



SME Business Models and Competence Changes

Hannele Lampela

Oulu University, Finland

Lappeenranta University of Technology, Finland

Kyllikki Taipale-Eräväla

Oulu University, Finland

Pia Heilmann

Lappeenranta University of Technology, Finland

As a result of changes in the local or regional business environment, small and medium-sized enterprises (SMEs) in many industries are facing the need to change their business models radically and seize new business opportunities or fall out of business. Although the important impact of SMEs in economic growth and job creation is well known, current knowledge is rather limited on the effects of competences for changing the business models in SMEs. This paper focuses on the links between SME competence changes and business model innovations in industrial structural changes in the external environment. The findings of a comparative case study of Russian and Finnish SMEs identified the positive attitude to change and activeness in external networking and in seeking new opportunities as enabling competences for business model innovation. The practical implications highlight the competence transformation strategies enabling business model innovation and the effects of different institutional environments.

Keywords: business model, competence, SME, Finland, Russia

Introduction

The traditional cost-cutting and efficiency-improving strategies for achieving competitiveness are approaching their limits, and new requirements of including the environmental and social considerations have been placed on companies (Seifi, Zulkifli, Yusuff, & Sullaiman, 2012). Another force radically changing the business environment in recent years has been the external changes affecting the economy that have had far-reaching and partly unexpected effects on industry structures. This is resulting from the networked structure of the world economy, where companies and even whole industries are more tightly inter-connected to one another than before, and the changes in the business environment reflect to all parts of the network with varying effects (Leila, 2011).

As a result of these profound changes in the business environment, companies need to offer something completely new in terms of products and services, operating processes and whole business models (Chesbrough, 2010; Johnson, Cristensen, & Kagermann, 2008). This has led to the rise of innovation management issues on the top of the management agenda, as strategic changes in the business model leading to sustainable growth need to be tackled successfully to ensure business continuity and competitiveness.

Business model innovations and organizational renewal or strategic transformation of companies have been discussed both in academic and in practice-oriented business literature to some extent in recent years (Schneider & Spieth, 2013; Johnson, 2010). However, the literature on business model innovations concentrates mostly on defining, developing or innovating business models for large companies or for recently founded start-ups. The view of business model innovation in more established SMEs is scarcely presented, although an overview of the stages of SME growth and the resulting changes in business models is provided by e.g. Churchill and Lewis (1983). Micro, small- and medium-sized enterprises, defined to employ from 1 to 249 persons and having turnover under 49 million EUR or a balanced sheet under 43 million EUR (European Commission, 2017), are continuously challenged by renewal needs of their business for various reasons from either inside or outside the company. SMEs are not as well equipped as bigger companies to do so, due to their limited resources and available competences.

Thus, there is a gap both in the current theoretical and practical knowledge on how business model changes are implemented in SMEs, especially taking into account the needed competence transformation. To study the effects of competences and their transformation that are needed for changing the business models in SMEs is thus important. Also, from the point of view of creating employment and new innovations, advancing societal development as well as public support actions, this seems to be a relevant issue.

SMEs, including micro enterprises, have been identified as an important contributor to both national economic output and employment, as key drivers of change in the economy, and as the source for business model innovations changing the operating rules of industries (The Edinburgh Group, 2013). The importance of strategic renewal of SMEs for regions and industries undergoing profound changes in business is remarkable in sustaining the economic activity, and sustainable growth in these areas can only be achieved by changes in SMEs and in their competences.

The paper aims to provide new knowledge and practical examples for improving the understanding of the following main research question:

- What is the impact of SME competence changes on business model innovations in external changes?

This phenomenon will be further examined with the following two sub-questions:

- What are the successful competence transformation strategies in responding to external changes?
- How do similarities and differences in institutional environment affect the process of business model innovation?

Discussing business model innovation, SME institutional environment, and competence transformation in SMEs as a background, the study aims at complementing the extant literature with a more detailed understanding of, firstly, the role and importance of existing SME competences for business model innovation and, secondly, of the competence change process in re-creating the SME business model. The research is carried out as a comparative case study, implemented by interviews in SMEs of two different countries, Finland and Russia. The study is limited to forest industry and forest-related industries, such as machinery. Empirical data from Russian and Finnish SMEs was collected based on the important impact of the forest industry for both countries, and because the economies met similar financial and industry related crises in 1998 and 2008–2009.

