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## The relevance of innovation management as prerequisite for durable existence of small and medium enterprises

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### Abstract

Currently, there is a rising exigency for efficient instruments that can be exploited in order to struggle with the glooming process of uncertainty and competition, elaborating unique solutions and upgrading enterprises, industries and the society itself. The purpose of this study is to detect and uncover the implication of innovation management with the derivation of competitive advantage. The material and methods of the research contained content analysis of international policy documents and analysis of theoretical literature. The authors review the major available quantitative indicators associated with the economic impact of innovation management and rank of innovativeness, creating sustainable competitive advantage for small and medium enterprises.

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### 1. Introduction

Considering the fact that notion innovation has originated from Latin “Novus” – meaning “new”, the original essence of it is the renewal. According to Damanpour (1992), an innovation is described as something that is “new to the adopting organisation.” Schumpeter (1942) defines innovation as a process of creative destruction in which ‘new combinations of existing resources’ are achieved that amount to a discontinuity with the past. Technology is a source which helps innovators to create new combinations. The new economy began to emerge in the 1990s, just as information communication technologies (ICTs) started to revolutionize mass communication and gifted us with

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immediate access to distributed knowledge. The main features of the new economy came to include: large systemic changes; temporary rather than continuous competitive advantages; an obsession with speed; ever shorter life cycles for products and services; and new forms of competition between global competitors (Friedman, 2011).

And as posited by Schumpeter (1942), innovation cannot be separated from entrepreneurship: they are two sides of the same coin. Schumpeter (1942) defines entrepreneurship as – the will and ability to achieve new combinations – that has to compete with already established combinations. An innovation is generally defined by Rogers (2003) in terms such as a practice or object that is perceived as new by an individual or unit of adoption. Innovation requires change and a willingness to learn, but change is not necessarily innovative, and a learning process does not always turn into new ideas and practices as Osborne & Brown (2005) posits. An important issue is how radical an innovation is: what is the ‘newness’ of the change that has occurred? However, the nature of the learning process, which has led to the adoption of a radical or an incremental change, is more relevant. In an incremental change, new elements or new layers are added to existing practices (Osborne & Brown, 2005). But not everything that is new is innovative. It is the management and implementation into real life, and the success within the market that make an idea an innovation. Previously mentioned necessities propel the authors of the article to focus on innovation management issues and to discuss matters in the context of innovation management for a sustainable existence.

The purpose of this study is to detect and uncover the implication of innovation management with the derivation of competitive advantage. During the preparation process of the article the quantitative and qualitative research methods of the economic science were employed. The material and methods of the research contained content analysis of international and national-level policy documents, concepts, programs as well as analysis of theoretical literature. The authors of the article review the major available quantitative indicators associated with the economic impact of innovation management and rank of innovativeness, creating sustainable competitive advantage for small and middle enterprises in the European Union (EU) and make a reflection of assessment of the situation in Latvia. This paper strives to freshen up existent innovation management techniques.

The period during which a small and medium enterprise will remain in business pending the coming years of this decade and beyond is substantiated upon the answer. Thus what worked for a particular enterprise in the past will not necessarily work in the future. In the 21st century, we are rapidly moving into what is being called a “global knowledge economy” which is marketed by increased turbulence, uncertainty, and ambiguity (Bathelt et al., 2004). But many organisations resisting this revolution continue to focus on value creation within the mental models, systems, and organisational solutions typical of the old industrial economy.

Within this new economic landscape “knowledge” has become a key factor in identifying and exploring new ways to create and establish competitive advantages. The strongest driving forces behind this emerging knowledge based economy have been various globalization processes, increased deregulation and liberalization, and the stunning proliferation of information communication technologies (Skalkos & Novel 2012; Cooke et al., 2007). The knowledge economy appears to be a natural evolution of the industrial economy, with continuing transformation toward even more knowledge-intensive activities.

## **2. Research results**

### *2.1. Overview*

To be able to create value within this new economic landscape, small to medium size enterprises (SMEs) which are mostly common in Latvia, need to rethink their established notions regarding how value creation and innovation is produced, they need to change their recipes for success. But these recipes cannot be made in the old matter of the industrial economy. SMEs now need to consider how today’s interconnected customers, with their expectation of individualized feedback, together with radically new ways of organizing, not to mention equally new collaboration structures, may be combined to enhance innovation and value creation in the global knowledge economy. Management over the modern innovation process offer solutions to the challenges faced by entrepreneurs and can aid significantly in their growth and survival.

