

KAUNAS UNIVERSITY OF TECHNOLOGY
KLAILĖDA UNIVERSITY
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**ASSESSMENT OF THE COUNTRY'S COMPETITIVENESS
THROUGH THE ASPECT OF ENTREPRENEURSHIP**

Summary of Doctoral Dissertation
Social Sciences, Economics (04S)

2016, Kaunas

This doctoral dissertation was prepared in Kaunas University of Technology, Faculty of Economics and Business, the Department of Economics in period of 2010–2016.

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English Language Editor:

UAB “Synergium”

The official defence of the dissertation will be held at 14 p.m. on 7th October, 2016 at the public meeting of the Dissertation defence board of Economic science field in the Dissertation defence Hall at Kaunas University of Technology.

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The summary of the doctoral dissertation was sent on September 7th, 2016.

The doctoral dissertation is available on the internet <http://ktu.edu> and at the libraries of Kaunas University of Technology (K. Donelaičio st. 20, 44239 Kaunas, Lithuania), Klaipėda University (K. Donelaičio a. 3, 92144 Klaipėda), Lithuanian Energy Institute (Breslaujos st. 3, 44403 Kaunas).

KAUNO TECHNOLOGIJOS UNIVERSITETAS
KLAIPĖDOS UNIVERSITETAS
LIETUVOS ENERGETIKOS INSTITUTAS

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**ŠALIES KONKURENCINGUMO VERSLUMO ASPEKTU
VERTINIMAS**

Daktaro disertacijos santrauka
Socialiniai mokslai, ekonomika (04S)

2016, Kaunas

Disertacija rengta 2010–2016 metais Kauno technologijos universiteto Ekonomikos ir verslo fakultete, Ekonomikos katedroje.

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Prof. dr. Vytautas SNIEŠKA, *Kauno technologijos universitetas*, socialiniai mokslai, ekonomika.

Ekonomikos mokslo krypties disertacijos gynimo taryba:

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Disertacija bus ginama viešame ekonomikos mokslo krypties disertacijos gynimo tarybos posėdyje 2016 m. spalio 7 d., 14 val. Kauno technologijos universiteto Disertacijų gynimo salėje.

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Disertacijos santrauka išsiųsta 2016 m. rugsėjo 7 d.

Su disertacija galima susipažinti internetinėje svetainėje <http://ktu.edu> ir Kauno technologijos universiteto bibliotekoje (K. Donelaičio g. 20, 44239 Kaunas), Klaipėdos universiteto (K. Donelaičio a. 3, 92144 Klaipėda), ir Lietuvos energetikos instituto (Breslaujos g. 3, 44403 Kaunas) bibliotekose.

INTRODUCTION

Relevance of the research topic. Rapidly developing worldwide globalisation processes are forming new challenges in all countries' life areas. The country's strategic, political and economic changes directly influence not only the dynamics of the country's economics, but also the ecological, social and cultural environment of the country. Vertical changes inevitably affect the tendencies of changes in business.

Long-term challenges of the latter decade accelerated such unfavourable changes as globalisation, limitations of natural resources, and ageing of the human resources. They take place all over the world, but they show up particularly by their tendencies in European countries (Martens, 2010; Erixon, 2010). In such environment, the European Commission (EC) (European Commission, 2003; 2011a; 2011b) expresses its concern regarding the potential of economic growth. Therefore, the increasing concern of the EC in economic growth is being observed, and there is expressed a strong sight that moving towards a strategical goal, "Europe 2020", is possible only through clever and stable growth (Europe 2020). An overall growth has to turn back to the creation of socially responsible economics.

As the strategic document of the EC "Europe 2020" (Europe 2020) foresees, an underlying tool for cardinal change is investing 3 percent of European GDP in R&D. It is easy to understand that all this is oriented towards the strengthening of the potential of countries' competitiveness through the formation of favourable business conditions. The selected strategy of the European Commission (EC) stimulates a development of the underlying innovative strategy oriented towards strengthening of region's economy through the development of business potential in the regions. According to Aces, Szerb et al. (2012), the region's transition from a "managed" economy to an entrepreneurial economy is one of the most significant changes of economic development related to a rapid prioritising of small and medium business and strengthening of significance of human and intellectual capital to economic growth over the last few decades.

The importance and benefit of this step for the regions of the European Union according to the classification of NUTS (unified system of distribution of territories into regions effectual in the European Union) is reflected by The Regional Entrepreneurship and Development REDI. Scientists Aces, Szerb, Ortega-Argilés, Coduras and Aidis (2012) highlight the following most distinguishing changes: in economic growth human capital rapidly changes physical capital; individuals leading big enterprises in the creation of new knowledge; new and small enterprises make lodgements by transforming knowledge into products and services in great request for markets. In the world without borders and its globalised market, international competition is (becomes)

an important condition of the nation's welfare. Undoubtedly, a foundation of the country's competitiveness is a competitive business (European Commission, 2011a; European Commission, 2011b).

The main Lithuanian planning document, Lithuanian progress strategy "Lithuania 2030", to which the state plans, programmes and other initiatives of public politics have to be coordinated, foresees the main directions of progress – wilful society, reliable and modern government and a clever economy – flexible and able to compete in the world, creating a high additional value economy based on knowledge, innovations, entrepreneurship and social responsibility as well as "green" growth (Lietuvos pažangos strategija "Lietuva 2030"). In striving to implement the State progress strategy and to create a progressive, modern and strong state characterised by the consistency of clever society, clever economy and clever management, one of the goals is selected to stimulate creativity, *entrepreneurship* and leadership. One of priorities of this strategy is intended to form a favourable environment for economic growth in the country, and, first of all, the environmental conditions favourable for the development of competitiveness.

By implementing the European initiative "Small Business Act" (Small Business Act, 2015) and programme of enterprises' competitiveness and small and medium enterprises COSME for 2014–2020 (COSME - EU programme for Competitiveness), a plan of Lithuanian entrepreneurship actions was prepared for 2014–2020 (Lietuvos verslumo veiksmų 2014–2020 metų planas, 2014), intended to form and develop complex environment favourable to entrepreneurship that involves legal, economic, informational and social regulation. This confirms that one of the long-term priorities of Lithuania and all the countries of the EU is a competitive economy, and entrepreneurship is one of the factors for the implementation of a competitive economy.

In the Lithuanian innovation strategy for 2010–2020 (Lietuvos inovacijų 2010–2020 metų strategija) it is highlighted that creativity and *entrepreneurship* of human resources determine innovations, and the country's competitiveness. Lithuania's progress strategy "Lithuania 2030" describes a very clear strategy for the country's economic development closely related to striving for the country's sustainable progress. In order to reach the essential economic changes, creation of a clever economy through intensive creation and scientific knowledge use, stimulation of entrepreneurship reasoned by innovations by strengthening the competitiveness of economic activity of both the country's individual areas and levels and to the extent of the whole country, are strategically important.

In the economic literature due to the deficiency of theoretical studies and decisions intended as an assessment of the countries' competitiveness in aspects of entrepreneurship, limited possibilities to extend a reasoned assessment of the analysed economic phenomenon in the environment of processes are observed. That presupposes the theoretical and practical topicality of the dissertation study

– it is necessary to extend the scientific studies intended for the analysis and assessment of the topic of entrepreneurship and the country's competitiveness interactions, in striving to create the theoretical instrumentation that integrates the influence of the results of progress and clever economy creation intended to assess the country's competitiveness in aspects of entrepreneurship as well as the estimation of the country's competitive position with respect to other countries.

Level of scientific problem investigation. In the scientific world, the phenomena of entrepreneurship and the country's competitiveness remain topical for many decades. Scientists and society are interested in the topicality of the analysis and assessment of the interaction between entrepreneurship and competitiveness. This is proclaimed by plenty of studies of theoretical and empirical research appearing every year, and which analyse and assess the influence of entrepreneurship on the country's competitiveness from different points of views.

In striving to analyse and assess the level of investigation of scientific problems analysed in the dissertation more widely, a search of publications related to topicality was performed in both databases of scientific publications acknowledged in the international arena, and other scientific magazines as well as material from conferences.

Many studies were performed during the last few decades in striving to reveal a content of expression of entrepreneurship's influence on competitiveness on a theoretical level (Drucker, 1985, 2006, 2015; Lumpkin & Dess, 1996; Kearney, Hisrich & Roche, 2009; Parker, 2004; McGrath, 2015; Rita Gunther & McGrath, 2015; Gambardella & McGahan, 2010; Kuttim, Arvola & Venesaar, 2011; Kinderis & Jucevičius, 2013; Kiškis & Lunevičiūtė, 2011; Stevenson & Jarillo, 1990; Stevenson & Roberts, 1999; Castano, Maria-Soledad, et al. 2015; Chesbrough, 2010; Thurik & Freytag, 2006; Wignaraja, 2008; Židonis, 2014; et al.).

According to (Chang & Kozul-Wright, 1994; Del-Palacio & Sole, 2008; Ács, Autio & Szerb, 2014; Hobolt & De Vries, 2015; Valodkienė & Snieška 2012; Rakauskienė & Tamošiūnienė, 2013; Reiljan, Henrikus, & Ivanov, 2000; et al.) in the environment of rapid globalisation, a topical question of entrepreneurship of national systems shows up, i.e. how entrepreneurship should be described on different economic levels.

Some scientists are trying to answer the question as to what the role of entrepreneurship is in the development of a country's economy. Despite concepts discussed in scientific discourse, different attitudes towards the concept of entrepreneurship remain. The opinion of Szerb and Aidis (2013) could be agreed with, that entrepreneurship involves six components: a factor of manufacturing, innovation, recognition of possibilities, creation of new enterprises, features of entrepreneurship and enterprising perception.

Entrepreneurship and its expression on a country's level are conceptualised and measured by the World Economic Forum (WEF), World Bank and other worldwide institutions (World Economic Forum, (2015), The Global Competitiveness Report 2010–2011, 2012–2013, 2014–2015; Global Entrepreneurship Monitor, 2012, 2013, 2014; et al.). Every one of them announces evaluations and ratings of countries' entrepreneurship and competitiveness according to their own methodology. The Global enterprise and development index (*GEDI*) is related to the country's economic growth, and the character of interrelation is analysed by (Acs, Audretsch, & Evans 1994; Carree & Thurik, 2003; Acs, Zoltan, 2006; Acs, Audretsch, 1991, 1998, 2006; Naudé, 2010, 2013; et al.). The modern context of entrepreneurship is being revealed by calculating the Regional Entrepreneurship and Development Index REDI (Szerb, Acs, Autio, Ortega-Argiles & Komlosi, 2013). With reference to the REDI results, strategies of progressive specialisation of European regions were assessed during the formation of the policy corresponding to the business needs and the improvement of the business environment (Atkinson, 2013; Lee, 2010).

The concept of assessment of the country's competitiveness through the aspect of entrepreneurship is sophisticated and requires the constant renewal of the research. It is related to the specifics of this phenomenon, variety of miscellaneous interactions, abundance of factors determining influence, and also different attitudes of scientists towards the topicality of country's competitiveness in different countries (Petuskiene & Glinskiene, 2011; Poh Kam Wong, Yuen Ping Ho, & Erkkö Autio, 2005).

Imperfect examinations of the problem of assessment of a country's competitiveness through the aspect of entrepreneurship becomes one of the most important obstacles that impedes complex analysis and assessment of the country's competitiveness potential, as well as foresight of its future changes (Berger, 2008; Blassingame, 2012; Martin, Kitson, & Tyler, 2006; Meyer-Stamer, 2008).

Despite the endeavours of the world's scientists to describe and assess entrepreneurship and its content, there are new topical questions to be solved: entrepreneurship as a concept of the interaction and expression of a powerful complex force with competitiveness in the context of globalisation processes and the country's national progress.

One of the underlying questions of this problem is the multidimensionality of the competition phenomenon. Porter's (1990) concept of competitiveness, which became the classic, was developed by Begg (1999), Storper, (1997), Bennewort & Charles, (2005), Delgado, Ketels, Porter & Stern, (2012), Bobera, Lekovic, & Berber, (2014), Huarng & Hui-Kuang Yu, (2011), Kirzner, (1978), Komarkova, Pirozek, & Pudil, (2014), Kuratko, (2014),; Moon, Rugman, & Verbeke (1998), Nisipeanu, (2013) and many other world scientists.

