Economics and Rural Development

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Latvia University of Agriculture, 2012
Dear Colleagues,

Essential changes are taking place in the rural areas of Baltic and other East and Middle European countries. These are not only economic and social changes determined by transformation process in these countries, but also the changes related to integration and globalisation processes. The globalisation and integration of economies increase the importance of scientific research. All these changes influence the conditions of competition of agricultural producers and food processing industry, agrarian policy, and possibilities of social rural development. Thus, the scientific research should be oriented towards the development of agriculture and rural areas, foreseeing new challenges, tendencies and possibilities to increase quality of life.

The scientific cooperation of researchers of three Universities – Latvia University of Agriculture, Aleksandras Stulginskis University (Lithuania) and University of Warmia and Mazury in Olsztyn (Poland) is very close and has long traditions. In order to strengthen scientific cooperation in the area of agricultural economics, management and rural development, the idea to issue international scientific journal was born. This edition of “Economics and Rural Development” is the first result of this idea implementation.

The journal seeks to highlight the best practice and research of developed and rapidly growing countries of the world, especially in the Baltic region. Editorial Board hopes for scientific articles from the researchers of all countries of the world that can enrich economics and management sciences in the area of rural development.

Editorial Board wishes the authors and readers of the journal matured creative ideas, successful cooperation in solving general problems, valuable research results and establishment of new contacts for future cooperation. Good health and success in all fields of your life!

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FOREWORD

The aim of this journal is strengthening the cooperation of scientists of the Baltic region in the field of agricultural economics, management and rural development, and enabling scientists to publish the results of research on an international level. This journal will publish articles in economics, management and business administration and other closed directions of the social sciences.

The issue of this journal is based on long and successful cooperation of Aleksandras Stulginskis University of Agriculture, Latvia University of Agriculture and University of Warmia and Mazury in Olsztyn (Poland). In the future, the cooperation with the other Universities of the Baltic Sea region countries (Finland, Sweden, Denmark, German, Russia etc.), providing research and studies in the field of agricultural economics, management and rural development is advisable. The Editorial Board has the rights to decide on the admission of new partners.

The main topics of the journal are the following:

– Rural development, including agricultural economics, methodology;
– Rural development policy and its implementation;
– Agricultural competitiveness;
– Economics of resources and its management;
– Strategic management of rural organizations (private and public);
– Finances, accounting, statistics and analysis of rural development;
– Rural sociology;
– Rural education and studying;
– Development of information and knowledge based society in rural areas.

In addition to scientific articles, this journal would publish the following information:

– Informative surveys on PhD papers, scientific conferences and other research activities;
– Summaries of scientific monographs.
DEVELOPMENT OF TOURISM AND HOSPITALITY INDUSTRY IN THE CONTEXT OF EXPORTS

Santa Graikste¹, Baiba Rivza²

The economy of Latvia in the recent two years has experienced the consequences of the global economic and financial crisis that most likely will influence both the ratings of Latvia in the international arena and the welfare of every resident. It has also created a substantial impact on the tourism and hospitality industry. Tourism demand is very sensitive to the changes in the global economy – it has a tendency to exceed the macroeconomic indicators during the economic growth and to drop much more rapidly than other industries during the downturn of economy. This is clearly evidenced in the course of the research by the data mathematical processing method, using the calculations made by the time-series analysis.

The present study will give an insight into the development of tourism and hospitality industry development in the past two years, a detailed analysis on its competitiveness and role in the exports of Latvia tourism and hospitality services.

Key words: tourism, export, competitiveness.
JEL classification: L83

Introduction

The aim of the present paper is to research the contribution of tourism and hospitality industry to the exports of Latvia, so that in future studies, the authors could provide detailed proposals, which would assist in strengthening the tourism industry as the leading sector of services in the exports of Latvia.

The following quantitative and qualitative research methods have been applied for achieving the aim and objectives of this paper:

- monographic or descriptive method for identifying and analysing scientific findings and theories, and interpreting the results of previous studies and drawing conclusions;
- analysis and deductive method for studying certain elements of the problem and their interconnections as well as a synthesis method for consolidating all the individual elements in a joint system and developing a common theory;
- correlation method for proving the research hypothesis regarding the influence of tourism development.

In 2009, the world economy faced a unique crisis, experiencing one of the most severe recessions. According to the data of the International Monetary Fund, on the global scale, the growth of the Gross Domestic Product (GDP) in 2009 was only 1.4%, export volumes dramatically diminished, and all progressive economies went through a recession and economic crisis.

According to the market monitoring data of the World Tourism Organisation, the situation in the tourism sphere began to deteriorate already in the middle of 2007. In the first three quarters of 2009, the incoming tourism in the world decreased by 7%, while the income from tourism declined by 8% on average (UNWTO, 2011). The greatest decline was experienced in Latvia – by 17.8%. In Latvia, according to the data of the Central Statistical Bureau, in 2009, the occupancy of bed-places fell by 11% at hotels and other tourist lodging facilities, occupancy of rooms - by 15%, and number of overnight stays of local tourists – by 40% in comparison with the same period of the previous year. Such a decrease is the largest decline in the European Union (hereafter – the EU) and considerably exceeds the average EU indicator – 4.3%. In a part of European countries, in contrast to Latvia, there was a certain increase in overnight stays, which is logical under circumstances of the economic crisis, since the residents prefer travelling within their own country.

Nonetheless, despite the negative impact of the crisis, entrepreneurs have focused their efforts for overcoming the difficulties, which is evidenced by the comparatively small number of closed overnight lodging facilities (in total – about 100 in Latvia), and increasing number of foreign tourists (in 2009 – 4.727 thousand, in 2010 – 5.042 thousand).

The main growth stimulus in coming periods for Latvia is to link up with the extension of export possibilities. Therefore, a crucial significance in ensuring the growth will belong to competitiveness of the main exporting industries on the international and domestic market.

According to the Basic Guidelines for Facilitation of Exports of Goods and Services of Latvia and Attraction of Foreign Investment for 2010 – 2016, on the whole, the structure of Latvia’s national economy from the angle of industries has changed in favour of service-provision industries; simultaneously showing the growth of its specific weight in the GDP. Since 2000, the specific weight of services in the

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GDP has annually enlarged by 16% on average. According to the data of the Bank of Latvia, in 2008, transportation (motor transport, marine, air, railway transport) accounted for 50% of exports of services of Latvia. Next group with the largest specific weight in exports of services and with a tendency to grow is the export of tourism services, which in 2008, made up 18%, in 2009 – 21.6% but in 2010 – 20.2% of total exports of services.

Tourism-related services occupy a significant place in the exports of the majority of European countries, since they are sold to residents of foreign countries. Nonetheless, in contrast to other export products, accommodation services that are sold to foreigners are consumed on the spot; in other words, the tourism industry cannot acquire benefit by the use of usual export instruments. As the expenses for overnight accommodation and catering services occupy the bulk of the tourist’s expenses (about 50%), a lower VAT and lower price have a great impact on the number of incoming tourists. For example, in Switzerland, foreign tourists account for 60% of the entire number of overnight stays. Therefore, the Swiss hospitality sector has requested the government to continue to apply the VAT rate of 3.6% after 2010, motivating this as one of the most efficient instruments in exports of hotel services. However, Ireland’s experience, referring to the 1998 study “The Economic Effects of Changing VAT Rates on the British Tourism and Leisure Industry” by “Deloitte&Touche” has demonstrated an increase of export volume of tourism products after reduction of the VAT rate. In 1985, the VAT rate for accommodation services was reduced from 18% to 10%. The number of foreign tourists to Ireland grew from 1.9 million in 1986 to 3.1 million in 1990; by 1996 this number increased to 4.7 million (HOTREC, 2008).

The abovementioned attests once more that the basis for the exporters’ competitiveness is formed and most directly influenced by macro-environment aspects, fiscal and monetary policy of the state, conformity of industry, commercial activity, and education policy as well as their implementation to the set objectives and priorities of the state development. The Ministry of Economics of the Republic of Latvia in respect to the tourism industry has defined the following targets:

- the main objective of the state policy in tourism of Latvia is to facilitate the increase of turnover and specific weight of the tourism industry in the economy and enhancement of exportation ability of tourism services in the middle term, calling for the changes in the structure of supply and demand;
- in order to facilitate the development of tourism as one of the most important services-export branches of the national economy, during the next two years, it is planned to carry out various activities in the following directions: increase of quality in the tourism industry, evolution of tourism products, and development of marketing and cooperation on the national and international level (Ministry of Economics, 2009).

The significance of the tourism industry in the national economy of Latvia is great – exports of tourism-related services in 2008 reached LVL 403.2 million which, despite the impact of the economic crisis on this industry, is by 19% more than in 2007 (Figure 1).

The most recent available date from the calculations of satellite-accounts of the Central Statistical Bureau on the specific weight of the outputs of sectors related to tourism in the overall output show an upward tendency starting from 2006, thus, in 2006 – 7.2%, in 2007 – 7.5%, and in 2008 – 7.8%. The forecasts of the World Travel and Tourism Council indicate that the direct specific weight of the tourism industry in Latvia’s GDP reached 1.5% in 2008, while the specific weight of the sectors related to tourism in the GDP – 7.5%. The hotel and restaurant sector has an important place – in 2007, its net turnover amounted to LVL 406.50 million.

Based on the abovementioned data, both the analysis performed by the Ministry of Economics from the angle of industries of the national economy, and the study of the Bank...
of Latvia have enabled the ranking of tourism industry in the priority segment C – export-oriented service-provision industries with a high multiplier effect. The regional inequality will be reduced by developing the tourism infrastructure as well as by facilitating the diversity of tourism services. The industry also has a social role in promotion of the local culture and handicraft as well as conservation and protection of environment (Ministry of Economics, 2009).

The authors of the paper want specially to emphasise the multiplier effect of the tourism industry.

Edgell (2000), a British tourism specialist, points out that there is no other industry in the economy, which would be linked with other industries in so many ways (Medne, 2010). Taking guidance from the definition of tourism enterprises used in the Law of Tourism, one can determine the economic activities from the NACE classification directly related to tourism. Thus, the tourism industry shall be identified by the following economic activities from the NACE:

H – Hotels and restaurants
55. Hotels and restaurants
55.1. Hotels
55.2. Camping sites and other short-term dwelling facilities.
I – Transport, storage and communications
63. Types of additional activities and auxiliary activities of transport; operation of travel agencies
63.3. Operation of travel agencies and agents not classified elsewhere; operation related to servicing of tourists.

Yet, much greater is the number of those national economy industries (according to the study “Contribution by Tourism to the Economy of Latvia” – in total 48 industries), with which tourism is connected indirectly, as tourists consume the goods produced by and services provided by these industries, and creates for them an additional demand (Karnite, 2000).

The document “Informative Report on Directions of Economy-Rehabilitation Processes in the Middle-term Period” for an export-oriented industry establishes:

- to apply the reduced VAT rate from 2011 onwards for guest accommodation services in guest-lodging facilities and restaurant services;
- to define the primarily supportable types of tourism;
- to support the development of priority tourism products/services, facilitating enhancement of their quality, their availability and recognisability both on the domestic and international market as well as reducing the adverse impact of seasonality;
- to perform specific marketing activities targeted at the respective tourism groups for the priority types of tourism;
- to revise the current distribution of funding from the EU and other financial instruments, channelling financial means to the development of the tourism industry;
- to ensure a favourable environment for attraction of foreign and local investment for the tourism industry;
- to ensure efficient use of modern technologies in the process of promoting the recognisability of the image of Latvia as a state;

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Latvia</th>
<th>Lithuania</th>
<th>Estonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of persons serviced at hotels and other tourist-lodging facilities, million people (2010)</td>
<td>1.31</td>
<td>1.55</td>
<td>2.40</td>
</tr>
<tr>
<td>Number of serviced residents, million people</td>
<td>0.43</td>
<td>0.71</td>
<td>0.84</td>
</tr>
<tr>
<td>Number of serviced foreign tourists, million people</td>
<td>0.88</td>
<td>0.84</td>
<td>1.56</td>
</tr>
<tr>
<td>Number of overnight stays at hotels and other tourist – lodging facilities, million nights (2010)</td>
<td>2.83</td>
<td>4.33</td>
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<tr>
<td>Number of overnight stays of residents, million nights</td>
<td>0.92</td>
<td>2.33</td>
<td>1.50</td>
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<tr>
<td>Number of overnight stays of foreign tourists, million nights</td>
<td>1.91</td>
<td>2.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Number of bed-places at tourist lodging facilities (2010)</td>
<td>34700</td>
<td>47786</td>
<td>50084</td>
</tr>
<tr>
<td>VAT rate for hotel services (1 May 2010)</td>
<td>10%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>Average duration of stay of foreign tourists, visitor nights (2010)</td>
<td>1.3</td>
<td>4.9*</td>
<td>1.9*</td>
</tr>
<tr>
<td>Total expenditure of foreign tourists, LVL (2010)</td>
<td>340.3</td>
<td>321.63</td>
<td>759</td>
</tr>
<tr>
<td>Number of people serviced at airports, million people (2010)</td>
<td>4.66</td>
<td>1.37</td>
<td>1.38</td>
</tr>
<tr>
<td>Number of flights (2010)</td>
<td>68145</td>
<td>26102</td>
<td>33587</td>
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<tr>
<td>Number of constant destinations that can be reached from airport (at the beginning of 2010)</td>
<td>79</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Number of persons serviced at ports, million people (2009)*</td>
<td>0.76</td>
<td>0.2*</td>
<td>8.23</td>
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<tr>
<td>Number of tourism information bureaus abroad (at the beginning of 2010)</td>
<td>1</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Number of local tourism information centres and outlets (at the beginning of 2010)</td>
<td>75</td>
<td>64</td>
<td>20</td>
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</tbody>
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*available data for 2009 (Ministry of Economics, 2011)

Source: authors’ construction
to facilitate a joint participation of the public and private sector in preparation and implementation of tourism marketing activities;

- to ensure the implementation of periodical marketing events corresponding to the particular season on the local tourism market;

- to ensure an active involvement of representations of Latvia abroad (diplomatic, consular, economic) and cooperation in advancement of Latvian tourism products and services on the relevant target markets.

Majority of the support instruments are targeted to facilitation of the competitiveness of economy but the direct export support measures are also important under circumstances of a crisis:

- support by the EU funds for external marketing events in acquisition of new markets and export credit guarantees;

- for economic operators of Latvia, direct export support services are provided for increase of the exporting ability, which are ensured by the Latvian Investment Development Agency and external economic representation offices of Latvia abroad.

The vision of Strategy of Sustainable Development of Latvia by 2030 on the tourism industry development and its potential in perspective is as follows: “the location capital of Latvia is underrated beside the natural capital. The advantageous geographical placement, structure of population distribution and easy accessibility may become an important advantage for the development and competitiveness of this state. Riga shall become a significant cultural business and tourism centre in the Northern Europe, and implementing the model of a poly-centric development of the state territory, the potential of development centres of a national and regional significance and the role of cities and towns shall be increased....”

It is important to compare the indicators of Latvia with the nearest rivals - the neighbouring countries Lithuania and Estonia - to obtain a full analysis on the competitiveness of the Latvian tourism industry. The analysis is determined by the location of countries, similar tourism resources, offer, infrastructure, possibilities of access, and tourism development indicators.

The comparative analysis between Latvia and its neighbours can be done according to the following tourism statistics development indicators: number of overnight stays of foreign and local tourists, number of persons serviced at hotels, average duration of stay, capacity of overnight lodging facilities, possibilities of access by air and sea transport, number of persons employed in the tourism industry, number of representations abroad, and number of tourism information centres (Table 1 and Table 2).

The SWOT analysis of tourism in Latvia establish that the most significant “strengths” are as follows:

- rich and diverse cultural-historical heritage;

- destination safe for tourists;

- attractive and recognisable tourism image of Riga.