Innovation Management certainly occurs as a solid chain of formerly elaborated practices. It takes place as a result of concentrated focus on problems and challenges, and a fresh look at creating solutions that appear to be beyond the scope of existing answers (Fortino, 2011). The most urgent business of business is the creation of ideas and their

operational use. The customer is not likely to be a visionary for a business organisation, for it is not the job of the customer to create ideas and to take those ideas to market, or to provide better products, services, or new business concepts or models. The customer generates nothing directly. No customer asked for the electric light bulb. No customer asked for photography, or for the telephone. No customer asked for an automobile. No customer asked for an integrated circuit. No customer asked for a pocket radio. No customer asked for a fax or photocopy. It is good to introduce, by innovation management, a new product that will do the job better, but where does innovation come from in the first place? The bottom line is that, while it is necessary to innovate, to predict the needs of the customer, give them more, the organisation that innovates and is lucky will take the market. Innovation is the process of creating something new that has significant value to an individual, group, organisation, industry, or society. In other words, an innovation is a creation that has significant value (Gupta, 2011). Innovation is how a firm makes money from its creativity. To do so, a firm needs to distinguish between ideas as being original or creative. Original ideas by themselves are not enough. The ideas generated must have the potential for processing and creating significant value, thereby becoming innovations. Organisations will not be as effective or efficient as they could be if they do not innovate. Solving problems and pursuing opportunities require solutions, many of which are unique to the specific situation. However, before we can have innovation, we must first have creativity, which is the skill to originate something new and to make it operational and valuable (Higgins, 1995; Kotabe, 1990). Everyone possesses some form of innate capacity for creativity. Unfortunately, many individuals have had the transformation of the creative capacity into a skill stifled by parents, teachers, bosses and friends who enforce the rules about what is “acceptable behaviour” (Friedman, 2011). Because only a few behaviours are tolerated and understood, the creativity of exploring new realms is bottled up inside and must be released to tap the full potential.

## *2.2. Innovation management as customer experience and feedback*

The central aspect of innovation management is the customer experience. No matter whether those are a particular goods or services for your family, the customer or at this point ultimate consumer is always implicated with the objective of the producer company to some degree. In addition to experience, organisations focusing on innovation interpret it as a corporate strategy, meaning that it permits them to rival and forestall competitors to obtain and hold customers, hire employees, and gain wealth. The connection between Innovative organisations and massive brands with the experience is undeniable. Unfortunately, the best elaborated innovations and observant customer feedback can turn out as totally useless due to lack of decent management. In order to carry out efficient delivery process there are two steps to be followed. First one is the generation and motivation of cross-functional teams by the leaders of the company from the marketing to supply chain management, to convey the potential value offering across the entire customer experience. Second, the consumer feedback and interaction must be treated as invaluable resource. Although the extraction of information from customer relationship management (CRM) and other systems can be worthy for creating insightful presumptions, the final test for the companies’ delivery constitutes of the fact what sort of references the end consumers provide. The leading organisations discover and benefit from manners of converging with and listening to their customers’ voices in every possible way. Generating a better experience also generates facilities for attaching some extra value for company’s brand (Harrington & Voehl, 2012). Considering the swift tempo of technological and global alteration, together with the emergence of consolidating markets and completely new industries and convergence of strategies, companies indeed have to reinvent how they perform the most significant assignment of innovating and reinventing the future itself. According to our belief, further existing and evolving companies will definitely adjust to existing circumstances by comprising the core components of managing innovation as a system in the upcoming years (Gupta, 2011).

As posited in Bain & Company survey, there are so many companies misreading the market (Higgins, 1995). The survey showed eighty percent from 362 participants believed they conveyed a “preeminent experience” to their market. But when this was clarified with customers about their own personal perceptions, it underlined that only eight percent of firms were rated as conveying a superior experience indeed. Obviously it is not a surprise that leading companies presume keeping their customers satisfied, but it is a completely different matter to attain the kind of customer loyalty that makes them superior. The matter which determines those eight percent being in elite position as argued by Harrington & Voehl (2012) is in the process of taking a specifically comprehensive spectacle

of the customer experience and differing from the great majority of organisations, the leaders indulge 4 innovation management categories simultaneously, unlike remaining majority, which automatically turn to product or service design to improve customer contentment. Please view the Fig.1.

