and accommodation services, responsiveness, speed of checkout procedures is of high importance ("importance" – 9), though, the perceived quality of received services in all three hotels did not reach the "importance" indicator in several positions. Long waiting time for completing check-in procedures upon arrival, information about breakfast was not provided, there were problems to prepare specific invoices.

In the experts' opinion, the "*concierge services*" are not so important ("importance" – 4.5), none of the hotels provide this service.

"*Efficiency and quality of the security service*" at the hotel is very important in accordance with the experts ("importance" – 9.5). All three hotels provide security to their guests in accordance with the hotel's own security concept.

The factor "*Quality of restaurant service of the SPA hotel*" was evaluated in several aspects. Possibility to use catering service 24-hour ("importance" – 8) was provided only in two hotels in good quality, i.e., there was a possibility to order meals to the room 24-hours a day (*room service*). In the *Pühajärve Spa & Holiday Resort* this service was not available. The diversity of the restaurant menu, food quality, speed of service, and attention and responsiveness of the restaurant staff, which is "important" in the experts' opinion, were provided in high quality in all three hotels. All main categories (groups) of meals are included in the restaurants' menu, the number of meals in each category corresponds to the menu of full service restaurants. Drinks menus include four categories of beverages – spirits, wines, cocktails, and soft drinks. The group of non-alcoholic beverages includes a wide assortment of freshly squeezed juices that satisfies SPA hotel restaurant customers. SPA hotel restaurant planning takes into account the number of expected visitors, so one seat occupancy and restaurant daily load is about 50%. Importance of breakfast in the room, in the experts' assessment, is 7. Breakfast in the room is offered in the *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai*. The assortment of breakfast menu available is wide. In *Pühajärve Spa & Holiday Resort*, this service is not available. In *Spa Vilnius Anykščiai*, breakfast can be ordered filling out the breakfast order, and placing it on the outside of the door until a certain time at night. Actual perceived quality was rated with 1, because the service was not provided,

breakfast was not brought, and the order form was not picked from the door handle (ordering time was respected).

In the experts' assessment, the factor "*Quality of administrative and technical services*" is very important ("importance" – 8-10). *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai* have the highest actually perceived quality ratings: cleanliness of lobbies and public areas – 9, daily cleaning of rooms are performed qualitatively, bathroom cosmetic accessories are refilled daily, quality of bed linen is good – linen clean, with no visible damages, is not worn out. The number of towels corresponds to the number of persons in the room, towels are clean and being replaced regularly. In SPA areas, special towels are provided at no extra charge. During repeated SPA visits, each time fresh towel is provided. In the *Pūhajärve Spa & Holiday Resort Hotel*, the room is cleaned carelessly, window glass is filthy. In the bathroom, the shower area is not separated from the rest of the room, the cleaning tool (mop) is located in the bathroom. When visiting the SPA area, a towel has to be taken from the room, there is no possibility to change it.

"*Existence and accessibility of SPA services*" in the hotel was evaluated in several aspects. "*Existence and availability of medical services*" is evaluated by the experts as having "importance" of 7.5. Real perceived quality in two hotels: *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai* was rated higher – respectively 8 and 9. Perceived quality in the hotel *Pūhajärve Spa & Holiday Resort* was rated with 7.5, as it was not noticeable by the customer.

The existence and diversity of water treatment ("importance" – 10) is the best in the *Hotel Jūrmala Spa*. The hotel offers various underwater massages, two *jacuzzi* baths, water cascades. In the hotel *Spa Vilnius Anykščiai*, the offer of water treatment options in the SPA centre is more limited: one *jacuzzi* bath, a couple of underwater massages. In the *Pūhajärve Spa & Holiday Resort* hotel: one water cascade, one small *jacuzzi* bath (for 6 persons max).

Beauty treatments are available in all the hotels.

The perceived quality of "*Existence of sauna area and diversity of sauna services*" ("importance" – 9.5) is rated with 8.5 points in *Hotel Jūrmala Spa*. There are two saunas with different temperatures, an aroma bath, a steam bath, a sault bath. Perceived quality in the *Spa Vilnius Anykščiai* was rated with 6 points. There were two saunas – one steam bath, another – a Finnish sauna, as well as a Turkish bath, although the last one wasn't functioning during the visit and only massage treatment was available for the Turkish bath area. Actual perceived service quality in the hotel *Pūhajärve Spa & Holiday Resort* was rated with 4.5 points. It offers two saunas – a steam bath and a Finnish sauna, separately for men and women. An important aspect is compliance with hygiene requirements in the SPA centre, for instance, an opportunity to rinse seats in the bath area or a strict requirement to use an

individual towel in the dry sauna. In the hotels *Hotel Jūrmala Spa* and *Pūhajärve Spa & Holiday Resort* these requirements are not met. In the hotel *Spa Vilnius Anykščiai* these requirements are satisfied.

The factor “*Existence and diversity of pool area*” is very important in the experts’ opinion (“importance” – 9.5). There are several pools (3) in the *Hotel Jūrmala Spa* – a warm water pool with several underwater massage options, a cold water pool next to the steam sauna, and a swimming pool with a back-current. The hotel *Spa Vilnius Anykščiai* has a warm water pool with underwater massage options and a pool for children. In the *Pūhajärve Spa & Holiday Resort*, there is a large pool with two areas – for a “slow” swim, and two lanes for “fast” swimmers”. There is a warm water pool for children. In all the hotels, there is a comfortable entrance into the pools – stairs.

In all the hotels, massage treatments are available – a wide assortment of treatments for all body zones – both relaxing and invigorating, and as a beauty treatment.

Both in the *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai* lounges are available. The experts’ rating of “importance” of this factor is 6. In the *Hotel Jūrmala Spa*, the lounge is located in the beauty treatment area, where guests are offered tea, water, magazines after massage. In the hotel *Spa Vilnius Anykščiai*, the comfortable chairs with a remote control are situated in the lounge. Tea, water is offered to all clients of the SPA area and beauty treatment customers. There is no lounge in the hotel *Pūhajärve Spa & Holiday Resort*.

The importance of existence of a pool bar is rated by the experts with 7 points. Pool bar services are offered only in the *Hotel Jūrmala Spa*.

There are fitness centres (gyms) in all the hotels.

“*Quality of hotel staff work*” is evaluated considering the following aspects – attentive service, communicability and responsiveness of the staff, appearance of the staff. The quality of staff work is on a high level in all three hotels.

The experts evaluated several aspects of the factor “*Hotel’s technical resources*” in the hotels.

Temperature in the room and in the bathroom, as well as the presence of air conditioning is extremely important (“importance” – 10). In hotels *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai* the temperature complies with requirements, rooms are equipped with air-conditioners. The temperature in the hotel *Pūhajärve Spa & Holiday Resort* did not meet requirements. Sound isolation of rooms is an important attribute as well; it proved to be of good quality in all the hotels. In all the hotels, the TV, bathroom equipment, a fridge is of good quality and properly functioning.

“*Existence of comfortable furniture in the room*”, in the experts’ opinion, is very important (“importance” – 9). In hotels *Hotel Jūrmala Spa* and *Spa*

*Vilnius Anykščiai*, furniture is comfortable, qualitative, the number of chairs corresponds to the number of persons in the room. In the hotel *Pūhajarve Spa & Holiday Resort*, furniture is outdated.

The existence and quality of *Wi-Fi* is the most important element in the evaluation of the attribute “*Electronic communication equipment*”, which was highly rated in all the hotels.

Additional technical service is a shoe-polishing machine. That is offered only in the *Hotel Jūrmala Spa*. Furthermore, laundry services are offered only in the *Hotel Jūrmala Spa*.

The attribute “*Presence of technical appliances needed for ensuring safety and security*” is important enough (“importance” – 7-9). Video cams are situated in the public areas of *Hotel Jūrmala Spa* and *Spa Vilnius Anykščiai* hotel, the rooms are equipped with individual safes, electronic keys and safety door lockers inside the rooms. There are no such technical appliances in the hotel *Pūhajarve Spa & Holiday Resort*.

The attributes identified in the 1<sup>st</sup> response area are the most important to the customers, though their quality is not proper. The management should pay the most attention to these factors and should accept management decisions to improve them. At the same time, these factors, according to Kano’s model, are either “must-be” (directly affect a customer and shape the essence of the service), or “quantitative” (customer’s satisfaction increases by increasing the quality of the indicator) in the opinion of the SPA hotel visitors.



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## Appendix 1

Results of the expert-customer (mystery guest) survey carried out in the SPA hotels *Pühajärve Spa & Holiday Resort 3\** (Otepää, Valgamaa, Estonia), *Hotel Jūrmala Spa 4\** (Jūrmala, Latvia), *Spa Vilnius Anykščiai 4\** (Anykščiai, Lithuania) (Source: compiled by the authors)

Groups of factors	Factor №	Name of factor	Rating of importance	Rating of quality			Response areas №			Factor's category according to Kano's model	Relation of factor to the hotel business processes
				Hotel Jūrmala Spa	Pühajärve Spa & Holiday Resort	Spa Vilnius Anykščiai	Hotel Jūrmala Spa	Pühajärve Spa & Holiday Resort	Spa Vilnius Anykščiai		
1	Your impressions arriving at the SPA hotel										
	F1.1	Was it easy to find our SPA hotel?	10	8	7	8	II	I	II	Quantitative/ Must-be	Communication and dissemination of information in external and internal environment. Marketing and market forecast
	F1.2.	Was car parking at the hotel convenient? (space available, lighting, etc.)	9.5	8	10	8	II	II	II	Must-be/ Reverse	Development and design of basic and additional services. Processes of additional services.
2	Human factors										
	Quality of reception and accommodation services department										
	F2.1.1	How do you evaluate speed and efficiency of reception and accommodation services?	9	8	7	8	II	I	II	Quantitative/ Must-be	Guest service cycle (providing service)
	F2.1.2.	Responsiveness of the reception and accommodation service staff during your stay	9	7.5	7	9	I	I	II	Must-be	Guest service cycle (providing service). Personnel management
	F 2.1.3.	Speed and efficiency of checkout procedures	9	9	7	8	II	I	II	Quantitative/ Must-be	Guest service cycle (providing service)
	F2.1.4.	Presence of concierge service	4.5	1	1	1	IV	IV	IV	Unexpected/ Neutral	Processes ensuring additional services