“weaknesses” are as follows:

- insufficient funding for promotion of recognisability of Latvia;

- weak cooperation between the entrepreneurs of this industry;

- a higher VAT rate for accommodation and catering services in comparison with the nearest countries in the region;

“opportunities” are as follows:

- geographical location and temperate climate of Latvia;

- demographical changes create alterations in motivation of travelling and necessity of new tourist products and services;

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<td>▲</td>
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<td>●</td>
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<tr>
<td>Number of residents serviced at hotels</td>
<td>▲</td>
<td>■</td>
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<tr>
<td>Number of serviced foreign tourists serviced at hotels</td>
<td>■</td>
<td>▲</td>
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<td>Number of overnight stays of residents</td>
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<tr>
<td>Number of overnight stays of foreign tourists</td>
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<td>■</td>
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<tr>
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<td>▲</td>
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<tr>
<td>Average duration of stay of foreign tourists</td>
<td>▲</td>
<td>●</td>
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<tr>
<td>Total expenditure of foreign travellers</td>
<td>■</td>
<td>▲</td>
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<td>Number of people serviced at airports</td>
<td>■</td>
<td>●</td>
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<td>■</td>
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<td>●</td>
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</tbody>
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Source: authors’ construction
high potential of personnel resources and professional education;
“threats” are as follows:
– low recognisability of Latvia as a tourism destination and competitiveness of Latvia on the EU and global scale;
– similar tourism offers in the nearest neighbour countries with a more active marketing;
– outflow of qualitative personnel resources to foreign countries and lowering of services’ quality.
In 2010, the border of Latvia was crossed by almost 5.04 million foreign travellers, staying in Latvia for 1.2 days on average (many-day travellers – for 3.9 days on average). In 2010, the average expenses of one foreign traveller in 24 consecutive hours amounted to LVL 54. According to the data of the Central Statistical Bureau, in 2010, Latvia as a destination was chosen by many-day travellers from Lithuania, Russia, Sweden, Estonia, Germany, and Finland that clearly indicates the highly important markets of incoming tourism – countries with which the export takes place in the most rapid manner (Figure 2).
In the economy and, consequently, in the exports, too, the largest contribution is made by the tourists who stay for
several days, while the statistical data show that a considerable number of travellers - in 2010, about one third or 34.9% - arrived in Latvia in transit. Out of those who choose Latvia as their travel destination, totally, 23.8% came here to have a rest, 13.0% - to visit friends and relatives, 13.9% - on business trips, and 14.4% as their motive indicated “other”. In 2010, the data also show that 72.8% of foreign travellers did not stay overnight in Latvia, because their visit was only for 1 day, 19.1% stayed for 1 – 3 nights, 5.75% stayed for 4- 7 nights, and 2.35% stayed for more than 7 nights.

According to the data of the Central Statistical Bureau, in 2010, the tourist-lodging facilities in Latvia serviced more than 1.31 million persons, out of which 33% were residents of Latvia, the others were mainly from Russia, Finland, Estonia, Norway, Germany, Sweden, and Lithuania (Figure 3).

Conclusions and proposals

1. Despite the annual growth in exports, there exist also noteworthy risk factors – the competitiveness of Latvian national economy in long term and stability of export market, including the tourism industry (for example, unpredictability of the CIS market).

2. On the whole, the intensity of export of Latvian goods (goods export versus the GDP) is comparatively low, which means that Latvia does not use completely the potential of exporting its goods, including also in the tourism industry.

3. For achievement of the objectives set in the Basic Guidelines for Facilitation of Exports of Goods and Services of Latvia and Attraction of Foreign Investment for 2010 – 2016, the main challenge at present is the enhancement of competitiveness of the economy and exporting ability, using the intellectual potential and the ability to create innovative products. In the opinion of the authors, it is essential to carry out diversification and development of export goods, to focus on production of such goods and provision of such services that have a high value added, on rapidly growing markets with a solvent demand and on attraction of direct foreign investment oriented to the exports.

4. The positive indicators of the balance of services of the previous years show that the proper balance of the external sector can be ensured by a stable export growth and channelling of resources to export-oriented sectors.

5. Latvia shall promote a longer stay of travellers in the country, paying a special attention to one-day travellers, who visit Latvia in transit as well as the development of local tourism and many-day inland travel.

6. In 2010, Latvia has outnumbered Lithuania as to the number of foreign tourists serviced at hotels. This evidences the dominant role of the VAT rate in exports of hotel services (in 2010, Lithuania applied the standard rate of 21% to the accommodation services). Latvia shall follow the taxation policy of neighbour countries, since a smallest increase of the VAT rate can create a negative impact on the number of foreign tourists and price of services as well as on the indicators of Latvia’s tourism in general.

7. About 60% of foreign tourists arrive in Latvia by air transport. Riga Airport has twice as much serviced passengers as the airports of Lithuania and Estonia, and nearly 3 times larger number of flight destinations can be reached from Riga. Yet, it has both positive and negative aspects – providing of more convenient possibilities of travelling to Latvia; however, the number of transit tourists substantially increases, which is reflected statistically as a shorter duration of stay, smaller number of tourists serviced at hotels and influence on the average duration of stay. As one of the solutions to reduce the number of one-day tourists and to increase the number of overnight stays, the authors propose to change the times of occurrence of sports events (for example, hockey matches) so that the sportsmen and fans would stay overnight in Riga, instead of returning by late flights to their country of domicile.

8. The analysis of the tourism offer of the Baltic countries establishes several common features. The inquiries made by the Tourism Development State Agency show that foreign tourists who visit all Baltic countries are attracted by authentic cultural heritage, unspoilt nature, and unpolluted environment. A significant factor is that there is no mass-scale tourism in the Baltic countries and it is safe to come here as a tourist. On the contrary, the authentic cultural heritage, nature unspoilt by humans and pristine environment were less significant factors for the tourists who visited Latvia as the only Baltic country, while the most important factor was the hospitality of local residents. Thus, one can draw the inference that Latvia solely with its cultural and natural resources cannot compete with other Baltic countries; yet, Latvia can create competition advantages for itself by a wise and sustainable use of these resources in formation of tourism offer that is suited to the needs of contemporary tourists.

9. In 2011, the indicators of export growth and tourism industry development of Latvia show that the tourism industry has a potential for strengthening its positions as the leading industry of services in Latvia’s exports. This, in the opinion of the authors, can be achieved by implementing a considerate and development-oriented set of activities (including adequate taxation policy, funding, promotion of recognisability of the country on highly important and rapidly growing markets by facilitating the cooperation between the governmental and municipal institutions and entrepreneurs, creating products and services with a high added value etc.).
Bibliography


THEORETICAL ASPECTS OF BUSINESS DIVERSIFICATION ON FARMS

Anna Liscova¹, Linda Silina²

The paper presents the research results on theoretical aspects of business diversification on farms, analysing the theoretical evolution of terms and concepts related to business diversification, diversification etc. The aim of the research was to describe and analyse the theoretical aspects of business diversification on farms. The monographic, analysis and synthesis, and comparable methods were applied in the present research. According to the research, it is concluded that the terminologies used in relation to business diversification are different; each terminology includes significant elements for rural business diversification. Yet, the authors developed their own definition for rural business diversification, thus creating a new scientifically significant term to characterise economic processes.

Key words: business management, rural areas, diversification.

JEL classification: Q1, Q5

Introduction

Rural areas are an important source of natural resources and ecosystem services, an environment for work and recreation, and a depository of the diversity of cultural and historical heritage. Each of these functions can gain a leading role or be combined with other functions in a balanced way.

Forests, agricultural land, mineral deposits, and water are the most important strategic resources for sustainable development of rural areas and the country.

Given the trends of socio-economic decline in rural areas – outflows of residents and economic and social activities from rural areas to towns or other countries – as well as the fundamental change that occurred in the economic structure of rural areas, especially in agriculture and related industries, in the sectors of manufacturing and services, an essential future challenge is to preserve rural areas and to shape them as a quality environment for life and work completely exploiting the diverse potential of economic development (Latvia 2030).

Conceptual documents of various levels are periodically elaborated for making rural development policy, improving the overall situation as well as solving certain rural problems.

However, after analysing the rural development trends and the progress of present development processes in rural areas, one has to conclude that problems in rural areas get more acute and the overall situation indicates on the increase of economic backwardness of rural territories, a relatively decrease in the standard of living of rural residents, and the increase in the polarisation of incomes between urban and rural employees. Disproportional development trends in the territories of Latvia have already become apparent in the beginning of the agricultural reform in 1988. Before the reform, the existence of large collective farms ensured equal possibilities for economic, cultural, and social life in rural territories as well as infrastructure and its maintenance but a fast degradation of many rural territories consequentially began in the result of the reform of this economic system. The reason for it was the lack of a balanced and reasonable vision for developing the rural economy in the common rural policy of Latvia, as no recommendable farm development models were elaborated appropriate for local conditions.

Many scientists have researched and published their results on the development potential of agriculture and the diversification possibilities for farm businesses in the whole country and its several regions: L.Silina (2007, 2009); H.Jirgena (2008); S.Cingule (2009); D.Saktina (2009); S.Skesters (2009); M.Pelse and J.Felss (2009); and V.Boronenko (2010).

Many economists and agronomists have researched agricultural possibilities and problems under the conditions of individual business management and market economy in the area of natural conditions in Zemgale as well as in the South-eastern part of Kurzeme region – the districts of Saldus and Tukums. For instance, A.Boruks (1996, 2000) researched possibilities of natural conditions, economic resources, and agricultural specialisation in Zemgale region. By analysing business performance results in his later pieces of research (2004, 2005), he discovered that the administrative division of territories did not correspond to the territories appropriate for agricultural production. For analysis of farm business

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performance, V. Bratka (2000, 2003) has classified Zemgale planning region into two parts – Zemgale-1 (it includes the districts of Bauska, Dobele, and Jelgava) and Zemgale-2 which includes the other districts of Zemgale – Aizkraukle and Jekabpils.


However, theoretical studies on the aspects of business diversification on farms have not been done, which makes this research topical. The research aim is to describe and analyse the theoretical aspects of business diversification on farms.

The research tasks are as follows:
1) to analyse the theoretical basis of farm business;
2) to give a definition for rural business diversification and rural farms.

The monographic method, analysis and synthesis, inductive and deductive methods as well as logic and abstract methods were applied to carry out the present research.

Research results

Research on business diversification has been done in various works of foreign authors (Siegel Paul B., Johnson Thomas G., Alwang J., 1995, Wilson G.A. and Hart K. 2001 et al.). However, the most significant scientific work in this field in Latvia is a research done by H. Jirgena (2008) “Diversification Possibilities of Economic Activity in Latvian Rural Areas”. In relation to the studies done, it has to be mentioned that various explanations of the terms related to business diversification can be found in economics.

Diversification is regarded as the expansion of an enterprise’s activity profile or the foundation of multi-part enterprises whose components are not functionally interrelated. In economics, diversification is defined in a similar way - expansion of the range of an enterprise’s activity directions, expansion of the range of production directions (Explanatory Dictionary of Economics, 2000), expansion of an enterprise’s activity profile, foundation of multi-part enterprises (Dictionary of Foreign Words, 1999), diversification of auxiliary branches and/or additional branches of farms for the purpose of utilising by-products of the specialised industry as well as labour, natural, and other resources available on farms in a more complete and rational way (Spogis, 1999).

The “Rural Development Programme 2007-2013” defines business diversification as one of the four axes, the implementation of which is significantly related to the main goal “Wealthy Individuals in Sustainably Populated Rural Areas of Latvia” set in the Strategic Rural Development Plan of Latvia 2007-2013. Thus, politically, diversification of rural economy is related to overall development of rural territories.

In economic literature, the term economic diversification is also used; it is a process of structural transformation when resources are re-allocated from the primary sector (based on natural resources) to the secondary sector (industry), and the tertiary sector (services) (Siegel Paul, Johnson Thomas, Alwang Jeffrey, 1995). The changes in the economic structure determined by changes in demand, production technologies, and trade flows, actually nowadays characterise the economic development in rural areas as well. The basic assumption of a structural change process is that the economic structure has to be beneficially unbalanced in some sectors relative to the other sectors. The ratios of developing sectors to depressive ones change during the economic development.

The term diversification is used in industrial organisation theory, economic base theory, regional business cycle theory, and trade theory.

The term diversification developed by H. Jirgena has to be set apart, as it includes the goal of business diversification – “expansion of the range of economic activities, the number of products produced, and product sales markets by starting producing new goods or services within or outside the agricultural industry with the purpose of exploiting the disposable resources of farms more efficiently and employment of family members outside the farm to gain extra income” (Jirgena H., 2008). Unfortunately, the disadvantages of the definition have to be mentioned here. One of the most essential disadvantages is that the definition is too extensive, including both production issues and search for new markets and multi-activity, while the definition is narrowed at its end by relating economic activity only to farms.

The Rural Development Programme 2007-2013, in its turn, broadens the definition of goals of business diversification:
- to fill the employment niche in rural areas and to develop alternative businesses in the sectors of production, processing, and services. It has to be based on a rational use of local labour and natural resources;
- to make rural areas more attractive for work and residence, preserving the traditional natural environment;
- to increase incomes of rural residents and supply new types of services to buyers and consumers.

Business diversification, depending on the place of activity chosen, may be divided into two groups:
- business diversification on the spot on a particular farm (organic farming, tourism, services);
- business diversification outside a farm (paid employment outside the farm).

Given the place of business diversification chosen, the types of business diversification may be various:
- traditional processing of agricultural produce;
- use of tags of high quality and special design on product packages;
- sales of products on a farm, new forms of commerce;
H.Jirgena (2008) has developed a classification of types of business diversification according to the object of diversification, the relation of the goal of diversification to the time of its achievement and the object, the place of origin of causes, and the direction and level of diversification. H.Jirgena summarised the basic theoretical conclusions on the relation of diversification to rural development, the agricultural industry as well as diversification possibilities within the agricultural industry.

One of the main conclusions is that the linkage between rural development and agricultural production weakens and linkages that are more direct emerge with other industries of the national economy. Yet, it does not mean that the role of agriculture declines or it has to be reduced by using political instruments.

Business diversification features important geographic, social, economic, and political aspects as well as globalisation. In the Western Europe, business diversification is classified into four types:

- the so-called para-agricultural activities on farms, for instance, milk processing into yogurt and cheese, not only grape production but also grape processing into wine, and sales of these products;
- non-agricultural activities on farms, for instance, tourism, landscape preservation, and handicrafts;
- paid employment on another farm;
- off-farm activities in other industries of economy – education, transport.

Individuals involved in the first two types are self-employed individuals, while those involved in the latter ones – paid employees (Rivza, Kruzmetra, 2000).

Business diversification is often understood as something quite simple – only as the expansion and diversification of agricultural production or the development of alternative occupations. Yet, the diversification of occupations in rural areas includes all the spheres of life, not only agriculture. It includes social care and services, preservation and improvement of environment and landscape, recreation, tourism, and activities related to interaction between urban and rural areas. A great role in this diversification process is played by new technologies or, in a broader sense, innovations.

Various factors can affect a choice of the types of business diversification and one can agree with H.Jirgena’s classification where the factors influencing business diversification are divided into endogenous and exogenous factors (Jirgena, 2008). The endogenous factors are the factors of national, international, and global levels (for instance, national tax policy, foreign trade flows, and their trends). Unlike the endogenous factors, the exogenous ones may differ not even on the municipal level (Rivza, Kruzmetra, 2003), and they are location of enterprises/farms, market possibilities, available resources, infrastructure, business model, labour consumption, technologies used, and specialisation.

H.Jirgena (2008) has described and stresses several subjective factors – age, gender, education, motivation, experience etc. of an owner. Such a factor as available resources, which, of course, are available in a greater amount and higher quality to large farms, was mentioned above. If the amount of disposable resources of a farm or rural enterprise is small, attention has to be paid to the law of diminishing returns. It means that production diversification is successful only in case if an increase in the output of goods/services, in terms of value, is greater than the cost of factors engaged in production, taking into account that price of the other factors of production or the success of business diversification directly depends on the quantity and quality of the necessary resources.

According to the authors, if only one factor is increased in production as a result of business diversification with the other conditions of production being constant, then it is not possible to ensure an efficient use of all the disposable resources. It means that it is important to determine the amount of factors engaged in production.