Big contributions to the topical study of competitiveness were also brought in by the country's scientists (Rodomanskaitė & Banytė, 2003; Meiliene & Snieska, 2010; Snieska, 2012; Kvainauskaitė & Snieska, 2003; Malakauskaitė & Navickas, 2007, 2009, 2010; Navickas & Malakauskaite, 2009; Simanavičienė, Bruneckienė & Šimberova, 2007; Sabonienė, 2003, 2009, 2011; Pukelienė & Sabonienė, 2001; Kvainauskaitė, Snieska and Valančienė, 2011; Boschma, 2004; Camagni, 2002; Staskevičiūtė & Tamošiūnienė, 2010; Schwab, & Sala-i-Martin, 2011; Harmaakorpi, Kauranen & Haikonen, 2003; et al.).

It has to be noted that a big trace in studying the competitiveness concept was left by well-known institutions such as the Competitiveness Advisory Group "Enhancing European Competitiveness" (1995), OECD (1998a, 1998b), and World Economic Forum. The Global Competitiveness Report (2012–2013; 2014–2015), The Global Competitiveness report 2011–2012, Schwab, Sala-i-Martin (2011), The IMD World Competitiveness Yearbook (2012).

However, it can be stated that, despite the scientist's endeavours to analyse and assess entrepreneurship and competitiveness, the results obtained are discrete, but fragmentary enough, because scientists or institutions mostly make references to tendencies of the economic state of that time, often by leaving the aspect of globalisation and strategically important challenges of the country's clever economy creation and strategic progress aside.

Summarising, it can be stated that despite the increasing interest of foreign and Lithuanian scientists in the topicality of entrepreneurship and the country's competitiveness in different aspects, now in the scientific literature there is a lack of methodologically based systemic attitude towards entrepreneurship as an important stimulating factor of the country's economy growth. The absence of complex assessment tools has become one of the obstacles impeding the full assessment of the country's competitiveness through the aspect of entrepreneurship and the formation of interactions between business and the country's competitiveness by implementing a strategy of progress and creating a clever economy environment.

An incomplete examination of the influence of entrepreneurship on the country's competitiveness is a topical scientific problem. However, due to the limited volume of work in the dissertation, aspects of the interactions between entrepreneurship and competitiveness are being studied as much as it is necessary to reach the main goal of the dissertation study.

The scientific problem. The scientific problem of the study is being formed by an appellative question: how to assess the country's competitiveness through the aspect of entrepreneurship in striving to take reasoned decisions for the implementation of the country's economy strategy.

The object of the scientific research – The country's competitiveness through the aspect of entrepreneurship.

The aim of the scientific research – To create a conceptual model of assessment of the country's competitiveness in the aspect of entrepreneurship which integrates the influence of the results of progress and clever economy creation, and to verify it empirically.

In order to achieve the specified aim, the following research **objectives** are set up:

1. To systematise concepts of entrepreneurship and competitiveness as factors influencing the country's competitiveness;
2. To analyse and assess methodologies for competitiveness and entrepreneurship assessment; to reveal interaction of entrepreneurship and competitiveness processes;
3. To describe methodological principles of assessment of entrepreneurship and competitiveness interaction and to form a conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship suitable to integrate results of progress and clever economy creation;
4. To ground the methodology of empirical study of the conceptual model of assessment of the country's competitiveness in aspects of entrepreneurship;
5. To verify empirically a functionality of the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship;
6. To analyse and assess data of the empirical study obtained by applying the model of assessment of the country's competitiveness through the aspect of entrepreneurship.

The methods of research. The dissertation is based on nomothetic (*gr. nomothetikos — related to legislation, determining legislation, laws*) point of view, and the positive totality of theoretical and methodological presumptions. For analysis and summarising of concepts of theoretical entrepreneurship and the country's competitiveness and their interaction, the following methods are used; logical analysis of scientific literature, systematising, summarising and comparison, and logical generation of conclusions. Expert analysis and quantitative methods of mathematical statistics were invoked for the analysis of data of empirical studies and economical interpretation: systemic analysis, methods of multi-criteria assessment, and research data were processed by *SPSS* and *Microsoft Excel* software.

Novelty, significance and practical adaptability of the scientific study.

- Having performed the analysis of the scientific literature, there are systematised, summarised and specified concepts of entrepreneurship and competitiveness, and paradigms of their interactions.
- The concept of the country's needs was based on the assessment of the country's competitiveness through the aspect of entrepreneurship in the point of view of the case-subsequence of the integration of processes of strategical indices of progress.

- Having analysed and systemised the characteristics of the country's competitiveness expression, there are selected indices for assessment of the country's competitiveness through the aspect of entrepreneurship, which in the conceptual model are connected into one complex set by forming factors, their groups and sub-indices used for the creation of the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship.

- The methodology assessment of the country's competitiveness through the aspect of entrepreneurship based on the determination of the significance of the factors, their groups and sub-indices.

- The prepared conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship is significant for economic science because it not only allows the modelling of the country's economic competitiveness strategies through technical-technological, economic and social processes but also integrating the challenges of the country's progress and clever economic implementation tendencies.

- There is a model of the country's competitiveness through the aspect of entrepreneurship assessment using the index based on procedural attitude.

- There is a theoretically based and empirically verified platform of assessment and model that describes entrepreneurship influence on the country's competitiveness.

- An empirical study of the proposed conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship confirms its functionality and possibility to contribute to the development of models of the country's competitiveness strategy management in the context of entrepreneurship insights.

- With reference to the analysis of the scientific literature and the results of the empirical study of the conceptual model, there was a provision that confirmed the strategical management of the country's competitiveness through the aspect of entrepreneurship cannot be universal, - it has to be unique in consideration of the potential challenges of a particular country's progress and clever economy implementation.

- The created algorithm and model can be directly used or adapted for the analysis and assessment of the country's or region's competitiveness through the aspect of entrepreneurship.

Structure of the dissertation. The logical structure of the dissertation was determined by a formulated goal and tasks raised to reach it. The scientific study consists of an introduction, three parts, conclusions, list of used scientific literature and annexes. The logical scheme of the dissertation study is presented in Figure 1.

The aim of the scientific research – to create a model of assessment of the country's competitiveness through the aspect of entrepreneurship that integrates the influence of the results of the creation of progress and clever economy, and to verify it empirically

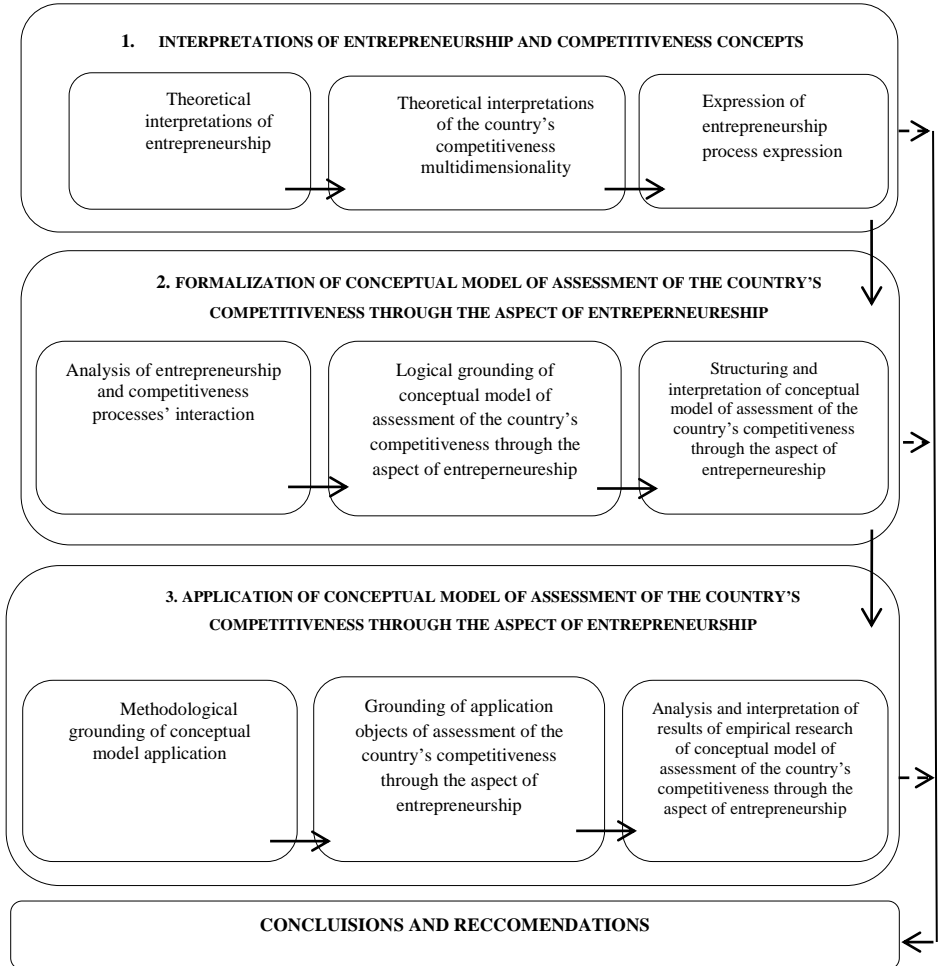


Fig. 1. Logical scheme of the dissertation study

The first part of the dissertation study strives to reveal a discourse of the complexity of entrepreneurship concepts and a variety of entrepreneurship assessment concepts, present a competitiveness concept and genesis, a paradigm of factors determining competitiveness, and analyses approaches of the scientific assessment of competitiveness.

The second part of the study is intended for the conceptualisation of the country's competitiveness through the aspect of the entrepreneurship assessment's conceptual model: there is analysis of the interaction between the entrepreneurship and competitiveness processes; discussion on principles and presumptions of the creation of the country's competitiveness through the aspect of the entrepreneurship assessment model, and creation of the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship.

The third part of the dissertation, with reference to the methodology of the empirical study created in the second part, performs empirical research of the conceptual model of the prepared country's competitiveness through the aspect of entrepreneurship assessment in the context of the countries of the Baltic region, and analyses and assesses the results of the empirical results.

At the end of the dissertation study the consolidated conclusions are presented that show how the goal of the study has been reached and how the foreseen tasks were performed.

While preparing the dissertation, different scientific literature of foreign and Lithuanian authors in English and Lithuanian, informational sources, documents, data of performed studies, statistical data, scientific and survey articles as well as monographies were used.

Limitations of the research. The scientific study strives to conceptualise the influence of entrepreneurship on the country's competitiveness. It was grounded on general theoretical economic provisions. During preparation of the dissertation, one of the main restrictions was the limited availability of reliable and comprehensive information on entrepreneurship and the country's competitiveness interaction. Possibilities of comprehensive studies of entrepreneurship and the country's competitiveness interaction are limited due to the complication of identifying process objects and subjects. Therefore, in striving to analyse entrepreneurship and the country's competitiveness interaction as objectively as possible, the results of secondary research have to be used with a risk of the reliability of the research.

The publication of research results. The research results have been presented at a number of scientific conferences in Lithuania and abroad, and published in recognised Lithuanian and foreign scientific journals (see the list of scientific publications).

Possible trends of further scientific research. Having analysed global concepts of entrepreneurship and competitiveness, and the results of the research

into the topicality of the interaction's assessment concepts, and also having performed empirical research of the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship, the potential directions of future scientific research were revealed:

- development of new concepts of assessment of the country's competitiveness through the aspect of entrepreneurship;
- modelling of potential entrepreneurship paradigms and the influence of their challenges in environment of the country's progress and clever economy implementation in the context of the whole of Europe.

The contents of the dissertation: The dissertation consists of 132 pages without annexes, 37 figures, 19 tables, 18 annexes, and 332 sources of scientific literature (in Lithuanian and English) were used as references.

GENERAL REVIEW OF THE DISSERTATION CONTENT

1. INTERPRETATIONS OF ENTREPRENEURSHIP AND COMPETITIVENESS CONCEPTS

The first, theoretical, chapter of the dissertation study analyses a discourse of the complexity of entrepreneurship concepts and process; models of entrepreneurship assessment are announced in publications of theoretical and empirical studies. In striving for the dissertation's aim, theoretical interpretations of multidimensionality of the country's competitiveness, its determining factors, theoretical aspects of the interaction of entrepreneurship and the country's competitiveness were revealed.

Chapter 1.1. "Theoretical explication of entrepreneurship".

This section analyses the last two decades of increasing interest of the world's scientists in the entrepreneurship phenomenon, and tries to research the tendencies of entrepreneurship concept development. Entrepreneurship is a multidimensional phenomenon, therefore, it is being examined in very different contexts in the scientific literature, and presents the different concepts of entrepreneurship adapted for particular case studies. Substantially, all researchers state that entrepreneurship as an activator of important economic development and social welfare is a significant strategical determinant of the country's competitiveness, fair and square.