Related Literature

Business Models and Business Model Innovations

There is a growing need to transform the business in many traditional manufacturing industries such as forest, paper, metal and other related heavy industries because of the radical industrial structural changes in the operating environment (Lamberg, Näsi, Ojala, & Sajasalo, 2006). New environmental and social requirements from the customers and from the public are evident, leading to innovating new products, processes, business areas and business systems (Hovgaard & Hansen, 2004).

The research and definition of business models has been lacking of traditional economics literature (Teece, 2010). A general definition offered by Teece (2010) is: 'A business model articulates the logic, the data, and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value.' Thus a business model is concerned with the elements of value offering, value creation and value capture of the company. Business models have been studied from a variety of perspectives in recent years, including business design, organizational resources, narratives, innovation, transactions, opportunities and expectations, socio-technical transitions, and en-

trepreneurship (Schneider & Spieth, 2013; Zott, Amit, & Massa, 2011; George & Bock, 2011).

The concepts related to business model change or business model innovation are diverse and partly overlapping in terms of focus and objectives, because of the different scientific origins (Müller, 2014). There is a significant multidisciplinary area of research devoted to describing a business model and elements related to it, but the business model change process and factors affecting it in different contexts are still unclear. Attempts have been made to categorize the literature and basic concepts of business model innovation (see e.g. Spieth, Schneckenberg, & Ricart, 2014), but the complex phenomenon remains a subject for further clarification.

Identifying new business opportunities and creating business models based on them can be considered as an innovation process (Teece, 2010; Chesbrough, 2010). The identification of new opportunities and changing the business model effect all levels of the organization, and the business model should be integrated with all the planning levels (Casadesus-Masanell & Ricart, 2010). However, all changes in business models are not necessarily innovative by nature, but can rather be described as gradual or incremental changes with time.

Business model innovation processes can take several forms, either based on a company management's analytical thinking and strategic vision of the future, or a more discovery-driven approach based on experimentation, trial and error and learning (McGrath, 2010). According to Teece (2010), 'Designing a new business model requires creativity, insight, and a good deal of customer, competitor and supplier information and intelligence. There may be a significant tacit component . . . experimentation and learning is likely to be required.'

Although business models and different concepts related to changing them have been studied in recent years (Müller, 2014), the discussion of the relationship between company internal competences and business model innovation has been quite limited. Earlier works have studied the phenomenon in the framework of e.g. dynamic capabilities (Spieth & Schneider, 2014). Particularly in SMEs, due to high dependency on individual capabilities, the competences and personal experience of the managers become important for re-creating the business model.

SMEs and Regional Institutional Environment

Globally entrepreneurship and small firms are important determinants of economic growth (Audretsch & Keilbach, 2004; Audretsch, 2007). The OECD recognizes SMEs as engines of growth, and highlights SMEs' crucial position presented in a significant portion of export and tax revenues (see <http://www.oecd.org/forum/>). In the European Union SMEs are stated

as key drivers for economic growth, innovation, employment and social integration (European Commission, 2014).

Public institutions increasingly promote SMEs' operational circumstances, and interpret the institutional context (economic, political and cultural environment) in which the entrepreneur operates (Shane, 2003; Welter & Smallbone, 2011). One remarkable mission for any regional business environment force is to take care of the renewing, stimulating new industries and, at the same time, profiting from the capabilities and conditions created by established industries (Maskell, Eskelinen, Ingjaldur, Malmberg, & Vatne, 1998; Porter, 1990). The renewing process may meet challenges in declining regions dominated by struggling and traditional local industry (Arbuthnott, Eriksson, & Wincent, 2010). Small firms operate locally and therefore the local and regional institutional issues matter. According to critical regional innovation patterns and regional policy (e.g. Camagni and Capello, 2013), high-level innovation policies should propose for each regional mode of innovation. The well-meaning innovation policies and regional policies are not always fit for SMEs and, on the other hand, the role and contribution of small firms to regional economic development varies, so institutional demands are not necessary fulfilled.

The differences of growth and regional development in Britain in the 1990s resulted from the features of the regions themselves, such as competitiveness and mental spirit, influenced by historic and structural differences (Keeble, 1997). In the beginning of 2010s in German SMEs the general management competences, networking competences, entrepreneurial thinking and acting were identified as early indicators for sustainable regional development and cluster success (Gebhardt & Pohlmann, 2013). The firm-level innovation determinants impact strongly in European regions, so the local innovation policy should prefer the specific needs of SMEs in particular regions rather than improving regional conditions for innovation in general (Stenberg & Arndt, 2001). The literature examples above have been limited to European economies, which resemble the institutional and market environment of the studied case economies in the empirical part of the research. Similar regional or local business ecosystem changes have taken place also for example in the US, but the operating environment differs considerably from European context.