The possibilities and ways of business diversification are, to a great extent, affected not only by a farm’s location, cadastral value of land, availability of market and credit resources but also many subjective factors that are directly related to the education, knowledge, experience, age, family status, motivation, and public activity of the farm’s manager and/or owner.

According to the authors, the following very essential factors are necessary for business diversification within the agricultural industry:

- unstable socio-economic environment in rural areas;
- variable agricultural, climatic, and biological conditions in agricultural production;
- increasing competition with farmers of other European Union countries;
The implementation of business diversification in regions may cause the following most significant positive economic, social, and environmental side effects:

- creation of new jobs and increase of employment;
- rise in incomes and wellbeing of households residing in a corresponding region;
- increase of tax revenues paid to national and local budgets, which provides additional funds for developing the social infrastructure and modernising the business environment;
- improvement of social climate and decrease of crimes causes owing to an increase in employment in a corresponding region;
- decrease of threats of environmental pollution if by-products generated by processing agricultural produce are recycled – as a result of business diversification – in a harmless way for environment;
- decrease of threats of environmental pollution caused by conventional farming in case of using fertilisers and plant protection means;
- intensification of modernisation of production technologies, and ordering of new scientific studies on further activities of business diversification and their expected results;
- risk division in-between branches.

Business diversification is inevitably accompanied by various side effects or externalities, and the most significant ones are as follows: increase of farm incomes and tax revenues, improvement of a situation in the labour market etc.

Business diversification problems are formulated in the Strategic Rural Development Plan of Latvia (2007):

- problems of rural and agricultural development are traditionally separated;
- rural problems are weakly associated with general planning in municipalities, regions;
- insufficient skills, lack of innovations;
- a poorly developed economic base;
- infrastructure is inadequate for new conditions;
- an unclear future.

Businesses would better develop in rural areas if all rural residents planned their activity and paid more attention to their farm’s development, i.e. made economic analyses of their farm, which are based on precise accounting data. This disadvantage does not allow them to earn maximum incomes. A motivation to implement business diversification includes the self-determination of politicians – administrators of financial instruments – and rural residents, precisely executed preparations, political decision-making, extensive educational activities, and prudent and rational planning of development. Business diversification begins with actions of any individual and a decision on one or another course of development. Business diversification includes all support systems that have to create the prerequisites to implement it in the entire country and in a particular place.

Along with the term business diversification, some other terms have to be analysed, for instance, farm specialisation, and concentration.

Farm specialisation is the management of an enterprise to produce one or several certain types of products (or one or several certain types of services). It may become apparent on various business levels: international labour division, industries of national economy, technological processes etc., thus developing skills of employees, promoting technological progress, and saving working time, which leads to an increase in the output of lower cost products. Specialisation also features disadvantages: too much specialised work becomes unattractive, blunt; its management becomes complicated, business risk increases etc. (Economic Explanatory Dictionary, 2000).

To make business diversification occur, an object at which it can be done is necessary. Scientific studies provide various definitions of these objects.

A rural farm is an auxiliary farm of individuals living or working in rural areas or a farm on which incomes of households and family are supplemented by obtaining agricultural produce (vegetables, fruit, berries, meat, milk etc.) or by processing and selling these products (Economic Explanatory Dictionary, 2000). K.Spogis (1999) believes that a farm is a technical and organisational unit of production located in a certain place of residence and the factors of production concentrated in it are used for producing and selling agricultural produce.

Scientists from various European countries have studied the location impact of a farm on its business diversification. They have found that a probability to find a job outside a farm decreases with the increase in the distance to a town (Lass and Gemeshav, 1992), and the return on resources invested in diversification declines. It reduces job opportunities outside a farm – the time spent for travelling and the cost of travelling increase; thus, leading to a decrease in the real wage earned and its real value.

The authors classify rural farms into farms, rural craftsman and auxiliary farms, and rural companies. Business diversification is affected by the business model, as it, to a certain extent, is related to the size of farms as well as the quantity of goods produced for the market.

A farm is a one-owner enterprise that produces agricultural produce by exploiting land as the main factor of production. In the Republic of Latvia, it has to be registered at the Register of Enterprises of the Republic of Latvia, specifying the name of the house and parish. In case of bankruptcy, the owner may lose all the property (Economic Explanatory Dictionary, 2000).

Craftsman farms have not been defined in theory so far; therefore, the authors developed their own definition: a craftsman farm is a form of business registered by businessmen who operate in rural areas, at maximum exploit local resources that serve for producing and selling unique products of crafts.

A household plot is an auxiliary farm of individuals working in rural areas in which incomes of households and
family are supplemented by obtaining agricultural produce (vegetables, fruit, berries, meat, and milk). Its area of land depends on the possibility to acquire it as well as on the area desired by its manager or owner for exploitation (Economic Explanatory Dictionary, 2000).

A rural company is an association of individuals and legal entities to do business in a rural territory. The rural territory of a town with rural territory of the territorial units of a municipality may be regarded as a rural territory if more than 5000 residents live in the corresponding town (basic services for the economy and residents in the Rural Development Programme of Latvia 2007-2013, the Cabinet Regulations No. 525 of 7 July 2008).

A rural territory has a certain area of land or waters with their natural or human-set boundaries as well as, in general sense, a certain area of land surface; a confined area or place that is restricted by ownership (state-, organisation-, or individually owned) or use (natural resources).

Land that is owned or rented is exploited for the business diversification of a rural farm.

A definition of rural farm was developed based on the mentioned factors. A rural farm is an agricultural farm, which operates on an owned or rented land, based on any systematic and permanent economic activity producing incomes.

After summarising the mentioned factors and publications by foreign and Latvian researchers and becoming introduced to the research results of various projects and by using their own experience, the authors also developed a definition for rural business diversification:

Rural business diversification is a change or an addition to economic activity, the main goal of which is the diversification of risks and/or their reduction in the operation of a rural farm to increase its profit, stabilise it, and introduce innovative environmentally friendly activities.

Conclusions

1. The term diversification is defined in a similar way - expansion of the range of an enterprise’s activity directions, expansion of the range of production directions, expansion of an enterprise’s activity profile, foundation of multi-part enterprises, diversification of auxiliary branches and/or additional branches of farms for the purpose of utilising by-products of the specialised industry as well as labour, natural, and other resources available on farms in a more complete and rational way, expansion of the range of economic activities, the number of products produced, and product sales markets by starting producing new goods or services within or outside the agricultural industry with the purpose of exploiting the disposable resources of farms more efficiently and employment of family members outside the farm to gain extra income.

2. A rural farm is an agricultural enterprise, which operates on an owned or rented land, based on any systematic and permanent economic activity producing incomes.

3. After analysing the theoretical aspects related to business diversification, it was concluded that there was no single definition for rural business diversification. Therefore, the authors developed a definition for rural business diversification – a change or an addition to economic activity, the main goal of which is the diversification of risks and/or their reduction in the operation of a rural farm to increase its profit, stabilise it, and introduce innovative environmentally friendly activities. The process of business diversification can be ensured only at a particular object, and this object is a rural farm which, according to the authors, is an agricultural enterprise operating on an owned or rented land, based on any systematic and permanent economic activity producing incomes.

Bibliography


INTERACTION BETWEEN THE NUMBER OF VISITORS AT TOURIST ACCOMMODATION ESTABLISHMENTS AND THE ECONOMIC DEVELOPMENT IN LATVIA

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The research hypothesis: the economic development of a district affects the number of visitors at tourist accommodation establishments outside Riga region.

The research aim is to identify a correlation between the number of visitors at tourist accommodation establishments and the economic development of a district in Latvia.

The research was done using data broken down by statistical region and districts (a unit of administrative division of the territory of Latvia until the middle of 2009).

The research showed that the majority (more than 60%) of visitors at Latvian tourist accommodation establishments were foreign tourists whose share at Riga tourist accommodation establishments accounted for more than 70%. Outside Riga region, more than 70% of visitors were local (Latvian) tourists, mostly business tourists.

In the research period, more than half of visitors at tourist accommodation establishments concentrated in Riga region, while more than 10% – in Pērīga and Kurzeme regions. The share of visitors in the other regions did not exceed 6% of their total number.

According to a cluster analysis, an explicit trend of monocentric economic development is specific to Latvia, resulting in significant differences between Riga, the capital city of Latvia, and the other districts of Latvia.

The number of visitors at tourist accommodation establishments is higher in the clusters having a high (Riga) and medium (districts of Riga, Liepāja, Ventspils, and Daugavpils) level of economic development than in the clusters with a lower level of economic development (districts of Alūksne, Balvi, Dobele, Gulbene, Kraslava, Ludza, Preili, and Valka). Therefore, it can be concluded that in Latvia, the economic development of a district affects the number of visitors at tourist accommodation establishments.

Key words: tourists, tourist accommodation establishments, economic development, cluster.

JEL classification: A120; R110; O180.

Introduction

In 2009, an economic crisis in the world and Latvia, the value added tax rate raised fourfold from 5% to 21%, negative information regarding Latvia in foreign countries, and tough competition among tourist accommodation establishments in the Baltic countries are the main reasons for a sharp downturn for tourism businesses in Latvia. In 2009, the number of foreign visitors at hotels and other tourist accommodation establishments declined to the level of 2005 compared with 944 thousand in 2008 or the highest indicator in the history of re-established Latvia. The number of local (Latvian) visitors at tourist accommodation establishments declined even sharper, reaching the level of 2004. The number of tourist accommodation establishments in Latvia has not adapted to this declining trend, as their number as well as the number of bed-places at tourist accommodation establishments in Latvia continue increasing. In the period of 2005-2008, the number of tourist accommodation establishments increased by 73 units or 17%. In 2009 and 2010, this increase continued and was 13% and 12% respectively (Central Statistical Bureau of Latvia, 2010h; Ancitis, 2010).

Specialists of the hotel sector believe that given the demand in 2009 and 2010, the number of tourist accommodation establishments in Latvia is too large. Evita Zvarte, the director of the hotel “Radi un draugi”,

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believes that the present number of tourist accommodation establishments “probably is appropriate for the South of Spain where the sun shines all the year round but not for Latvia” (Ancitis, 2010).

In 2009, the average occupancy rate of hotels in Latvia was 28.6%; it is the lowest indicator at least during the recent 10 years. Besides, the occupancy rate of hotels in Latvia is lower than in Lithuania and Estonia (Central Statistical Bureau of Latvia, 2010h). The occupancy rate fell to a critical level not only due to the economic crisis, but also due to the imprudent construction of tourist accommodation establishments, i.e. demand was not adjusted to a long-term supply.

Data of the Central Statistical Bureau indicate that outside the capital city, the main consumers of services of tourist accommodation establishments are local tourists – Latvian residents – and the majority of visitors are business tourists. Therefore, one can set forth the research hypothesis – economic development of a district affects the number of visitors at tourist accommodation establishments outside Riga region.

The research aim is to identify a correlation between the number of visitors at tourist accommodation establishments and the economic development of a district in Latvia.

The following tasks were set forth to achieve the research aim:
1) to investigate changes in the number of visitors at tourist accommodation establishments in Latvia;
2) to investigate the economic development of the districts of Latvia;
3) to compare the number of visitors at tourist accommodation establishments in the districts of Latvia with the result of a cluster analysis.

The following information and literature sources: data of the Central Statistical Bureau, planning documents and reports developed by the Ministry of Economics for the tourism industry as well as the authors’ previous researches were used to achieve the aim, execute the tasks, and prove or reject the hypothesis.

The following research methods were applied: the monographic method, the method of multifactor statistical analysis – cluster analysis, economic statistical methods, and synthesis and analysis.

The present research includes the period after Latvia joined the European Union, i.e. from 2005 to 2009 and is done using data broken down by statistical regions and districts (a unit of administrative division of the territory of Latvia until the middle of 2009).

The number of visitors at tourist accommodation establishments

In the period of 2005-2008, the number of visitors at tourist accommodation establishments in Latvia gradually increased and reached 1.6 million, while in 2009, the number of visitors decreased by 28% and was below the level of 2005 (Table 1).

According to the informative reports of the Ministry of Economics on tourism development in Latvia, the following factors promoted the tourism industry’s development in Latvia in the period of 2005-2008 (Ministry of Economics, 2007; Ministry of Economics, 2009; Tourism Ventspils, 2009):
1) Latvia as a tourist destination succeeded after its accession to the European Union;
2) availability of the European Union financial resources for improving and modernising the tourism infrastructure and suprastructure as well as tourism objects;
3) tourism marketing activities implemented in high priority (Lithuania, Estonia, Finland, Sweden, Great Britain, Germany, Norway, and Russia), priority (Denmark, Poland, Belarus, the Ukraine, the Netherlands, Italy, Spain, France, the Czech Republic, Slovakia, Ireland, Switzerland, Austria) as well as prospective tourism markets (the USA, Japan, China, Slovakia, countries of the Balkan region);
4) increase in the number of direct air routes;
5) increase in the number and amount of services provided by low-fare airline companies;
6) development of Latvia’s seaports;

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Source: Central Statistical Bureau of Latvia, 2010h and authors’ calculations
international cooperation of Latvia’s tourism industry: participation in the UN World Tourism Organisation, the European Travel Commission, the European Commission’s Advisory Committee on Tourism, and the Sustainable Tourism Group;

economic growth in Latvia meaning that residents earn more and can spend their money on travels;

development of international and local businesses that promotes business trips;

large international events taking place in Latvia, especially the NATO summit 2006 in Riga (28-29 November), World Hockey Championship 2006 (5-21 May).

Table 1 shows that 62% of visitors at tourist accommodation establishments on average were foreign tourists over the research period. It means that on average only 38% of visitors at tourist accommodation establishments were local tourists whose number gradually increased in the period until 2008, while their annual increase rate was lower than the increase rate for foreign tourists.

Due to the economic crisis, the purchasing power of residents and local businessmen declined, reducing the domestic demand for tourism services as well. Therefore, the number of local visitors at tourist accommodation establishments decreased by more than a third (38%) in 2009, which is almost two times more than for the number of foreign tourists.

The share of foreign tourists at tourist accommodation establishments in Riga accounts for more than 70%; thus, the share of foreign tourists is less than 30% in the rest of Latvia.

After analysing the percentage distribution of foreign tourists in Latvia by regions, one can see that approximately

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Source: Central Statistical Bureau of Latvia, 2010h and authors’ calculations

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</table>

Source: Central Statistical Bureau of Latvia, 2007a; 2008; 2009; 2010h
11% of foreign tourists are served at tourist accommodation establishments in Pieriga region (mainly Riga district (Jurmala and Sigulda)), approximately 6% – in Kurzeme region, 2% – in the regions of Latgale and Vidzeme, and less than a percent – in Zemgale region (Central Statistical Bureau of Latvia, 2010h). Thus, foreign tourists mainly stay at tourist accommodation establishments in the city and district of Riga, while local tourists are visitors in the rest of Latvia’s districts. In the period of 2005-2008, significant changes in the percentage distribution of visitors at tourist accommodation establishments did not occur but the share of foreign tourists in 2009 increased due to a significant decrease in the number of local tourists.

The main countries of origin for foreign tourists served at tourist accommodation establishments in the research period were Germany (on average 8% of the total number of foreign tourists), Russia (approximately 5%), Finland (6%), Lithuania (6%), Estonia (6%), Sweden (4.5%), and Norway (4%). Therefore, these are the countries of tourism markets of high priority for Latvia. These countries prefer the geographical situation of Latvia, the countries having a large number and high density of population and a relatively high level of income. Latvia has intense air and sea transport connections with these countries. According to statistical data, most tourists arrive from these countries (Central Statistical Bureau of Latvia, 2007a; 2008; 2009; 2010h; Ministry of Economics, 2006).

The analysis of the indicator “number of visitor nights” (every night spent by a tourist (sleeping and staying) or a tourist is registered at a public or private tourist accommodation establishment) (Central Statistical Bureau of Latvia, 2010h) reveal similar trends (Table 2).

Table 2 shows that in the research period, 60% of all visitor nights in Latvia on average were spent at tourist accommodation establishments in Riga. The majority (61% on average) of all visitor nights in Latvia is spent by foreign tourists. In the research period, the majority –73% on average – of foreign visitor nights were spent at tourist accommodation establishments in Riga. It means that mostly local tourists stay outside the capital city. Foreign tourists mainly stay at hotels in Latvia. It is important to ascertain the type of tourist accommodation establishments preferred by local tourists (Table 3).