Scientists and researchers, in striving to reveal the entrepreneurship phenomenon as fully as possible, analyse and assess a variety of entrepreneurship concepts. In the environment of globalisation processes entrepreneurship was evaluated from two positions: 1) entrepreneurship as a complex of particular characteristics; 2) entrepreneurship as a process (with results of a particular activity). Many institutions and scientists, in striving to reveal as full as possible the nature of the entrepreneurship phenomenon and contribute to the purification of entrepreneurship understanding, proposed different *sub-domain terms* of entrepreneurship, such as *corporate* entrepreneurship, *social* entrepreneurship, *entrepreneurship of possibilities*, *entrepreneurship of necessity*, *academic* entrepreneurship, and *internet* entrepreneurship.

Characteristics of entrepreneurship are different and sophisticated. Despite the lack of a widely and unanimously acknowledged description of entrepreneurship, a general attitude dominates that entrepreneurship has a multitude of aspects. The simplest way to conceptualise entrepreneurship is to determine /define the components that characterise it.

A global study of entrepreneurship monitoring assesses the activity of entrepreneurs all around the world by focusing on both individual characteristics of potential businesspersons, their behaviour, attitudes and motives, and the general attitude of society towards entrepreneurs and

businesspersons, state policy and programmes stimulating entrepreneurship (Dubinas, Stonkuvienė, 2005).

This part of the study examined and compared the tools of measurement of entrepreneurship, and the enterprising innovative environment. There were more comprehensively analysed and assessed business assessment indices recommended by internationally acknowledged entrepreneurship institutions. The World Bank index, “Ease of doing Business”, Global Entrepreneurship Monitor and Global entrepreneurship and Development Index are being widely used by worldwide countries’ entrepreneurship programmes and in the development of entrepreneurship policies (Doing business, 2013, 2014, 2015).

Chapter 1.2. “Theoretical explication of country competitiveness multiplicity”.

As competitiveness became the main index of effectiveness of the country’s economic activity, in this section the main focus is on the concept and genesis of competitiveness. Due to global and social changes, analysis of the competitiveness topic has developed to an international level.

However, it should be agreed that the concept of “competitiveness” should be used to describe the abilities and possibilities of participants of the competitiveness processes in a competitive environment. In general, competitiveness expresses the subject’s advantage, and possibility to win. Today, from the understanding of competitiveness in static’, there is a transition to a dynamic concept of competitiveness: ability to survive, ability to adapt actively in a competitive environment, ability for development, and ability to influence a competitive environment. In striving to retain international competitiveness, enterprises and industrial sectors have to create the potential to reach the highest level of efficiency to counter the challenges raised by competitors.

Both foreign and national scientists, while studying the topic of competitiveness, distinguished different levels of expression of competitiveness that are important in the context of economic globalisation processes. Dimensions of competitiveness levels are closely related: factors of the country’s competitiveness influence the enterprise’s competitiveness, however, at the same time, comparative competitiveness of the country directly depends on the competitiveness of its enterprises. This supposes a bidirectional nature of competitiveness.

Dimensions/aspects of competitiveness are closely related: the country’s competitiveness strategy influences the enterprise’s competitiveness, however, at the same time, the potential of the country’s competitiveness directly depends on the competitiveness of its enterprises. This supposes a bidirectional nature of competitiveness.

In the environment of transformation of globalisation, clusterisation is undoubtedly an important tool for strengthening the competitiveness of economic subjects. Numerous studies revealed that due to partnerships, clusters increase work efficiency, directly stimulate innovative activity, and create potential for the strengthening of competitiveness in all levels of economic activity.

Today, there is a transition from understanding competitiveness as static to a dynamic concept: ability to survive, ability to adapt actively in a competitive environment, ability for development, and ability to influence the competitive environment. In striving to identify the paradigm of factors determining competitiveness more comprehensively, it is important to describe from which positions the country's competitiveness will be assessed.

Chapter 1.3. "Entrepreneurship process dimensions' expression".

In this section the expression of entrepreneurship process dimensions is analysed and assessed from a scientific position. During the last few decades a lot of studies were performed in striving to reveal the content of expression of this influence. Despite experts tackling a variety of entrepreneurship and competitiveness interactions, there appear to be new topical questions to answer, as the presumption remains that business and entrepreneurship further remain a mighty complex power affecting the country's competitiveness.

It is natural that a variety of concepts of entrepreneurship phenomenon appeared due to the different needs of countries. Understanding the need for entrepreneurship dynamics has to be highlighted as a presumption for the different paradigms of the country's entrepreneurship expressions to appear.

With reference to new results of the countries' entrepreneurship measurement, an opinion becomes acceptable that the national entrepreneurship system is dynamic, the interaction of entrepreneurship attitudes is regulated by institutions, and the total activities and efforts, are based on a reasoned distribution of resources for the rationalisation of economic activities.

For the measurement of the countries' entrepreneurship levels, the maximum unified package of complex indices has to be used to allow the effectiveness of economic activity of different countries to be analysed and compared (in the extent of the region or cluster). On the other side, to strengthen the country's competitiveness as an acknowledged significant impetus, a scientifically based methodology has to be developed. It is important to reasonably ground the strategic directions of entrepreneurship development. Having analysed the scientific literature, it was noticed that there is a need to continue the research of the country's competitiveness, especially in the aspect of entrepreneurship. Despite the single assessment of the country's competitiveness through the aspect of entrepreneurship, it can often be found that there is a lack of clear integration of the dimensions of progressive technologies into the assessment processes.

2. FORMALISATION OF THE CONCEPTUAL MODEL OF ASSESSMENT OF THE COUNTRY'S COMPETITIVENESS THROUGH THE ASPECT OF ENTREPRENEURSHIP

This part of the dissertation analyses such important questions of conceptualisation of the theoretical model of assessment of the country's competitiveness through the aspect of entrepreneurship as; discourse of interaction of entrepreneurship and competitiveness processes, logical grounding of the creation of the theoretical model of assessment of the country's competitiveness through the aspect of entrepreneurship, and also presents a summarised conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship.

Chapter 2.1. "Analysis of interaction of entrepreneurship and competitiveness processes".

With reference to the results of the analysis of the variety of entrepreneurship and competitiveness concepts and interpretations in foreign and national scientific literature obtained in the first part, the next stage of the research is intended to analyse the interaction of entrepreneurship and competitiveness processes. In the main, entrepreneurship and competitiveness processes at all levels of economic activity take place under the sway of the influence of many drives, also new progressive drives are being created. Thus, in the cycle of the interaction of entrepreneurship and competitiveness processes, there appears a new phenomenon – business re-engineering (Fig. 2). This progressive phenomenon should be considered as an underlying instrument in the management of the country's competitiveness.

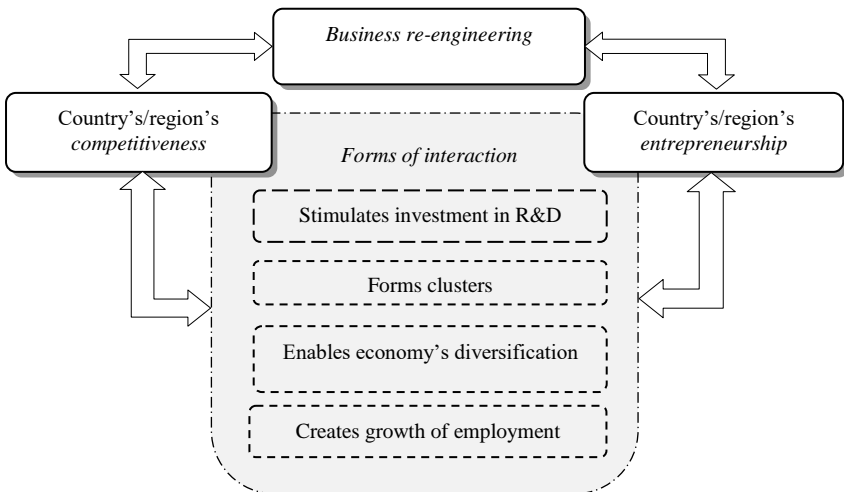


Fig. 2. Cycle of interaction between the country's competitiveness and entrepreneurship

There are many studies that confirm the bidirectional interaction of the region's entrepreneurship and its dimensions, and the region's competitiveness: regions with high entrepreneurship have an underlying potential to form a high competitiveness. It is indicated in the scientific literature that between entrepreneurship and innovations there exist obvious multipartite interactions. Business, in striving for a competitive advantage, looks for possibilities to create presumptions for progress in business through possibilities given by innovations. For the development of the potential of the country's entrepreneurship, there is a need to improve the business models that create the conditions for the development of progressive business by integrating innovatory business models acknowledged in the world as economic drivers for that. On the other side, business, affected by challenges of competitiveness development, analyses and assesses alternative activities and the efficiency of their results, and takes decisions regarding package of adequate actions based on business re-engineering.

Chapter 2.2. “Logical reasoning of development of the model for assessment of country competitiveness through the aspect of entrepreneurship”.

This chapter discusses the principles and presumptions of the creation of a conceptual model of the assumption of the country's competitiveness through the aspect of entrepreneurship. While creating the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship (ŠKVA) there was a provision followed that the principles have to be reflected in the interaction of entrepreneurship and competitiveness in the context of the country's economic processes by giving priority to their relationship with possible challenges of globalisation in national and international environments. Attitude towards the interaction of entrepreneurship and the country's competitiveness is being realised by giving priorities to such modern factors and variables of dimensions of entrepreneurship and competitiveness as promising future technologies, innovative models of business management, results of science and business integration, networking, new and promising business forms and similar.

Thus, a conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship has to be oriented to cover the influence of progressive technological, economic and social transformations.

Chapter 2.3. “Structuring and interpretation of the theoretical model of assessment of the country's competitiveness through the aspect of entrepreneurship”.

While preparing the theoretical model of assessment of the country's competitiveness through the aspect of entrepreneurship, selected factors of influence were grouped into eleven groups. With reference to the comprehensive generalisation of results of the literature analysis, a model of assessment of the country's competitiveness through the aspect of entrepreneurship was formed by the index with which it is possible to assess competitiveness through the aspect

of entrepreneurship according to selected competitiveness factors, and also to identify the country's competitive position with respect to other countries.

The country's competitiveness through the aspect of entrepreneurship is a complex phenomenon determined by an abundance of factors and their groups that are reflected by different indices with different measurement units. For the assessment 63 indices were distinguished, from which there were formed 3 sub-indices: *Sub-index of the country's general conditions* (22 indices), *Sub-index of entrepreneurship efficiency* (27 indices) and *Sub-index of business and innovation development* (14 indices).

In the conceptual model of the country's competitiveness factors through the aspect of entrepreneurship (in the ŠKVAV model) all factors are grouped into eleven groups.