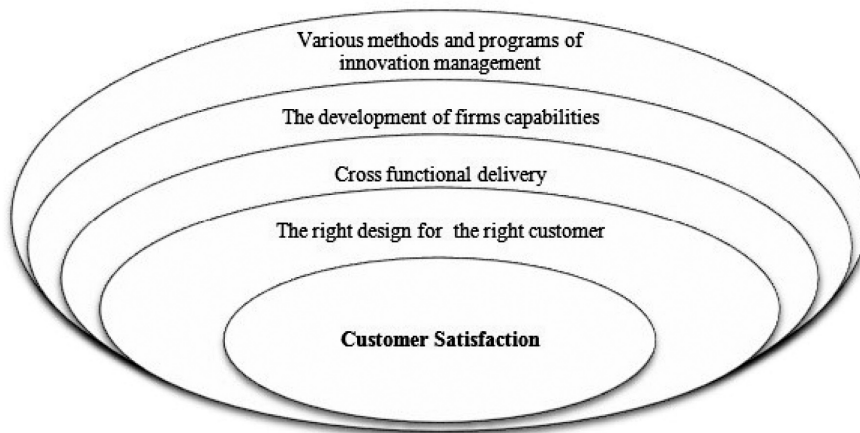


Fig. 1. Leaders' simultaneous approach (Harrington & Voehl, 2012)

The right design of offers and experiences for the right customers (Product Innovation).

The delivery of mentioned proposals by concentrating the entire company on them with an emphasis on cross-functional collaboration (Process Innovation).

The development of firms capabilities to satisfy customers again and again, by upgrading the planning process, training people in how to generate new customer propositions, and establishing direct accountability for the customer experience (Marketing Innovation).

The management of innovation using various methods and programs (Management Innovation).

Each of these four previously mentioned matters draws on and reinforces each of them in a system and in a management cycle. Together, they transform the company into one that is continually led and informed by its customers' voices, being guided by a system of innovation management.

### 2.3. Innovation management as a system

Innovation management is closely related to management innovations. It has to deal with new business practices, new ways of organizing the workplace and new methods of external relations. Organisation for Economic Co-operation and Development (OECD) defines innovation as: "the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations" (OECD, 2005a, 2005b). As stated by Yahagi (Harrington & Voehl, 2012), the systemic gyration perspectives of the management quality system are crucial to understanding the connections of this system to others. There are twelve major factors and at least six times more subjugated ones engaged in the system of innovation management. These factors, together with their associated ones, are displayed in the following scheme reflected further in Fig. 2.

The six of those interacting factors are with a crucial meaning to the companies Innovation management system. They can be displayed as follows: The Management Cycle, Business Structure, Management Resources, Management Design, Corporate Climate, and Measurement System Performance. The causative interconnection of those six factors can be observed in a circulatory system.

The Management Cycle ensures the driving force and affection of the structure of correlation of four following factors: business structure, resources, design and culture, which on other hand influence measurement system performance. If, for instance, the quality scale of the management cycle is poor, then there is going to be a negative

feedback of the whole process of the cycle of the six factors in general, which will harm performance results of the company desperately awaited by the management of the firm. If, on the other hand, the quality rate of the management cycle is high, then the feedback generated of those six factors is going to be positive which will stimulate the perceived strategies and plans to be put into action to generate further success for the company.



Fig. 2. Critical factors to success of innovation management (Harrington & Voehl, 2012)

Hence, poor management cycle sucks out the quality from the other management factors and an excellent management cycle fills up the quality of the other five factors. Taking into account the previously discussed facts, the originated effects of these five factors can sequent be led to a result of the measurement system performance to be either better or worse than the management cycle, depending upon the presence of good or bad terms. Finally, since management performance consolidates into the management cycle, the best evaluated companies are engaged in the process of incremental improvement of the management cycle and eventually overall innovation management quality.

#### 2.4. Linkage between innovation management and knowledge management

As described previously, in changing environment and when the economy is more knowledge based, innovation management is important for success, but innovation and innovation management is dependent from external factors and from the knowledge management, for instance, internally. The effective use of knowledge management can drive the innovations within the organisation and lead to better innovation management. Why it is important, mainly because organisation business strategies should be innovative to build and sustain the competitive advantage (Du Plessis, 2007). Innovation can be considered as knowledge based outcome (Quintane et al., 2011).