In the research period, according to Table 3, on average 10% of overnight recreational trips were spent at tourist accommodation establishments, while 90% on average – in private shelters. On the contrary, only in 43% cases on average overnight business trips are spent at private shelters. It means that the majority of local visitors at tourist accommodation establishments in Latvia, mostly hotels and similar tourist accommodation establishments, are business tourists.

Data on the number of visitors at tourist accommodation establishments in the regions of Latvia are summarised in Table 4.

In the period of 2005-2008, according to Table 4, the number of tourists gradually increased in the regions of Riga, Pieriga, Kurzeme, and Latgale; whereas in some periods it has decreased in the regions of Vidzeme and Zemgale. The highest annual increase rate was observed in the regions of Latgale and Kurzeme; while the highest annual decrease rate was observed in Zemgale region.

In 2009, the number of tourists decreased in all the regions of Latvia. The sharpest decrease was observed in Vidzeme region (43%) and Kurzeme region (42%) as well as Latgale region (40%). The smallest decrease rate was observed in Riga region (21%), i.e. in the region where foreign tourists are the main customers.
Until 2009, Latvian residents had more business trips, various training activities, seminars, and social events, the number of which significantly declined in 2009 (Day, 2009). It explains the fact that the sharpest decrease in the number of visitors at tourist accommodation establishments in Latvia in 2009 was observed in all the regions, except Riga region.

A percentage distribution analysis on the number of visitors by region showed that more than half of all visitors of tourist accommodation establishments concentrate in Riga region; while more than 10% – in the regions of Pieriga and Kurzeme. The share of visitors does not exceed 6% of their total number in the rest of Latvia’s regions. The data in Table 4 show that in 2009 when the number of visitors at tourist accommodation establishments declined both in the entire Latvia and in all its regions, the share of visitors at tourist accommodation establishments in Riga increased by 6 percentage points.

One of the key hindering factors preventing from diverting the flow of tourists from Riga to the other regions of Latvia as well as from increasing the duration of stays and the number of tourists is the insufficient capacity of tourist accommodation establishments. There is a lack of large tourist accommodation establishments that could accommodate a large number of tourists and, at the same time, hold events of national and international scale in the regions of Latvia, including Riga region.

An analysis on the average number of bed-places showed that tourist accommodation establishments with the largest capacity are located in Riga region. The capacity of an average tourist accommodation establishment in Riga region is more than 100 bed-places. In the other regions, it does not exceed 50 bed-places. The smallest capacity tourist accommodation establishments are located in the regions of Zemgale and Vidzeme, i.e. in the regions with a small number of visitors (Muska, Bite, 2011). Significant changes in the average number of bed-places have not occured despite the fact that the numbers of tourist accommodation establishments and bed-places continue to increase in the regions of Latvia.

An insignificant number of visitors at tourist accommodation establishments can be explained by a lack of interesting tourism objects in the regions and irregular marketing activities.

The numbers of visitors are unequal if not only broken down by region but also by district of the regions. The main destinations for recreational and business trips in Kurzeme region are Liepaja and Ventspils, in Latgale region – Daugavpils and Rezekne, in Vidzeme region – Cesis and Valmiera, and in Pieriga region – Riga district (Sigulda and Jurmala), Figure 1.

It is necessary to assess the economic development of Latvia’s districts and to compare it with the number of visitors at tourist accommodation establishments in the districts to prove or reject the hypothesis. The authors have chosen the data of 2008 for the present research both from the point of view of data availability and fact that the largest number of visitors at tourist accommodation establishments in Latvia was observed in that year.

Figure 1. Number of visitors at tourist accommodation establishments in the districts of Latvia in 2008

Source: authors’ construction based on the data of the Central Statistical Bureau of Latvia, 2010d; Group 93 Ltd, 2011
Economic development assessment of the districts of Latvia

A cluster analysis was performed to compare the economic development in the districts of Latvia according to various indicators. For the cluster analysis, 15 statistical indicators were selected based on the publication “Development of Regions in Latvia 2009”, Arhipova et al., 2005, Paiders, 2007:

1) number of residents in the beginning of 2009;
2) changes in the number of residents (from the beginning of 2005 to the beginning of 2009, %);
3) population density in the beginning of 2009 (residents per 1 km² of territory);
4) number of employees at their basic job placement in 2008 (thou.);
5) net annual wage in the private sector in 2008 (LVL);
6) net annual wage in the public sector in 2008 (LVL);
7) number of economically active market-sector statistical units per 1000 residents in 2008;
8) number of businessmen per 1000 residents in 2008;
9) total revenues of the government basic and special budgets in 2008 (LVL);
10) revenues of the government basic budget in 2008 (LVL);
11) revenues of the government basic budget per capita in 2008 (LVL);
12) Gross Domestic Product in 2006 (thou. LVL);
13) Gross Domestic Product per capita in 2006 (LVL);
14) non-financial investment in 2006 (LVL);
15) non-financial investment per capita in 2006 (LVL).

These statistical indicators were summarised for all 26 districts of Latvia. The city of Riga or the country’s capital was excluded from Riga district.

Dispersion analysis (ANOVA), which is included in the data processing module Cluster Analysis of the application SPSS for Windows, showed that all the selected indicators, except four – changes in the number of residents, net annual wage in the private sector, number of economically active market-sector statistical units per 1000 residents, and non-financial investment per capita – were statistically significant for grouping districts into clusters. Their significance level did not exceed 0.05. The authors did not reject the statistically insignificant indicators in the present research, as they wanted to ascertain the effect of these indicators on the economic development of districts. If the authors rejected these 4 statistically insignificant indicators, they would not impact results of the cluster analysis, i.e. the authors’ conclusions would be the same.

The cluster-to-cluster distances obtained show that there is a relationship among the clusters. The clusters being closer to each other can move to another level if a new distribution of them is performed, and they can create new clusters or cluster groups.

In clustering the statistical data, several numbers of clusters were considered: from 2 to 10 clusters. Division of the territory of Latvia by economic development into 7 clusters was the most appropriate option, as the number of Latvia’s districts was more equitable with such a distribution into clusters.

In addition to the clustering results, the clusters were ranked for all the statistically significant indicators to determine the overall development level of each cluster in relation to the other clusters (Table 5).

The ranking showed that the most positive situation regarding economic development was in Cluster 1 that included only the capital city of Riga. During the ranking, the values of all the statistically significant indicators were placed in the first position for Cluster 1. The values of 3 statistically insignificant indicators (net annual wage in the private sector, number of economically active market-sector statistical units per 1000 residents, and non-financial investment per capita) were also placed in the first position. Only the value of the statistically insignificant indicator “changes in the number of residents” was placed in the fourth position during the ranking, as many residents of the capital city have moved to Pierigs region over the recent years.

Cluster 2 included the districts of Riga and Daugavpils. The values of all the mentioned indicators were placed in the second position, except the indicators: revenues of the basic budget per capita and Gross Domestic Product per capita. The values of these indicators were reduced by the large number of residents in the districts included in this Cluster. The same related to the indicator “non-financial investment per capita”. The average values of the statistically insignificant indicators “net annual wage in the private sector” and “number of economically active market-sector statistical units per 1000 residents” were low and placed only in the sixth position. The statistically insignificant indicator “changes in the number of residents” was placed in the first position, and the average value of this indicator was positive only for Cluster 2. It has to be mentioned that the average value of this indicator is significantly impacted by the positive change (9.6%) in the number of residents in Riga district. In Daugavpils district, this change is negative.

After comparing the average values of Clusters 2 and 1, one can conclude that there is a significant difference between them, pointing that the economic development level in the capital city is much higher than in the districts included in Cluster 2. Inese Haite (2010) concludes similarly, “under the influence of the monocentric situation in the country, the development level in the region of the capital city is higher than in the rest of the territory.”

Cluster 3 included 2 districts – Jelgava and Liepaja. The average values of the statistical indicators “number of businessmen per 1000 residents” and “changes in the number of residents” were placed in the second position, the indicator “GDP per capita” had the fourth position, and the indicator “net annual wage in the public sector” as well as the statistically insignificant indicators “number of economically active market-sector statistical units per 1000 residents” and “non-financial investment per capita” took the fifth position; all the values of the other indicators were placed in the third position.
Table 5. Average values and ranks of clusters in the cluster analysis of the economic development in Latvia

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Cluster 4</th>
<th>Cluster 5</th>
<th>Cluster 6</th>
<th>Cluster 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of residents</td>
<td>713016</td>
<td>1</td>
<td>185863</td>
<td>2</td>
<td>115260</td>
<td>3</td>
<td>65803</td>
</tr>
<tr>
<td>Population density, people per 1km²</td>
<td>2353.2</td>
<td>1</td>
<td>62.8</td>
<td>2</td>
<td>48.4</td>
<td>3</td>
<td>24.55</td>
</tr>
<tr>
<td>Changes in the number of residents in 2005-2009, %</td>
<td>-2.60</td>
<td>4</td>
<td>2.10</td>
<td>1</td>
<td>-1.40</td>
<td>2</td>
<td>-3.50</td>
</tr>
<tr>
<td>Number of employees, thou.</td>
<td>400.1</td>
<td>1</td>
<td>58.8</td>
<td>2</td>
<td>36.75</td>
<td>3</td>
<td>21.45</td>
</tr>
<tr>
<td>Net annual wage in the public sector, LVL</td>
<td>5737</td>
<td>1</td>
<td>4110</td>
<td>2</td>
<td>4036</td>
<td>5</td>
<td>4037</td>
</tr>
<tr>
<td>Net annual wage in the private sector, LVL</td>
<td>5250</td>
<td>1</td>
<td>3489</td>
<td>6</td>
<td>3897</td>
<td>3</td>
<td>3953</td>
</tr>
<tr>
<td>Number of economically active market-sector statistical units per 1000 residents</td>
<td>69</td>
<td>1</td>
<td>41</td>
<td>6</td>
<td>49</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Number of businessmen per 1000 residents</td>
<td>56</td>
<td>1</td>
<td>24</td>
<td>2</td>
<td>24</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Total revenues of the basic and special budgets, mln. LVL</td>
<td>606.80</td>
<td>1</td>
<td>72.65</td>
<td>2</td>
<td>60.55</td>
<td>3</td>
<td>36.65</td>
</tr>
<tr>
<td>Revenues of the basic budget, mln. LVL</td>
<td>554.77</td>
<td>1</td>
<td>63.36</td>
<td>2</td>
<td>55.41</td>
<td>3</td>
<td>32.78</td>
</tr>
<tr>
<td>Revenues of the basic budget per capita, LVL</td>
<td>778</td>
<td>1</td>
<td>358</td>
<td>4</td>
<td>485</td>
<td>3</td>
<td>513</td>
</tr>
</tbody>
</table>
Table 5 continued. Average values and ranks of clusters in the cluster analysis of the economic development in Latvia

| GDP, thou. LVL | 6722327 | 624151 | 378723 | 237340 | 136374 | 122971 | 64249 |
| GDP per capita, LVL | 9272 | 3299 | 3213 | 3702 | 2435 | 2573 | 1980 |
| Non-financial investment, mln. LVL | 2034.90 | 338.15 | 142.35 | 121.75 | 69.15 | 57.33 | 26.19 |
| Non-financial investment per capita, LVL | 2816.50 | 1671.55 | 1215.55 | 1963.65 | 1243.25 | 1202.20 | 810.24 |
| Total rank | - | 18 | 41 | 50 | 54 | 69 | 79 |
| Districts included in Clusters | Riga city | Daugavpils | Jelgava | Rezekne | Cesis | Tukums | Aizkraukle |
| | Riga district | Liepaja | Ventspils | | | | Bauska |
| | | | | | | | Jekabpils |
| | | | | | | | Kuldiga |
| | | | | | | | Madona |
| | | | | | | | Ogre |
| | | | | | | | Saldus |
| | | | | | | | Talsi |
| | | | | | | | Valmiera |
| | | | | | | | Aluksne |
| | | | | | | | Balvi |
| | | | | | | | Dobele |
| | | | | | | | Gulbene |
| | | | | | | | Kraslava |
| | | | | | | | Limbazi |
| | | | | | | | Ludza |
| | | | | | | | Preili |
| | | | | | | | Valka |

Source: authors' research applying the data of the Central Statistical Bureau of Latvia, 2007; 2010; 2010a; 2010b; 2010c; 2010f; 2010g and State Regional Development Agency, 2009
Cluster 4 also included 2 districts – Rezekne and Ventspils. The statistical indicators “revenues of the basic budget per capita”, “GDP per capita”, “non-financial investment per capita”, and “net annual wage in the private sector” were placed in the second position. The values of the other indicators had the fourth position, except the indicator “changes in the number of residents”. The value of this statistically insignificant indicator was placed in the sixth position. The authors explain it by the large distance of this district to the capital city (average value is 213 km), which promotes the migration of residents of these districts to the capital city and its nearest districts.

Since the average value of the indicator “number of residents” in Cluster 4 is smaller than the respective values in Clusters 2 and 3, the value of the indicator “revenues of the basic budget per capita” is greater; although, the indicators “total revenues of the government basic and special budgets”, “revenues of the basic budget” as well as “GDP” are almost two times smaller.

Cluster 5 included the districts of Cesis and Tukums. The “highest” statistically significant indicator of this Cluster’s is the “number of businessmen per 1000 residents”, which was placed in the third position during the ranking; however, if the average values of this indicator were compared between Clusters 2, 3, 4, 5 and even 6, one can see that there were no significant differences. A similar conclusion can be made regarding the indicator “net annual wage in the public sector” which is placed in the low sixth position; however, if its average values are compared between Clusters 3, 4, and 5, one has to conclude that no significant differences exist between them. The indicator “GDP per capita” is placed in the low sixth position as well. The values of the other statistically significant indicators are placed in the fifth position.

The statistically insignificant indicator “changes in the number of residents” is placed in the high third position, as the two districts included in Cluster 5 are located near the country’s capital city. The indicator “number of economically active market-sector statistical units per 1000 residents” is placed in the third position as well. This indicator is also high in Clusters 6 and 7, which according to the authors is explained by the large number of self-employed individuals. According to the publication “Development of Regions in Latvia 2009”, the number of businessmen prevail over the numbers of self-employed individuals and farms and fishing farms, i.e. two thirds versus one third. On the contrary, self-employed individuals made up the majority in all the other regions of Latvia in 2008. In Latgale, self-employed individuals even accounted for more than half (51%) of total number of economically active market-sector statistical units. A large number of self-employed individuals are also observed in Vidzeme region (44%) and Kurzeme region (41%) (State Regional Development Agency, 2009, p. 33).

The statistically insignificant indicator “non-financial investment per capita” is placed in the fourth position but there is no significant difference between the average values of Clusters 3 and 6.

Cluster 6 included 9 districts of Latvia – Aizkraukle, Bauska, Jekabpils, Kulda, Madona, Ogre, Saldus, Talsi, and Valmiera. The average values of the mentioned statistical indicators for this Cluster were mainly placed in the sixth position. Consequently, the level of economic development in this Cluster is lower than in the previous five Clusters.

Cluster 7 also included 9 districts – Aluksne, Balvi, Dobele, Gulbene, Kraslava, Limbazi, Ludza, Preili, and Valka. All the selected statistical indicators characterising economic development were mostly placed in the lowest positions, so the districts included in this Cluster featured the lowest level of economic development.

As it was mentioned, the “highest” indicator of Clusters 6 and 7 is the “number of economically active market-sector statistical units per 1000 residents” owing to the large number of self-employed individuals residing in the districts included in these Clusters.

Analysis of the results

After comparing the results of the cluster analysis with the number of visitors at tourist accommodation establishments in 2008, one can see that the number of visitors at tourist accommodation establishments is larger in the Clusters with a higher level of economic development than in those having a lower level of economic development.

The largest number of visitors at tourist accommodation establishments is in Riga – the capital city – that is included in Cluster 1. The majority or 81% of visitors are foreign guests. The number of local tourists is 167597 or 19% of the total number of visitors in the city.