In striving to methodically ground and assess the complex influence of entrepreneurship on the country's competitiveness a generalised model of assessment of the country's competitiveness through the aspect of entrepreneurship into the model of competitiveness factors through the aspect of entrepreneurship (ŠKVAV) was formed by integrating the index of the country's competitiveness through the aspect of entrepreneurship (ŠKVAI). ŠKVAI is expressed by a system of linear equations:

$$\begin{aligned}
 \check{S}KVAI &= (w_1) B\check{S}SsubI + (w_2) VEUsubi + (w_3) VIPsubI & (1) \\
 B\check{S}SsubI &= (w_4) \check{Z}I + (w_5) IGP + (w_6) SAG + (w_7) MVR \\
 VEUsubi &= (w_8) \check{Z}IK + (w_9) T + (w_{10}) VPVL + (w_{11}) RD + (w_{12}) IMTEP \\
 VIPsubI &= (w_{13}) IL + (w_{14}) GL \\
 \check{Z}I &= (w_{15}) GAS + (w_{16}) GI\check{S}S \\
 IGP &= (w_{17}) ITKP + (w_{18}) RP \\
 SAG &= (w_{19}) MGL + (w_{20}) SA \\
 MR &= (w_{21}) VF + (w_{22}) BVP \\
 \check{Z}IK &= (w_{23}) \check{Z}IK_V + (w_{24}) MTEPDJ \\
 T &= (w_{25}) ITTI + (w_{26}) VB + (w_{27}) SMM \\
 VPVL &= (w_{28}) VP + (w_{29}) VL \\
 RD &= (w_{30}) UR + (w_{31}) VR \\
 IMTEP &= (w_{32}) VIMTEP + (w_{33}) VUIMTEP \\
 IL &= (w_{34}) RK + (w_{35}) IP + (w_{36}) IV \\
 GL &= (w_{37}) TKS + (w_{38}) RA
 \end{aligned}$$

Where:

$B\check{S}SsubI$	– sub-index of the country's general conditions;	VF	– state finances;
$VEUsubi$	– sub-index of business efficiency's security;	BVP	– gross domestic product;
$VIPsubI$	– sub-index of business	$\check{Z}IK_V$	– qualification of

	<i>and innovations development;</i>		<i>human resources;</i>
<i>ŽI</i>	<i>– human resources;</i>	<i>MTEPDJ</i>	<i>– R&D labour force;</i>
<i>IGP</i>	<i>– infrastructure and geographical position;</i>	<i>ITTJ</i>	<i>– use of ITT in the enterprises;</i>
<i>SAG</i>	<i>– social protection and welfare;</i>	<i>VB</i>	<i>– business cooperation;</i>
<i>MVR</i>	<i>– macro-economic activity indices;</i>	<i>SMM</i>	<i>– students’ mobility and migration;</i>
<i>ŽIK</i>	<i>– quality of human resources;</i>	<i>VP</i>	<i>– business policy and migration;</i>
<i>VPVL</i>	<i>– entrepreneurship policy and entrepreneurship level;</i>	<i>VL</i>	<i>– entrepreneurship level;</i>
<i>R&D</i>	<i>– market size;</i>	<i>UR</i>	<i>– foreign market;</i>
<i>IMTEP</i>	<i>– investment in R&D;</i>	<i>VR</i>	<i>– home market;</i>
<i>IL</i>	<i>– innovation level;</i>	<i>VIMTEP</i>	<i>– governmental expenditure on R&D;</i>
<i>GL</i>	<i>– globalisation;</i>	<i>VUIMTEP</i>	<i>– expenditure of business and foreign countries on R&D;</i>
<i>GAS</i>	<i>– citizens’ age structure;</i>	<i>RK</i>	<i>– risk capital;</i>
<i>GKŠS</i>	<i>– citizens’ education and education system;</i>	<i>IP</i>	<i>– innovations’ production;</i>
<i>ITKP</i>	<i>– development of informational and communication technologies;</i>	<i>IV</i>	<i>– innovative business;</i>
<i>RP</i>	<i>– region’s attainability;</i>	<i>TKS</i>	<i>– flow of international capital;</i>
<i>MGL</i>	<i>– level of material welfare;</i>	<i>RA</i>	<i>– market’s openness.</i>
<i>SA</i>	<i>– social security;</i>		

In striving for a methodological grounding and complex assessment of entrepreneurship influence on the country’s competitiveness, a summarised model of assessment of entrepreneurship influence on the country’s competitiveness (Fig. 2) was formed into the model of competitiveness factors through the aspect of entrepreneurship (ŠKVAV) by integrating the index of the country’s competitiveness through the aspect of entrepreneurship (ŠKVAI).

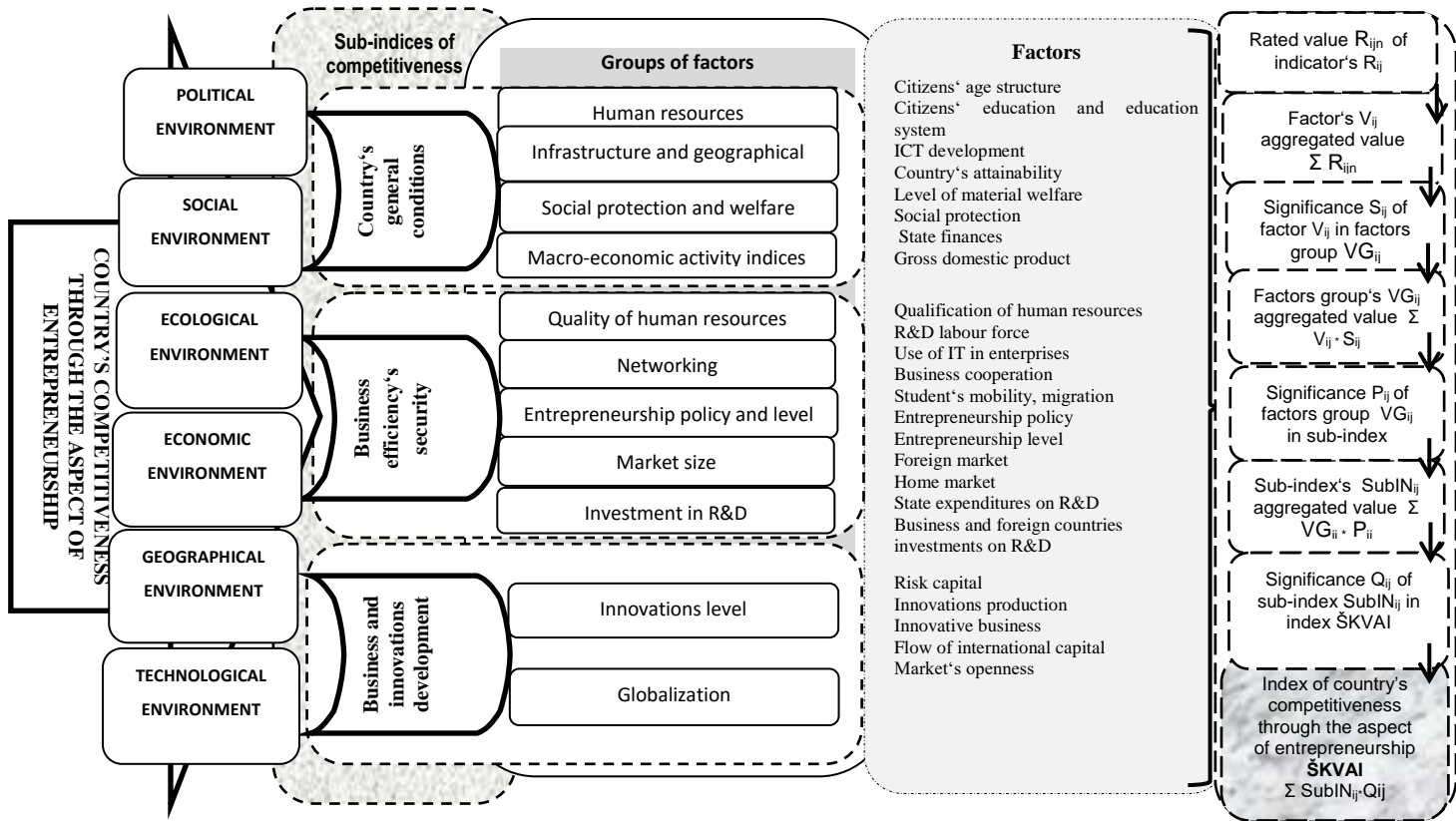


Fig. 2. Conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship

3. APPLICATION OF CONCEPTUAL MODEL OF ASSESSMENT OF THE COUNTRY'S COMPETITIVENESS THROUGH THE ASPECT OF ENTREPRENEURSHIP

Having formed the country's competitiveness through the aspect of entrepreneurship assessment conceptual model, *the third part* of the dissertation is conducted to methodologically ground the empirical research of the application of this conceptual model of assessment, for statistical analysis of assessment of the country's competitiveness through the aspect of entrepreneurship results and their economic interpretation.

Chapter 3.1. "Methodological grounding of conceptual model application".

With reference to the dissertation's scientific problem and tasks named in the introduction, the following goal of empirical research of the study is formed: *to verify by experiment the suitability of the created conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship by evaluating the country's competitiveness level and its strategical potential.*

To reach the formed goal of empirical research it is necessary to perform following 5 tasks:

1) to form a bank of statistical data characterising competitiveness of Baltic region countries through the aspect of entrepreneurship for the period of 2010–2014;

2) with reference to the results of expert research to determine weight coefficients of the country's competitiveness through the aspect of entrepreneurship factors and their groups and their significance to the country's competitiveness;

3) to calculate and interpret the indices of selected region countries' competitiveness through the aspect of entrepreneurship (ŠKVAI) by applying the methods of expert assessment and mathematical-statistical assessment;

4) to perform analysis and interpretation of the results of empirical research of the application of conceptual model of assessment of the country's competitiveness in entrepreneurship method;

5) to perform analysis of reliability of Baltic region countries' ŠKVAI;

6) to confirm or deny suitability of the created conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship to assess the country's competitiveness level and its strategical potential.

To calculate the index of Baltic region countries' competitiveness through the aspect of entrepreneurship complementary methods of expert assessment and mathematical-statistical assessment should be applied. For suitability analysis factor and correlation analysis and used statistical data for the period of 2010–2014 were applied.

For processing and analysing the obtained questionnaire data Microsoft Excel and SPSS statistical data analysis were used. The final result of the expert assessment can be obtained only in the case of compatibility of expert opinions. The coincidence of opinions of the experts participating in the questioning was assessed by Kendall concordance coefficient W .

Determined weight coefficients of factors of the country's competitiveness through the aspect of entrepreneurship and their significance to the country's general competitiveness will help to form conclusions and recommendations on how to manage the country's competitiveness through the aspect of entrepreneurship direction in the context of globalisation (Table 1).

Table 1. Weight coefficients of factors of the country's competitiveness through the aspect of entrepreneurship

Factor of competitiveness	Weight coefficient	Factor of competitiveness	Weight coefficient
1. Country's general conditions	0.25	2.2.2. Business cooperation	0.33
1.1. Human resources and education system	0.28	2.2.3. Students' mobility, migration	0.33
1.1.1. Structure of country's citizens' age	0.39	2.3. Entrepreneurship policy and entrepreneurship level	0.28
1.1.2. Country's citizen education and education system	0.61	2.3.1. Entrepreneurship stimulation policy	0.53
1.2. Infrastructure and geographical position	0.19	2.3.2. Entrepreneurship level	0.47
1.2.1. Development of informational and communicational technologies	0.42	2.4. Market size	0.21
1.2.2. Country's external attainability	0.58	2.4.1. Foreign market	0.52
1.3. Social protection and welfare	0.32	2.4.2. Home market	0.48
1.3.1. Level of material welfare	0.42	2.5. Investment in R&D	0.17
1.3.2. Social protection	0.58	2.5.1. Governmental expenditures on R&D	0.53
1.4. Macro-economic activity indices	0.21	2.5.2. Investment of business sector and foreign countries in R&D	0.47
1.4.1. State finances	0.48	3. Conditions of business and innovations development	0.32
1.4.2. Gross domestic product	0.52	3.1. Innovations level	0.5
2. Conditions of business efficiency	0.43	3.1.1. Risk capital	0.32
2.1. Quality of human resources	0.21	3.1.2. Innovations' production	0.32
2.1.1. Qualification of human resources	0.55	3.1.3. Innovative business	0.36
2.1.2. R&D labour force	0.45	3.2. Globalisation	0.5
2.2. Networking	0.13	3.2.1. Flow of international capital	0.45
2.2.1. Use of IT in enterprises	0.34	3.2.2. Openness of country's market	0.55

Chapter 3.2. “Grounding of research objects of the application of the conceptual model of assessment of the country’s competitiveness through the aspect of entrepreneurship”.

In this part of the study a statistical analysis of assessment of Baltic region countries’ competitiveness through the aspect of entrepreneurship according to the ŠVAV model is presented. To calculate the index complementary methods of expert assessment and mathematical-statistical assessment can be applied. For suitability analysis factor and correlation analysis and data of the period of 2009–2013 were applied.

In striving to assess Baltic region countries’ competitiveness through the aspect of entrepreneurship as precisely as possible, different methodologies of weight coefficients’ allotment were applied in the calculation of ŠKVAI (**Fig.3**):

- When weight coefficients are being allotted to aggregated groups of factors – sub-indices;
- When weight coefficients are being allotted to sub-indices and groups of factors;
- When weight coefficients are being allotted to sub-indices, groups of factors and all factors;
- When all factors of competitiveness are given weight coefficient of equal size.

The obtained data show that in 2014 the country with the most competitive aspect of entrepreneurship of the Baltic region (that took first place) was Germany. Depending on the methodology of weight coefficient allotment selected, the second and third places were shared by Sweden and Denmark. Finland took a sound fourth place (by applying a method of distance from minimal and maximal value and allotting weight coefficients to sub-indices, groups of factors and factors it had risen into third position). Competitiveness positions taken by Norway (fifth place), Estonia (sixth place) and Latvia (ninth place) did not depend on the calculation methodology.