Appendix 1 continued

3	Security											
	F2.2.1.	Efficiency and quality of the SPA hotel's security service	9.5	8.5	8	9	II	II	II	Must-be	Development of basic and additional services. Ensuring safety of life.	
4	Quality of the SPA hotel's restaurant service											
	F2.3.1.	Ability to provide daily catering service	8	8.5	1	9	II	I	II	Unexpected	Development and design of basic and additional services. Processes of additional services	
	F2.3.2.	Variety of meals' offer in the restaurant menu	8	9.5	10	7	II	I	II	Quantitative	Development and design of basic and additional services. Processes of additional services	
	F2.3.3.	Evaluation of food quality	9	9.5	10	9	II	II	II	Must-be	Development of basic and additional services and design. Processes of additional services	
	F2.3.4.	Speed of service	9	9	10	8	II	II	II	Quantitative	Development of basic and additional services and design. Processes of additional services	
	F2.3.5.	Attention and responsiveness of the restaurant staff	9	9	9	8	II	II	II	Must-be	Development of basic and additional services and design. Processes of additional services	
	F2.3.6.	If you had ordered breakfast to the room, how do evaluate this service?	7	1	1	1	IV	IV	IV	Must-be	Development of basic and additional services and design. Processes of additional services	
	F2.3.7	How do you evaluate the assortment of breakfast offer?	7	9	9	8	III	III	III	Reverse/Unexpected	Development of basic and additional services and design. Processes of additional services	
5	Quality of administrative and technical services department											
	F2.4.1.	Cleanliness of the lobbies and public space	8	9	7	9	II	I	II	Must-be	Development and design of basic and additional services. Guest service cycle (providing service)	
	F2.4.2.	Quality of daily room cleaning service and cleanliness of the room	10	8.5	6	9	II	I	II	Must-be	Development and design of basic and additional services. Guest service cycle (providing service)	
	F2.4.3	Quality of bed linen	9.5	9	7	9	II	I	II	Must-be	Development and design of basic and additional services. Guest service cycle (providing service)	

## Appendix 1 continued

	F2.4.4	Towels and replacement of towels in bathroom	9	8	8	10	II	II	II	Must-be	Development and design of basic and additional services. Guest service cycle (providing service)
	F2.4.5	Presence of towels in the SPA centre and towels replacement possibility	9	8	8	10	II	I	II	Reverse/Unexpected	Development and design of basic and additional services. Guest service cycle (providing service)
	F2.4.6	Compliance with hygiene requirements in the SPA centre (e.g., an opportunity to rinse seats in the bath area, etc.)	10	9	9	10	II	I	II	Must-be	Development and design of basic and additional services. Guest service cycle (providing service)
<b>6</b>	<b>Presence and accessibility of the SPA centre</b>										
	F2.5.1	Availability and accessibility of medical services at the hotel	7,5	8	7,5	9	III	III	III	Must-be	Processes ensuring basic and additional services
	F 2.5.2	Existence of SPA services offer and its diversity	10	8.5	5	7	II	I	I	Quantitative/ Must-be	Processes ensuring basic and additional services
	F2.5.3	Existence of beauty treatments and its diversity	7,5	8	6	7	III	III	III	Reverse/Unexpected	Processes ensuring basic and additional services
	F2.5.4	Existence of sauna area and diversity of sauna services	9,5	8.5	4,5	6	II	I	II	Quantitative/ Must-be	Processes ensuring basic and additional services
	F 2.5.5	Existence and diversity of the pool area	9,5	8.5	5,5	7	II	I	II	Quantitative/ Must-be	Processes ensuring basic and additional services
	F2.5.6	Existence and diversity of massage services	8,5	8.5	8	9	II	II	II	Quantitative/ Reverse	Processes ensuring basic and additional services
	F2.5.8	Lounge existence	6	7.5	1	1	III	IV	III	Reverse/ Unexpected	Processes ensuring basic and additional services
	F2.5.9	Existence of fitness centre	7	7	8	10	III	III	III	Quantitative / Must-be	Processes ensuring basic and additional services
	F2.5.10	Existence of pool-bar	7	7.5	1	1	III	IV	IV	Reverse/ Unexpected	Processes ensuring basic and additional services

Appendix 1 continued

<b>7</b>	Quality of hotel staff work in general										
	F2.6.1.	Attentive service	9	8	7	9	II	I	II	Must-be/Reverse	Guest service cycle (providing service). Processes ensuring additional services. Personnel management
	F2.6.2	Communicability and responsiveness of the staff	9	7	6,5	9	II	I	II	Must-be	Guest service cycle (providing service). Processes ensuring additional services. Personnel management
	F2.6.3.	External appearance of the staff	9	8	6	9	II	I	II	Must-be	Guest service cycle (providing service). Processes ensuring additional services. Personnel management
<b>8</b>	Hotel's technical resources										
	Quality of technical appliances in the room										
	F 3.1.1.	Temperature of the room and bathroom, presence of air-conditioner	10	8	7	9	II	I	II	Quantitative / Must-be	Guest service cycle (providing service)
	F3.1.2.	Quality of sound isolation in the room	10	7.5	8,5	10	II	I	II	Quantitative / Must-be	Guest service cycle (providing service)
	F3.1.3.	Presence and proper functioning of TV in the room	9	7.5	8	10	II	I	II	Must-be/Reverse	Guest service cycle (providing service)
F3.1.4.	Presence of bathroom equipment and its usability, comfort in the bathroom (faucets, hair-dryer, lighting, etc.)	10	7.5	7	10	I	I	II	Must-be	Guest service cycle (providing service)	

Appendix 1 continued

	F3.1.5.	Presence and proper functioning of refrigerator and minibar in the room	9	7.5	5	10	II	I	II	Reverse	Guest service cycle (providing service)
	F3.1.6.	Comfortable furniture in the room	9	9	6,5	10	II	I	II	Must-be/Reverse	Guest service cycle (providing service)
<b>9</b>	Presence and proper functioning of electronic communication equipment										
	F3.2.1	Presence and proper functioning of communication system in the room	8	9	7	9	II	I	II	Must-be	Guest service cycle (providing service)
	F3.2.2.	Presence and quality of Wi-Fi	10	8.5	9	10	II	II	II	Reverse/Must-be	Processes ensuring additional services
	F3.2.3.	Computer access in the SPA hotel	7	7.5	2	1	IV	IV	IV	Reverse/Unexpected	Processes ensuring additional services
<b>10</b>	Additional services related with technical assistance										
	F3.3.1	Presence of shoe-polishing machine	6,5	8	1	1	II	IV	IV	Unexpected/Reverse	Processes ensuring additional services
	F3.3.2	Existence of laundry service in the hotel	6,5	6	1	1	IV	IV	IV	Unexpected/Reverse/	Processes ensuring additional services
<b>11</b>	Presence of technical appliances needed for ensuring safety and security										
	F3.4.1.	Security control equipment or video cameras in public areas	7	8	2	9	II	I	II	Unexpected	Processes ensuring additional services
	F3.4.2.	Presence of individual safe-boxes	8	8	1	9	II	I	II	Reverse/Must-be	Processes ensuring additional services
	F3.4.3.	Electronic door lock with a safety lock inside the room	9	8.5	1	10	II	I	II	Reverse	Processes ensuring additional services

# ASSESSMENT OF OPPORTUNITIES FOR DEVELOPMENT OF ACCOMMODATION SERVICES IN REZEKNE CITY

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**Abstract.** *The topicality of the research is determined by the importance of tourism for the development of national economy and individual regions; therefore, the tourism industry in Latvia needs to become attractive and have competitive strength on the common tourism market of Europe. Tourism statistics show ambiguous information on the numbers of foreign tourists entering Latvia in 2014 – 2016. In Rezekne these numbers have a positive dynamic; therefore we need to continue strengthening the capacity of the tourism industry. A significant element forming the tourism product is the accommodation industry. The article covers an assessment of the opportunities for developing accommodation services in Rezekne city, and based on the results of the study, recommendations have been developed for improvement of accommodation services in Rezekne city. The specialization and offered ancillary services must be taken into consideration by planning their establishment. As a possibility the establishment of a SPA hotel in the city Rezekne can be mentioned.*

**Keywords:** *Tourism, accommodation services.*

**JEL code:** *L83*

## Introduction

The tourism industry is one of the most important parts of national economy in the world because specific territories receive financial resources through it, but at the same time, it is strongly affected by the political, economic and social situation in the world. Tourism is an important income source for service export, a source of jobs, as well as an important factor of national and regional development.

The topicality of the research is determined by international processes that create challenges and opportunities for the tourism industry of Latvia; thus it needs to become attractive and have competitive strength on the common tourism market of Europe. Tourism is an important factor of regional development, using the opportunities of the national and private sector partnerships, we need to promote the diversity of services offered to clients, ensuring quality, and as a result, tourist satisfaction.

Defining the research problem, the authors believe that a significant element forming the tourism product is the accommodation industry. Satisfaction with this service largely forms the opinion of tourists on the

product received, and consequently, their desire to recommend it to others or use it again. The satisfaction with this service forms the tourists' opinion about the received tourism product in the city Rezekne. It results in a desire to suggest it to others and to use it again.

Research aim: Assess the opportunities for developing accommodation services in Rezekne city.

The following research objectives were formulated to achieve the aim:

1. Analyse tourism development tendencies in Latvia and Latgale;
2. Determine a classification of accommodations;
3. Analyse accommodation available in Rezekne;
4. Based on conclusions made, make recommendations for further development of the services.

Research methods employed: content analysis, logical and constructive analysis.

Research period: 2014 – 2016.

### **Development of Tourism in Latvia and Latgale**

In the tourism industry of Latvia, ambiguous tendencies were observed in 2014 – 2016, as the information on the Current Statistics in Tourism prepared by the Central Statistical Bureau of the Republic of Latvia shows. The data on entrants show that in 2015, the number of overnight trips of foreign travellers (2 million), compared to 2014, increased by 9.8 %. As report data on the activity of hotels and other tourist accommodations show, accommodation services in Latvia in 2015 were used by 1.5 million foreign travellers, which is 3.1 % more than the year before, but in 2016 the number of overnight trips of foreign travellers (1.8 million), compared to 2015, decreased by 11.4%. However, accommodation services in Latvia in 2016 were used by 1.6 million foreign travellers, which is 6.7% more than the previous year (Tūrisma statistikas aktualitātes, 2016., 2017.).