The complexity of innovation has also been increased by growth in the amount of knowledge available to organisations and this means there is a necessity of knowledge management from the innovation management point of view. All the “new” requires knowledge how to manage the innovation.

The knowledge management has multiple definition interpretations. The knowledge management (KPMG, 2000) is defined as “systematic and organized attempt” to use knowledge. The Bornemann et al. (2003) indicate knowledge management as targeted coordination of knowledge and the management of organisational environment in order to

support individual knowledge transfer and creation of collective knowledge, therefore it is not the management of knowledge as itself, but the management of organisation with a focus on knowledge.

Parlby & Taylor (2000) points out that knowledge management can help to support innovation. Innovation management can turn knowledge into profit and the development of knowledge can be the basis of innovation (please view the Fig. 3.) by focusing on linkage between the knowledge and innovation, but the process may take several years from the knowledge development to a response received from the target market (Bornemann et al., 2003). The organisation of this process can be also mentioned as one of the challenges of innovation management.

The researchers Lopez& Esteves (2013) based on studies of du Plessis (2007) have come to the fact that there are three drivers for the application of knowledge in innovation:

- To create, build and maintain competitive advantage through utilization of knowledge and through collaboration practices.
- Knowledge is a resource used to reduce complexity in the innovation process.
- The integration of knowledge internal and external to the organisation, making it more available and accessible.

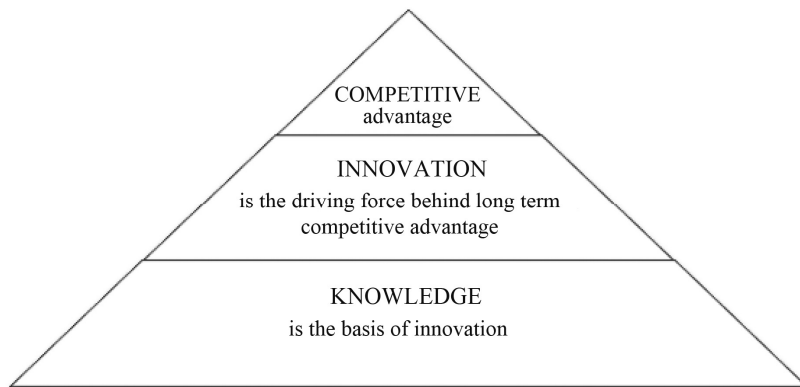


Fig. 3. Knowledge as a basis for competitive advantage (Bornemann et al., 2003)

The authors Alaei et al. (2012) indicate the complexity of innovation has increased due to increasing knowledge as the foundation of innovation, as well organisations ought to be convinced that commercial strategies must be innovative to create sustainable competitive advantage. Innovation is also dependent on access to knowledge and is managed to obtain a successful innovation (Cardinal et al., 2001). The effective use of knowledge management can drive the innovations within the organisation and lead to better innovation management.

### 2.5. Assessment of small and medium enterprises` innovation management in Latvia

In the European Union more than 20 million small and medium enterprises (SMEs) represent 99% of businesses (European Commission, 2013a; Ecorys, 2012). SMEs are the central aspect for the innovations, sustainable economic growth, as well as social integration. The issue for SMEs may arise when they have difficulty of acquiring enough funds and the limited resources can diminish the access to innovations and better technologies. The European Commission attempts to improve the environment for SMEs, nowadays globalization processes it deals with policy issues, assists through networks and support. That is why there ought to be pointed out that SMEs are crucial for fostering competitiveness (European Commission, 2013b).

The innovation performance of Latvia is 50% below that of the European Union 27 (EU 27) based on data of Innovation Union Scoreboard 2013 (Hollanders et al., 2013). Latvia is categorized in a modest innovator group that includes Bulgaria, Poland and Romania. The innovation performance indicator of Latvia is reflected below in Fig. 4.