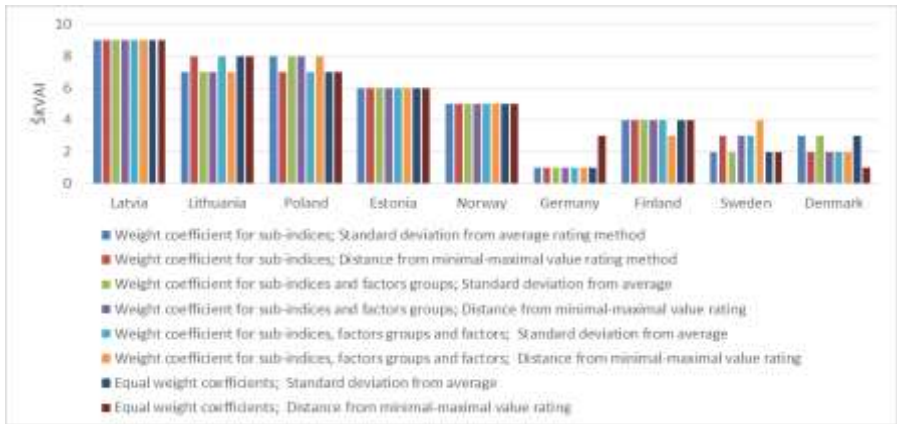


Fig. 3. ŠKVAI ranks of Baltic region countries in 2014 by applying different weight coefficients and rating methods

A significant influence on the Baltic region’s ŠKVAI and ranks was made by methodologies of weight coefficients determination. The range of ŠKVAI change in 2014 by applying different methodologies of weight coefficients determination and a method of data rating distance from minimal and maximal value is shown in Figure 4. In this figure the upper value shows the highest value of ŠKVAI, meanwhile the lower value shows the smallest value of ŠKVAI.

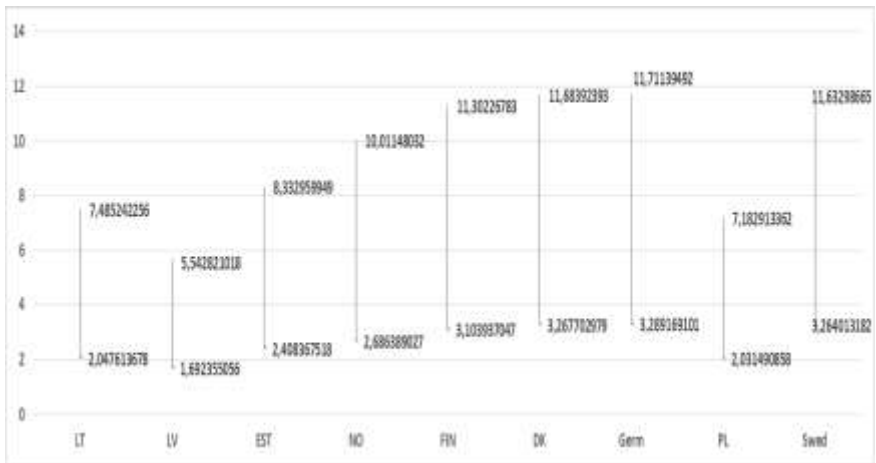


Fig. 4. Range of Baltic region’s ŠKVAI change by applying different methodologies of weight coefficients determination

Having performed ŠKVAI analysis of Baltic region countries for the period of 2010–2014, it can be concluded that the different methodologies of weight coefficient determination applied more influence on the change of ŠKVAI range of the countries assessed with a higher competitiveness rank.

Having assessed the dynamics of the range of values of ŠKVAI sub-indices for 2014 in the context of the determination of different methodologies of weight coefficients, a conclusion can be drawn that more marked changes are being observed in the countries with higher competitiveness. Analogous tendencies were revealed during the whole period of the period under examination.

Chapter 3.3. “Analysis and interpretation of results of empirical research of the application of the conceptual model of assessment of country’s competitiveness through the aspect of entrepreneurship”.

With the help of the conceptual assessment model ŠKVA it will be possible to analyse, assess and compare the country’s competitiveness through the aspect of entrepreneurship in countries with different economic development or their regions. Also, it will be possible to forecast and present recommendations for the management of the dynamics of this phenomenon.

Connection of sub-indices of Baltic region countries with common competitiveness through the aspect of entrepreneurship index is being analysed by applying two different methodologies of weight coefficient allotment:

- by allotting weight coefficients to sub-indices;
- by allotting weight coefficients to sub-indices and groups of factors (Table 2):

Table 2. ŠKVAI and sub-indices of Baltic region countries for 2014 (by applying methodology of weight coefficient allotment to sub-indices and groups of factors)

Country	Sub-index of gross country’s conditions		Sub-index of business efficiency security		Sub-index of business and innovations development		ŠKVAI	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Lithuania	9.64	7	4.28	7	30.16	7	14.01	7
Latvia	8.90	8	2.96	9	26.90	8	12.21	9
Estonia	10.22	6	4.19	8	42.13	5	17.99	6
Norway	14.19	4	4.96	6	38.90	6	18.28	5
Finland	16.31	1	5.76	4	43.79	4	20.73	4
Denmark	15.26	2	6.08	2	49.06	2	22.31	2
Germany	13.77	5	7.00	1	47.42	3	21.79	3
Poland	7.25	9	5.43	5	25.20	9	12.29	8
Sweden	14.25	3	5.95	3	52.31	1	23.05	1

With reference to competitiveness ranks of Baltic region countries for the period of 2010–2014 according to the data of ŠKVAI and sub-indices (Table 3.8 and Annex 15), compatibility of sub-indices' ranks with ŠKVAI rank was assessed. Kendall concordance coefficient helps to assess a rank of which sub-index best reflects competitiveness of Baltic region countries through the aspect of entrepreneurship in specific period (Table 3).

Table 3. Dynamics of correlation of ranks of sub-indices with ŠKVAI ranks

Year	Sub-index of general country's conditions		Sub-index of business and efficiency security		Sub-index of business and innovations development	
	Correlation coefficient <i>W</i>	p -value	Correlation coefficient <i>W</i>	p -value	Correlation coefficient <i>W</i>	p -value
2010	0.833	0.002 (<0.05)	0.778	0.004 (<0.05)	0.889	0.001 (<0.05)
2011	0.889	0.001 (<0.05)	0.611	0.022 (<0.05)	0.889	0.001 (<0.05)
2012	0.833	0.002 (<0.05)	0.722	0.007 (<0.05)	0.089	0.001 (<0.05)
2013	0.722	0.007 (<0.05)	0.722	0.007 (<0.05)	0.889	0.001 (<0.05)
2014	0.611	0.02 (<0.05)	0.833	0.002 (<0.05)	0.722	0.007 (<0.05)

In this chapter, by using definite values of ŠKVAI and sub-indices for the period of 2010–2014, distribution of Baltic region countries into clusters is analysed and interpreted, and a dendogram of Baltic region countries can be created with reference to ŠKVAI for the period of 2010–2014. This allows reasoned strategical offers to be formed to increase competitiveness not for single countries but their groups or clusters. With reference to ŠKVAI cluster analysis results for the period of 2010–2014, Baltic region countries were distributed into three groups.

Summarising the results of empirical research of the application of the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship presented in the third part of the dissertation, it can be stated that the conceptual model of assessment of the country's competitiveness through the aspect of entrepreneurship is a successful step in the development of instruments of management of the country's or region's strategic changes in competitiveness.

The research results showed that in striving for the progress of the country's or region's competitiveness strategical management potential possibilities of business efficiency's security and innovation development, technologies susceptible to knowledge, clever and socially responsible economics and other dimensions of brewing changes in the environment of future globalisation transformations have to be assessed.

CONCLUSIONS

The country's competitiveness specifics analysed and assessed through the aspect of entrepreneurship in the dissertation, and methodological aspects of its complex assessment reflect a constantly increasing interest of world scientists, practitioners and strategists in the topic, and supposes topicality of the analysed problem. Having performed theoretical and practical analysis of entrepreneurship and competitiveness concepts and assessment of the country's competitiveness through the aspect of entrepreneurship, the following conclusions can be made.

1. Having performed systemic analysis of the scientific literature, it was determined that despite active research of competitiveness topics by foreign and country scientists there is a lack of united opinion on questions of the country's competitiveness through the aspect of entrepreneurship. Due to their multidimensionality, problems often arise in the adequacy and effectiveness of assessment of the country's or region's competitiveness through the aspect of entrepreneurship.

2. Having analysed the attitudes of different scientists towards entrepreneurship and competitiveness and the processes of their formation and interaction, it was determined that entrepreneurship should be treated as an underlying process integrating dimensions of the country's economics and proximately influencing the country's or region's competitiveness. It was determined that innovative understanding of country's entrepreneurship processes enables competitiveness potential and dynamism for the assessment of entrepreneurship development in a strategic point of view.

3. Having performed a literature analysis, it was identified that during the last few decades international institutions have created and are using methodologies of different sophistication and applicability for analysis and assessment of competitiveness and entrepreneurship. Though researchers and practitioners mainly agree on the priority of entrepreneurship as factor of competitiveness, there is a lack of complex instrumentation of the assessment of competitiveness through the aspect of entrepreneurship. Therefore, the need for the creation of an adequate system of entrepreneurship and competitiveness interaction assessment criteria to reach the objective assessment results have arisen.

4. With reference to summarising the results of the research published in the literature, the study proposed to relate a formation of the country's or region's competitiveness strategy with the dimensions of the country's entrepreneurship progress and their tendencies. Research performed in the study are based on the specified concept of competitiveness through the aspect of entrepreneurship based on the dynamic ability of entrepreneurship to adapt, develop and influence the competitive environment; it was recommended to give priority in the country's or region's competitiveness strategy management to stimulate entrepreneurship progress.

5. It was determined and reasoned in the dissertation that the country's or region's competitiveness is determined by many factors interrelated and affecting each other. By assessing the country's competitiveness through the aspect of entrepreneurship a reasonably assessment was made of the different variants of factor selection and integration into the general system of the country's competitiveness assessment. Having analysed and assessed the results of foreign and national scientists during the last few years, a hierarchical conceptual model of factors of the country's competitiveness through the aspect of entrepreneurship (ŠKVAV) covering 24 factors, 11 groups of factors and 3 sub-indices was proposed.

6. While creating the conceptual ŠKVA assessment model essential elements and links of their interrelation were defined and distinguished. In the study an original conceptual model of the country's competitiveness assessment through the aspect of entrepreneurship was created allowing the assessment of both the country's or region's competitiveness level and potential as well as to foresee the country's or region's development strategies.

7. With reference to the conceptual model proposed in the dissertation a reasonable process model of the country's competitiveness assessment through the aspect of entrepreneurship by index ŠKVAI was created. In striving for the set goal, the conceptual model of the country's competitiveness assessment through the aspect of entrepreneurship was created by using attitudes of complexity, system and processes.

8. During the research, having used mathematical-statistical tools, the conceptual model of the country's competitiveness assessment through the aspect of entrepreneurship in the context of Baltic sea region countries was based on functionality. It was determined, that ŠKVAI is a suitable complex instrumentation for selection of package of strategically significant assessment indices of country's competitiveness through the aspect of entrepreneurship in the context of dimensions of country's or region's economic activities progress and for complex assessment of country's competitiveness through the aspect of entrepreneurship.

9. Having performed the research applicable to the model of assessment of the country's competitiveness through the aspect of entrepreneurship in the context of Baltic region countries, its effectiveness was verified and it was determined that:

9.1 Performed research of expert assessment results showed different weight of influence of factors, their groups and sub-indices on general country's competitiveness through the aspect of entrepreneurship.

9.2. ŠKVAI value mostly depends on: selection of competitiveness factors, methodology of weight coefficient determination for competitiveness factors and data rating method (in order of decreasing influence).

9.3. ŠKVAI of the countries with higher competitiveness is more sensitive to the methodologies of different weight coefficient determination than regions with medium or less competitiveness.

9.4. For calculation of ŠKVAI methods of rating according to standard deviation from the minimal and maximal value were selected. As in the variation line of ŠKVAI calculation data (indices) there is no oneness, the rating is possible in any method, and this will not have a significant influence on the precision of ŠKVAI competitiveness through the aspect of entrepreneurship.