Although the studies in developed countries suggest a direct positive impact of SMEs and entrepreneurship on growth, converse results for developing countries have been found (Van Stel et al., 2005; Wennekers et al., 2005; Mueller, 2007). The institutions shape the entrepreneurial environment, 'rules of the game in a society' (North, 1994), including 'formal institutions;' constitutional, legal, and organizational framework, and 'informal institutions;' attitudes, values, and behavioral norms embedded in

a society. In developed countries the legislation, attitudes and value determination operate well, but in developing countries SMEs meet several obstacles, such as limited role of women due to negative attitude towards women entrepreneurship in former Soviet countries (Welter & Smallbone, 2011).

Based on OECD definitions, Russia is generally described as a developing country, and Finland, in turn, described as a developed country (see <https://stats.oecd.org/glossary/>). However, the research focuses on identifying links between competence changes and business model innovations. The OECD definitions 'developed' and 'developing' are intended for statistical convenience and do not necessary express the stage of a particular industry or area in the development process (see <http://unstats.un.org/unsd/methods/m49/m49.htm>).

Competence Transformation in SMEs

According to Cheetham and Chivers (2005), competence is the effective overall performance within an occupation, which may range from the basic level of proficiency through to the highest levels of excellence. Cheetham and Chivers (1998) present a model of professional competence in the work context and work environment to include meta-competencies/trans-competencies, knowledge/cognitive competence, functional competence, personal/behavioral competence, and values/ethical competence. In practice, on the other hand, competence can be understood as an influence on an individual's skills, knowledge, self-concept, traits and motives (Spencer & Spencer, 1993). In this study, the concept of competence includes all skills and knowledge of an individual, competences of companies, and competences needed in organizational networks. We define competence as comprehensive individual behaviors, knowledge, values and skills based on comprehensive competence approach, i.e. knowledge, functional competences and behavioral competences (LeDeist & Winterton, 2005).

The importance of organizational and individual competences in building competitiveness has been long recognized in the literature building on the resource-based and knowledge-based theories of the firm, which state roughly that organizational competitiveness is the result of combining the right kind of competences and knowledge to respond to the needs of the stakeholders and to the external environment in an optimal way (Barney, 1991; Grant, 1996). However, responding to these external needs has become more challenging than before with complex networked environment, and due to unexpected external changes. In general, SMEs have fewer resources and competences available for them than larger companies, so they need to be more creative and agile in combining their competences in a novel way, or in developing completely new competences, and also

be more proactive in anticipating and recognizing new potential business models in a rapidly changing situation.

Results of the study of Taipale-Eräväla, Heilmann, and Lampela (2014a) concerning the survival competencies of Russian SMEs showed that both the firm's internal competences and its network competences are needed in order to survive in crisis situations. In addition to network competences, entrepreneurial competences and an open-minded attitude towards external partners will help in planning the acquisition and development of competences in focusing the scarce resources of SMEs. Related to competence transformation, Taipale-Eräväla et al. (2014b) discovered that SMEs transform their competences in alignment with their business change management. In change situations, the attitude in firms was to embrace the future, rather than clinging to the past. Thus, positive attitudes towards change and systematic management of change process affect the success of SMEs, and leads to long-lasting effects.

Research Methodology

Research Design

The way in which people being studied understand and interpret their social reality and interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences are the central motifs of qualitative research (Merriam, 2009, 5; Bryman 1988, 8). Our research approach was qualitative, aiming at a deep understanding and analysis of the change situation in the case companies.

The case study copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis (Yin, 2009). The case study is often associated with descriptive, explanatory or exploratory research, when the focus is on a current phenomenon in a real-life context (Ghauri & Gronhaug, 2005; Yin, 1994). In business studies, case study research is particularly useful when the phenomenon under investigation is difficult to study outside its natural setting and also when the concepts and variables under study are difficult to quantify.

An interview is a process in which a researcher and a participant engage in a conversation focused on questions related to a research study (DeMarrais, 2004, 55). An individual interview is probably the most widely used method for gathering information in qualitative research. Interviews provide an opportunity for detailed investigation of people's personal perspectives, for in-depth understanding of the personal context within which the research phenomena are located, and for very detailed subject cover-

age. Interview provides a tool for clarification and understanding (Ritchie, 2003, p. 36). A focused interview is one modification of the half-structured interview method.