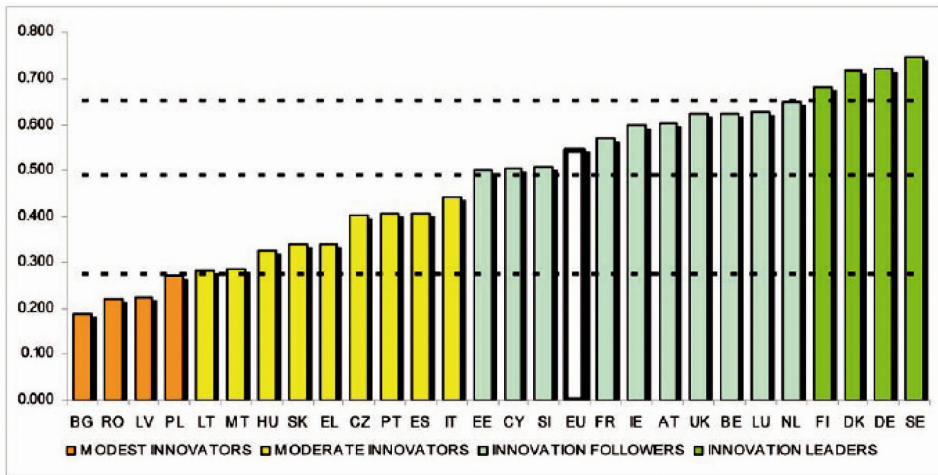


Fig. 4. EU member's state innovation performance (Hollanders et al., 2013)

The Fig. 4 shows the innovation leaders are Sweden, Germany and Denmark. The analysis of the enterprises by the type of innovation reflects the situation of innovations in Latvia. The comparison of situations in three Baltic countries also shows – Latvia has one of the worst results (see Fig. 5.), because innovative enterprises are less than in Lithuania and Estonia and almost all the figures of innovation for Estonia and Lithuania are better. The EU 27 data points out 386 832 innovative enterprises, the highest number of enterprises is for ones using product and / or process innovations in amount of 284 806 (Eurostat, 2013). In Latvia the enterprises that introduced organisational and / or marketing innovations are also below the level of Lithuania and Estonia which can be seen in Fig. 6.

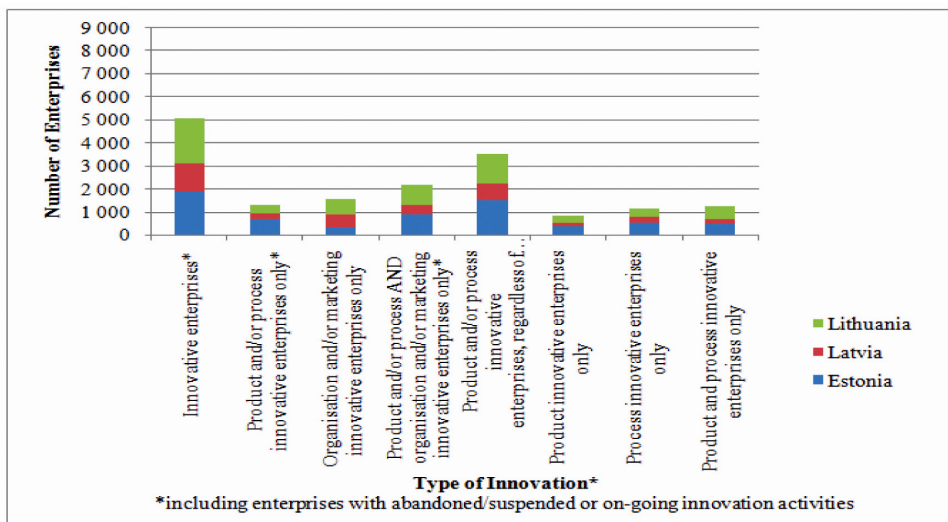


Fig. 5. The number of enterprises by the type of innovation in 2010 by country (Eurostat, 2013)