According to the strategy of Tourism Development State Agency (*TAVA*), the target tourism markets of high priority for Latvia are Lithuania, Estonia, Germany, Russia, Sweden, and Finland. Priority target markets are Norway, Denmark, United Kingdom, Italy, Spain, and the Netherlands. Secondary markets are all other European countries, whereas prospective markets are the United States of America (USA), Japan, China, and India. According to report data on tourist accommodation, in 2016 there was no significant change in the proportion of foreign travellers from countries judged as high priority target markets, reaching 55.3% (in 2015 – 55.6%). Moreover, the proportion of travellers from priority and prospective tourism market countries increased, reaching 23.8% (in 2015 – 22.4%) of the total number of travellers (Tūrisma statistikas aktualitātes, 2016., 2017.).

The average length of stay for foreign visitors in accommodations in Latvia in 2016 was 1.93 nights (in 2015 – 1.95 nights, in 2014 – 2.01 nights). The average length of stay for visitors from high priority markets was 1.8 nights, which was identical the year before. The average length of stay for foreign visitors continues to decrease during the last four reporting years. One of the aims of the previous tourism marketing strategy is to increase the proportion and number of foreign travellers who stay for three or more nights. Data on the activity of accommodations show that in 2016, the proportion of three and more nights increased to 8.0% (242.5 thousand nights) of the total number of nights spent by foreign visitors. In Latvia, visitors from Ukraine, Ireland, Russia, the USA, and Belarus stay for the longest (in 2015, 4 – 9 nights). The most popular destinations were Riga, Ventspils, Daugavpils, Liepaja, Jelgava, Rezekne and the districts of Aluksne, Sigulda, and Saulkrasti (Tūrisma statistikas aktualitātes, 2016., 2017.).

In Latgale region, a generally positive tendency is observed in the tourism industry. While in 2014 from 1 January until 31 October, the total number of tourists was 1 154 301, in 2015 during the same period, it was already 1 414 833, a 22.40 % increase (the report available did not contain information on the districts of Vārkava and Ilūkste). However in the first ten months of 2016, it was 1 369 466, or a 3.07% decrease (Tūrisma statistikas aktualitātes, 2016., 2017.).

Table 1 Total number of persons served at tourism objects and tourist accommodations in Rezekne city in the periods 01.01.-31.10.2014, 01.01.-31.10.2015, 01.01.-31.10.2016 (number of persons), (prepared by authors based on *Latgales tūrisma statistika, 2015., 2016.*)

Tourism objects	Time periods		
	01.01.2014.- 31.10.2014	01.01.2015.- 31.10.2015	01.01.2016.- 31.10.2016
<b>Artisan workshops</b>	3424	3455	1875
<b>Museums</b>	19623	21213	20212
<b>Cultural and historical, sacral objects</b>	823	836	2277
<b>Households for sightseeing</b>	56565	58721	No data
<b>Objects in nature</b>	3213	3316	No data
<b>Tourist accommodations</b>	14816	16275	16307

As seen from Table 1, the general increase is in the largest part of tourism objects of Rezekne city (with the exception of artisan workshops), but the largest increase in 2015 – by 9.8% – is observed in tourist accommodations, in 2016 – by 9.8%. In the Tourism Law of the Republic of

Latvia, the notion of **tourist accommodation** is defined as a building, group of buildings or well-appointed place (territory), in which a merchant or a performer of economic activities ensures daily accommodation and service provision for tourists (Tūrisma likums, 1998).

Table 2 shows a summary of data on local and foreign tourists that have used the services of the Tourist Information Centre or tour operators. It can be concluded that in 2014 – 2016 the number of local tourists who have used these services decreased but the number of foreign tourists increased. The services of the Tourist Information Centre and tour operators in Rezekne city were mainly used by tourists from Estonia, Lithuania, Russia, Great Britain, Germany, and Poland.

Table 2 Number of persons served at the Tourist Information Centre/at tour operators in Rezekne city in the periods 01.01.-31.10.2014, 01.01.-31.10.2015, 01.01.-31.10.2016 (number of persons), *(prepared by authors based on Latgales tūrisma statistika, 2015., 2016.)*

Type of tourists	Time periods		
	01.01.2014. – 31.10.2014	01.01.2015.- 31.10.2015	01.01.2016.- 31.10.2016
<b>Local tourists</b>	11741	7599	6709
<b>Foreign tourists</b>	1990	2134	2541
<b>Countries represented by foreign tourists</b>	RU 506, GB 154, DE 151, BY 139, LT 185, PL 162, EST 150, FR 85, UA 53, FIN 37, IT 30, SE 25, CZ 28, GE 20, EL 20, AU 15, US 12	EST 287, LT 152, RU 131, GB 88, DE 79, PL 66, BY 50, FIN 43, FR 41, IT 32, NO 25, US 23	EST 274, LT 70, RU 229, DE 173, PL 38, BY 50, FIN 43, FR 61, NO 24, US 50

### The Essence and Classification of Accommodation Services

The potential dynamism of tourism objectively requires an expansion and quality improvement of the accommodation facilities and premises.

Large and small guesthouses provide various kinds of tourist accommodation. Different evaluations of the future development of hotels exist. Some specialists believe that hotel corporations whose activity is more subjected to the regulative influence of society and the State will mostly dominate the market of hotel business. Others defend the assumption that small hotels can provide unique specific offers. It seems that both opinions are valid, and each category of guesthouses will find a place in the tourism industry (Forands, I. 2011).

Tourism in the general understanding is considered the sector of demand; however demand cannot be met without supply. Hotel business has reached such a level of development that separate companies dominate the

international market. The tourism and accommodation industry of Latvia is currently dominated by companies of the private sector.

Despite the fact that the number of guest accommodation companies in Latvia has soared, there is still enough free space in the business (Raudive, A.).

Nowadays, the accommodation sector employees need to be aware of the requirements and expectations of the travel and tourism market from the accommodation as a company and from the service as a product. For a guest accommodation company to achieve the aim set and successfully compete on the market of the accommodation service sector, it needs to offer such services that satisfy not only the needs of the guests but also their wishes (Raudive, A.).

The accommodation sector includes different kinds of lodging and guest accommodation possibilities that can be classified into those with full service (catering is provided) and those where guests need to take care of catering themselves. These are not fixed categories because some types of accommodation, such as recreation camps or educational institutions, can provide the service or offer self-service, or have the clients take care of catering. Still it helps differentiate between the characteristic features of these categories (Holovejs Dž.K., 1999).

Hotels are the most significant and widely known type of tourist accommodation. In most cases, they are one of the main elements of holiday packages (Holovejs Dž.K., 1999).

Hotels and other types of accommodation in the world can also be classified by the features that clients are interested in when choosing a hotel. The classification can be based on: differences of the hotel product formed; size; property type; location; service and comfort level and target market (Malik, E.M., Naeem, B., Nasir, A.M., 2011).

In international practice, standard classification of tourist accommodation facilities is accepted. According to this practice, all accommodation facilities are divided into two categories: collective and individual.

Collective tourist accommodation services include hotels and similar accommodation facilities, specialized institutions and other accommodation companies. Hotels consist of rooms, have common management, are grouped into classes and categories according to the services offered, facilities available and national standards. The list of hotel services is not limited to cleaning the room and sanitary facilities, and making the bed.

They are not included into the category of specialized institutions (Holovejs Dž.K., 1999).

## Accommodation Available in Rezekne City

Considering the importance of accommodation services in the formation of the total tourism product, analysis of available accommodation in Rezekne will follow.

Table 3 Distribution of persons served in tourist accommodations in Rezekne city in the periods 01.01.-31.10.2014, 01.01.-31.10.2015, 01.01.-31.10.2016 (number of persons), (*prepared by authors based on Latgales tūrisma statistika, 2015., 2016.*)

Time period	Local tourists	Foreign tourists
01.01.-31.10.2014.	8843	5973
01.01.-31.10.2015.	10401	5874
01.01.-31.10.2016.	9357	6950

Data summarized in Table 3 show that during the period of the study, the number of travellers who have used tourist accommodations increased. In Latvia, there is competition in the tourism industry between cities. The number of hotels and tourist accommodations is an important factor of a city's competition in attracting tourists. In the database of the Central Statistical Bureau of the Republic of Latvia, information is available on hotels and other tourist accommodations in the cities of the Republic, which shows that comparing the 1<sup>st</sup> quarter of 2015 and the 1<sup>st</sup> quarter of 2016, one more tourist accommodation with 11 rooms and 44 beds appeared in Rezekne city. From the comparison of data on hotels and tourist accommodations between the cities of the Republic, it can be concluded that in the 1<sup>st</sup> quarter of 2016 Rezekne shows the smallest number of tourist accommodations, that is 3; in terms of the number of beds offered, Rezekne shows the lowest numbers, only Jelgava and Jekabpils show an even smaller number of beds.

However, the database of the Central Statistical Bureau of the Republic of Latvia does not show the statistics for all accommodations because in the 1<sup>st</sup> quarter of 2016, the online booking system [www.booking.com](http://www.booking.com) shows that **5 hotels and hostels and 12 apartments are functioning** in Rezekne:

- "Kolonna Hotel Rēzekne"
- Hotel "Latgale"
- Hotel "Restart"
- Latvijas Sarkanā krusta viesnīca (*Latvian Red Cross Hotel*)
- Vocation rooms of the East Latvian Creative Services Centre ARPC "Zeimuļš"
- "Anna Apartment"
- "Vin Service".

Sparks and Browning in the article “The Impact of Online Reviews on Hotel Booking Intentions and Perception of Trust” believe that the rating of hotel quality in online booking systems allows managers to understand the factors that affect the customers’ decision-making when choosing and booking hotel rooms on the Internet (Sparks, B.A., Browning, V., 2011). Comparing the possible accommodation facilities in Rezekne based on the evaluation given by tourists on the online booking system they were analyzed according to 7 criterias (cleanliness, location, staff, internet access, comfort, possibilities, value for price).

In Rezekne city, apartments are rated only excellent (over 9), and visitor comments are very positive; only small details are mentioned among drawbacks.