Data Collection and Analysis

Data collection was executed with thematic, semi-structured focused interviews with individuals representing mainly the management level of the SMEs. The research questions concerned the basic business information (field of industry, establish year, etc.), and perceptions of changes in the external environment, for example 'How do the changes in society affect the company's life-cycle?' or 'Who monitors the external environment and how?' Additionally, with questions such as 'How do changes in the external environment affect the company's personnel know-how?' and 'What kind of new knowledge the company needs?' the changes of internal competencies in the firm were studied. The empirical research was carried out as a case study research with multiple SME case organizations. The companies represented industrial manufacturing or service companies related to the metal or forest industry. Interviews were conducted both in Finland and in Russia. Altogether the data consisted of 20 in-depth interviews conducted by one of the researchers of this article.

As research data we use two different samples in the metal and forest industries from two countries and business environments. Altogether 20 interviews from ten Finnish and ten Russian SMEs were conducted by semi-structured face-to-face interviews to ensure rich and focused information (Carson, Gilmore, Perry, & Gronhaug 2001; Willig, 2008). Qualitative samples are usually small in size (Ritchie, 2003). The selection of the firms ensure the validity of the findings, and basically suitable SMEs had to fulfill two basic criteria: firstly, drastic changes in their operational business environment had to have occurred, and, secondly, all firms needed to operate in the forest or metal industry, or other closely related industries. Suitable ten Finnish firms were found in a network of in the end of 2011 shut-down paper mill in South-East Finland.

The interviews were conducted between January 12 and May 29 2012. The suitable Russian SMEs had to meet at least one of the following changes: a polity change in 1991, the collapse of the ruble in 1998 and/or the financial crisis 2008–2009. Russian interviews were conducted between October 9 and December 5 2012. Table 1 summarizes the basic information of the firms and the interviews.

A qualitative analysis process was used to organize and classify the data (Miles & Huberman 1994; Silverman, 2005). The data was analyzed using an interpretative, qualitative content analysis method (Elo et al., 2014) resulting in a rich picture of the change situations in the organizations. First,

Table 1 Company and Interview Data

(1)	(2)	(3)	(4)	(5)
<i>Finnish SMEs</i>				
Metal, maintenance, steel construction	1989	Production Manager, Financial Manager	2	1h 15 min
Printing house	1991	Managing Director	1	1h 22 min
Transportation, earth moving	1944	Managing Director, Head of Office, Son of Managing Director	3	3h 16 min
Industrial piping, maintenance	1999	Managing Director	1	1h 31min
Business advertisement textiles	1988	Managing Director	1	1h 56min
Machine and facility assembling	1992	Managing Director	1	1h 29min
Metal structures and maintenance	1982	Managing Director	1	1h 38min
Underwater engineering and construction	1978	Managing Director	1	1h 35min
Wood manufacturing equipment	1996	Chairman of the Board, Managing Director	2	1h 47min
Industrial air conditioning	1998	Managing Director	1	1h 32min
<i>Russian SMEs</i>				
Engineering, non-standard technology	(1949) 1998	General Director, Production Manager	2	1h33min
Wood machinery, scientific industrial complex	1991	Vice-Chairman of the Board	1	1h20min
Commercial consortium of SMEs	2002	General Director	1	1h22min
Chemicals	1992	Marketing Manager	1	1h25min
Sheet metal	1992	Executive Director	1	1h39min
Information, research, data-mining services	1998	Chief Executive Officer	1	1h17min
Accounting and tax services	1997	Managing Director, Financial Director	2	1h18min
Paper industry equipment	1993	General Manager	1	1h38min
House building, agency	1996	Sales Manager	1	1h21min
House building, real estate development	1998	Chief Executive Officer	1	1h37min

Notes Column headings are as follows: (1) industrial sector, (2) year of establishing, (3) titles of interviewees, (4) number of interviewees, (5) duration of interview.

we organized the data and used categorizations in the process of classifying the data units. In this case a very central analyzing method was comparison. Comparison explores differences and similarities across incidents within the data currently collected, and provides guidelines for collecting additional data (Ghuri & Gronhaug 2005, 209). The analysis was done manually, following a deductive content analysis approach, which utilizes

prior understanding of the subject to create a categorization matrix and to code the data according to the categories.