10. Assessed dynamics of Baltic region countries competitiveness through the aspect of entrepreneurship during the period of 2010–2014 revealed that despite values of single sub-indices of the countries with weaker competitiveness during the research period grew significantly and ŠKVAI value grew slightly, in the general context of the Baltic region they failed to reach the level of competitiveness of the region's leading countries.

11. During the research it was assessed that the compatibility of sub-indices ranks with the ŠKVAI rank. Since, during the research period, no sub-index was observed that best reveals the tendency of general competitiveness of Baltic region countries through the aspect of entrepreneurship, three periods; 2010–2012, 2013 and 2014, were distinguished. It was revealed that during the researched period dominating sub-index was changing.

12. With reference to the analysis and assessment of empirical research results, clusters were formed in Baltic region countries' according to ŠKVAI and sub-indices (for the period of 2010–2014). They all create presumptions to argue strategies of single cluster competitiveness development through the aspect of entrepreneurship.

13. Empirical research results confirmed the validity of the created methodology of assessment of the country's competitiveness through the aspect of entrepreneurship not only for analysis and assessment of the country's or region's competitiveness, but also for strategic planning of the country's or region's competitiveness through the aspect of entrepreneurship in countries or regions with different economic development.

Recommendation.

During implementation of the Lithuanian progress strategy "Lithuania 2030" it is recommended to ground the country's competitiveness strategy in entrepreneurship stimulation as a significant characteristic of the country's economics that constantly affects competitiveness, by presenting new challenges for the development of business re-engineering at the same time.

LIST OF SCIENTIFIC PUBLICATIONS ON THE THEME OF THE DISSERTATION

Articles Indexed in the Web of Science without Impact Factor

1. **Neverauskaitė, Sigita**; Snieška, Vytautas; Čiutienė, Rūta. Exigency of changes in tourism sectors // Economics and management = Ekonomika ir vadyba [elektroninis išteklius] / Kaunas University of Technology. Kaunas: Technologija. ISSN 1822-6515. 2011, no. 16, p. 238-244. [Business Source Complete; Current Abstracts; TOC Premier] [M.kr. 04S]. [Indėlis: 0,333]
2. Meilienė, Evelina; **Neverauskaitė, Sigita**; Aidis, Ruta. Methodological aspects of compiling country's competitiveness through the aspect of technology-intensive innovative enterprises index // Procedia social and behavioral sciences: 20th international scientific conference economics and management 2015 (ICEM-2015): [elektroninis išteklius]. Amsterdam: Elsevier. ISSN 1877-0428. 2015, vol. 213, p. 173-178. [Science Direct] [M.kr. 04S]. [Indėlis: 0,333].

Articles published in publications of other international databases in other reviewed scientific publications.

Articles announced in the material of reports of conferences

1. Aidis, Ruta; Pundzienė, Asta; Buožiūtė-Rafanavičienė, Solveiga; Petraitė, Monika; Meilienė, Evelina; **Neverauskaitė, Sigita**. Modelling the cohesion of dynamic capabilities and corporate entrepreneurship for innovation based high growth economies // 27th Annual RENT conference 2013 - RENT XXVII: Entrepreneurship, institutions and competitiveness [elektroninis išteklius]: November 20-22, 2013, Vilnius, Lithuania: [conference papers]. Vilnius: ISM. ISSN 2219-5572. 2013, p. [1-29]. [M.kr. 03S]. [Indėlis: 0,167]
2. Aidis, Ruta; **Neverauskaitė, Sigita**; Meilienė, Evelina. Entrepreneurship and dynamic capabilities: quantifying an elusive interrelationship // Social Sustainability and Economic Security: The Agenda for Entrepreneurship in the 21st Century [elektroninis išteklius]: 12th IEF Conference, 4-6 September 2013, Vilnius, Lithuania. Essex: University of Essex. ISSN 2222-7318. 2013, p. [1-28]. [M.kr. 04S]. [Indėlis: 0,333]

OTHER PUBLICATIONS

1. Aidis, Ruta; Meilienė, Evelina; **Neverauskaitė, Sigita**. Modelling the cohesion of country's competitiveness through the aspect of open to technologies and innovation enterprises // 15th EBES conference - Lisbon program and abstract book: January 8-10, 2015, Lisbon, Portugal / hosted by ISCTEUIUL Instituto Universitario de Lisboa. Istanbul: Teknik Basim Matbaacilik, 2015, ISBN 9786056400292. p. 120. [M.kr. 04S]. [Indėlis: 0,333]

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Entrepreneurship, Country competitiveness.

REZIUMĖ

Temos aktualumas. Pasaulyje sparčiai vykstantys globalizacijos procesai formuoja naujus iššūkius visose šalių gyvenimo srityse. Strateginiai, politiniai ir ekonominiai šalies pokyčiai daro kryptingą įtaką ne tik šalies ekonomikos dinamikai, bet ir šalies ekologiškai, socialinei ir kultūrinei aplinkai. Vertikalūs pokyčiai neišvengiamai veikia pokyčių tendencijas versle.

Ilgalaikiai pastarojo dešimtmečio iššūkiai spartina tokius nepalankius pokyčius kaip globalizacija, gamtinių resursų ribotumas, žmoniškųjų išteklių senėjimas. Jie vyksta visame pasaulyje, bet savo tendencijomis ypač išryškėja Europos šalyse (Martens, 2010; Erixon, 2010). Šioje aplinkoje Europos Komisija EK (European Commission, 2003; 2011a; 2011b)) išreiškia susirūpinimą dėl ekonomikos augimo potencialo. Todėl stebimas didėjantis EK susirūpinimas ekonomikos augimu, kartu išreiškiamas tvirtas matymas, kad ėjimas į strateginį tikslą „Europa 2020“ įmanomas tik per sumanų ir tvarų augimą. Visapaimantis augimas privalo atsižvelgti į socialiai atsakingos ekonomikos kūrimą.

Kaip numato EK strateginis dokumentas „Europe 2020“ (Europe 2020), kardinaliems pokyčiams prioritetinga priemonė yra 3 proc. Europos BVP skyrimas MTEP. Nesunku suprasti, kad visa tai orientuota į šalių konkurencingumo potencialo stiprinimą per palankių verslumo sąlygų formavimą. Pasirinktoji Europos Komisijos (EK) strategija skatina vystyti regionuose prioritetingą inovacinę strategiją, orientuotą į regiono ekonomikos stiprinimą per verslumo potencialo plėtojimą. Pasak Acs, Szerb ir kt. (2012), regiono perėjimas nuo „tvarkomosios“ (angl. *managed*) ekonomikos prie verslininkiškos ekonomikos yra vienas iš reikšmingiausių per pastaruosius kelis dešimtmečius ekonomikos vystymo pokyčių, susijusių su smulkaus ir vidutinio verslo vystymo sparčiu prioritizavimu bei žmogiškojo ir intelektualinio kapitalo reikšmingumo ekonomikos augimui stiprinimu.

Šio žingsnio svarbą ir naudą Europos sąjungos regionams pagal NUTS (Europos Sąjungoje galiojanti unifikantu teritorijų skirstymo į regionus sistema) klasifikaciją atspindi regiono verslumo ir vystymo indeksas RVVI (angl. *The Regional Entrepreneurship and Development Index (REDI)*). Mokslininkai Acs, Szerb, Ortega-Argilés, Coduras ir Aidis (2012) akcentuoja šiuos labiausiai išskirtinius pasikeitimus: ekonomikos augime žmogiškasis kapitalas sparčiai keičia fizinį kapitalą; individai pirmauja prieš dideles įmones kuriant naujas žinias; naujos ir mažos įmonės įsitvirtina transformuojant žinias į rinkoms paklausius produktus ir paslaugas. Pasaulyje be sienų ir globalizuotoje jo rinkoje – tarptautinis konkurencingumas tampa svarbiausia tautos gerovės sąlyga. Neabejotinai šalies konkurencingumo pagrindas – konkurencingas verslas (European Commission, 2011a; European Commission, 2011b).

Pagrindinis Lietuvos planavimo dokumentas *Lietuvos pažangos strategija* „Lietuva 2030“, su kuriuo turi būti derinami valstybės planai, programos ir kitos viešosios politikos iniciatyvos, numato pagrindines pažangos kryptis – sąmoninga

visuomenė, patikima ir moderni valdžia bei sumani ekonomika – lanksti ir gebanti konkuruoti pasaulyje, aukštą pridėtinę vertę kurianti ekonomika, grindžiama žiniomis, inovacijomis, verslumu ir socialiniu atsakingumu bei „žaliuoju“ augimu (Lietuvos pažangos strategija „Lietuva 2030“). Siekiant įgyvendinti *Valstybės pažangos strategiją* ir sukurti pažangią, modernią ir stiprią valstybę, pasižyminčią sumanios visuomenės, sumanios ekonomikos ir sumanaus valdymo derme vienas iš tikslų yra pasirinktas skatinti kūrybiškumą, *verslumą* ir lyderystę. Vienas iš šios strategijos prioritetų yra skirtas formuoti šalyje ekonominiam augimui palankią aplinką, ir visų pirma, konkurencingumui plėtoti palankias aplinkos sąlygas.

Įgyvendinant Europos iniciatyvą „Smulkiojo verslo aktas“ (angl. *Small Business Act*) (Small Business Act, 2015) ir 2014–2020 m. įmonių konkurencingumo ir mažųjų bei vidutinių įmonių programą (COSME), parengtas Lietuvos verslumo veiksmų 2014–2020 m. planas (Lietuvos verslumo veiksmų 2014–2020 metų planas, 2014), skirtas kompleksiskai formuoti ir ugdyti verslumui palankią aplinką, apimančią teisinį, ekonominį, informacinį ir socialinį reguliavimą. Tai patvirtina, kad vienas iš ilgalaikių Lietuvos bei visų ES valstybių prioritetų yra konkurencinga ekonomika, o verslumas yra vienas iš konkurencingos ekonomikos įgyvendinimo veiksnių.

Lietuvos inovacijų 2010–2020 metų strategijoje (Lietuvos inovacijų 2010–2020 metų strategija) akcentuojama, kad žmogiškųjų išteklių kūrybingumas ir *verslumas* lemia inovacijas, šalies konkurencingumą. Lietuvos pažangos strategija „Lietuva 2030“ apibrėžia labai aiškiai šalies ekonomikos vystymo strategiją, glaudžiai susietą su šalies darnios pažangos siekiu. Esminiams ekonomikos pokyčiams pasiekti strategiškai svarbu yra šalies sumanios ekonomikos kūrimas per intensyvų mokslo žinių kūrimą ir panaudojimą, inovacijomis grįsto verslumo skatinimą stiprinant konkurencingumą tiek šalies ekonominės veiklos atskirose srityse ir lygmenyse, tiek visos šalies mastu.

Ekonominėje literatūroje dėl teorinių tyrinėjimų ir sprendimų, skirtų šalių konkurencingumo verslumo aspektu vertinimui nepakankamumo, stebimos ribotos galimybės išplėsti analizuojamo ekonominio reiškinių argumentuotą vertinimą pažangos procesų aplinkoje. Tai suponuoja disertacinio darbo teorinį ir praktinį aktualumą – būtina plėsti mokslinius tyrinėjimus, skirtus verslumo ir šalies konkurencingumo sąsajų problematikos analizei ir vertinimui, siekiant sukurti teorinį instrumentarijų, integruojantį pažangos ir sumanios ekonomikos kūrimo rezultatų poveikį, skirtą šalies konkurencingumo verslumo aspektu vertinimui ir šalies konkurencinės pozicijos kitų šalių atžvilgiu įvertinimui.

Mokslinės problemos ištyrimo lygis. Mokslo pasaulyje verslumo ir šalies konkurencingumo fenomenai išlieka aktualūs daugelį dešimtmečių. Mokslininkus ir visuomenę domina verslumo ir konkurencingumo sąveikos analizės ir vertinimo problematika. Tai liudija daugybė kasmet pasirodančių teorinių ir empirinių tyrinėjimų, kuriuose įvairiais požiūriais analizuojamas ir vertinamas verslumo poveikis šalies konkurencingumui.

Siekiant plačiau išnagrinėti ir įvertinti disertacijoje analizuojamos mokslinės problemos ištyrimo lygį, buvo atlikta su problematika sietinų publikacijų paieška tiek tarptautiniu mastu pripažintose mokslinių leidinių duomenų bazėse, tiek ir kituose mokslo žurnaluose bei konferencijų medžiagose.