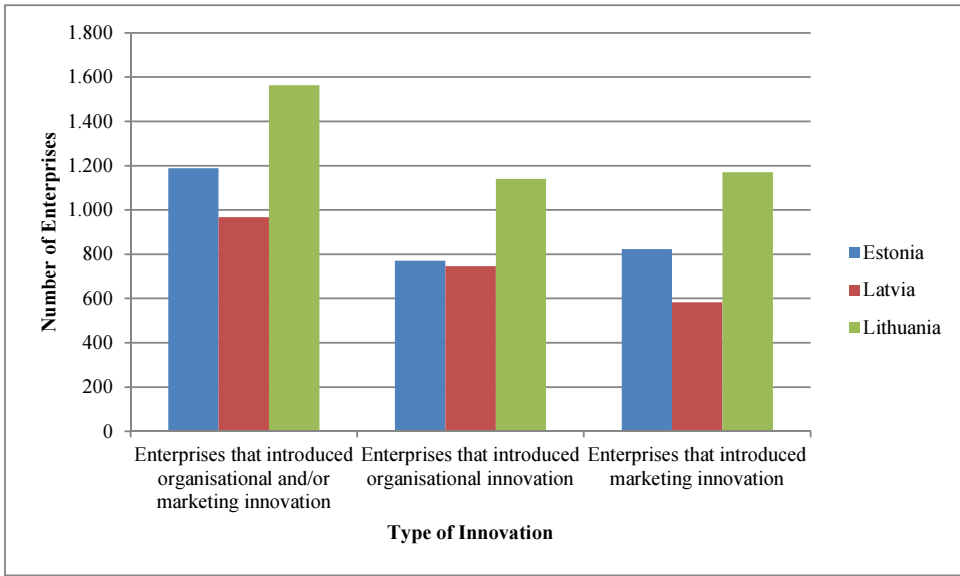


Fig. 6. Organisational and / or marketing innovation in 2010 by country (Eurostat, 2013)

The data of important objectives for organisational innovations of Baltic countries indicate as three major goals – improving quality of goods or services, reducing time to respond to customer or supplier needs and reducing costs per unit output. The smallest numbers of enterprises for Latvia are those for which improving ability to develop new products or processes are a highly important objective. The previously described data can be viewed in Fig. 7.

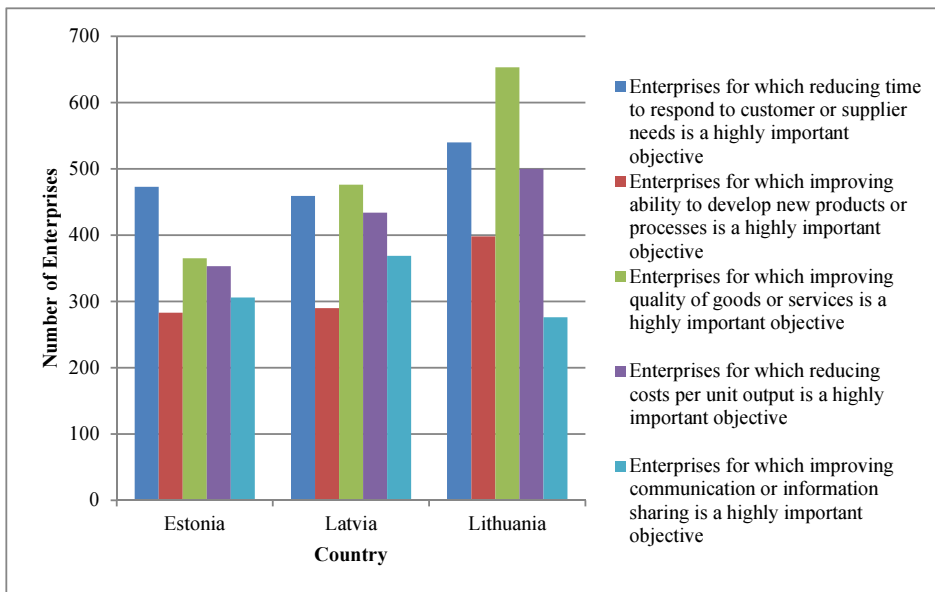


Fig.7. Highly important objectives for organisation and innovation in 2010 (Eurostat, 2013)



The innovation performance indicators of Latvia in almost every subcategory are below the EU 27 level (Hollanders et al., 2013), for instance, economic effects, innovators, intellectual assets, linkages and entrepreneurship, firm investments, finance and support, open, excellent and attractive research systems. Merely the human resources exhibit more presentable results as an example in position of population completed tertiary education and youth with upper secondary level education. The greatest innovation performance growth (Hollanders et al., 2013) in Latvia can be recognized in community trademarks and designs, as well as non-EU doctorate students. On the contrary, negative annual average growth per indicator is for non-Research and Development (non-R&D) innovation expenditures, license and patent revenues from abroad, sales of new to market and new to firm innovations, collaboration of innovative SMEs with others and Patent Cooperation Treaty (PCT) patent applications in societal challenges. The weak spots of Latvia are in firm investments, linkages & entrepreneurship (Hollanders et al., 2013). According to the data of Central Statistical Bureau of Latvia, 2013 the largest proportion of innovative organisations in Latvia is in enterprises with more than 250 employees (please view Table 1.), that can be explained due to less enterprises in this group. The innovative company proportion during the years 2008–2010 in Latvia has decreased.