The ratings of hotels and other accommodation companies are lower in general than those of apartments, and visitors have noticed many more and more significant drawbacks, especially in hotel “Latgale”, which has received the lowest rating. Accommodations that differ in class categories have relatively high ratings – hotel “Restart” that opened in 2016 and “Latvijas Sarkanā Krusta viesnīca”. From visitor reviews it can be concluded that quality to price ratio is important. For a customer choosing accommodation, not only the availability of a place to spend the night is important but additional related services have significance too.

Based on visitor reviews, it can be concluded that tourists in Rezekne are more willing to choose “Kolonna Hotel” or one of “VIN service” apartments.

Rezekne city needs new providers of accommodation services that would be able to provide the guests of the city with the necessary accommodation, especially considering the strategic development aims of the tourism industry.

### **Conclusions and Recommendations**

1. In 2016, the proportion of foreign travellers from high priority market countries did not change significantly, reaching 55.3% (in 2015 – 55.6%), the proportion of travellers from priority and prospective tourism market countries increased, reaching 23.8% (in 2015 – 22.4%) of the total number of travellers. Data on the activity of accommodations show that in 2016, the proportion of three and more nights increased to 8.0% (242.5 thousand nights) of the total number of nights spent by foreign visitors.
2. From the comparison of data on hotels and tourist accommodations among the cities of the Republic, it can be concluded that in 2016 Rezekne shows the smallest number of tourist accommodations, that

is 3; in terms of the number of beds offered, Rezekne shows the lowest numbers, only Jelgava and Jekabpils show an even smaller number of beds. This is to be considered an obstacle in the development of the tourism industry not only in the city but in the whole region.

3. The ratings of hotels and other accommodation companies are lower in general than those of apartments, and visitors have noticed many more and more significant drawbacks. For a customer choosing accommodation, not only the availability of a place to spend the night is important but additional related services have significance too.
4. Rezekne city needs new providers of accommodation services that would be able to provide the guests of the city with the necessary accommodation, especially considering the strategic development aims of the tourism industry. When planning the creation of accommodation, specialisation and additional services offered need to be considered. As a possibility, a SPA type hotel can be mentioned.



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# STUDY OF THE THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF EMPLOYMENT AND THE EFFECTIVE DISTRIBUTION OF LABOUR

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**Abstract.** *The paper describes the socio-economic relations between individuals and institutions of the labour market on the subject of reaching an effective employment and development of productive labour that ensure efficient distribution of labour resources.*

*The paper attempts to scientifically substantiate and develop a theory, methodology of employment and methodological support, conceptual frameworks of the formation of effective employment for the development of productive labour that ensure an efficient distribution of labour resources and endogenous economic growth in the Republic of Belarus.*

*In the research the following conceptual bases for the achievement of effective employment, productive labour, the efficient allocation of labour resources are proposed: it is proved that in the absence of technical changes, an increase in capital per employee does not bring about a steady increase in the growth rates of production per employee or per capita; it is noted that a high level of wages and salaries can affect the growth of labour productivity stimulating the growth of capital relative to labour and also affect the growth of the unit cost of production and result in a decrease of jobs; it is noted that the reason for the efficiency distribution of the labour force is the size analysis of unit costs, profits and income; it is proved that the firms are not profitable to invest in workforce for the reason that the dominant investment is spent on consumption; the analysis of the structure of employment on the question of the optimal ratio of managers in relation to working hands is noted as one of the ways of achieving effective employment.*

*The aim of the research is to study the theoretical and methodological foundations of labour force employment in economically viable jobs and the mechanism of its effective distribution for inclusive economic growth.*

*The novelty of the present research lies in the fact that the conceptual foundations of the theory of employment have been studied and scientifically substantiated. The fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment have been identified and systematized.*

**Keywords:** *employment optimization, socio-economic labour relations, labour market.*

**JEL code:** J24

## Introduction

A fundamental reason for the increase of labour productivity parameter lies in the endogenous growth of the national economy and world economy.

The theoretical approach to the effectiveness of D. S. North is interesting for us by allocation of the fundamental reasons for the growth of human welfare. The reasons are as follows: increase in the scope of knowledge, change in institutional incentives, change in relative prices for the factors of production, creation of new views, redistribution of resources, increase in the benefits of joint activities, strengthening of incentives for innovation, decrease in the cost of transactions in the markets (Hopt, 1997, p. 33-34).

The main productivity factor of the economy, according to D. S. North, is a streamlining of the political and economic environment, where an important role in the regulation belongs to the state, because it regulates economic rules (proprietary right of resource ownership and alienation) (Hopt, 1997, p. 91).

Growth factors of efficiency are as follows: the measurement of transaction costs in different markets of products and factors of production; the synthesis of miscellaneous knowledge for creation and development of productive capacities; the share of gross domestic product redistributed by executive power, and also constantly changing regulations; the reasonable use of transformation tools (a combination of economic, structural, investment policies) (Мартынова, 2010, с. 236-237).

The paper defines the conceptual framework of the process of achieving productive employment, productive work, effective distribution of the workforce based on methodological decisions on planning of professionally qualified structure of labour supply for technical-technological parameters of workplaces; on the calculation of loss of gross regional product in connection with untenable staff training.

The proposed conceptual framework involves determining the order of selection of prospective areas of employment at the hierarchical levels of the economy; the creation of communication channels to establish cooperation between industrial enterprises and educational institutions; methodical planning solutions to specialist competencies depending on the technical and technological peculiarities of production development. This will allow the government to shape industrial policy, taking into account the components of the prospects of employment of graduates.

The relevance of the research study of the mechanism for achieving the efficient employment of productive labour and, the efficient allocation of labour resources is determined by the need for the development of adaptive to the dynamic socio-economic environment optimization mechanisms for the workforce at all levels of the economic system to achieve faster growth of labour productivity over the wage growth rate.

According to the State programme of employment promotion of the population for the Republic of Belarus, one of the measures that reduce the demand for labour against of the backdrop of decreasing of working-age

population can be "... the modernization of production and introduction of resource-saving technologies, increasing productivity and the reduction of excess employment ..." (Постановление 2015/77/ Совет Министров).

The theoretical foundation of the theoretical and methodological fundamentals of achieving effective employment, productive labour, and the efficient allocation of labour resources was laid by representatives of various economic schools.

Modern research has developed methodological tools:

1. V. E. Gimpelson's model of demand equations for labour, which takes into account the interrelation among the variables: wages and salaries, the dynamics of economic output, the vector of control variables describing structural characteristics and the economic and financial situation of enterprises (Гимпельсон, 2004).
2. The model equations of labour supply for decision-making on work are proposed by M. Killingsworth, which take into account the interrelation among the variables of unearned income, market wages and a set of socio-demographic and economic characteristics of the individual, determining the individual value of free time (Ashenfelter, 2005, p. 357 – 386).
3. J. Konings and H. Lehmann's model of labour demand which shows wages, capital costs, material costs, real output as the factors determining the demand for labour (Konings, 2002).
4. E. F. Denison, G. Psacharopoulos and M. J. Bowman's model of labour demand which takes into account the volume of production, the effectiveness of the unit of labour, depending on education, the amount of capital (Ashenfelter, 2005, p. 357 – 386).

Still there is no formulation of a new theoretical approach to the process of achieving full employment and productive work, to an efficient allocation of labour, which would be based on the conceptual foundations of formation of the theory of employment, which would take into account peculiarities of the phenomenological nature of employment and the fundamental prerequisites for the formation of the theory of employment in the context of effective allocation of labour as well as the methodological principles of effective employment.

There is no comprehensive research study of indicators of effective employment; the theoretical approach to the achievement of efficient employment and to the creation of productive labour and efficient allocation of labour is not fully developed.

At present in the researches studies of Belarusian scientists methodological principles of modelling in the achievement of efficient employment of productive labour, the efficient allocation of labour, as well as the conceptual framework for the process of achieving productive

employment, productive work, efficient allocation of labour are not sufficiently studied.

The choice of the object of research – socio-economic relations between labour market entities and institutions in reaching an effective employment and development of productive labour that ensure efficient allocation of labour resources is determined by insufficient development of the topic and is very important for endogenous economic growth in the Republic of Belarus.

The aim of the research is to study the theoretical and methodological foundations of labour force employment in economically viable jobs and the mechanism of its effective distribution for inclusive economic growth.

To achieve this aim, the following tasks were set:

- 1) To study the conceptual foundations of achieving effective employment, productive labour and efficient allocation of labour.
- 2) To identify and systematize the fundamental assumptions and methodological foundations of modelling of the process of achieving effective employment, productive labour and efficient allocation of labour.

The idea of the research lies in the scientific substantiation and development of theory, the methodology of employment and the development of methodological support, conceptual foundations of formation of effective employment for the development of productive labour that ensure efficient allocation of labour and endogenous economic growth in the Republic of Belarus.

The novelty of the present research lies in the fact that the conceptual foundations of the theory of employment have been studied and scientifically substantiated. The fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment have been identified and systematized.

To carry out the tasks of this research, the following methods were used:

- monographic;
- descriptive;
- analysis and synthesis;
- statistical data analysis;
- correlation analysis.

The basis for the development of conceptual frameworks to achieve the effective employment of productive labour and the efficient allocation of labour is a system of methodical developments.

To analyse the changes in employment at the micro level, depending on economic factors, a statistical model is developed and tested. It takes into account the following economic factors: the complexity of the product, average monthly salary per employee, a salary ratio, the capital intensity of

the enterprise, the average monthly volume of production, the capital-labour ratio of the enterprise.

For the prospective analysis of professionally qualified structure of the employed population on the basis of information about the dynamics of the number of graduates from higher education institutions, about natural growth (decline) of the population, about the share of expenditure on wages in total costs of production by industry, the author's optimization model of consistency in the professional qualification structure of labour resources and demand at the regional labour market has been developed and evaluated. The factors affecting the growth of production efficiency are systematized taking into account the development of technical-technological parameters of work places. The peculiarity of the proposed model is in the relationship of the enterprises of industrial complex and national level.

To calculate the loss of gross regional product in connection with untenable staff training in the region the author's statistical model has been developed and tested. The main elements of the author's algorithm are as follows: calculation of an adjustment factor of gross regional product by means of untenable staff training, taking into account the following economic indicators: the coefficient of excess staff training, potential employment in the regional economy at full employment and the actual number of the employed population in the region's economy.