Riga district, which is included in Cluster 2, totally serviced 209038 tourists – this is the second highest indicator in the country. Along with Riga district, Daugavpils district of Latgale region, which serviced 37524 visitors, is included in Cluster 2; it is the fifth highest indicator in the country.

Liepaja district, which is included in Cluster 3, serviced 84683 visitors (the fourth highest indicator in the country), while there were only 13141 visitors in Jelgava district.

The relatively high level of economic development of Jelgava district can be explained by its close location to the capital city and Riga district that positively influence the district’s economic indicators. Jelgava district is a part of Zemgale region. A previous research conducted by the authors (Muska, Bite, 2011) showed that the development level of tourist accommodation establishments in Zemgale region significantly lagged behind that in the other regions of Latvia. According to the cluster analysis of tourist accommodation establishments, Jelgava district belongs to Cluster 7 out of eight ones. The data of Table 4 also indicate that only less than 3% of visitors at tourist accommodation establishments were serviced in Zemgale region in the research period.
It explains the small number of visitors at tourist accommodation establishments of the district.

Ventspils district, which is included in Cluster 4, serviced 97,580 visitors. This is the third highest indicator in the country after the city and district of Riga. In Ventspils district, a great role in developing tourism as well as the national economy and in increasing the number of visitors is played by Ventspils city that has actively implemented tourism-marketing activities and developed its tourism suprastructure and human-made amusements over the recent years (Tourism in Ventspils, 2010).

Rezekne district, also included in Cluster 4, served only 29,584 tourists.

The previous research conducted by the authors (Muska, Bite, 2011) showed that among the districts of Latgale region, the most developed tourist accommodation establishments were in the districts of Daugavpils and Rezekne. Therefore, the largest number of visitors in Latgale region was served in these two districts.

Cluster 5 includes the districts of Cesis and Tukums. Cesis district served 32,107 visitors, while Tukums district – 17,667 visitors.

Cesis district, especially the town of Cesis, is a well-known tourism centre for Latvian residents and many foreign tourists that is explicitly subject to seasonality and that has a successfully developed environment for tourism infrastructure. Cesis is known as the most hospitable town in Latvia that was able to preserve its ancientness and can offer a wide assortment of tourism services. Over the recent years, several activities were done in Cesis to repair and develop its tourism infrastructure (Cesis Local Municipality, 2008). The cluster analysis of tourist accommodation establishments conducted by the authors (Muska, Bite, 2011) showed that the most developed tourist accommodation establishments in Vidzeme region were in Cesis district.

A small number of tourists in Tukums district can be explained by the fact that Pieriga region is an infrequent destination in Latvia for overnight business trips (Central Statistical Bureau of Latvia, 2010b).

The number of tourists in Clusters 6 and 7, whose levels of economic development is lower, is small compared with the above-mentioned Clusters.

Among the districts included in Cluster 6, the largest number of visitors (24,043) was registered in Valmiera district; whereas the smallest numbers of visitors were served in the districts of Aizkraukle, Jekabpils, and Bauska, i.e. the districts of Zemgale region.

In Ogre district, which is included in Pieriga region, the number of tourists is close to the number of visitors in Tukums district – slightly more than 17,000. The research done by Muska and Bite (2011) showed that the situation regarding tourist accommodation establishments was similar in the two districts.

Dobele district, which is included in Cluster 7 and belongs to Zemgale region, served only 1,371 visitors; it is the lowest indicator in the country. Among the districts of Pieriga region, the largest number of visitors at tourist accommodation establishments was in Limbazi district – 9,908.

Conclusions

1. The majority (more than 60%) of visitors at Latvian tourist accommodation establishments is foreign tourists whose share at Riga tourist accommodation establishments account for more than 70%. Outside Riga region, more than 70% of visitors are local (Latvian) tourists, mostly business tourists.

2. In the research period of 2005-2009, more than half of visitors at tourist accommodation establishments concentrate in Riga region; while more than 10% - in Pieriga and Kurzeme regions. The share of visitors in the other regions does not exceed 6% of their total number. Thus, tourism, especially local tourism outside Riga region is insufficiently developed.

3. An explicit trend of monocentric economic development is specific to Latvia, resulting in significant differences between Latvia’s capital city of Riga and the other districts of Latvia. It means that the development of entrepreneurship in tourism industry is facilitated by the development of other industries in Latvia and there is a interaction between these indicators.

4. The number of visitors at tourist accommodation establishments is higher in the clusters having a high and medium level of economic development than in the clusters with a lower level of economic development. Therefore, the research hypothesis is proved that the economic development of a district affects the number of visitors at tourist accommodation establishments.

5. Before investing financial resources in the development of tourism suprastructure, the state, municipalities, and businessmen should evaluate the potential of the development of other industries in the region to determine the potential demand for suprastructure services.

6. To facilitate the development of hotel business in Latvia, the state, public organisations of tourism industry and businessmen should engage in more active marketing, especially in the local market, to enhance the development of local recreational tourism.

Bibliography


ENTREPRENEURIAL ACTIVITY IN THE WESTERN ESTONIAN RURAL MUNICIPALITIES IN 2006 AND 2010: A CLUSTER ANALYSIS

Anne Poder

The region of Western Estonia consists of four counties, two of which are Estonian biggest islands in the Baltic Sea. The area is often regarded as one region; however, there are many differences between the counties and their rural municipalities, especially those that are separate islands connected with the mainland of Estonia only by ferry or air transport. Since the widening regional disparities appeared in the 1990s, the rural areas have suffered from many socio-economic problems like the loss of population, lower incomes, lower economic diversity, lower labour force participation and employment rate etc. The analysis of entrepreneurial activity is one way to study the socio-economic issues of a region and its enterprises. The aim of the research is to study the entrepreneurial activity in rural municipalities of the four Western Estonian counties in connection with the selected economic indicators. A hierarchical cluster analysis is conducted to group the rural municipalities on the basis of their entrepreneurial activity rate per 1000 inhabitants, share of sole proprietors, share of different sector enterprises and income per employee etc. The forty-eight rural municipalities of those counties are divided into three clusters.

Key words: entrepreneurial activity, Estonia, hierarchical cluster analysis, regional development, rural enterprises.

JEL classification: R1

Introduction

Estonia is divided into 15 counties that are in turn divided into local governments: towns and rural municipalities. In 2010, there were 33 towns and 193 rural municipalities in Estonia (Statistics Estonia, 2011). On the regional level, corresponding to the Nomenclature of Territorial Units of Statistics (NUTS) Level 3, the 15 counties are divided into 5 regions: Northern Estonia, Western Estonia, Central Estonia, North-eastern Estonia, and Southern Estonia. The present research studies the rural municipalities of the four counties that form the Western Estonia (Hiiu, Laane, Saare, and Parnu Counties) (Figure 1). Two of the counties: Hiiu and Saare County are two Estonian largest islands. Three counties: Saare, Laane, and Parnu contain also smaller islands in the Baltic Sea that are separate rural municipalities. The main focus is laid on the characteristics of enterprises in those municipalities in the years 2006 and 2010.

The legal definition on an enterprise in the Estonian Commercial Code (1995) states that it is a natural person who offers goods or services for charge in his or her own name where the sales of goods or provision of services is his or her permanent activity, or a company provided by law. Any natural person may be a registered sole proprietor. As the statistical data on Estonian enterprises used in this analysis are based on the definition of the Commercial Code, the term “enterprise” is referred to sole proprietors and companies for the purpose of this research.

In the economic literature, the term “entrepreneur” is generally associated with a person and not with organisations. So a sole proprietor may be regarded as an entrepreneur. A.J. Schumpeter (1934) has emphasised that the entrepreneur is an innovator who implements change within markets through the carrying out of new combinations. Often the creation of new businesses is empathised in connection with the definition of entrepreneurship (e.g. Vesper, 1983; Low, MacMillian, 1998; Learned, 1992 etc.). D.F. Kuratko (2008, p. 530) sees the entrepreneur as “an innovator or developer who recognizes and seizes opportunities; converts those opportunities into workable/ manageable ideas; adds value through time, effort, money, or skills; assumes the risks of the competitive marketplace to implement these ideas; and realises the rewards”. Fayolle (2007) emphasises that the definition of an entrepreneur is presented with multiple facets as it combines the roles of capitalist, innovator, opportunist, coordinator, and organiser of resources.

The entrepreneurial intentions of people are influenced by many factors. For example, the personal characteristics of individuals such as propensity to risk, innovativeness, tolerance of ambiguity, locus of control (Koh, 1996); the culture (Mueller, Thomas, 2001; Pills, Reardon, 2007 etc.); the economic and institutional environment (Minguzzi, Passaro, 2001; Lu, Tao, 2010 etc.), have influence on the development of entrepreneurship. Gnyawali and Fogel (1994) describe the entrepreneurial environment as a combination of factors: the overall economic, socio-cultural, and political factors that influence people’s willingness and ability to undertake entrepreneurial activities; and the availability of assistance and support services that facilitate the start-up process.

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Since several studies have referred to the lack of entrepreneurial spirit of Estonians (Kolbre et al., 2006, Estonian Institute …, 2004), especially in international comparison (Flash EB No 160, 2004; Flash EB No 283, 2009), the topics of entrepreneurial activity and its regional issues are highly relevant.

The topic of regional entrepreneurial activity has gained relevance because of the developments in the past 20 years. The transition of Estonia in the 1990s from planned economy to market economy brought along the uneven regional development (for example studied by Terk, Raagmäa, 2004; Jauhiainen, Ristkok, 1998; Tamm, 2002 etc.). It has manifested itself in high persistent regional economic and social disparities. The Regional Development Strategy of Estonia (2005) describes that the regional differences are significant for the small territory of the country, especially the differences between the main urban centres and other regions in the standard of living and competitive ability. The regional economic development has been strongly polarised to the territory around the Estonian capital Tallinn and other larger towns (Venesaar, 2006). The government has set the goal to curb the concentration of population as well as economic activity in the capital region (Servinski, 2010).

In the transition process, the success of the economic development of a rural municipality was influenced by many factors, like its location and its Soviet legacy (e.g. level of development of the former collective farm) (Tamm, 2002); local economy’s level of diversification (Terk, Raagmäa, 2004) and especially the availability of non-agricultural jobs (Loo, 2005); the administrative capability of local municipality, infrastructure and availability of labour (Tamm, 2002) etc.

In the majority of peripheral areas, the diversity of enterprises is low, and in most cases, local economy is based on traditional resource consuming sectors like agriculture, forestry etc (Kiili, Mager, 2006). The issue of local economic diversity, especially the development of non-agricultural enterprises and jobs, gathered relevance because of the decline in agriculture. In the economic transition process, there was a considerable drop in agricultural production and arable land (e.g. studied by Unwin, 1998; Alanen, 1999; Alanen et al, 2001; Virma, 2004; Vira et al, 2009). The majority of newly established private farms were not viable in the long term. This also meant that agriculture was unable to provide sufficient income for the majority of rural population (Loo, 2005). This can also be demonstrated by the drop of agricultural employment in rural population – in 1989, totally 56.9% of rural population was employed by the primary sector, by 2000 it was 22%, and by 2010 it was 11.8% (Statistics Estonia, 2011). By the 2000s, the share of agricultural enterprises among the total number of rural enterprises, had decreased approximately by 50%, but the jobs created in the secondary and tertiary sectors compensated for less than one third of the jobs that had disappeared (Ministry of Agriculture, 2008). This in turn resulted in higher economic inactivity in rural regions. Therefore, the comparison of differences between regions and municipalities in entrepreneurial activity, share of different sector enterprises, share of sole proprietors, and other socio-economic data, is of interest not only to researchers but also to local stakeholders in order to study how different regions have fared in ongoing social and economic developments.

The aim of the research is to study the entrepreneurial activity in rural municipalities of the four Western Estonian counties.
counties in connection with selected economic indicators like share of sole proprietors, share of different sector enterprises and income per employee etc. Therefore, a hierarchical cluster analysis is conducted and the 48 rural municipalities of those counties are grouped into three clusters. The main focus is laid on the indicators from the year 2010; however, the data of the year 2006 are also given for the comparison purposes.

The paper is organised as follows. The introduction is followed by a short overview on the methodology. The results section is divided into two subsections: a general description of the counties studied is given on the basis of selected socio-economic indicators. It is followed by the results of the hierarchical cluster analysis. The results are discussed in the concluding section.

The following research tasks have been set: to give an overview on the socio-economic situation of the region on the basis of selected economic and social data; to compare the urban/rural indicators and Estonian average indicators; to study the entrepreneurial activity in the Western Estonian rural municipalities in 2006 and 2010; and to cluster the rural municipalities in order to study the differences between the municipalities.

Materials and methods

The following methods have been used for the research purpose: a hierarchical cluster analysis is conducted on the basis of data on the entrepreneurial activity rate per 1000 inhabitants, and different economic and population indicators of the 48 rural municipalities in four counties as well as monograph, and analysis and synthesis methods.

In the present research, the entrepreneurial activity rate is defined as the number of enterprises per 1000 inhabitants. The enterprises mean both companies and sole proprietors, and their data are derived from the database on economically active units of the Statistics Estonia (2011).

Cluster analysis is a multivariate statistical procedure that aims to group the studied entities into a smaller number of clusters. It starts with a data set containing information about a sample of entities and attempts to reorganise these entities so that the entities within each cluster would be relatively homogeneous and distinct as possible from entities in other clusters (Aldenderfer, Blashfield, 1984). The hierarchical cluster analysis was selected for the analysis. Hierarchical clustering aims to group the studied entities into a hierarchical set of clusters. In the present analysis, the entities studied are 48 rural municipalities of four Western Estonian counties.

The following economic and social indicators were used in the grouping of the municipalities: population of the municipality in 2010; change of population from 2006 to 2010 (%); entrepreneurial activity rate per 1000 inhabitants in 2006 and 2010; share of primary sector, secondary sector and tertiary sector enterprises in 2010 (%); average monthly gross income by employee in 2006 and 2010 (euros); and share of sole proprietors in 2006 and 2010 (%). The data are derived from the statistical database of Statistics Estonia (2011).

The selection of socio-economic variables for the analysis was affected by the availability of the statistical data on the municipal level that sets limits to the analysis. For example, the labour data on labour force participation and employment rate are not available on the municipal level, while they are available on the county level by the type of settlement: urban/rural. The statistical data on the average wages are published on the county level, but not on the municipal level; and therefore another indicator – average gross monthly income per employee was used in the analysis. This indicator is not calculated by Estonian Statistical Office but it is computed on the basis of the data from Estonian Tax and Customs Board using different methodology. The Board publishes no average wages but the remuneration paid to an employee in relation to the employment relationship (Statistics Estonia, 2010).

Another methodological delimitation that has to be taken into account is that of the quality of population registration data, especially in case of the small islands. In a 10-years period starting from the 1990s it was not obligatory to register the actual residence (Sjoberg, Tammaru, 1999). This resulted in under registration of migration data and some other distortions. In case of many rural municipalities, especially in case of the small islands, the population data tend to be elevated as the number of registered population may be higher than the actual permanent residents, because summer residents have registered themselves by the local municipality, but during the most of the year, they work and live in some other area. There are also people who have moved away, but have not changed their registration, although they already live elsewhere for the most of the year. This has to be taken into account analysing individual rural municipalities and one way is to analyse the groups of municipalities to minimise the effect of this kind of distortions in case of individual municipalities.

In the hierarchical analysis, the variables were standardised for the analysis and squared Euclidean distances were used for the computing the distances. The squared Euclidean distance between the objects and is calculated as follows:

\[ distance(x, y) = \sum (x_i + y_i)^2 \]  

Ward’s method was chosen for clustering. Aldenderfer and Blashfield (1984) explain that the Ward’s method aims to optimise the minimum variance within the cluster; the objective function is known as the error sum of squares (ESS), where \( x_i \) is the score of the \( y_i \) case.

\[ ESS = x_i^2 - 1/n (\sum x_i)^2 \]
The method works by joining the groups that result in the minimum increase of the ESS (Aldenderfer, Blashfield, 1984, p. 43).