The unit of analysis was phrases, a short collection of words to describe a meaning. These text fractions were selected and coded according to the themes of the interview. Next, the text fractions were copied into a table and organized by grouping similar answers together to form sub-categories. Through the interpretation of the meanings, the answers were first summarized, then labeled with a title that describes the whole group and the titles were translated into English.

Findings

Based on the interview results of our empirical study, the need for re-inventing the current business models has been emphasized especially in SME companies that face sudden external changes such as close-downs of their major customer. Some of them have successfully changed their operations based on their existing competences and strengths due to external situation changes like 'diversification and with client orientation policy' (Russian firm 1). There are differences in the strategic responses between countries, like 'I do not feel greatly to start bouncing around into different fields' (Finnish firm 4) as well as in the future orientation and networking orientation of the companies.

The key elements related to competence changes in SMEs on a strategic business model level were identified in this study as the positive attitude to change and activeness in external networking and in seeking new opportunities, highlighted in interviewee comments like 'the shut-down was a good thing, we had to go elsewhere [...] and in that we have succeeded pretty well' (Finnish firm 6) and 'In every crisis there is an opportunity. It depends how you perceive (it).' (Russian firm 7).

As an answer to sub-question one presented in this study, 'What are the successful competence transformation strategies in responding to external changes?', we found that a successful strategy in transforming the competences and in creating a new business model is enabled either by utilizing the existing competences in a new, nearby area or customer segment, or actively seeking for new competences through hiring new people and finding new partners to adjust to the environmental change.

From the public actors, realizing these alternative strategies on a regional level requires firstly attracting new companies and employees from outside the geographical region and, secondly, supporting existing SMEs' growth and competence transformation through public training programs and activities specifically targeted to individual companies. Especially, the long-operated SMEs with limited customers and special industry sector require more specific public support. They have difficulties in business model

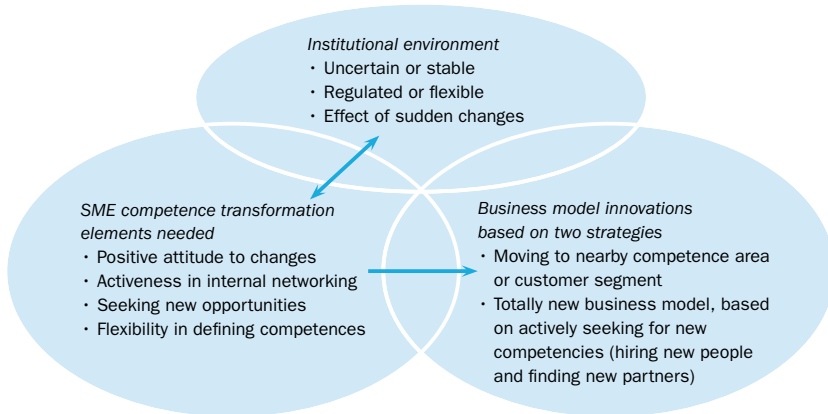


Figure 1 Competence Transformation, Institutional Environment and Business Model Innovation

innovation, as it requires re-defining the basic elements of the business and in a way going back to the stages of early entrepreneurship process. These enterprises have already invested heavily in premises, equipment and staff; the entrepreneurial strategy has worked for decades, and therefore they prefer the familiar setting of the business.

As an answer to sub-question two in this study, 'How do similarities and differences in institutional environment affect the process of business model innovation?,' it can be said that the effects of the institutional environment for business model innovation in external change situations seem to be evident in our empirical study, and the importance of the entrepreneurs' own attitudes for transforming the competences and the business model were also highlighted. In comparison to the Finnish SMEs, the Russian SMEs had more extrovert competences, which may predict better entrepreneurial opportunity exploitation and sustainable business. Some of the interviewed Finnish SMEs found that they have very highly specialized competences, and they were not willing to redefine their business model or customer segments.

The ability of the SMEs to transform their competences and flexibility in re-defining their operations and business model in sudden change situations, as well as an open-minded attitude towards networking with partners, secures business continuity and sustainable growth also regionally. The supporting actions of public actors for managing sudden change situations from SME competence point of view and for enabling sustainable growth regionally seem to be inadequate or focusing on too general activities. Figure 1 brings together the main findings of the study.

The findings of our empirical research are well in line with SME litera-

ture on the two-sided effects of the SMEs and their regional institutional operating environment. On one hand, SMEs have an important impact on the regional growth and locally on the society they operate in, and on the other hand, the possibilities of SMEs transforming their competences and business models seems to depend on the local resources and support available, as well as on the mental atmosphere towards changes.