Table 1. Innovatively enterprises as percent of the total number of enterprises in Latvia, % (Central Statistical Bureau of Latvia, 2013)

Industry	2001–2003	2002–2004	2004–2006	2006–2008	2008–2010
Total	21.9	17.4	14.6	26.9	19.2
10-49	16.8	12.5	9.8	23.5	13.7
50-249	33.1	28.9	24.3	33.4	30.9
>250	46.6	51	44	64.5	58.1
<b>Services</b>					
Total	14.8	17.6	17.7	14.5	14.6
10-49	12.2	15.6	15.9	12.2	12.6
50-249	26	24.1	22.7	24.3	22.7
>250	46.7	58.5	54.8	61.3	39.7

In 2010 the turnover for innovatively active enterprises in Latvia as per cent of the total enterprise turnover for service companies is 48.8% and for industrial 62.3% (Central Statistical Bureau of Latvia, 2013) in comparison with the year 2008 the reduction is in industrial sector and increase in service sector. The positive sign demonstrates fact that the proportion of innovative enterprises in service industry during the years 2008–2010 increased by 9 percentage points, which is shown in Table 2.

Table 2. The proportion of innovative and non innovative enterprises in Latvia, % (Central Statistical Bureau of Latvia, 2013)

Sector	2006–2008		2008–2010	
	Innovative enterprises with product, process, unfinished or discontinued innovation activities and marketing and / or organisational innovations	Non innovative enterprises	Innovative enterprises with product, process, unfinished or discontinued innovation activities and marketing and / or organisational innovations	Non innovative enterprises
Industry	30.4	69.6	31.7	69.3
Services	19.3	80.7	28.3	71.7

In addition, the Table 3 below discloses the most used innovations during the periods of 2006–2008 and 2008–2010 in Latvia. It can be concluded that during the years 2008–2010 the proportion of organisational and / or marketing innovations has significantly changed in the service and industry level from the approximately 3–5% to 12–14%.

Table 3. The proportion of the innovation types in Latvia, % (Central Statistical Bureau of Latvia, 2013)

Sector	2006–2008			2008–2010		
	Product, process, unfinished or discontinued innovations	Product, process, unfinished or discontinued innovations and organisational and / or marketing innovations	Organisational and / or marketing innovations	Product, process, unfinished or discontinued innovations	Product, process, unfinished or discontinued innovations and organisational and / or marketing innovations	Organisational and / or marketing innovations
Industry	15.0	12.0	3.4	8.8	10.5	12.4
Services	4.8	9.7	4.8	4.5	10.2	13.7

During the past years the innovation performance of Latvia has improved and is associated with growth leader in modest innovator group. However the innovation performance of Latvia is below of the developed EU level and the practical implementation pace of innovation policy is slow and this does not illustrate sustainability of further improvements in innovation performance. In conclusion, although innovation management can have significant role as prerequisite for durable existence for SMEs, there are still challenges for organisations in order to create, build and maintain new competitive advantages.

### 3. Conclusions

In order to develop value within the new economic environment, SMEs, which are mostly common in Latvia, ought to reconsider their established notions regarding how value creation and innovation is produced because what worked for an enterprise in the past will not certainly work in the time ahead. The substantial aspect of innovation management is the customer experience and the innovation management is closely related to management innovations, in addition, it has to deal with new business practices, new ways of organizing the workplace and new methods of external relations. The innovation performance of Latvia is below the level of the developed EU countries and the weak spots of Latvia are in company investments, linkages & entrepreneurship, on the contrary, the greatest innovation performance growth of Latvia can be recognized in community trademarks and designs position. The practical implementation of innovation policy in Latvia is slow that does not reflect sustainability in innovation performance and as the complexity of innovation has increased by the growth in the amount of knowledge available to organisations, there are lots of challenges for enterprises to develop their competitive advantages.

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