To create in the new economy economically cost-effective jobs that ensure high productivity and salaries, methodological tools for coordination of the vocational and qualification structure of labour resources with demand is determined. The peculiarity lies in the fact that the key points are based on the following:

- 1) introduction of an index of labour requirement and production-technological parameters of workplaces in the model of demand equations for labour;
- 2) use of the contingency coefficients of jobs, which allow us to derive a calculated rate of labour input of workers at different industrial levels.
- 3) accumulation of information on the number of employees by gender, qualification, education in the form of differentiated balance of labour resources and employment;
- 4) use of the principle of energy-cyclic planning that explains the logic of the studies of production chains across industries through linkages between the technological updating of enterprises and industries. The workload at the production stages differs by level of detail, flexibility to changing volumes of production and technology, takes into account the coefficients of contingency jobs, allows the analysis of labour force participation in the labour

market at various levels of the economic system to achieve the efficient allocation of labour resources.

The present research is based on various scientific publications, publicly available data, legal and regulatory information, statistical databases of Belarus and the World Bank.

### **The study of the conceptual foundations of achieving effective employment of productive labour and effective distribution of your workforce**

Theoretical approaches to achieve effective employment in the labour market are developed by foreign scientists. A significant contribution to research on the problems of employment was made by Belarusian scientists.

In the present research a theoretical approach by T. Schultz is developed ("szulczewski" allocative effect), which is notable for the explanation of the fact that educated labour adapts faster in the transition economy.

According to A.L. Lukyanova's theoretical approach, if the employee has a degree that does not match work duties, his/her education will not bring any compensating gain on this job (Лукьянова, 2010).

The value of Gary B. Hansen, W. Edwards Deming, Fried Foulkes and Ann Whitman's theoretical approach for the present research study is to identify the direct relationship between guaranteed employment and increase in productivity through competitive advantages (credibility to the company and to the management, reducing resistance to technological change) (Хансен, 2009).

M. Sattinger's assignment theory explains the inflexibility of adaptation of technologies under the supply of skilled labour resources and technological competencies. The economic losses for the society with an inefficient and low-quality connection between jobs and workers' education are determined. Consideration of the different ratios of elements of the system "competence in education – technical and technological parameters of jobs" is significant. In the economy there may be situations where technology is overtaking the education market or the education market ahead of technology (Sattinger, 1993).

In the era of globalization the conceptual framework to achieve effective employment is actualized. German researchers state the importance of taking into account innovative pressure from the economy on labour and a short half-life of graduates' knowledge in the employment process.

The law formulated by Kaldor-Verdoorn claims that there is a positive relationship between GDP growth and growth of labour productivity.

Belarusian scientists E.V., Vankevich, A.P. Morova, I.V. Novikova believe that labour market flexibility is seen in the willingness of its participants

(employers, employees and institutions in the labour market) to adjust to economic, social and technological changes (Ванкевич, 2008).

The research study examines the nature of salary as an indicator of stimulating productivity. The conclusion has been made that very often the motivation to work may be not so much the pursuit of prosperity through high earnings as requirements dictated by the position and status of the employee; the salary level should take into account special talent and abilities of a worker, the severity of the labour; the level of remuneration of workers shall be established in proportion to the efficiency of their labour; quantitatively the level of total wages is determined by the size of the unit wage and volume of employment in the industry; there is the differentiation of wage rates: the price of unskilled labour, the price of skilled labour (including rent on talent), as well as the price is unattractive to labour, which takes into account the economic benefit that covers discomfort during working; the cause-and-effect link among labour supply, labour demand and parents' desire to educate their children in more profitable occupations in expectation of high rewards to be made; additional costs to pay for the additional labour is determined.

The analysis of theoretical approaches to education has proven the relevance of education for economic development of society, it has allowed us to systematize the skills and abilities that promote productivity and finally, clearly pointed to the need for the alignment of knowledge and skills with assigned tasks, technology. In our view, the importance of an educated nation is indicated by the following theoretical generalizations: firstly, a synthesis of knowledge enables the society to shape the institutional and organizational framework, including the production capacity; secondly knowledge is necessary for the organization to achieve the result at the appointed time, thirdly, applied knowledge is an important factor in the development of pure knowledge in the economic system, and finally, the possibility of obtaining income from the use of the best knowledge or judgment ability taking onto account agreements with the manufacturers.

It is noted that in different times and places the society presented the actual requirements to the working power. They are: the ability to remember multiple things; the ability to adapt to changing work environments; self-confidence and confidence in one's own judgments; having the skill of accuracy; ability to pull oneself up in an emergency; the development of mental life; the dedication and curiosity of the mind; education; scientific thinking; professional skills and managerial abilities; development of intellectual capacity; skill to predict; skills of coordination; entrepreneurial skill; tendency to intense labour; the possession of a high work morality.

We believe that an important condition for productive work is the clear alignment of employees' abilities with the scheduled task. We agree with the

following theoretical generalizations: the importance of alignment of professionals with the equipment and the organization of labour itself; matching of employees' abilities to the task as an important condition for the realization of talents; professional skills must be deepened and specialized regarding the specific employer with preservation of the economic value of skills and subject recruitment (dismissal).

The research study identifies and systematizes the fundamental prerequisites for the formation of the theory of employment for productive labour and the efficient allocation of labour. They are: to achieve effective employment by aligning the educational services market with the labour market, it is important for the employer to identify the level of costs and the remuneration level of labour; the relation between high labour turnover and low pay is noted and also there is the relation between low labour turnover and high wages; a regularity is noted that if the labour force is associated with the goals of the company and in terms of crisis management, the wage level is kept at a constant level, then in principle, the performance of the labour force should not decrease as the labour force participation rate is not reduced; an inverse relation between the skill level and the direct wage elasticity of demand is determined; the interdependence between the duration of working time in the short term and determining a nature of the demand in the labour market is discovered; the interdependence between the duration of working time in the long run and the nature of the supply of labour is noted because over time new firms may enter the market and new technologies could appear; the relation among the level of productivity in the labour market, labour productivity in the household and the life cycle of the person is identified; the relation between the degree of elasticity of supply for female labour and wages and the number of children in the family, their age is emphasized; there is a relation between institutional rules on the labour market and the market rules, as the first helps eliminate competitive pressure on the labour market and equate levels of wages; the influence on the process of reallocation of labour unemployment or a sharp decline in the income level of the population is proved; also the influence of the process of retirement and temporarily leaving of the workforce to work from home or for professional development is determined; mobility of labour within the profession or within the industry; the change of residence for new job search, labour migration over short and long distances is noted (Ashenfelter, 2005).

The research study notes that structural shifts in employment could be associated with the development of new types of products, its distribution, marketing and the regulation of the process of creating new products and production technology; efficient spatial allocation of mobile capital requires an equal amount of capital per unit of labour productivity at each site; regularities are determined that with the growth of wages and the growth of

labour costs average labour costs remain unchanged as long as the average product of labour is increasing, offsetting the increase in costs, and contribute to the achievement of X-efficiency.

The research study analyses the dynamics of public expenditure on education in the context of countries such as: Belarus, the Czech Republic, France, Israel, Kazakhstan, Poland, Lithuania, Latvia, the Russian Federation, Sweden, Ukraine, the USA.

The analysis has shown that in this group of countries the share of public spending on education ranged from 2.8% (in Kazakhstan in 2007) to 19.3% (Lithuania in 2009). The largest share of these costs was in Lithuania, the lowest in Kazakhstan. The level of expenditure on education in the Republic of Belarus did not change significantly and it was at about 5% of GDP, which was slightly different from the share of expenditure on education in the United States, Poland, France and Israel. At the same time investing in the education of children, youth and adults was not imparted sufficiently to the growth of macroeconomic indicators and did not allow keeping their values unchanged: the GDP growth rate has decreased by 6.4%, the labour productivity (in percent of GDP) has decreased almost 8 times. All this leads to the importance to identify the factors in the growth of productivity and tools to its achievement.

The research study analyses the dynamics of GDP across the countries such as Belarus, the Czech Republic, France, Israel, Kazakhstan, Poland, Lithuania, Latvia, the Russian Federation, Sweden, Ukraine, the USA (NY.GDP.PCAP, 2015).

The analysis showed that the greatest reduction in the rate of growth of the economies of the countries was in Lithuania, Ukraine and Latvia in 2009, which were particularly affected by the crisis and its consequences. The highest rates of GDP growth for 2008-2014 in the analysed countries were in 2011. The rate of GDP growth of the Republic of Belarus amounted to 5.5% per year, while the average growth rate of GDP in this group of countries was 4.4% per year. As a positive trend it should be noted that in the Republic of Belarus in 2008-2014 the decline in the GDP growth rate was not observed.

In absolute terms, the highest value of GDP per capita was in Switzerland, the USA, France and Israel. The Republic of Belarus, by this indicator, was in next-to-last place among this group of countries (last place in this sample belonged to Ukraine). At the same time, the steady tendency of growth of GDP per capita in Belarus in dollar terms indicates a progressive increase in the level of economic development of the country, successful implementation of measures for social support of the population.

The analysis of the dynamics of productivity in the context of the countries studied showed that the leader in the growth rate of labour productivity over the period from 2003 to 2008 was the Republic of Belarus.

At the same time, since 2005, there has been the slowdown in the rate of growth of labour productivity that in conditions of increasing negative impact of the global economic problems has led to the deterioration of the main macroeconomic indicators. A particularly strong decrease in this indicator was characteristic of the economies of small countries such as Israel, the Czech Republic, Lithuania, Latvia, and also for the economy in terms of instability of the political situation (Ukraine).

It is concluded that the main factors of productivity growth and the tools to achieve it are: the formation of abilities of the employee, talent and self-improvement; the production of producer goods and durable goods that contribute to economic growth; the division of labour contributes to its performance, special attention is given to such a quality of the labour force as physical dexterity, there is the heterogeneous contribution to the production of the product; the presence of productive capital and its prudent management by specialists leads to higher productivity; diligent conscientious performance, estimable approvable behaviour of the workforce determines productivity; saving time on the coordination of labour, the specialization of labour, the response from the employer on contract formation at the aggregated requests of the working forces.