Discussion and Conclusions

Theoretical Contribution

Barney (1991) and Grant (1996) state that organizational competitiveness is the result of combining the right kind of competences and knowledge to respond to business changes in an optimal way. Taipale-Eräväla et al. (2014a), in turn, detailed this general statement more specific for SMEs to include both internal competences (individual, entrepreneurial and organizational) and competences related to external environment – that is to say – network competences in order to survive in a crisis. The findings of this study, additionally, deepen more the previous studies. SMEs have limited human resources, and therefore competences. The attributes for SME survival seem to be positive attitude to change, and activeness in internal networking and in seeking new opportunities.

In addition to specific personal attributes, the type of business change management is crucial in business model innovation. Whichever direction the SMEs choose (either to stay close to existing business model or to focus onto a complete new one) the management strategy needs to embrace the future, rather than cling to the past (Taipale-Eräväla et al., 2014b). To generate this forward-looking attitude may be a challenge for local and regional institutions. One remarkable mission for any public institution is to take care of stimulating new industries and, at the same time, improving the capabilities and conditions for established industries (Maskell et al., 1998; Porter, 1990). Public institutions need to be capable to influence attitudinal circumstances through, for example, entrepreneurial education and training. As found in the study, the Russian SMEs had more extrovert competences and were more prepared for radical business model changes compared to Finnish SMEs. The differences in mental business environment may cause challenges for public institutions when planning supporting actions.

The results of the research build novel insights into the role and importance of SME competence changes and SME business model innovation as an enabler of sustainable growth in a change situation. These insights can be useful for both researchers and practical actors in developing strategies for future change situations.

Within the theoretical background of business model innovation, competence transformation in SMEs and SME institutional environment, the study

aimed at complementing the current views with a competence focus. A discussion on the role of SMEs in business model innovations and in building sustainable growth especially from the competence point of view seems to be lacking from the literature. The contribution of the paper to the current research literature on innovation management is based on complementing the extant business model innovation literature with a more detailed understanding of, firstly, the role and importance of existing SME competences and, secondly, of the competence change process in re-creating the SME business model. Both the enablers of business model innovation and the process and elements of business model innovation have been recognized as important areas for further research in a recent literature study by Schneider and Spieth (2013).

The successful transformation of competences and company strategy, and generating new business model innovations is crucial for regional development and for achieving sustainable and inclusive growth in the long run. The paper describes SME competence change processes on a strategic level and offers reflections based on case studies in two culturally different neighbor countries, Finland and Russia, where the institutional environment for SME entrepreneurship also differs significantly. The findings can be used, for example, in analyzing similar change situations in other SMEs and identifying potential competence development needs as well as in identifying new business models based on existing competences.

Practical Implications

The findings of the study provide practical actors, both managers in SME companies and public authorities working with them, some examples of successful strategies for SME competence transformation in external change situations. The public actors planning SME support programs and actions are provided with new knowledge on the needed support for successful business model changes of SMEs from the competence point of view, as well as insights for facilitating new employment and growth through systematical emphasis in competence development in change situations. As practical implications for public business development actors guiding the regional industrial transformation programs, there is a need for improved support for the established SMEs that have difficulties in changing their competences and business model. Vocational and other training organizations should widen education and training programs to include also a practical working attitude alongside skills and other professional knowledge. Institutional barriers for SMEs need to be further demolished. SME owners and managers need an open-minded attitude for competence development and opportunity recognition in a changing environment.

These findings will be helpful for other SMEs or organizations facing sim-

ilar sudden changes in their environment in showing a potential roadmap ahead. The results can be utilized also in realizing the potential of creating new employment opportunities and sustainable growth through novel business models of SMEs, and in proactively changing SME operating environment structures to more supporting ones in sudden changes.

The potential of SMEs in creating sustainable growth in transformation situations could be increased with changing entrepreneurial attitudes and with more specialized support for business model innovation for established SMEs. This study has broadened our understanding on how to support business model innovation in SMEs from a competence perspective, and on how the regional institutional environment defines opportunities and barriers for the change process.

Limitations and Further Research

Despite the valuable empirical results achieved on SME competence transformation and business model innovation, this study has some limitations. As in most cases in a qualitative study, the number of 20 interviewed companies was rather small, which again enabled intensive interviews on the topic. As another limitation, all the interviewed Russian SMEs operated in international business or had international clients, and Russian SMEs operating only in internal markets are not included, which might reflect as a bias concerning the data on the institutional environment.