In the cluster analysis, different solution with different number of clusters was studied and it was decided to proceed with the three-cluster solution.

Table 1. Rural and urban population in the Western Estonian Counties

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of settlement</th>
<th>Local government units in 2010, number</th>
<th>Population in 2010, number</th>
<th>Share of Estonian population in 2010, %</th>
<th>Population in 2006, number</th>
<th>Population gain/loss from 2006 to 2010, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Total</td>
<td>226</td>
<td>1 340 127</td>
<td>100</td>
<td>1 344 684</td>
<td>-0.34</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>33</td>
<td>866 842</td>
<td>64.7</td>
<td>866 907</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>193</td>
<td>473 285</td>
<td>35.3</td>
<td>477 777</td>
<td>-0.94</td>
</tr>
<tr>
<td>Hiiu</td>
<td>County total</td>
<td>5</td>
<td>10 032</td>
<td>0.75</td>
<td>10 222</td>
<td>-1.85</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>1</td>
<td>3 634</td>
<td>0.27</td>
<td>3 724</td>
<td>-2.41</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>4</td>
<td>6 398</td>
<td>0.47</td>
<td>6 498</td>
<td>-1.54</td>
</tr>
<tr>
<td>Laane</td>
<td>County total</td>
<td>12</td>
<td>27 366</td>
<td>2.04</td>
<td>27 853</td>
<td>-1.75</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>1</td>
<td>11 618</td>
<td>0.87</td>
<td>11 774</td>
<td>-1.32</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>11</td>
<td>15 748</td>
<td>1.17</td>
<td>16 079</td>
<td>-2.05</td>
</tr>
<tr>
<td>Parnu</td>
<td>County total</td>
<td>20</td>
<td>88 428</td>
<td>6.59</td>
<td>89 017</td>
<td>-0.66</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>2</td>
<td>48 062</td>
<td>3.58</td>
<td>48 247</td>
<td>-0.38</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>18</td>
<td>40 366</td>
<td>3.12</td>
<td>40 770</td>
<td>-0.99</td>
</tr>
<tr>
<td>Saare</td>
<td>County total</td>
<td>16</td>
<td>34 644</td>
<td>2.58</td>
<td>35 076</td>
<td>-1.23</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>1</td>
<td>14 977</td>
<td>1.11</td>
<td>14 919</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>15</td>
<td>19 667</td>
<td>1.46</td>
<td>20 157</td>
<td>-2.43</td>
</tr>
</tbody>
</table>


Table 2. Labour force participation and employment rate in 2006 and 2010 in the Western Estonian counties

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of settlement</th>
<th>Labour force participation rate, %</th>
<th>Employment rate, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2006</td>
<td>2010</td>
</tr>
<tr>
<td>Estonia</td>
<td>Total</td>
<td>66.4</td>
<td>65.5</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>68.3</td>
<td>67.2</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>62.0</td>
<td>61.5</td>
</tr>
<tr>
<td>Hiiu</td>
<td>Total</td>
<td>55.6</td>
<td>70.1</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>57.7</td>
<td>69.6</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>53.5</td>
<td>70.4</td>
</tr>
<tr>
<td>Laane</td>
<td>Total</td>
<td>66.0</td>
<td>57.4</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>70.5</td>
<td>64.7</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>62.1</td>
<td>51.6</td>
</tr>
<tr>
<td>Parnu</td>
<td>Total</td>
<td>62.2</td>
<td>58.6</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>63.6</td>
<td>59.9</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>59.8</td>
<td>56.4</td>
</tr>
<tr>
<td>Saare</td>
<td>Total</td>
<td>60.7</td>
<td>56.4</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>70.5</td>
<td>66.4</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>53.3</td>
<td>50.8</td>
</tr>
</tbody>
</table>

Results

An overview of the Western Estonian counties

Before the results of the cluster analysis are presented, a short economic and social overview is given in order to compare the counties and their rural and urban municipalities.

In 2010, there were 5 towns and 48 rural municipalities in the four counties (Table 1). These four Western Estonian counties form 25.6% of Estonian area and as of 2010, have 11.96% of total Estonian population. The population of rural municipalities of Western Estonia account for 6.22% of total Estonian population and 17.4% of Estonian rural population (Statistics Estonia, 2011). The population density of the Western Estonia has been lower than Estonian average rural population density. One reason for that are the geographical characteristics of the counties situated on the islands and isolated from the mainland of Estonia.

In the period of 2006-2010, the population in the area studied has continued its slight decrease and the decline has been somewhat higher than the Estonian average and in most cases has concentrated more into rural municipalities.

Table 3. Unemployment rate and average monthly gross wages in the Western Estonian counties

<table>
<thead>
<tr>
<th>Region</th>
<th>Unemployment rate, %</th>
<th>Average monthly gross wages, euros</th>
<th>Share of Estonian average wage, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>16.9</td>
<td>792.3</td>
<td>601.2</td>
</tr>
<tr>
<td>Hiium county</td>
<td>11.5</td>
<td>629.1</td>
<td>475.1</td>
</tr>
<tr>
<td>Laane county</td>
<td>22.3</td>
<td>655.4</td>
<td>460.2</td>
</tr>
<tr>
<td>Parnu county</td>
<td>14.2</td>
<td>693.8</td>
<td>508.0</td>
</tr>
<tr>
<td>Saare county</td>
<td>9.3</td>
<td>646.8</td>
<td>505.9</td>
</tr>
</tbody>
</table>


Table 4. Number of enterprises and entrepreneurial activity rate per 1000 inhabitants in the Western Estonian counties

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of settlement</th>
<th>Enterprises, number</th>
<th>Share of Estonia enterprises, %</th>
<th>Entrepreneurial activity rate per 1000 inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Total</td>
<td>100216</td>
<td>71012</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>66517</td>
<td>48589</td>
<td>66.4</td>
</tr>
<tr>
<td>Rural municipalities</td>
<td></td>
<td>33699</td>
<td>22423</td>
<td>33.6</td>
</tr>
<tr>
<td>Hiium</td>
<td>Total</td>
<td>834</td>
<td>603</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>294</td>
<td>206</td>
<td>0.3</td>
</tr>
<tr>
<td>Rural municipalities</td>
<td></td>
<td>540</td>
<td>397</td>
<td>0.5</td>
</tr>
<tr>
<td>Laane</td>
<td>Total</td>
<td>1886</td>
<td>1302</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>686</td>
<td>454</td>
<td>0.7</td>
</tr>
<tr>
<td>Rural municipalities</td>
<td></td>
<td>1200</td>
<td>848</td>
<td>1.2</td>
</tr>
<tr>
<td>Parnu</td>
<td>Total</td>
<td>6530</td>
<td>4733</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>3508</td>
<td>2558</td>
<td>3.5</td>
</tr>
<tr>
<td>Rural municipalities</td>
<td></td>
<td>3022</td>
<td>2175</td>
<td>3.0</td>
</tr>
<tr>
<td>Saare</td>
<td>Total</td>
<td>2776</td>
<td>1950</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>1151</td>
<td>818</td>
<td>1.1</td>
</tr>
<tr>
<td>Rural municipalities</td>
<td></td>
<td>1625</td>
<td>1132</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Table 5. Share of microenterprises and sole proprietors in the enterprises of the Western Estonian counties

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of settlement</th>
<th>Share of microenterprises, %</th>
<th>Share of sole proprietors, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2006</td>
<td>2010</td>
</tr>
<tr>
<td>Estonia</td>
<td>Total</td>
<td>93.2</td>
<td>88.2</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>92.4</td>
<td>86.8</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>94.9</td>
<td>91.1</td>
</tr>
<tr>
<td>Hiiu</td>
<td>Total</td>
<td>95.6</td>
<td>93.0</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>92.9</td>
<td>89.8</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>97.0</td>
<td>94.7</td>
</tr>
<tr>
<td>Laane</td>
<td>Total</td>
<td>94.6</td>
<td>89.7</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>93.3</td>
<td>86.8</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>95.4</td>
<td>91.3</td>
</tr>
<tr>
<td>Parnu</td>
<td>Total</td>
<td>94.4</td>
<td>89.5</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>93.3</td>
<td>86.7</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>95.7</td>
<td>92.7</td>
</tr>
<tr>
<td>Saare</td>
<td>Total</td>
<td>94.4</td>
<td>90.8</td>
</tr>
<tr>
<td></td>
<td>Towns</td>
<td>91.7</td>
<td>86.7</td>
</tr>
<tr>
<td></td>
<td>Rural municipalities</td>
<td>96.3</td>
<td>93.8</td>
</tr>
</tbody>
</table>


The persisting lower labour force participation rate (share of labour force in the working age population) and employment rate (share of employed in the working age population) of the rural areas are among the socio-economic challenges of Estonian regional development. As the data in Table 2 illustrates, the labour force participation and employment rate in the rural municipalities of the four counties have remained lower than the national average in most cases. Especially problematic is the issue of employment rate that by 2010 has dropped under 50% in all the rural municipalities of the counties studied.

In 2006, Estonia was experiencing the economic growth and the overall unemployment rate in Estonia was 5.9% (Statistics Estonia, 2011). However, as the statistical data on the unemployment are not available on the county level for 2006, Table 3 presents the unemployment rate only for the year 2010. As in 2008 the economic recession started in Estonia bringing along fast increase in unemployment, by 2010 the national unemployment rate was 16.9%, having hit Laane and Parnu counties considerably harder (Table 3). However, the average wage level in those areas was higher indicating that the onset of recession has wiped the lower paid jobs first.

The statistical data on the average wages are not available for the local government level; Table 3 presents them on the county level. The wages in the counties studied consistently have been considerably lower than the Estonian average, especially it is a problem on the islands of Saare County and Hiiu County, where in 2010, the average monthly gross wage was 81.6% and 79.4% of the Estonian average; besides the increase in average wage has been stagnant or non-existent in the period studied. The nearness of the larger town of Parnu has provided better paid job opportunities for the residents of Parnu County.

In the recent years, the number of enterprises in Estonia has been on increase, since the number of economically active enterprises (companies and sole proprietors) has grown from 71012 in 2006 to 100216 in 2010 (Statistics Estonia, 2011). In 2010, totally 12% of all Estonian enterprises and 18.9% of Estonian rural enterprises were located in the Western Estonian counties (Table 4).

One characteristic feature of the area studied is that the entrepreneurial activity rate in rural municipalities of the four counties has been higher than in the towns and in case of the two counties on the islands – Hiiu and Saare County, it has been higher than the national average. This has been explained by the high share of sole proprietors, since due to the lack of other employment opportunities on the islands, the people are more likely to be forced to become sole proprietors. The share of microenterprises with less than 10 employees has been higher than average in the rural municipalities studied (Table 5).

In Estonia, the share of tertiary sector enterprises has been on the increase, reaching 70.2% of all enterprises in 2010 (Table 6). The share of primary sector enterprises has continued its decrease. The same kind of decrease has taken
place in the four counties studied; however, the share of primary sector enterprises has still remained higher than in Estonian rural municipalities on average. The share of tertiary sector enterprises in the towns of the four counties is higher than Estonian overall average, but somewhat lower than the average of Estonia towns in 2010. It may be associated with the tourism industry, because the western coast of Estonia and the islands are major tourism destination.

### Results of the cluster analysis

A cluster analysis of the rural municipalities of the four counties was conducted to study the possibilities for grouping the municipalities based on their entrepreneurial activity rate and other economic data. Hierarchical cluster analysis was selected for the grouping of municipalities. Solutions with the different numbers of clusters were studied and the three cluster solution for the grouping of rural municipalities was chosen in the research. In this solution, forty-eight municipalities in the analysis were divided as follows: Cluster 1 consisted of 23 municipalities; Cluster 2 had 10, and Cluster 3 included 15 municipalities (Figure 2, Table 7). One way to characterise these three clusters is to provide their characteristics based on the entrepreneurial activity rate: higher than the average, average entrepreneurial activity, and lower than the average activity.

Cluster 1 consists mostly of the rural municipalities on the islands and of the Northern part of Laane County in the mainland. It contains the municipalities that are smaller population wise. Both smallest rural municipalities in this group are those on separate islands: Ruhnu Island with 72 inhabitants and Vormsi Island with 245 inhabitants in 2010. The entrepreneurial activity rate per 1000 inhabitants is higher than the average. The share of primary sector enterprises, and secondary sector enterprises and sole proprietors is close to the overall average and lower than in case of Cluster 2. In 2006 and 2010, the average monthly gross income was higher than in other clusters.

Cluster 2 consists of municipalities that mostly have between 1000 and 2000 inhabitants. In comparison with other groups, however, their population loss has been higher in the 5-years period (Table 8). Cluster 2 is characterised by considerably higher share of sole proprietors and higher share of primary sector enterprises than other clusters or overall in Estonian rural municipalities. The share of secondary sector and tertiary sector enterprises is lower than the average and the average monthly gross income per employee is also considerably lower.

Cluster 3 contains the rural municipalities with the highest population on average. The overall population loss has been smaller than in the other clusters. This can be explained also by the fact that most of the municipalities in this cluster are surrounding or located near the towns in the three counties studied. In case of Parnu County, some of them also include a town without a municipal status. This administrative division has been a result of the ongoing attempt for administrative reform in Estonia, since in 2005, many of smaller rural municipalities and small towns were merged together to form

### Table 6. Enterprises according to the economic sector in the Western Estonian counties, %

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of settlement</th>
<th>2010</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.5</td>
<td>17.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3</td>
<td>17.1</td>
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<td>17.7</td>
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<td></td>
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<td>33.9</td>
<td>17.3</td>
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<td></td>
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<td>17.3</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43.0</td>
<td>15.7</td>
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<td></td>
<td></td>
<td>30.6</td>
<td>17.2</td>
</tr>
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<td>20.0</td>
</tr>
<tr>
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<td>43.4</td>
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<td>22.3</td>
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<td>5.3</td>
<td>19.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42.0</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32.2</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.2</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50.6</td>
<td>16.1</td>
</tr>
</tbody>
</table>

Figure 2. Rural municipalities by the clusters

Table 7. Local rural municipalities in the counties studied by the cluster

<table>
<thead>
<tr>
<th>Clusters</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emmaste</td>
<td>Are</td>
<td></td>
<td>Audru</td>
</tr>
<tr>
<td>Hanila</td>
<td>Koonga</td>
<td></td>
<td>Halinga</td>
</tr>
<tr>
<td>Kihelkonna</td>
<td>Kullamaa</td>
<td></td>
<td>Haademeeste</td>
</tr>
<tr>
<td>Kihnu</td>
<td>Leisi</td>
<td></td>
<td>Kaarma</td>
</tr>
<tr>
<td>Korgessaare</td>
<td>Martna</td>
<td></td>
<td>Lavassaare</td>
</tr>
<tr>
<td>Kaina</td>
<td>Poide</td>
<td></td>
<td>Lihula</td>
</tr>
<tr>
<td>Karla</td>
<td>Torgu</td>
<td></td>
<td>Paikuse</td>
</tr>
<tr>
<td>Laimjala</td>
<td>Tostamaa</td>
<td></td>
<td>Ridala</td>
</tr>
<tr>
<td>Lumanda</td>
<td>Varbla</td>
<td></td>
<td>Saarde</td>
</tr>
<tr>
<td>Muhu</td>
<td>Vandra</td>
<td></td>
<td>Sauga</td>
</tr>
<tr>
<td>Mustjala</td>
<td></td>
<td></td>
<td>Taebla</td>
</tr>
<tr>
<td>Noarootsi</td>
<td></td>
<td></td>
<td>Tahkuranna</td>
</tr>
<tr>
<td>Nova</td>
<td></td>
<td></td>
<td>Tootsi</td>
</tr>
<tr>
<td>Orissaare</td>
<td></td>
<td></td>
<td>Tori</td>
</tr>
<tr>
<td>Oru</td>
<td></td>
<td></td>
<td>Vandra town</td>
</tr>
<tr>
<td>Pihtla</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puhalepa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risti</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ruhnu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surju</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valjala</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vormsi</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
larger rural municipalities and those small rural towns lost their municipal status as separate administrative units and local governments. The overall entrepreneurial activity rate is lower than in other clusters. The secondary sector and tertiary sector enterprises play a key role in the economy and the share of sole proprietors among the enterprises is considerably lower. The infrastructure and nearness of larger centres and labour provide better access to market and more favourable conditions for the development of tertiary and secondary sector enterprises.