In the research study a theoretical analysis has shown that the indicators of effective employment are as follows: a certain number of working hours per week; the participation factor of the  $j$ -th group in the labour force in a certain period of time; the employment rate of the population aged 35 – 44 years in a certain period of time; responsiveness of the degree of participation of the employed population in the business cycle; wages, exogenous income, a vector of background characteristics (demographics, for example), the level of consumer spending, leisure time, technical and technological options, differentiated labour. They also include the following ones: the working time of the  $i$ -th family member, the sales price of production, a function of income, the level of employment in a certain structure of the economic cycle, wage determination in the company, the interest rate of capital for period  $t$ , the steady increase of the recruitment number, the value of the recruitment stream, which is added to the cost of wages for effective labour prices; the hourly wage rate, the amount of internal consumption, leisure time, individual characteristics of the workforce, all types of income, the value of their allotted time going to the labour (the number of hours worked for the product and hourly wages); the reserve wage below which an individual will not work.

We systematized the indicators as: the ability to influence the size of future and current productivity through the accumulation of human and physical capital, technological and managerial innovation, the marginal productivity of employment in a typical firm, the quantity of homogeneous

labour employed in period t, all possible determinants of labour demand, the discount rate applied to future cash flows, the loss of additional jobs due to layoffs and retirement, the number of employees per one employer, a lot of employers with positive employment in period t and t-1, the subset of employers that are expanding (increasing employment), or belong to the sector (create new jobs) in periods t and t-1, the subset of employers who offer additional employment in the form of contracts and leave the sector in periods t and t-1, gross reduction of workplaces in sector S in period t, the size of the stream of jobs as an indicator of the measured size of the business unit as the arithmetic mean of employment, gross redistribution of workplaces in sector S in period t.

**The identification and systematization of the fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment and efficient allocation of labour**

*We have defined the fundamental prerequisites and methodological basis for modelling the process of achieving productive employment, productive work, and efficient allocation of labour ( Altman, 2012, p. 51-56, 58, 63, 67-69, 75-77).*

It is proved that the investment capacity of industries is defined by the institutional environment of the region with low or high profitability;

It is concluded that in conditions of perfect competition with high capital mobility and the absence of tariff barriers, the firm can work effectively with the regime of the high level of wages;

There is a regularity between the institutional frame (as the stated right of ownership of the business, corporate governance) and the change in the level of wages;

The importance of use of macro level tools in modelling effective employment is noted, which minimizes the difference between actual and potential unemployment in the reverse case, and a reduction in equilibrium production per capita on the demand side leads to a decrease in the potential level of production per capita on the supply side.

The Gini coefficient is used as an indicator in the simulation of achievement of an effective employment, which allows tracing a correlation between GDP per capita, labour productivity and inequality in income distribution.

As a tool promoting efficiency and technological change and the increase in economic welfare, the following tool is determined: a comparison of "income and effort for effective work", the implementation in the economy of the conditions of Pareto optimality.

To create a high marginal product in the niches of the labour market with lower incomes the following indicators are noted: increase of current consumption of goods (services), monitoring of the health of a nation, the formation of a higher level of human capital.

It is concluded that according to the behavioural model, the peculiarity of formation of human capital in terms of formal education and skill formation, the age structure of the population and technical progress lie at the bottom of income inequality.

In the modelling of achievement of an effective employment such institutional settings as employment policy, unions, minimum wages, social benefits (unemployment insurance) are taken into account. The approach to the modelling of effective employment is valuable for the exact matching of human capital and its place in the production function.

According to the conceptual approach to the modelling of achievement of effective employment of David's and Arthur's theoretical cases in which the quantity and quality of effort per unit of labour cost is maximum at any given time, changes in productivity do not depend on variations in the cost of labour and differentials in labour productivity, and depend on input from differential effort; the effort per unit of labour input is positively associated with wages (Altman, 2012, p. 83-84).

The regularity is noted that average costs will not change on condition that there are higher wages and improved working conditions, as a result, higher levels of effort and productivity that offset the increase in wages (Altman, 2012, p. 116).

The approach to modelling the achievement of efficient employment of productive labour, the efficient allocation of labour force is valuable by justification for the change in demand for labour due to the elasticity of demand for labour to changes in production volume, which is defined by using the function of production. Maurice Altman rightly pointed out that in talking about the degree of elasticity of labour, it is important to dwell on institutional settings. He introduced the category of "the institute of free labour market", in which the labour is free and does not interfere with the mobility of labour among firms and among cities within the country (Altman, 2012, p. 133).

## **Conclusions and suggestions**

*In the research study as a conceptual basis to achieve effective employment of productive labour, the efficient allocation of labour resources is proposed:*

- 1) it is proved that in the absence of technical change, the increase in capital per worker does not entail a steady increase in the growth rate of production volume per worker or per capita;
- 2) it is noted that the high level of wages may affect the growth of productivity by stimulating the growth of capital relative to labour, and also affect the growth of the unit cost of production and result in a decrease of jobs;
- 3) it is determined that the motive for the efficiency distribution of the labour force is the size analysis of unit costs, profits and income;
- 4) it is proved that the firms are not profitable to invest in the workforce for the reason that the dominant investment is spent on consumption;
- 5) the analysis of the structure of employment regarding the question of the optimal ratio of managers in relation to working hands is noted as one of the ways of achieving effective employment (Altman, 2012, p. 39, 41, 42, 52, 71, 99 – 100).

*To identify the fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment and efficient allocation of labour, we tend to identify the following key assumptions:*

- 1) the institutional environment of any region determines the investment capacity of industries and, therefore, contributes to the creation of new jobs and a more complete inclusion of the labour potential of the region in the establishment of the regional GDP;
- 2) when modelling the process of achieving full employment, it is important to have a balance between the income of a business entity and the efforts of the workforce towards productive labour;
- 3) when modelling the process of achieving effective employment, it is important to consider the following economic indicators: the degree of labour elasticity of demand for price, the institutional framework of labour market, the level of wages, the value of regional GDP.

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# A STUDY OF LOCAL ARTISAN AND CRAFTSMAN MARKET OPERATION IN REZEKNE

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**Abstract.** *Local food, both from the perspective of the producer and the consumer, is becoming all the more popular topic in modern society. One of the places where the buyers and sellers of these products meet is the market. The research aim is to study the operation of local artisan and craftsman markets in Rezekne and the opportunities for improving their operation. The theoretical and practical aspects of artisan activity are described in the study; surveys have been conducted to find out the opinions of market visitors on the supply of the artisan market; data analysis and interpretation; and to make conclusions and suggestions for improving the operation of the local artisan and craftsman market in Rezekne. Research methods: logical construction, analysis, a survey, the graphical method. The study results in a conclusion that the buyers of the local artisan and craftsman market in Rezekne are satisfied with the supply; however there are opportunities for its improvement. The main aspects with the opportunities for improvement are: spreading information about the market, i.e. its advertisement, expanding the assortment offered, extending the opening hours of the market, expanding the premises and the parking space of the market.*

**Keywords:** *artisan, buyer, market, seller, supply.*

**JEL code:** *M20, M30*

## Introduction

Consumers are starting to pay more attention to healthy eating, want to buy organic products and generally keep track of their everyday habits; therefore in Latvia and in the rest of Europe, the issue of producing local foodstuffs is becoming all the more popular.

People appreciate healthy homemade products, the work, time and energy invested by the artisans when creating new and innovative products (Biedrība „Lauku partnerība „Lielupe”). The home industry as a field of the national economy is still developing in Latvia. This applies both to legislation and to cooperation of small producers and the availability of products to consumers. The home industry is a set of values which reflects: the identity of the regions of Latvia, traditions, unique local products, family craftsmanship, personal attitude (Ceļvedis mājražošānā, 2015).

There is currently very little research done in Latvia on the operation of the home industry; while conducting the study, the authors have learned about the study of the Association of Rural Women in Latvia (*Latvijas Lauku*

*Sieviešu apvienība*) on “National and EU Normative Documents that Regulate the Economic Activity of the Rural Home Industry in Latvia and their Interpretation” and the study “Exploring the Situation of Home Industry in Rural Latvia”, which were conducted in 2009, and the study of the Latvian Rural Advisory and Training Centre Jelgava Department (*LLKC Jelgavas konsultāciju birojs*) “Opportunities for Developing the Food Industry in Jelgava and Ozolnieki Municipalities” conducted in 2012. In 2015, Latvian Rural Advisory and Training Centre Ltd. (*SIA “Latvijas Lauku konsultāciju un izglītības centrs”*) issued a „Guide to the Home Industry” (*“Ceļvedis mājražošānā”*), which summarises the most important information on the requirements of the Food and Veterinary Service (FVS) for the home industry, marketing, and provides an opportunity to learn about the examples of the home industry.

For artisans it is very important to find buyers for their products, i.e. sales opportunities. One of the options is selling the products at local artisan and craftsman markets. By buying artisan products, buyers support local producers, and, as a result, the money stays with our local people.

**The research aim** is to study the operation of the local artisan and craftsman market in Rezekne and the opportunities for improving its operation.

**Research objectives:**

- 1) Describe the theoretical and practical aspects of artisan activity;
- 2) Conduct a survey on the local artisan and craftsman market in Rezekne;
- 3) Make conclusions and suggestions for improving the operation of the local artisan and craftsman market in Rezekne.

**Research methods:** logical construction, analysis, a survey, the graphical method.

**Research novelty** – a consumer survey on the local artisan and craftsman market in Rezekne was conducted, the results obtained were summarised and analysed, and conclusions and suggestions were made for improving the operation of the market.

**Research hypothesis** – the consumers of the local artisan and craftsman market are satisfied with its operation in Rezekne, however there are opportunities for its improvement.

**Research period:** February 2016 – June 2017.

As a result of the research, the research hypothesis that the consumers of the local artisan and craftsman market in Rezekne are satisfied with the market operation in Rezekne but there are opportunities for its improvement was confirmed. The main aspects with regard to the opportunities for improvement are: spreading information about the market, i.e. its advertisement, expanding the assortment offered, increasing the

opening hours of the market, expanding the premises and the parking space of the market.

### **Theoretical and Practical Aspects of Artisan Activity**

An artisan is a natural or legal entity that produces foodstuffs at home. For processing they use home-grown starting material or cooperate with other agricultural farms in Latvia and buy the starting material. In production they employ the responsible and sustainable approach. This means that the starting material is grown while conserving the environment, and the products are made while observing good hygiene practices, according to local traditions in a particular district. As a result, healthy local foodstuffs are offered to consumers (Ceļvedis mājražošanā, 2015).