For further research the authors suggest: firstly, a broader qualitative research including SMEs operating in various markets, as according to common research practice, the results of the study should be validated in new contexts. Secondly, more studies on SME business model innovation and on the effects of existing and transforming competences in external change situations are needed. Also the institutional effects on the practical operational environment of SMEs require clarifications from the point of view of small enterprises, and based on entrepreneurs' demands.

References

- Arbuthnott, A., Eriksson, J., & Wincent, J. (2010). When a new industry meets traditional and declining ones: An integrative approach towards dialectics and social movement theory in a model of regional industry emergence processes. *Scandinavian Journal of Management*, 26(3), 290–308.
- Audretsch, D. (2007). Entrepreneurial capital and economic growth. *Oxford Review of Economic Policy*, 23(1), 63–78.
- Audretsch, D., & Keilbach, M. (2004). Entrepreneurship capital and economic performance. *Regional Studies*, 38(8), 949–959.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.

- Bryman, A. (1988). *Quantity and quality in social research*. London, England: Unwin Hyman.
- Camagni, R., & Capello, R. (2013). Regional innovation patterns and the EU regional polity reform: Toward smart innovation polity. *Growth and Change*, 44(2), 355–389.
- Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2001). *Qualitative marketing research*. London, England: Sage.
- Casadesus-Masanell, R., & Ricart, J. E. (2010). From strategy to business models and onto tactics. *Long Range Planning*, 43(2/3), 195–215.
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2/3), 354–363.
- Cheetham, G., & Chivers, G. (1998). The reflective (and competent) practitioner: A model of professional competence which seeks to harmonise the reflective practitioner and competence-based approaches. *Journal of European Industrial Training*, 22(7), 267–276.
- Cheetham, G., & Chivers, G. (2005). *Professions, competence and informal learning*. Cheltenham, England: Edward Elgar.
- Churchill, N. C., & Lewis, V. L. (1983). The five stages of small business growth. *Harvard Business Review*, 61(3), 30–50.
- DeMarrais, K. (2004). Qualitative interview studies: Learning through experience. In K. DeMarrais & S. D. Lapan (Eds.), *Foundations for research* (pp. 51–68). Mahwah, NJ: Erlbaum.
- The Edinburgh Group. 2013. *Growing the global economy through SMEs*. Retrieved from http://www.edinburghgroup.org/media/2776/edinburgh_group_research_growing_the_global_economy_through_smes.pdf
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *Sage Open*, 4(1). Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/2158244014522633>
- European Commission. (2014). Small and medium-sized enterprises (SMEs). Retrieved from http://ec.europa.eu/enterprise/policies/sme/index_en.htm
- European Commission. (2017). What is an SME? Retrieved from http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_fi
- Gebhardt, C., & Pohlmann, C. (2013). Managing the organization 2.0: Entrepreneurial spirit and general management competences as early indicators for cluster success and sustainable regional development; Findings from the German Entrepreneurial Regional Programme. *Journal of High Technology Management Research*, 24(2), 153–160.
- George, G., & Bock, A. J. (2011). The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1), 83–111.
- Ghauri, P., & Gronhaug, K. (2005). *Research methods in business studies* (3rd ed.). Harlow, England: Prentice Hall.