Per keletą pastarųjų dešimtmečių yra atlikta nemažai tyrimų, siekiant teoriniu lygmeniu atskleisti verslumo poveikio konkurencingumui raiškos turinį (Drucker, 1985, 2006, 2015; Lumpkin ir Dess, 1996; Kearney, Hisrich ir Roche, 2009; Parker, 2004; McGrath, 2015; Rita Gunther, McGrath, 2015, Gambardella, McGahan, 2010; Kuttim, Arvola, Venesaar, 2011; Kinderis, Jucevičius, 2013; Kiškis ir Lunevičiūtė, 2011; Stevenson, Jarillo, 1990; Stevenson, Roberts, 1999; Castano, Maria-Soledad et. al., 2015; Chesbrough, 2010; Thurik, Freytag, 2006; Wignaraja, 2008; Židonis, 2014; ir kt.).

Pasak Chang, Kozul-Wright (1994); Del-Palacio, Sole (2008); Ács, Autio, Szerb (2014); Hobolt, De Vries (2015); Valodkienė, Snieška (2012); Rakauskienė, Tamošiūnienė (2013); Reiljan, Henrikus, Ivanov (2000) ir kitų, sparčios globalizacijos aplinkoje išryškėja aktualus verslumo nacionalinių sistemų klausimas, t. y. kaip turėtų būti apibrėžiamas verslumas skirtinguose ekonomikos lygmenyse.

Kai kurie mokslininkai bando rasti atsakymą į klausimą, koks yra verslumo vaidmuo šalies ekonomikos vystyme. Nepaisant moksliniame diskurse aptariamų verslumo koncepcijų, išlieka skirtingas požiūris į verslumo sampratą. Galima pritarti Szerb ir Aidis (2013) nuomonei, kad verslumas apima šešis komponentus: gamybos veiksnio, inovacijos, galimybių atpažinimo, naujų įmonių kūrimo, verslumo bruožų ir verslaus suvokimo.

Verslumą ir jo raišką šalių lygmenyje konceptualizuoja ir matuoja Pasaulio ekonomikos forumas WEF, Pasaulio bankas ir kitos pasaulinės institucijos (World economic Forum, 2015; The Global Competitiveness Report 2010–2011, 2012–2013, 2014–2015; Global Entrepreneurship Monitor, 2012, 2013, 2014; ir kt). Kiekviena jų pagal savo metodiką skelbia šalių verslumo ir konkurencingumo įverčius ir reitingus. Skelbiamas Globalus verslumo ir vystymosi indeksas (angl. *GEDI*) yra susietas su šalies ekonominiu augimu, kurių tarpusavio ryšio pobūdį analizuoja Acs, Audretsch ir Evans (1994); Carree ir Thurik (2003); Acs, Zoltan (2006); Acs, Audretsch (1991, 1998, 2006); Naudé (2010, 2013) ir kt. Šiuolaikinis verslumo kontekstas atskleidžiamas skaičiuojant regiono verslumo ir vystymo indeksą RVVI (angl. *The Regional Entrepreneurship and Development Index REDI*) (Szerb, Acs, Autio, Ortega-Argiles ir Komlosi, 2013). Remiantis REDI rezultatais vertintos Europos regionų pažangios specializacijos strategijos, formuojant verslo poreikius atitinkančią politiką bei gerinant verslo aplinką (Atkinson, 2013; Lee, 2010).

Šalies konkurencingumo verslumo aspektu vertinimo koncepcija yra sudėtinga ir reikalauja nuolat atnaujinti tyrimus. Tai susiję tiek su skirtingų šalių šio fenomeno specifika, sąveikos įvairove ir įvairialypiškumu, poveikį lemiančių

veiksnių gausa, tiek taip pat ir su skirtingais mokslininkų požiūriais į šalies konkurencingumo problematiką (Petuskiene, Glinskiene, 2011; Poh Kam Wong, Yuen Ping Ho, Erkko Autio, 2005).

Nepakankamas šalies konkurencingumo verslumo aspektu vertinimo problemos ištyrimas tampa viena iš svarbiausių kliūčių, trukdančių kompleksiskai analizuoti ir įvertinti šalies konkurencingumo potencialą, numatyti būsimus jo pokyčius (Berger, 2008; Blassingame, 2012; Martin, Kitson, Tyler, 2006; Meyer-Stamer, 2008).

Nepaisant pasaulio mokslininkų dedamų pastangų apibrėžti ir vertinti verslumą ir jo turinį, randasi naujų spręstinių probleminių klausimų: verslumo, kaip galingos kompleksinės jėgos sąsajų su konkurencingumu koncepcija ir raiška globalizacijos procesų ir šalies nacionalinės pažangos kontekste.

Vienas iš pamatinių šios problematikos klausimų yra konkurencingumo fenomeno daugiaspektiškumas. Klasikine tapusią Porter (1990) konkurencingumo koncepciją vystė Begg (1999); Storper (1997); Bennewort, Charles (2005); Delgado, Ketels, Porter, Stern (2012); Bobera, Lekovic, Berber (2014); Huarng Hui-Kuang Yu (2011); Kirzner (1978); Komarkova, Pirozek, Pudil (2014); Kuratko (2014); Moon, Rugman, Verbeke (1998); Nisipeanu (2013) ir dar daugelis kitų pasaulio mokslininkų.

Nemažą indėlį į konkurencingumo problematikos tyrinėjimus įnešė ir Lietuvos mokslininkai Rondonaskaitė ir Banytė (2003); Meilienė ir Snieška (2010); Snieška (2012); Kvainauskaitė ir Snieška (2003); Malakauskaitė ir Navickas (2007, 2009, 2010); Navickas, Malakauskaite (2009); Simanavičienė, Bruneckienė, Šimberova (2007); Sabonienė (2003, 2009, 2011); Pukelienė ir Sabonienė (2001); Kvainauskaitė, Snieška ir Valančienė (2011); Staskevičiūtė, Tamošiūnienė, (2010) ir kt.

Tenka pažymėti, kad didelį pėdsaką, tyrinėjant konkurencingumo koncepciją paliko gerai pasaulyje žinomos institucijos, kaip Competitiveness Advisory Group „Enhancing European Competitiveness“ (1995), OECD (1998a, 1998b), World Economic Forum. Global Competitiveness Report 2012–2013; 2014–2015), The global competitiveness report 2011–2012, Schwab, Sala-i-Martin (2011), The IMD World Competitiveness Yearbook (2012).

Vis dėlto galima teigti, kad, nepaisant mokslininkų pastangų analizuoti ir vertinti verslumą ir konkurencingumą, gauti rezultatai yra diskretiški, bet gana fragmentiški, nes dažniausiai mokslininkai ar institucijos remiasi to meto ekonomikos būsenos tendencijomis, dažnai nuošalyje palikdami globalizacijos aspektą ir strategiškai svarbius šalies sumanios ekonomikos kūrimo ir strateginės pažangos iššūkius.

Apibendrinant galima teigti, kad nepaisant užsienio ir Lietuvos mokslininkų didėjančio susidomėjimo verslumo ir šalies konkurencingumo problematika skirtingais aspektais, šiuo metu mokslinėje literatūroje pasigendama metodologiškai pagrįsto sisteminio, kompleksinio požiūrio į verslumą kaip šalies

ekonomikos augimą skatinantį, reikšmingą veiksnį. Kompleksinės vertinimo priemonės nebuvimas tampa viena iš kliūčių, trukdančių nuodugniau įvertinti šalies konkurencingumą verslumo aspektu ir formuoti verslo ir šalies konkurencingumo sąveiką, įgyvendinant pažangos strategiją bei kuriant sumanią ekonomikos aplinką.

Nepakankamai ištirtas verslumo poveikis šalies konkurencingumui – aktuali mokslinė problema. Tačiau dėl ribotos darbo apimties disertacijoje verslumo ir konkurencingumo sąveikos aspektai tiriami tiek, kiek tai būtina pagrindiniam disertacinio darbo tikslui pasiekti.

Mokslinė darbo problema. Mokslinė darbo problema formuluojama bendrinio klausimu: kaip įvertinti šalies konkurencingumą verslumo aspektu siekiant priimti argumentuotus sprendimus, šalies ekonomikos strategijos įgyvendinimui.

Mokslinio tyrimo objektas yra šalies konkurencingumas verslumo aspektu.

Mokslinio tyrimo tikslas – sudaryti šalies konkurencingumo verslumo aspektu vertinimo modelį, integruojantį pažangos ir sumanios ekonomikos kūrimo rezultatų poveikį ir jį empiriškai patikrinti.

Mokslinio darbo uždaviniai. Darbo tikslui pasiekti suformuluoti 6 uždaviniai:

1. susisteminti verslumo ir konkurencingumo sampratas ir identifikuoti verslumą, kaip veiksnį, įtakojantį šalies konkurencingumą;

2. išanalizuoti ir įvertinti metodologijas konkurencingumo ir verslumo vertinimui; atskleisti verslumo ir konkurencingumo procesų sąveiką;

3. apibrėžti verslumo ir konkurencingumo sąveikos vertinimo metodologinius principus ir suformuoti šalies konkurencingumo verslumo aspektu vertinimo koncepcinį modelį, tinkamą integruoti pažangos ir sumanios ekonomikos kūrimo rezultatus;

4. pagrįsti šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio empirinio tyrimo metodologiją;

5. empiriškai patikrinti šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio funkcionalumą;

6. išanalizuoti ir įvertinti empirinio tyrimo duomenis, gautus taikant šalies konkurencingumo verslumo aspektu vertinimo modelį.

Mokslinio tyrimo metodai. Disertacijoje remiamasi nomotetiniu (*gr. nomothetikos – susijęs su įstatymų leidimu, nustatantis įstatymus, dėsnius*) požiūriu, pozityvia teorinių ir metodologinių prielaidų visuma. Teorinių verslumo ir šalies konkurencingumo bei jų sąsajų koncepcijų analizei ir apibendrinimui yra naudojami mokslinės literatūros loginės analizės, sisteminimo, apibendrinimo ir palyginimo metodai, loginis išvadų generavimas. Empirinio tyrimo duomenų analizei ir ekonominiam interpretavimui buvo pasitelkta sisteminė analizė, daugiakriteriniai vertinimo metodai. Tyrimų duomenys apdoroti *SPSS* ir *Microsoft Excel* programine įranga.

Mokslinio darbo naujumas, reikšmingumas ir praktinis pritaikomumas.

- Atlikus mokslinės literatūros analizę susisteminti, apibendrinti ir patikslinti verslumo ir konkurencingumo konceptai, jų tarpusavio sąveikų paradigmos.

- Pagrįsta šalies konkurencingumo verslumo aspektu vertinimo šalies poreikio koncepcija pažangos strateginių procesų rodiklių integravimo priežasties-pasekmės požiūriu.

- Išanalizavus ir susisteminus šalies konkurencingumo raiškos charakteristikas, atrinkti šalies konkurencingumo verslumo aspektu vertinimui naudotini rodikliai, kurie koncepciniame modelyje sujungti į vieną kompleksinį rinkinį, suformuojant veiksnius, jų grupes bei subindeksus.

- Parengtoji šalies konkurencingumo verslumo aspektu vertinimo metodika paremta veiksnių, jų grupių ir subindeksų reikšmingumo nustatymu.

- Parengtas šalies konkurencingumo verslumo aspektu vertinimo koncepcinis modelis yra reikšmingas ekonomikos mokslui, nes leidžia šalies ekonomikos konkurencingumo strategijas modeliuoti ne tik per techninius ir technologinius, ekonominius ir socialinius procesus, bet ir integruoti šalies pažangos ir sumanios ekonomikos įgyvendinimo tendencijų iššūkius.

- Sudarytas šalies konkurencingumo verslumo aspektu įvertinimo indeksu modelis paremtas procesiniu požiūriu.

- Teoriškai pagrįsta ir empiriškai patikrinta verslumo poveikio šalies konkurencingumui vertinimo platforma ir ją aprašantis modelis.

- Pasiūlyto šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio empirinis tyrimas patvirtina jo funkcionalumą ir galimybę prisidėti prie šalies konkurencingumo strategijos valdymo verslumo įžvalgų kontekste modelių vystymo.

- Remiantis atlikta mokslinės literatūros analize ir koncepcinio modelio empirinio tyrimo rezultatais patvirtinta nuostata, kad šalies konkurencingumo verslumo aspektu strateginis valdymas negali būti universalus, – jis turi būti unikalus, atsižvelgiant į potencialius konkrečios šalies pažangos ir sumanios ekonomikos įgyvendinimo iššūkius.