Artisan activity is most often related to the production of foodstuffs, also referred to as the artisan food industry. These are products with high added value because these are produced with an individual approach and thus reflect the nature of the producer and the local environment. This is why these products are referred to as local identity products.

The artisan food industry is a type of small entrepreneurship used by small agricultural farms for diversifying their activity where the agricultural products grown have added value, as well as by the rural population, families that process foodstuffs in cooperation with farmers; it can also be an additional income source for a rural pensioner. This type of activity is relatively easy to start because it does not require large investments like for production companies (Biedrība „Lauku partnerība „Lielupe”). The main advantage of the home industry is starting the production of a chosen product in small quantities without spending a lot of resources or involving additional administrative workers, with less bureaucratic burden and slowly going forward (Āriņa-Vilne).

There are obstacles that hinder successful operation of the field: lack of explanation of the legislation, which makes it difficult to understand and follow the rules; a relatively small local market with low buying power, which really is one of the most significant obstacles (Biedrība „Lauku partnerība „Lielupe”).

The law that regulates the handling of foodstuffs in Latvia, including the home industry field, is “The Law on the Supervision of the Handling of Food” (in force since 20.03.1998). The purpose and the field of activity of “The Law on the Supervision of the Handling of Food” is: to ensure handling the food, which is of high quality and safe to human health, life and the environment, eliminating the risks, promoting the trade and protecting the interests of consumers.

Cabinet Regulations No.358 "Requirements for Small Trade Enterprises that Deliver Homemade Foodstuffs of Animal Origin" dated 30 June 2015 are binding for the home industry. The Cabinet Regulations state that the home industry is a food handling enterprise – a performer of economic activity (hereinafter – Enterprise) – that delivers homemade foodstuffs of animal origin directly to end consumers or – no more than 30 percent of the total produced amount of foodstuffs of animal origin – to another small trade enterprise if the work with foodstuffs of animal origin is performed: (4.1.) in an individual residential building, at least 75 percent of which, including the buildings located on its territory (such as bathhouse, barn, shed, garage), are used for living and personal needs; (4.2.) a separate building constructed, planned and equipped for production and preparation of foodstuffs of animal origin on the territory of the individual residential building; (4.3.) a separately constructed building equipped for production and preparation of foodstuffs located outside the territory of the individual residential building by the source of obtaining starting material (such as an animal establishment, a milk farm, a slaughterhouse) if at least 80 percent of starting materials for the production or preparation of foodstuffs of animal origin is obtained there.

In July 2017, the transition period that has been in force since the acceptance of the Cabinet Regulation "Requirements for Small Trade Enterprises that Deliver Homemade Foodstuffs of Animal Origin" on 30 June 2015 will end. The regulation states that home producers that perform their production in suitable, separately constructed buildings planned for production of foodstuffs located on the territory of an individual residential building or in suitable buildings outside the territory of an individual residential building by the source of obtaining starting material where at least 80% of starting material is obtained and who wish to sell the products produced without market limitations must obtain approval. Without the approval, the artisans that comply with the regulation will be allowed to deliver to other small trade enterprises 30% of the total produced amount of foodstuffs of animal origin but no more than four tons a month (Liepiņa, 2017).

One of the most significant aspects of artisan activity is product sales. The market is an aggregate of existing and potential sellers and buyers that at a specific place and time for a specific price supply (sell) and demand (buy) products. At the market the sellers supply products, for which the buyers pay money; an exchange of information and communication occurs between the two parties. All market relations are realized at a specific place (Praude, 2011). For artisans the trading space itself is one of the main communication channels. It needs to be used to the maximum. Even quite many large producers whose products can also be found in supermarkets and trade

centres use opportunities for direct contact and feedback, provided by live communication at markets. The main principles of marketing for raising consumer interest and attracting them to the product are (Zvirbule, 2013):

- 1) the consumer needs to know that the product exists;
- 2) the consumer needs to know the product and love it;
- 3) the consumer needs to use the product;
- 4) the consumer needs to remember the product, i.e. return to it again and again.

To achieve this, communication with the consumer is necessary. Nowadays, trade space, especially artisan markets are not only a place for shopping but also for entertainment, an exhibition, an adventure. A human talks to a human – direct contact, communication in real life, communication with each other, to look, touch, taste, smell, ask, haggle, choose the most fragrant, the tastiest, darkest, brightest, thickest – whatever your heart desires, see something unseen before, learn something new, find what you have been looking for, listen to music, see a performance, smell hot coffee, fried meat, or fragrant primula – all this happens at a fair, at the market (Kad pircējs un pārdevējs smaida).

### **The Study of the Local Artisan and Craftsman Market in Rezekne**

Rezekne municipality and all 25 Rezekne parishes on 8 July 2014 created a foundation “LEARN” (hereinafter – LEARN). The aim of its activity is to promote economic activity and reduce unemployment at the territory of Rezekne municipality. To achieve the aim, the foundation plans to support micro-enterprises and self-employed individuals that start and develop businesses at the territory of Rēzekne municipality (Foundation “LEARN” – *Lauku ekonomikas attīstībai Rēzeknes novadā* (Developing Rural Economy in Rezekne municipality)). One of the activities performed by LEARN to support local artisans and craftsmen is the organization of markets. The markets called “Lobs lobam” are organized once a month and take place at the premises of Rezekne municipality or in the yard of Rezekne municipality building from 9:00 to 13:00. Information about the market is published on the website of Rezekne municipality <http://rezeknesnovads.lv/>, and posters are created (Figure 1).

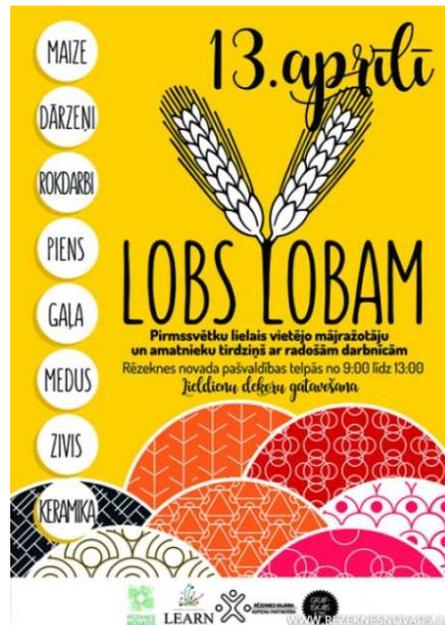


Fig.1 Poster for local artisan and craftsman market “Lobs lobam”  
(Source: Rezekne municipality)

The information about the market published on the Rezekne municipality website provides the time and place of the event and a short description of the sellers and products available for purchase.

The authors in cooperation with LEARN conducted a study to find out the opinions of market visitors on the supply of the artisan market. As part of the study, a visitor survey was conducted, asking to fill in questionnaires. The survey was conducted in 2016 and 2017 during several monthly markets; Economics and Management students of Rezekne Academy of Technologies were involved in surveying. In total 190 respondents were surveyed. Description of the respondents surveyed:

- gender: women 72%, men 28%;
- age: 30 years or younger 28%, 31 to 60 years 59%, 61 year or older 13%;
- place of residence: residents of Rezekne municipality 54%, residents of Rezekne city 46%;
- occupation: employees 51%, employers 20%, retired 16%, students 8%, housewives 3%, unemployed 2%.

At the beginning of the questionnaire, the respondents were asked the question “How often do you visit the artisan market?” The responses summarized in Figure 2 show that the majority of the respondents visited the market every month (76%).

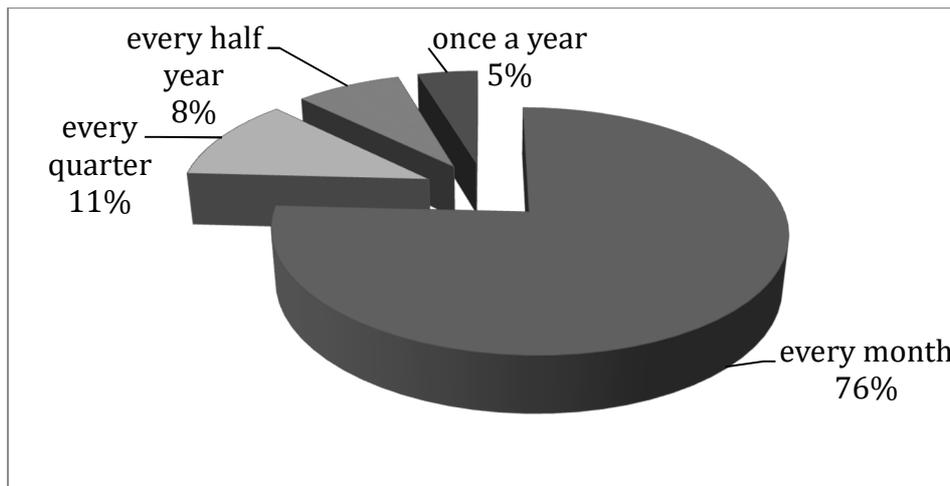


Fig.2 Respondents' answers to the question "How often do you visit the artisan market?", % (Source: data summarised by authors)

Then the respondents were asked the question "Are you satisfied with the artisan market in general?" with the following possible answers: "yes", "rather satisfied", "rather dissatisfied", "no". The answers of the respondents split between "yes" (74%) and "rather satisfied" (26%). It can thus be concluded that in general visitors were satisfied with the artisan market.