Conclusions

The research aim was to study the entrepreneurial activity of local rural municipalities in the Western Estonian counties. A cluster analysis was chosen to group the municipalities based on the selected entrepreneurial and socio-economic indicators. The availability of data on municipal level and the acknowledged issues with the reliability of some of the population data in Estonia, especially in case of the small islands, sets limits to the comparison of individual rural municipalities. Besides those delimitations, the approach adopted in the present research is relatively simplistic — the grouping of municipalities based on their entrepreneurial activity and selected socio-economic indicators. However, the grouping of municipalities and the study of characteristics of those groups do provide useful information on the development and regional discrepancies of the area studied. The topic is relevant as there is a heavy discussion going on in Estonian society on the necessity of exhaustive regional administrative reform that would considerably reduce the number of rural municipalities. Another topic has been the overall entrepreneurial activity in Estonia that gained relevance especially since the onset of economic recession, since the establishment of new enterprises has been seen as one way out of the recession and unemployment.

The three clusters retrieved in the analysis can be distinguished by their entrepreneurial activity, entrepreneurial diversity (share of enterprises of different sectors), socio-economic indicators and population statistics. The municipalities on the islands have more in common, however, those in the counties of the mainland of Estonia may be located in relative proximity, but there are some considerable differences between them.

The average gross income and entrepreneurial activity rate were higher in case of the municipalities in the islands. In case of the municipalities on the islands, however, there is the aforementioned issue with the elevated population numbers. But still the isolation of the islands can be regarded as one of the “push” factors that forces people to establish their own company or to become sole proprietor.

The municipalities with larger population and in more favourable distance from local towns are characterised by lower entrepreneurial activity rate, but it does not manifest itself in lower incomes or in a larger than the average population loss as their economy is more diverse. The key is the higher diversity of enterprises. The group of municipalities with highest share of sole proprietors and primary sector enterprises had the lowest gross average income per employee. The wage level in agriculture in Estonia has been constantly one of the lowest of all the economic activities in the past 20 years, so it can be expected that the high share of agricultural enterprises comes with low level of gross income of employees. So the non-agricultural jobs and economic diversity has to remain one the main goals for the development of rural municipalities. The results of this analysis confirm that of several other studies, the rural municipalities with the more viable tertiary and secondary sector enterprises and with access to infrastructure and nearness of larger centre, have been better off as their population loss has been smaller and incomes of locals higher.

The high entrepreneurial activity rate by itself does not necessarily translate to higher incomes as the choice to become

Table 8. Average values for the four groups of municipalities

<table>
<thead>
<tr>
<th>Clusters</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rural municipalities</td>
<td>23</td>
<td>10</td>
<td>15</td>
<td>48</td>
</tr>
<tr>
<td>Population in 2010</td>
<td>1092.7</td>
<td>1390.9</td>
<td>2875.9</td>
<td>1712.1</td>
</tr>
<tr>
<td>Change in population from 2006 to 2010; %</td>
<td>-2.3</td>
<td>-2.9</td>
<td>-1.0</td>
<td>-2.0</td>
</tr>
<tr>
<td>Entrepreneurial activity rate per 1000 inhabitants in 2006</td>
<td>64.7</td>
<td>63.8</td>
<td>47.3</td>
<td>59.1</td>
</tr>
<tr>
<td>Entrepreneurial activity rate per 1000 inhabitants in 2010</td>
<td>96.1</td>
<td>81.9</td>
<td>66.3</td>
<td>83.8</td>
</tr>
<tr>
<td>Share of primary enterprises in 2010; %</td>
<td>49.0</td>
<td>65.3</td>
<td>31.9</td>
<td>47.0</td>
</tr>
<tr>
<td>Share of secondary sector enterprises in 2010; %</td>
<td>14.3</td>
<td>9.0</td>
<td>19.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Share of tertiary sector enterprises in 2010; %</td>
<td>36.8</td>
<td>25.8</td>
<td>48.7</td>
<td>38.2</td>
</tr>
<tr>
<td>Average monthly gross income per employee in 2006; euros</td>
<td>542.2</td>
<td>479.6</td>
<td>524.3</td>
<td>523.6</td>
</tr>
<tr>
<td>Average monthly gross income per employee in 2010; euros</td>
<td>719.1</td>
<td>653.9</td>
<td>681.9</td>
<td>693.9</td>
</tr>
<tr>
<td>Share of sole proprietors in 2006; %</td>
<td>61.9</td>
<td>75.7</td>
<td>40.1</td>
<td>58.0</td>
</tr>
<tr>
<td>Share of sole proprietors in 2010; %</td>
<td>64.7</td>
<td>71.7</td>
<td>46.0</td>
<td>60.3</td>
</tr>
</tbody>
</table>
an entrepreneur may often be a forced one, because of the lack of other alternatives in an isolated region as an island. So the number of enterprises in itself should not be an economic developmental goal.

Bibliography


POLYCENTRISM AND URBAN NETWORK CREATION POSSIBILITIES AND WEAKNESSES IN ZEMGALE

Viktorija Zaluksne\textsuperscript{1}, Baiba Rivza\textsuperscript{2}

The majority of the urban areas in Latvia are particularly small towns. They are not significant industrial or knowledge hubs or regional development centres, and this condition prompts the question, in what way they could develop. In accordance with the urban hierarchy approach, urban network creation and specialisation development could provide development of these towns.

This paper focuses on two aims. Firstly, to research the theoretical basis of polycentrism and the two concepts of polycentrism: the many-development centres concept and urban network concept. Secondly, to analyse urban network creation and development opportunities in the small towns of Zemgale.

The authors have collected theoretical cognitions on polycentrism concepts developed by different scientists. The authors have also analysed the smallest towns in Zemgale to gain perspective on the cooperation possibilities of these towns.

The following generally accepted scientific methods have been used for the development of the present paper: survey of scientific literature, methods of SWOT analysis, and pair analysis. The factors selected from the SWOT analysis are grouped according to the following criteria: socio-economic and financial factors, infrastructure factors, and political factors.

The theoreticians are united in the idea that the smaller a town is the straighter specialisation it needs for successful development. Hence, specialisation development provides cooperation and promotes urban networking. Cooperation between small towns in Zemgale was not observed at that time. There were several sporadic collaborative projects between towns but they were not characterised as a strong trend. On the contrary, these collaborative projects indicate that municipalities are interested in developing this opportunity and in the future, this cooperation may transform into full value urban networks. The article comprises 3 tables and 10 figures.

\textbf{Key words:} polycentrism concepts, urban network, Zemgale.

\textbf{JEL classification:} R11

\textbf{Introduction}

On a global scale, studies in the field of polycentric development are widely represented (Krugman, 1994; Batten, 1995; Duranton, 2003; Aguilera, 2004; Taubenbock, 2006; Veneri, 2010 etc.). Polycentrism is chiefly studied in relation to the issues of reduction of differences in the centre peripheries, centre overpopulation, and territorial cohesion. The origins of the concept of polycentrism go back to the regional policy concepts of Holland and Germany. Randstad ring in Holland and the region of Ruhr in Germany are considered the first but by far not the only “testing grounds” of the polycentrism concept. It should be added, however, that recently a number of Dutch scientists (Pessoa, 2009; OOr, 2009; Meijers, 2009) doubt and empirically prove that polycentrism \textit{per se} does not solve the problems or regional differences. They speak about the hierarchy of cities and the need to find a specific solution for each level of hierarchy. Thus, for example, it is advised to develop interurban cooperation networks for the lowest levels of hierarchy.

The concept of polycentrism has been applied to a wide variety of spatial scales ranging from Europe to many countries, to regions, and cities. Primarily polycentrism refers to the plurality of centres in a certain area. A synthesis of the defining conditions of a polycentric urban region points, among others, the separation of cities and the size distribution of cities. Morphological characteristics as the size and spacing of cities are determining factors in establishing whether a particular area is polycentric or monocentric. Rather than considering the particular area is polycentric or monocentric, it is more appropriate to score an area on the scale ranging from (very) polycentric and (very) monocentric (Meijers et al., 2006).

Instead of considering an area dichotomously as monocentric or polycentric, polycentrism should be measured...
by scoring an area with a value ranging from fully monocentric to fully polycentric (Meijers et al., 2008).

Italian researchers forwardly consider polycentrism also at a lower level than the regional, since, for instance, big urban systems are likely to be composed of several sub-centres (Vereni et al., 2010). They underline that the system is to be considered as polycentric if not only it is composed of several separate centres with a flat hierarchy but also if it is formed, for instance, by a big urban agglomeration, which is likely to be characterised by several sub-centres.

French scientists have highlighted two types of sub-centres: suburban sub-centres, both large and near the city centre. With the centre, they constitute greater centres in which the probability between housing and jobs is quite high. Outlying sub-centres are to be found outside this centre. They are both further and smaller but well situated on main transport axes. Locally they favour a certain proximity to employment for the workers who live there but they remain very dependent on the suburban sub-centres (Aguilera et al., 2004). In the past year, polycentrism gained new approaches wherein the polycentrism idea transforms along lines that are more practical. Several researchers’ development from a polycentric urban region to an urban network can provide a more efficient regional growth.

Thus, David Batten (1995), a Dutch scientist, described urban network systems characteristics. An Urban Network evolves when two or more, previously independent cities, potentially complementary in function, strive to cooperate and achieve significant scope economies aided by reliable corridors of transport and communications infrastructure. Creative network cities place a higher priority on knowledge-based activities such as research education and the creative arts. The cooperative mechanisms may resemble those of inter-firm networks in the sense that each urban player stands to benefit from the synergies of interactive growth through reciprocity, knowledge exchange, and unexpected solutions (Batten, 1995).

A polycentric urban region can be characterised as a club network when cities with similar interests join forces to achieve some kind of common objective or have common interests. This co-operation then generates economies of scale through a more optimum use of the critical mass present in several cities together. On the contrary, polycentric urban regions resemble web networks when the individual cities perform different economic roles and host complementary urban facilities, activities, and residential and working environments. These economic activities are then spread over the cities in such a way that optimum use is made of the strengths and local comparative advantages of each city (Meijers, et al., 2008; Batten, 1995).

However, this approach had several problems in implementing in regions with an undeveloped road infrastructure. As a solution for this problem, P. Krugman (1994) in one of his articles forwards the idea of political concentration for the reduction of regional inequality. P. Krugman declares that political centralisation has effects on several levels. The business of the government is a substation source of employment. For instance, employment opportunities in Paris are larger than in Frankfurt in part simply because there are so many more people working for the government, or supplying nontrade services to those who work for the government.

Efficient transport infrastructure, typically a concentration of population and centralisation of the transport system,

### Table 1. Urban hierarchic typology

<table>
<thead>
<tr>
<th>Level in urban hierarchy</th>
<th>Urban type</th>
<th>Spatial role</th>
</tr>
</thead>
<tbody>
<tr>
<td>International EU level</td>
<td>International hubs</td>
<td>Key players in the global economy, positioned above the national urban hierarchy and in the forefront of international industry.</td>
</tr>
<tr>
<td></td>
<td>Knowledge hubs</td>
<td></td>
</tr>
<tr>
<td>National level</td>
<td>Service hubs</td>
<td>Transformation poles with a strong industrial past, but currently changing and developing new economic activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gateways – larger cities with dedicated (port) infrastructure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modern industrial centres – the platforms of multinational activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research centres – centres of research and higher education, including science and technology related corporate activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visitor centres – handling large flows of people of national or international origin with a service sector geared towards tourism.</td>
</tr>
<tr>
<td>Regional level</td>
<td>Regional poles</td>
<td>De-industrialised cities having an industrial base in decline of a recession.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional market centres including finance and business services, tourism and restaurants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional public service centres and satellite towns</td>
</tr>
</tbody>
</table>

Source: authors’ summary and construction based on the data of the European Urban Audit 2007
reinforces one another: transport links point toward the core of the city because that is where the markets and suppliers are, and business concentration is all the greater because of the role of that city as a transport hub (Krugman, 1995).

In the frame of polycentric approach, cities are separated in the hierarchical chain, from international to local level centres. The classification of cities also gets a mention in the European Spatial planning documents. In the European Urban audit executive report (2007), all urban centres are divided into three levels. The authors show this division in Table 1. The aim of a presented typology is to provide better insight into urban development and serve as a basis for urban comparisons and, at the same time, show the possible European city hierarchy which may be applied to analyse these cities in the context of polycentrism. The previous hierarchy division shows the cities more in the polycentrism central place concept where, different level centres develop without networking relations and independent from each other. Nevertheless, in case with intraregional urban relations, enough developed centres incidence is out of the ordinary.

In this case, the principle shall be to implement a different approach to city networking. If a polycentric urban region wants to be competitive, it needs to evolve into an urban network. This draws an analogy between the networks between cities on the one hand and ‘club’-type and ‘web’-type economic networks on the other hand. Co-operation leads to horizontal synergy, which can possibly be achieved in club type networks, complementarily to a vertical synergy, which can possibly be achieved within web type networks.

In Latvia, the polycentrism concept has been extensively studied by Professor Roberts Kilis et al within the framework of the research project “Trends of Social and Economic Development of Latvian Cities” (Kilis et al., 2008). In this study though, attention is paid to the development centres of regional scale. In the case of Zemgale, the centres of regional importance mentioned are Dobele, Jelgava, and Jekabpils. As it can be evoked from the theory and as it will be seen in this article, there exists a range of small towns that are not and cannot be integrated in the total image of the polycentric development of Latvia due to the economics of these towns being insufficiently strong to create significant economic effect for the neighbouring territories. Establishing of the city cooperation networks may solve problems of these small towns but unfortunately, Latvia lacks research in this area. The novelty of this article is a specific study of the small towns of Latvia in the context of city network creation.

Considering the even wider application of the principle of polycentrism in the regional policies of European countries, a need arises to integrate a larger number of cities in this process, thus accelerating territorial cohesion. As the small towns require a particular approach that differs from the application of polycentrism for the development centres, it calls for a more detailed study of small towns and the socially economic effect the integration of these towns may render for the vision of polycentric development. The topicality of the study is further strengthened by the fact that there is a considerable number of small towns in Latvia that are located far from the development centres and are practically not included in the polycentric development. The situation is well presented
in Figure 1 that shows the polycentric development vision, though without including small towns.

Despite wide usage, several scientists underline that theoretical foundations and economic implications of the term polycentrism are still unknown and the concept of polycentrism still does not have a shared definition, or a shared measurement method.

The object of this study is the small towns of Zemgale.

The aim of the study: to explore the development opportunities and problems as well as weak and strong points of the cooperation networks of the small towns in Zemgale region.

The tasks of this paper are as follows:
- to research the theoretical basis of polycentrism and two concepts of polycentrism: the many development centres concept and urban network concept;
- to analyse urban network creation and development opportunities in the small towns of Zemgale.

Materials and methods

The authors have studied and analysed literature in order to understand the concepts of polycentrism. While analysing urban network development opportunities in the towns of Zemgale, the authors have employed SWOT (Strenghts, Weaknesses, Opportunities, Threats) analysis and pair analysis methods. In order to understand the urban network creation practice in Zemgale, the authors collected information on the collaborative network projects between municipalities in Zemgale in the period of 2009 - 2010.

Results

Looking at the strong hierarchy between different urban areas and their different role, it becomes obvious, that the lowest level centres, or sub-centres have a very narrow opportunity for development. They need to seek specialisation sphere, since functional duplication reduces small towns’ competitiveness. As it is shown in the theoretical part, small towns can employ network creation opportunities for their successful development. Regional polycentric development based at the core of urban development is the regional policy priority of Latvia and the EU. It is assumed that this growth will promote development of the surrounding area. However, most of the urban areas of Latvia are particularly small towns, the territories of which do not often exceed five square kilometres. These small towns have a problem with integration in the polycentric regional system. As one of the opportunities for these towns may be the integration into urban network systems. As the next step, the authors offer to look at these small towns as potential urban network hubs.