- Grant, R. M. (1996). Toward a knowledge-based theory of the firms. *Strategic Management Journal*, 17(Winter special issue), 109–122.
- Hovgaard, A., & Hansen, E. (2004). Innovativeness in the forest products industry. *Forest Products Journal*, 54(1), 26–33.
- Johnson, M. W. (2010). *Seizing the white space: Business model innovation for growth and renewal*. Brighton, MA: Harvard Business Press.
- Johnson, M. W., Cristensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, 86(12), 50–59.
- Keeble, D. (1997). Small firms, innovation and regional development in Britain in the 1990s. *Regional Studies*, 31(3), 281–293.
- Lamberg, J.-A., Näsi, J., Ojala, J., & Sajasalo, P. (Eds.) (2006). *The evolution of competitive strategies in global forestry industries: comparative perspectives* (World Forests Series No. 4). Dordrecht, The Netherlands: Springer.
- LeDeist, F., & Winterton, J. (2005). What is competence? *Human Resource Development International*, 8(1), 27–46.
- Leila, A. (2011). Global crises: A network perspective on the economic integration. *Journal of Economic Integration*, 26(2), 197–216.
- Maskell, P., Eskelinen, H., Ingjaldur, H., Malmberg, A., & Vatne, E. (1998). *Competitiveness, localized learning and regional development: Specialisation and prosperity in small open economies*. London, England: Routledge.
- McGrath, R. G. (2010). Business models: A discovery driven approach. *Long Range Planning*, 43(2/3), 247–261.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Miles, M., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. London, England: Sage.
- Mueller, P. (2007). Exploiting entrepreneurial opportunities: The impact of entrepreneurship on growth. *Small Business Economics*, 28(4), 355–362.
- Müller, C. (2014, 8–11 June). *Business model change concepts: A literature review*. Paper presented at the 25th ISPIM Annual Conference, Dublin, Ireland.
- North, D. C. (1994). Economic performance through time. *The American Economic Review*, 84(3), 359–368.
- Porter, M. E. (1990). *The competitive advantages of nations*. London, England: Macmillan.
- Ritchie, J. (2003). The applications of qualitative methods to social research. In J. Ritchie & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 24–46). London, England: Sage.
- Seifi, S., Zulkifli, N., Yusuff, R., & Sullaiman, S. (2012). Information requirements for sustainable consumption. *Social Responsibility Journal*, 8(3), 433–441.
- Schneider, S., & Spieth, P. (2013). Business model innovation: Towards an integrated future research agenda. *International Journal of Innovation Management*, 17(1). Retrieved from <https://doi.org/10.1142/S136391961340001X>

- Shane, S. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Cheltenham, England: Edward Elgar.
- Silverman, D. (2005). *Doing qualitative research: A practical handbook*. London, England: Sage.
- Spencer, L., & Spencer, S. (1993). *Competence at work*. New York, NY: Wiley.
- Spieth, P., Schneckenberg, D., & Ricart, J. E. (2014). Business model innovation: State of the art and future challenges for the field. *R&D Management*, 44(3), 237–247.
- Spieth, P., & Schneider, S. (2014, 8–11 June). *Business model innovation: Entrepreneurial management of dynamic capabilities*. Paper presented at the 25th ISPIM Annual Conference, Dublin, Ireland.
- Stenberg, R., & Arndt, O. (2001). The firm or the region: What determines the innovation behavior of European firms? *Economic Geography*, 77(4), 364–382.
- Taipale-Eräväla, K., Heilmann, P., & Lampela, H. (2014a). Survival competence in Russian SMEs in a changing business environment. *Journal of East-West Business*, 20(1), 25–43.
- Taipale-Eräväla, K., Heilmann, P., & Lampela, H. (2014b). SME competence transformation: A case study on industrial structural change. *International Journal Business Innovation and Research*, 8(3), 265–281.
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2/3), 172–194.
- Van Stel, A., Carree, M., & Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth. *Small Business Economics*, 24(3), 311–321.
- Welter, F., & Smallbone, D. (2011). Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of Small Business Management*, 49(1), 107–125.
- Wennekers, S., Van Stel, A., Thurik, R., & Reynolds, P. (2005). Nascent entrepreneurship and the level of economic development. *Small Business Economics*, 24(3), 293–309.
- Willig, C. (2008). *Introducing qualitative research in psychology: Adventures in theory and method*. Maidenhead, England: Open University Press.
- Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.
- Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019–1042.

Hannele Lampela currently works as a Research Funding Specialist at the University of Oulu, Finland. She also holds a position of Adjunct Professor in knowledge and information management at the School of Business and Management, Lappeenranta University of Technology (LUT), Finland. She has specialized in organizational networks and learning, competence management, and product knowledge management. She is currently interested in topics

combining competence management and innovation management, as well as knowledge work in general. *hannele.lampela@oulu.fi*

Kyllikki Taipale-Eräväla is a Post-Doctoral Researcher in the MicroENTRE research team at the Kerttu Saalasti Institute, University of Oulu, Finland. Her research expertise is competencies enabling business survival in SMEs in changing business environments. Additionally, she is interested in developing micro enterprises, innovation, business model development, knowledge management and advanced services. She has experience of SME entrepreneurship, in the field of training and education, and supervision of apprenticeships. *kyllikki.taipale-eravala@oulu.fi*

Pia Heilmann is an Associate Professor at the School of Business and Management, Lappeenranta University of Technology, Finland. She also holds a position of Adjunct Professor in management and organizations at the School of Business and Management in Lappeenranta University of Technology (LUT), Finland and in University of Jyväskylä, Finland. Her research work relates to management, especially to human resource management, competence management, careers and wellbeing. *pia.heilmann@lut.fi*



This paper is published under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).