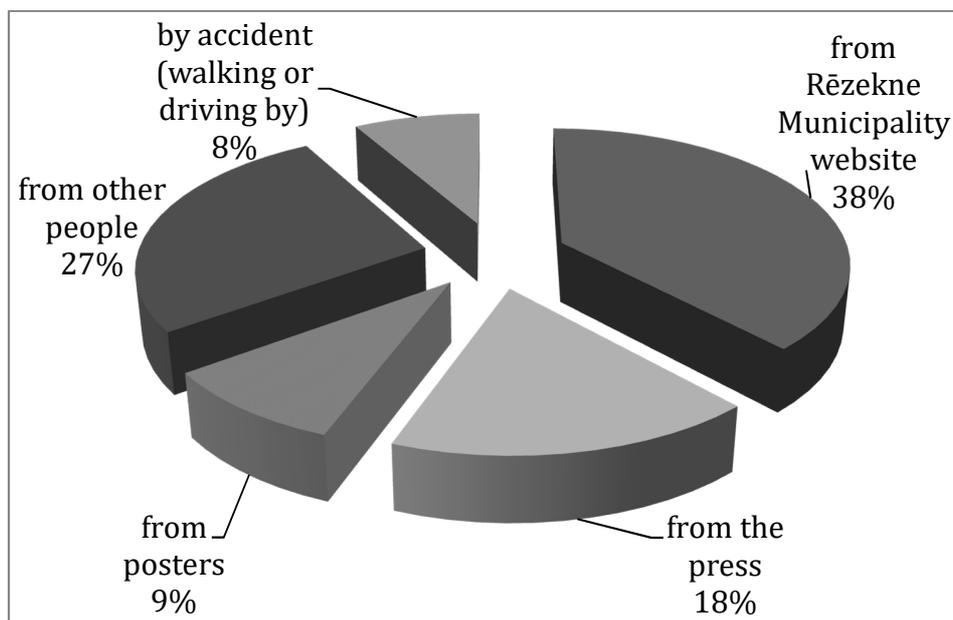


Fig.3 Respondents' answers to the question "How did you find out about the artisan market?", % (Source: data summarised by authors)

To determine the source of the information how visitors find out about the market, the question "How did you find out about the artisan market?" was asked. The responses summarized in Figure 3 show that for the majority of the respondents (38%) the information source about the market was the

news published on the Rezekne municipality website, in second place – other people (27%). The authors conclude that market visitors follow the information on the Rezekne municipality website, and people share information, it spreads by word of mouth.

The respondents were asked to rate the importance of several factors related to shopping at the market and offered to express their opinion on the importance of the factors on a scale of five points where 5 meant very important, 4 – important, 3 – relatively important, 2 – less important, 1 – unimportant.



Fig. 4 Respondents’ answers to the question “How important are the following factors to you when buying products at the artisan market?”, average rating on scale of five points  
(Source: data summarised by authors)

The data summarized in Figure 4 show that the most important factor for buyers when shopping at the artisan market was quality (rated at 4.5), as a relatively less important factor the respondents chose additional opportunities offered at the market: exhibitions, concerts, events (assessment 3.5).

In the questionnaire the respondents were asked to rate their satisfaction with these factors at the artisan market in Rezekne and offered to express their satisfaction on a scale of five points where 5 meant excellent, 4 – good, 3 – average, 2 – bad, 1 – very bad.



Fig.5 Respondents' answers to the question „Please rate your satisfaction with the following factors at the artisan market?“, average rating on scale of five points (Source: data summarised by authors)

The respondents' answers summarized in Figure 5 show that the respondents were the most satisfied with the quality of the products (rated at 4.5) but the least satisfied with the availability of parking at the market (rated at 3.4).

To the question “What motivates you to visit the artisan market?” the respondents gave the answer that it is “an opportunity to buy organic products” (46%), „an opportunity to support local producers” (35%), the answers of a relatively smaller number of respondents split between such responses as “an opportunity to find the holiday spirit and purchase something interesting, for example, for Easter or Christmas” (8 %), “entertainment together with the family or friends” (6%), “just shopping, nothing else” (4%), “visiting as part of another event or holiday” (1 %).

The respondents were also asked the question “What products do you purchase at the artisan market more often?” The respondents could choose several answers in the questionnaire. Having sorted the products chosen in the order of priority, the following products purchased most often were named by the respondents: meat products (84 responses), bread (79), smoked fish (68), dairy products (64), fruits (45), honey (44), spices (39), patisserie (34), artisan products (33), vegetables (30), alcohol-free drinks (16), alcohol (beer, wine) 14, berries (12).

In the questionnaire the respondents were also asked to answer the question “How much do you usually spend on shopping during one visit to the artisan market?” The responses summarized in Figure 6 show that market visitors during one visit spent 6-15 EUR (59 %), 16-30 EUR (29%),

8% spent up to 5 EUR and only 4% spent 31 EUR and more. It can be concluded that the majority of visitors bought more than one product at the market, which can also be seen from the analysis of the responses to the previous question.

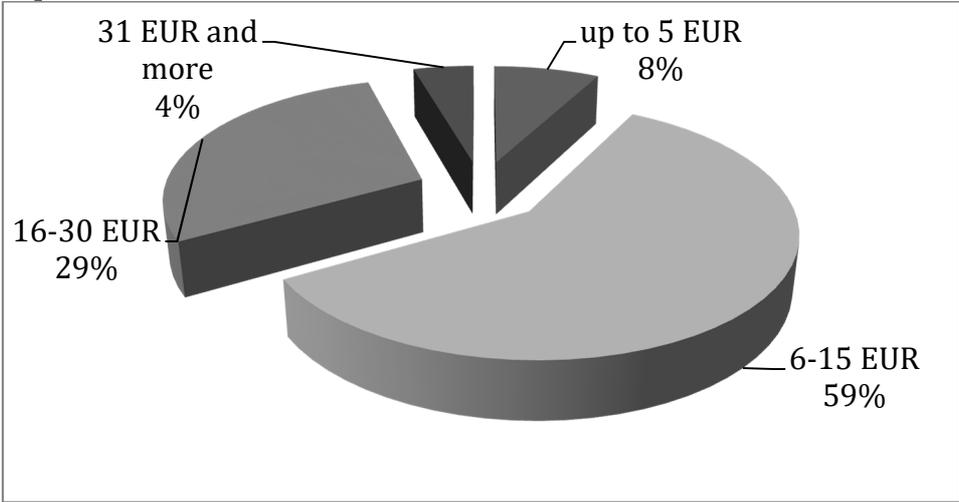


Fig.6 Respondents' answers to the question "How much do you usually spend on shopping during one visit to the artisan market?"  
(Source: data summarised by authors)

With the opportunities of improving the market operation in mind, we asked the question "If it were possible to pay for goods at the artisan market using a bank card, would you?"

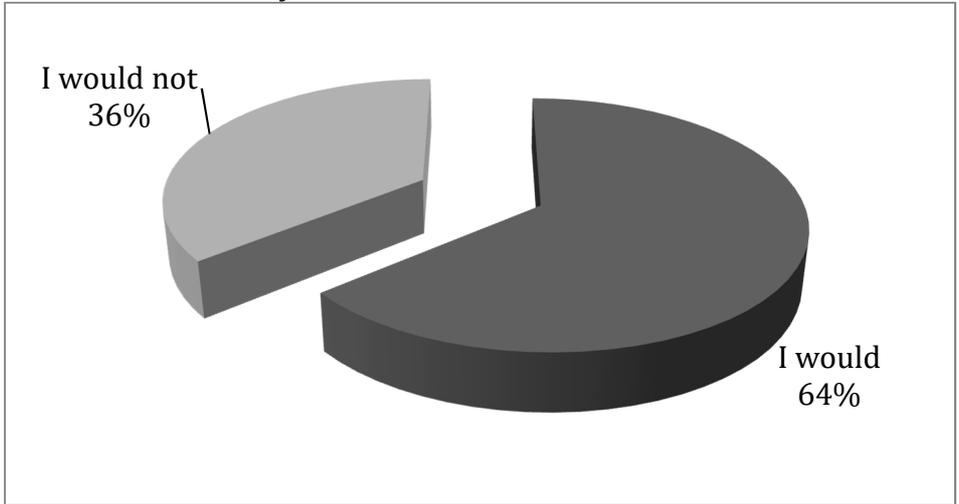


Fig.7 Respondents' answers to the question "If it were possible to pay for goods at the artisan market using a bank card, would you?"  
(Source: data summarised by authors)

The responses summarized in Figure 7 show that the majority of the respondents, i.e. 64%, assessed this opportunity positively and would pay for goods using a bank card.

The questionnaire also contained two open-ended questions; the first – to find out the wishes of the respondents regarding the products they would like to see added to the supply of the market, and the second – to find out the opinion of the respondents regarding what needs to be changed or improved so that more people visit the market.

In response to the first question, the following products were named the most often: eggs, poultry meat products, teas, natural juices, biscuits, yoghurts, cheese, lard.

In response to the second question on improvements to the operation of the market, the respondents most often suggested: spread more information about the market event, expand the assortment offered by involving more artisans and by expanding the assortment offered by the existing artisans, organize the markets in the parishes of Rezekne municipality according to the principle of rotation, organize the market more often – twice a month, find a larger and more convenient place for the market, organize parking that is more available, extend the opening hours of the market, for example, from 9:00 to 17:00, organize the market as a permanent trade venue, a place to sit and drink some coffee is desirable.

The authors conclude that visitors were interested in the existence of the market. The suggestions expressed can be evaluated and practically implemented, which in general would improve the operation of the market and make its supply more diverse and, as a result, more attractive.

### **Conclusions and Suggestions**

To promote the development of the home industry in general, it is necessary to raise the level of knowledge and the information on current issues in the field by providing the availability of current information to buyers and artisans. Training is necessary that includes the explanation of the legislation and information on the basic principles of healthy lifestyle and the role of local foodstuffs in it, as well as practical knowledge for promoting the competing ability of artisans.

Hypothesis of the research was approved: the consumers of the local artisan and craftsman market are satisfied with its operation in Rezekne, however there are opportunities for its improvement. Municipalities, the foundation and other organizers of artisan markets need to consider the following conclusions:

1. The most important factor that motivates consumers to buy products at the artisan market and thus visit such events is product quality. Therefore, when advertising the event, it is necessary to emphasize the opportunity to buy quality local products.

2. Information on the next market event is insufficient; it is necessary to use the municipality sources more actively in informing the population.
3. It is necessary to improve the infrastructure: parking, parallel cultural and other informative events, and the opportunity to pay using bank cards.

Local artisans and craftsmen need to constantly monitor the quality of their products, take care of expanding the assortment, think about the packaging material and product design.

Cooperation among artisans needs to be developed. For example, at the market, producers of different products could create and promote offers beneficial to the customers (for example, meat products and bread, honey and bread, etc.)

LEARN needs to continue organizing local artisan and craftsman markets, consider the suggestions of market visitors and take care of creative solutions for improving the operation of the market. While spreading information about the market event, it is important to cover a wider audience, to cooperate more actively with local mass media, organize competitions.

The buyers need to choose artisan products, thus promoting the preservation of the traditions and values of Latvia and helping the development of the local economy.

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