The study proceeds with the analysis of districts in Zemgale region carried out by the authors. Further, the authors suggest considering the possibilities of a network-city creation in Zemgale. Therefore, the districts have been selected according to the three described criteria.

Administrative territorial division

According to the legislation of the Republic of Latvia, until the administrative territorial reform in 2009, urban areas...
were divided into the following groups: major cities, district towns, and towns of local importance within the boundaries of the administrative district. After the reform, district cities and local importance towns gained equal status but this did not erase the disparities between different urban formations. The authors are particularly interested in the towns, which are located within the district administrative boundaries; however, they are not district towns.

Population

The cities are divided into three prominent levels. The authors have a scientific interest in the lowest level, which corresponds to the following towns: Akniste, Jaunjelgava, Viesite, Plavinas, and Auce (Figure 2).

The area of urban territory, excluding the rural area

There are three noticeable levels of the area of urban territory. The authors, within the framework of this study, focus on the lowest hierarchical level towns, which are as follows: Viesite, Akniste, Auce, Jaunjelgava, Bauska, and Plavinas. The authors turn your attention to the conditions, in which the urban area of Plavinas is a little greater than in Bauska, while according to the earlier criteria, Bauska is in line with the level of Dobele and Aizkraukle (Figure 3).

Thus, in the aspect of urban network creation, the authors will analyse five small towns in Zemgale, which correspond to the lowest urban hierarchy level and they are Akniste, Viesite, Jaunjelgava, Auce, and Plavinas. Next, the authors offer to look at the municipality collaborative network development SWOT analysis. Speaking about the city as a local point of concentration of public wealth (Puga et al., 2003), it is necessary to determine the conditions that have a considerable impact on the day-to-day life and development of the city. The authors have therefore selected socio-economic, financial, infrastructure-related, and political conditions for the characterisation of the criteria that are singled out for the purposes of the SWOT analysis (Table 2).

In this way, it is possible to assess internal and external influence factors and their interactions of the urban collaborative network. To specify the potential possibility of the statement’s impact in the SWOT analysis, the authors have used a pair analysis method and the results are represented in the network charts.

The most significant strength is that it is easier to rise funding for collaborative projects and relatively small distances between cities (Auce is an exception). In its turn, the town’s authentic image is an important strength but it is not on principle for urban network creation. When the cities ally within a particular cooperation project or establish a network of cities as a special territorially administrative unit, the financial capacity of cities is increased, more current assets are obtained, and the opportunities for attraction of larger funds for the implementation of development projects expand. This is of special importance for the implementation of common infrastructure projects in road construction, or building a concert hall, sports facility or health care centre etc. on a regional (city network) scale. One of the strong points to mention is the fact that distances between the researched towns

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**Source:** authors’ construction based on the data of the State Regional Development Agency, 2009

**Figure 3.** Urban area/km²
Table 2. Base of SWOT analysis: factors, which have a considerable impact on urban networking

<table>
<thead>
<tr>
<th>Financial factors</th>
<th>Political factors</th>
<th>Infrastructure factors</th>
<th>Socio-economic factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is easier to raise funds for collaborative projects</td>
<td>Municipalities have practical experience in development planning and development activities implementation</td>
<td>Relatively small distances between towns</td>
<td>The towns are similar in relation to their economic characteristics, historical and other aspects</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>Municipalities have accumulated the EU projects and implementation capacity</td>
<td>Municipalities have developed municipal objects infrastructure</td>
<td>Urban municipalities and dwellers cooperation experience in various cultural activities and joint projects</td>
</tr>
<tr>
<td>Prolongation of economic stagnation</td>
<td>Slow and inefficient decision-making</td>
<td>Roads are in very bad condition</td>
<td>Towns do not have widely recognisable brands, products etc.</td>
</tr>
<tr>
<td>Duplication of town’s functions</td>
<td>Label inadequate municipal infrastructure objects capacity</td>
<td>Lack of human capital</td>
<td></td>
</tr>
<tr>
<td>Opportunity to efficiently implement the good practices in all urban network</td>
<td>Worn out or even not reconstructed infrastructure objects</td>
<td>All the towns have quite similar offer, which make problems to develop area of specialisation</td>
<td></td>
</tr>
<tr>
<td>Opportunity to attract common specialists for municipality projects The opportunity to become leaders in the field of cooperation in Latvia</td>
<td>Major serious infrastructure objects (hospitals, higher education institutions) can remain outside of the network</td>
<td>Opportunity to get wider identification</td>
<td></td>
</tr>
<tr>
<td>Reluctance of municipalities to cooperate</td>
<td>Opportunity to create and use common infrastructure objects</td>
<td>Opportunity for each town to develop its area of specialisation</td>
<td></td>
</tr>
<tr>
<td>Organisational problems, inability to divide spheres of influence</td>
<td>Opportunity of developing and improving mutual road networks</td>
<td>Being a cooperation network to get opportunity for competitive advantages</td>
<td></td>
</tr>
<tr>
<td>Imbalance of cooperation and competition approaches between municipalities Insufficient administrative resources</td>
<td>Passenger transportation inadequate capacity</td>
<td>The opportunities for more efficient reallocation of resources resulting in economy from scale</td>
<td></td>
</tr>
<tr>
<td>Limited opportunities for cooperation</td>
<td>Towns have largely retained their historic buildings and the authentic look</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Change of regional policy priorities

Source: authors’ construction

are comparatively short and the researched towns are located within the same geographical area. As the researched towns are rather similar, their close disposition should be seen as a good precondition for building cooperation. In the information society, an important role of facilitation of the development is that of the telecommunications infrastructure. Existence and quality functioning of such infrastructure is also one of the preconditions for maintaining the cooperation between towns. Furthermore, provision of the telecommunications infrastructure is closely related to the road infrastructure. In the researched towns, two and more electronic communication companies operate providing the end users (municipal authorities, companies, and households) with broadband Internet services with a data transmission speed of 30Mbit/s and more (Ministry of Transport, 2011). Good telecommunication facilities are an essential precondition for the management of the city network and intercity communication. Although from the standpoint of intercity communication, the authentic image and similar history of the towns is not among the most important preconditions for the creation of the city network,
Figure 4. The results of SWOT analysis for Strengths

Figure 5. The results of SWOT analysis for Weaknesses
it should be mentioned, however, that when speaking about the uniform image of the city network, especially with regard to the marketing of territories, this condition becomes very important. Since the city network is a joining of populated settlements in one city with its parts just being geographically placed separately from each other. Similarities of the urban environment and the culture and historical heritage can be used as the jointing element when working at the image of the city network and the marketing programme for the particular territory (Figure 4).

The most significant weaknesses as in Figure 5 are very bad roads and a lack of human capital, which prevents communication and urban network creation opportunities. Although the distances between the towns are rather short, traffic is considerably restricted by the poor quality of roads that significantly increases the time spent on travelling (Table 3). Frequently enough distances between the towns are very short, but the system of roads is so arranged that long detours should be taken to reach the destination. However, Auce, in its turn, is too far away from other small towns and it should be viewed in the context of another city network. Thus, distances between the towns are a strong point, while considering the actual situation it should be also seen as a problem. For instance, shorter path from Akniste to Auce

<table>
<thead>
<tr>
<th>Town</th>
<th>Destination</th>
<th>Distance km</th>
<th>Travel time</th>
<th>The nearest road route codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaunjelgava</td>
<td>Viesite</td>
<td>78 km</td>
<td>1 h 6 min 66</td>
<td>P 86 P 75</td>
</tr>
<tr>
<td></td>
<td>Akniste</td>
<td>86 km</td>
<td>1 h 42 min 102</td>
<td>P 86 P 73</td>
</tr>
<tr>
<td></td>
<td>Plavinas</td>
<td>49 km</td>
<td>43 min</td>
<td>P 87; A 6; E 22</td>
</tr>
<tr>
<td></td>
<td>Auce</td>
<td>166 km</td>
<td>2 h 23 min 143</td>
<td>P 85; P 96</td>
</tr>
<tr>
<td>Viesite</td>
<td>Akniste</td>
<td>29.3 km</td>
<td>1 h 27 min 87</td>
<td>P 73</td>
</tr>
<tr>
<td></td>
<td>Plavinas</td>
<td>51.7 km</td>
<td>50 min</td>
<td>P 57</td>
</tr>
<tr>
<td></td>
<td>Auce</td>
<td>224 km</td>
<td>3 h 10 min 190</td>
<td>P 73</td>
</tr>
<tr>
<td>Akniste</td>
<td>Plavinas</td>
<td>63.4 km</td>
<td>1 h 35 min 95</td>
<td>P 74</td>
</tr>
<tr>
<td></td>
<td>Auce</td>
<td>231 km</td>
<td>3 h 46 min 226</td>
<td>P 73</td>
</tr>
</tbody>
</table>

Source: authors’ construction based on the data of Google Earth

Source: authors’ construction based on the data of Google Earth

**Table 3. The distances between the towns (Jaunjelgava, Viesite, Auce, Akniste, and Plavinas)**

**Figure 6. Condition map of the state roads in Latvia**
occupies 336.6 km of which 27.8 km or 7% are in critical condition (Latvian State Roads, 2011). Nevertheless, the dissatisfactory condition of roads is not a local problem of the particular place, but rather refers to all roads of Latvia. The situation is well represented in Figure 6, where the roads in Latvia that are in good and very good condition are marked in bold black, but as it can be seen, the roads that join the towns indicated in the present study are considered comfortable enough only in separate and small sections. Concerning the shortage of human capital, it should be mentioned that homogeneous and comparable statistical data characterising the human capital of the researched towns are presently not available. If speaking about the work of local authorities, it can be seen that, in the majority of cases, town development plans and projects are prepared by external experts that might be the evidence of the insufficient specific knowledge of
the municipality employees. The number of sole traders and business companies per 1000 inhabitants is another indicator indirectly pointing to the lack of human capital; as such, a number would show the proportion of the active population. These data were surveyed by the State Regional Development Agency, as across the counties. Thus, in 2008, there were 12 undertakings and business companies per 1000 inhabitants on average. The smallest number of undertakings was in Auce County - 9.5/1000, while the largest number was in Jaunjelgava County - 14.3/1000 (SRDA research, 2009).

As it is illustrated in Figure 7, the most distinct opportunity is to get an economic effect from scale due to urban network creation.

Each of the researched towns has developed its own sector of specialisation, both historically and depending on its geographical location and natural resources. Intercity cooperation opportunities can be viewed on different levels that may be mutually complementary. Cooperation is possible between municipalities and municipal authorities, companies, and non-governmental organisations.

**Inter-municipal cooperation**

Some sporadic collaborative projects have been observed in the municipality’s public reports and accounts of the projects accomplished during the period of 2009-2010 (Reviews of implemented projects in Akniste, Auce, Jaunjelgava, Viesite, and Plavinas local municipalities, 2010). During the period of 2009-2010, there were a total of 68 different projects implemented or on the implementation stage in the municipalities of Akniste, Auce, Jaunjelgava, Viesite, and Plavinas. Fifty-four out of 68 projects are local ones (without cooperation), five projects are in cooperation with other municipalities of Latvia, and nine projects are in cooperation with municipalities in other countries. The research on the implementation of collaborative projects in Zemgale allows distinguishing two main trends, which are illustrated in Figure 8.

Figure 8 shows that cooperation projects in Viesite and Akniste are implemented more often than in other local municipalities; however, there are no reported collaborative projects in Plavinas and Jaunjelgava.

All local projects have been carried out in urban infrastructure reconstruction or in the construction scope. The collaborative projects, in turn, are being carried out in the education and culture, and social integration scope. This is clear, because such projects tend to achieve a better effect by involving wider communities. Currently operating Latvia – Lithuania Cross Border Cooperation Programme for the period of 2007-2013 plays an important part in the development of cooperation projects between municipalities.
in Zemgale. Within this programme, Akniste, Viesite, and Rokiskis (Lithuania) municipalities implement collaborative projects. These collaborative projects include cultural projects “The Selonians sing and dance together”, which takes place in one of the partner cities each year in the form of concerts and conferences in order to preserve and develop Selonian cultural heritage. As another bright cooperation example, the authors wish to mention a project called “Cross-border Network of Crafts as a Promoter of the Attractiveness of Latvia – Lithuania Borderlands”. The project’s leading partner is Zemgale Planning Region that organised the courses for wood crafters in Jelgava, in turn, the similar courses in Viesite have been provided by Viesite municipality. Crafters from Viesite, Zasa, and Vipe have been offered the opportunity to participate in the courses.

Cooperation opportunities for companies

Studying the areas of business of the five towns in relation to industrial manufacturing, one can notice an interesting division across sectors, which are common for several towns or where several towns participate in the same product manufacturing and sales chain.

A more detailed division across the manufacturing sectors is represented in Figure 9. As it can be seen, in each of the towns one or more wood-processing, forestry, or forest management companies operate, which makes one consider possible future cooperation of the sector’s companies by expanding the industry or searching for wider outlets. The same can be attributed to culture activities, plant, and seed production sector that may develop over time into a production cluster thus achieving the economy of scales. However, speaking of this type of cooperation, it should be stressed that it calls for the initiative of the entrepreneurs themselves and a high level of the company’s development.

Considering the threats that could hinder intercity cooperation, the most significant threat is the prolongation of economic stagnation, which prevents any project from being implemented (Figure 10). Consequences of the crisis manifest themselves as insufficient state support and high unemployment indicators, which, in general, interfere with the development of towns and business thereof.

Conclusions

- There are two types of polycentrism as spatial framework concepts. One of them is different growth centres approach, which emphasises the necessity to develop separate growth centres (larger cities) and urban network concept, which has a strong link with urban hierarchy approach.
- Urban hierarchy approach declares that every level of urban areas has a complex of development opportunities. On every lowest level, these opportunities tend to reduce. Since these cities are located on the lowest level of urban hierarchy, in accordance with the polycentric concept of
development, it is very essential for the cities to develop cooperation and to promote urban networking.

- An urban network ability to attract greater financial recourses is the strongest inside factor in the results of SWOT analysis. The EU fund raising practice demonstrates that projects with a wider territorial overlay have preference because they provide a convergence process on a larger scale. Thus, it is obvious that the urban network has greater opportunities to attract the EU funding recourses than in local cases.

- The most significant opportunity is to obtain economy from scale. Having created an urban network, this area gets a considerable quantity of inhabitants and wider urbanised territory; it could also diversify its development potential. These conditions provide an internal market effect and territory becomes more attractive for enterprisers and new human groups.

- Economic crisis and prolongation of stagnation are the strongest external threats. It is obvious that this global problem is impossible to resolve in local communities. Yet, dynamic monitoring of the crisis is one of the significant tasks for municipalities, since it allows finding the right moment for the initiation of development activities.

- The weak link of more peripheral territories is a shortage of human capital. Some solutions for human capital problems are different life-long education programme implementation, NGOs (non-governmental organisations) sector development, and increasing of human mobility. However, these activities could not resolve the demographic problem and aging of population.

- In the process of carrying out research into a described town’s cooperation experience, it is evident that cities cooperate with each other mostly within individual development projects and in-depth cooperation based on mutual economic integration is not perceived. However, different from other years, this practice became more widespread, also due to Latvian – Lithuanian cross border cooperation project in the period of 2009-2010.

- The building of a collaborative network between cities is still an insufficiently used approach; however, taking into account the numerical dominance of small towns in Latvia, the authors believe that this may be a promising direction of the town’s development and growth.

Bibliography


Guide for Authors

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Economics and Rural Development publishes papers covering philosophical, methodological and empirical research on the development and implementation of agricultural and rural development, rural development policy and its implementation; agricultural competitiveness; economics of resources and its management; strategic management of rural organizations; finance, accounting, statistics and analysis of rural development; rural sociology; rural education and studying; development of information and knowledge based society in rural areas.

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Illustrations
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   Note. When the report or note is written by named author(s), primarily name of the authors(s) and year when the results were carried out should be shown.

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5. Equations should be numbered serially at the right-hand side in parentheses.
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   \*P<0.01.

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