- Sukurtas algoritmas ir koncepcinis modelis gali būti tiesiogiai panaudotas arba adaptuotas šalies ar regiono konkurencingumo verslumo aspektu analizei ir vertinimui.

Mokslinio darbo struktūra. Disertacijos loginę struktūrą lėmė suformuluotas tikslas ir jam pasiekti iškelti uždaviniai. Mokslinį darbą sudaro įvadas, trys dalys, išvados, naudotos mokslinės literatūros sąrašas ir priedai.

Pirmoje disertacinio darbo dalyje siekiama atskleisti verslumo sąvokų kompleksiskumo diskursą ir verslumo vertinimo konceptų įvairovę, pateikiama konkurencingumo koncepcija ir genezė, konkurencingumą sąlygojančių veiksnių paradigma, analizuojama konkurencingumo mokslinio vertinimo priegios.

Antroji darbo dalis skirta šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio konceptualizavimui: analizuojama verslumo ir konkurencingumo procesų sąveikos; aptariami šalies konkurencingumo verslumo aspektu vertinimo modelio sudarymo principai ir prielaidos, sudaromas šalies konkurencingumo verslumo aspektu vertinimo koncepcinis modelis.

Trečioje disertacijos dalyje, remiantis antroje dalyje sudaryta empirinio tyrimo metodologija, atliekamas parengtojo šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio empirinis tyrimas Baltijos jūros regiono šalių kontekste, analizuojami ir įvertinami gauti empirinių tyrimų rezultatai.

Disertacinio darbo pabaigoje pateikiamos konsoliduotos išvados, parodančios, kaip pasiektas darbo tikslas ir kaip įvykdyti numatyti uždaviniai.

Rengiant disertaciją naudotasi įvairia užsienio ir Lietuvos autorių moksline literatūra anglų ir lietuvių kalbomis, informaciniais šaltiniais, dokumentais, atliktų tyrimų rezultatais, statistiniais duomenimis, moksliniais ir apžvalginiais straipsniais ir monografijomis.

Disertacijos apribojimai. Moksliniame darbe siekiama konceptualizuoti verslumo poveikį šalies konkurencingumui. Rengiant disertaciją vienas iš pagrindinių ribojimų buvo dalinis patikimos ir išsamios informacijos apie verslumo ir šalies konkurencingumo tarpusavio sąveiką prieinamumas. Verslumo ir šalies konkurencingumo tarpusavio sąveikų išsamių tyrimų galimybės yra ribotos dėl procesų objektų ir subjektų identifikavimo sudėtingumo. Todėl, siekiant objektyviau išnagrinėti verslumo ir šalies konkurencingumo tarpusavio sąveiką, tenka pasitelkti antrinių tyrimų rezultatus, rizikuojant tyrimų patikimumu.

Tyrimų rezultatų aprobavimas ir sklaida. Disertacijos tyrimų rezultatai pristatyti Lietuvos ir tarptautinėse mokslinėse konferencijose bei skelbti pripažintuose Lietuvos ir užsienio mokslo leidiniuose (žr. mokslinių publikacijų sąrašą).

Galimos tolesnių tyrimų kryptys. Išanalizavus pasaulio ir šalies mokslininkų verslumo ir konkurencingumo sampratas ir jų tarpusavio sąveikos vertinimo koncepcijų problematikos tyrimų rezultatus, taip pat atlikus šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio empirinį tyrimą, atsiskleidė potencialios tolesnių mokslinių tyrimų kryptys:

- naujų šalies konkurencingumo verslumo aspektu vertinimo koncepcijų vystymas;

- potencialių verslumo paradigų ir jų iššūkių šalies pažangos ir sumanios ekonomikos įgyvendinimo tendencijų aplinkoje įtakos konkurencingumo tendencijoms modeliavimas visos Europos kontekste.

IŠVADOS

Disertacijoje išanalizuota ir įvertinta šalies konkurencingumo verslumo aspektu specifika ir jo kompleksinio vertinimo metodologiniai aspektai atspindi nuolat didėjančią pasaulio mokslininkų, praktikų ir strategų domėjimąsi šia problematika, suponuoją nagrinėjamos problemos aktualumą. Atlikus teorinę ir praktinę verslumo ir konkurencingumo koncepcijų bei šalies konkurencingumo verslumo aspektu vertinimo analizes darytinos šios išvados.

1. Atlikus sisteminę mokslinės literatūros analizę nustatyta, kad nepaisant aktyvių užsienio ir šalies mokslininkų konkurencingumo problematikos tyrinėjimų pasigendama bendros nuomonės šalies konkurencingumo verslumo aspektu klausimais. Dėl jų daugialypiškumo dažnai kyla šalies ar regiono konkurencingumo verslumo aspektu vertinimo adekvatumo ir rezultatyvumo problemos.

2. Išanalizavus skirtingų mokslininkų požiūrius į verslumą ir konkurencingumą bei jų formavimosi ir sąveikavimo procesus, nustatyta, kad verslumas traktuotinas kaip prioritetinis procesas, integruojantis šalies ekonomikos dimensijas ir betarpiškai veikiantis šalies ar regiono konkurencingumą. Nustatyta, kad šalies verslumo procesų inovatyvus suvokimas sudaro sąlygas šalies konkurencingumo potencialą ir dinamiškumą vertinti verslumo vystymo strateginiu požiūriu.

3. Atlikus literatūros analizę buvo identifikuota, kad per pastaruosius dešimtmečius konkurencingumo ir verslumo analizei ir vertinimui tarptautinės institucijos sukūrė ir naudoja skirtingas įvairaus sudėtingumo ir pritaikomumo metodologijas. Nors tyrėjai ir praktikai iš esmės sutaria dėl verslumo kaip konkurencingumo veiksnio prioriteto, tačiau pasigendama kompleksinio konkurencingumo verslumo aspektu vertinimo instrumentarijus. Todėl išryškėja poreikis dėl adekvačios konkurencingumo ir verslumo sąveikos vertinimo kriterijų sistemos sudarymo bei vertinimo objektyvių rezultatų pasiekimo.

4. Remiantis literatūroje paskelbtų tyrimų rezultatų apibendrinimu, darbe pasiūlyta šalies ar regiono konkurencingumo strategijos formavimą susieti su šalies verslumo pažangos dimensijomis ir jų tendencijomis. Darbe atlikti tyrimai grindžiami patikslinta konkurencingumo verslumo aspektu koncepcija, paremta verslumo dinaminio gebėjimu adaptuotis, plėtotis ir veikti konkurencinę aplinką; rekomenduota šalies ar regiono konkurencingumo strategijos valdyje teikti prioritetą verslumo pažangos skatinimui.

5. Nustatyta ir disertacijoje argumentuota, kad šalies ar regiono konkurencingumą lemia daugybė tarpusavyje susijusių ir vienas kitą įtakančių veiksnių. Vertinant šalies konkurencingumą verslumo aspektu argumentuotai įvertinti įvairūs veiksnių atrankos ir integravimo į bendrą šalies konkurencingumo vertinimo sistemą variantai. Išanalizavus ir įvertinus užsienio ir šalies mokslininkų pastarųjų metų tyrimų rezultatus, pasiūlytas hierarchinis šalies konkurencingumo

verslumo aspektu veiksnių (ŠKVAV) koncepcinis modelis, apimantis 24 veiksnius, 11 veiksnių grupių ir 3 subindeksus.

6. Sudarant koncepcinį ŠKVA vertinimo modelį argumentuotai apibrėžti ir išskirti esminiai elementai ir jų tarpusavio sąveikos ryšiai. Darbe sukurtas originalus šalies konkurencingumo verslumo aspektu vertinimo koncepcinis modelis, leidžiantis vertinti pasiektą šalies ar regiono konkurencingumo lygį ir potencialą bei numatyti šalies ar regiono vystymo strategijas.

7. Remiantis disertacijoje pasiūlytu koncepciniu modeliu sudarytas argumentuotas šalies konkurencingumo verslumo aspektu įvertinimo indeksu ŠKVAI procesinis modelis. Siekiant iškelto tikslo, šalies konkurencingumo verslumo aspektu vertinimo koncepcinis modelis buvo sudaromas pasitelkiant kompleksiskumo, sistemiškumo ir procesinius požiūrius.

8. Tyrimo metu, panaudojus matematinius-statistinius įrankius, pagrįstas šalies konkurencingumo verslumo aspektu vertinimo koncepcinio modelio funkcionalumas Baltijos jūros regiono šalių kontekste. Nustatyta, kad ŠKVAI yra tinkamas kompleksinis instrumentarijus šalies konkurencingumo verslumo aspektu strategiškai reikšmingų vertinimo rodiklių paketo parinkimui šalies ar regiono ekonominių veiklų pažangos dimensijų kontekste ir šalies konkurencingumo verslumo aspektu kompleksiniam vertinimui.

9. Atlikus koncepcinio šalies konkurencingumo verslumo aspektu vertinimo modelio taikomumo tyrimą Baltijos jūros regiono šalių kontekste, patikrintas jo veiksmingumas ir nustatyta:

9.1. Atliktas ekspertinio vertinimo rezultatų tyrimas parodė veiksnių, jų grupių ir subindeksų skirtingą įtakos svorį bendram šalies konkurencingumui verslumo aspektu.

9.2. ŠKVAI reikšmė labiausiai priklauso nuo konkurencingumo veiksnių parinkimo, svorio koeficientų nustatymo metodikos konkurencingumo veiksniams ir duomenų normavimo metodo (įtakos mažėjimo tvarka).

9.3. Didesnio konkurencingumo šalių ŠKVAI jautresnis skirtingų svorio koeficientų nustatymo metodikoms nei vidutiniškai ar mažiau konkurencingų regionų.

9.4. ŠKVAI skaičiavimui parinkti normavimo pagal standartinio nuokrypio nuo vidurkio ir atstumo nuo minimalios ir maksimalios reikšmės metodai. Kadangi ŠKVAI skaičiavimo duomenų (rodiklių) variacijos eilutėje nėra išskirtinumu, normuoti galima bet kuriuo metodu, ir tai reikšmingos įtakos konkurencingumo verslumo aspektu vertinimo ŠKVAI tikslumui neturės.

10. Įvertinta 2010–2014 m. laikotarpio Baltijos jūros regiono šalių konkurencingumo verslumo aspektu dinamika atskleidė, kad nors ir tiriamuoju laikotarpiu silpnescio konkurencingumo šalių atskirų subindeksų reikšmės stipriai, o ŠKVAI reikšmė šiek tiek augo, bendrame Baltijos jūros regiono kontekste joms pasiekti ar bent kiek stipriau priartėti prie lyderiaujančių regiono šalių konkurencingumo lygio nepavyko.

11. Tyrimų metu įvertintas subindeksų rangų suderinamumas su ŠKVAI rangų. Kadangi tiriamuoju laikotarpiu nebuvo stebima vienoda tendencija, kurio subindekso rangas geriausiai atskleidžia bendrąjį Baltijos jūros regiono šalių konkurencingumą verslumo aspektu, išskirti trys laikotarpiai: 2010–2012 m.; 2013 m.; 2014 m. Atskleista, kad tiriamuoju laikotarpiu ŠKVAI dominuojantis subindeksas kito.

12. Remiantis empirinio tyrimo rezultatų analize ir vertinimu suformuoti Baltijos jūros regiono šalių klasteriai pagal ŠKVAI ir subindeksus (2010–2014 m. laikotarpio). Visa tai sudaro prielaidas argumentuoti atskirų klasterių konkurencingumo vystymo verslumo aspektu strategijas.

13. Empirinio tyrimo rezultatai patvirtino sukurtos šalies konkurencingumo verslumo aspektu vertinimo metodikos validumą ne tik šalies ar regiono konkurencingumo analizei, vertinimui, bet ir šalies ar regiono konkurencingumo strateginiam planavimui globalizacijos iššūkių kontekste. ŠKVAI leidžia analizuoti ir vertinti konkurencingumą verslumo aspektu skirtingo ekonominio išsivystymo šalyse ar regionuose.

Rekomendacija

Įgyvendinant Lietuvos pažangos strategiją „Lietuva 2030“ rekomenduojama šalies konkurencingumo strategiją grįsti verslumo skatinimu, kaip reikšminga šalies ekonomikos charakteristika, kuri nuolat veikia konkurencingumą, kartu pateikdama naujus iššūkius verslo reinžinerijai vystyti.

UDK 332.12+338.1](4)(043.3)

SL344. 2016-08-29, 2,75 leidyb. apsk. 1. Tiražas 50 egz. Užsakymas 304.
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