Journal of Security and Sustainability Issues *www.lka.lt/index.php/lt/217049/*
ISSN 2029-7017/ISSN 2029-7025 online
2013 Volume 2(3): 85–97
http://dx.doi.org/10.9770/jssi.2013.2.3(7)

BENEFITS OF SOCIAL CAPITAL FOR SUSTAINABLE INNOVATION CAPABILITIES

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Received 15 August 2012, accepted 2 December 2012

Abstract. The present article is to examine benefits of social capital for innovation capabilities in the modern business world. First of all, the concept of social capital and its role are defined referring to a set of scientists' interpretations on social capital and economic/ social development. This chapter allows an ingenious acknowledgement of the added-value of social capital to companies. The main patterns of innovation capabilities are revealed, followed by the methodology and research results presented. The paper emphasizes social capital as a driving factor for organizations while conducting innovations. In line with such elements of social capital as trust, social networks and norms that emerge as the driving factors within the literature review, the research, based on the Global Entrepreneurship Monitor (GEM) methodology, mainly focuses on three elements of social capital: trust, norms and networks in Lithuanian companies. The research question: how such social capital elements as trust, norms and networks help organizations to innovate sustainably.

Keywords: Social capital, social norms, social networks, sustainable economic growth, innovations, entrepreneurship, intellectual capital.

Reference to this paper should be made as follows: Laužikas, M.; Dailydaitė, S. 2013. Benefits of social capital for sustainable innovation capabilities, *Journal of Security and Sustainability Issues* 2(3): 85–97. http://dx.doi.org/10.9770/jssi.2013.2.3(7)

JEL Classification: A13, D23, D83, J24, L14, L26, M14, M21

1. Introduction

In recent years, arguments that social capital has a positive impact on organizations have been widely diffused (Camps, Marquès 2011; Cantner, Stuetzer 2010; Chang *et al.* 2006; Coleman 1988; Dakhli, Clercq 2004; Fu 2004; Inkpen, Tsang 2005; Jamali *et al.* 2011; Kaasa 2007; Kaasa, Vadi 2008; Kaasa *et al.* 2008; Kaasa, Parts 2008; Kang, Kim 2009; Rooks *et al.* 2009; Nielsen 2005; Őzdemir, Demirci 2012). Meanwhile, Juknevičius (2003) states, that social capital can vanish. In his point of view, social capital is important for the society, but its loss poses a threat to the unity of the population and this result encourages a social isolation of individuals. It is stated that *mutual trust* among people is one of the characteristics of social capital, which appears crucial for entrepreneurs. It affects entrepreneurship via social norms, networks, human capital and trust perceiving it through cognitive, structural and relational dimensions. Fu (2004) observes the significance of trust, where a lower employees' turnover and more reciprocal labour-management relations could cut transaction costs and bring higher-performance work practices.

Scientists agree that networks are essential for a sustainable business performance. Based on researches conducted by Johnson *et al.* (2002), a quarter of all existing customers were friends or acquaintances in the beginning. Cantner and Stuetzer (2010) reveal that in the process of developing sustainable innovations companies do not often possess enough information about prices, production process, costs and competition. According to Fu (2004), the share of informa-

tion among various market players should definitely help in this matter, partly via a better use of resources and increasing sustainable innovation capabilities.

Indeed, social capital acts as the driving factor for sustainable innovation capabilities in the modern business world. Based on Global Entrepreneurship Monitor (GEM 2012) and scientific literature, the research question is raised: how social capital affects entrepreneurship via sustainable innovations. The methodology of Global Entrepreneurship Monitor (GEM 2012) encompasses two research methods: the quantitative adult survey (APS: Adult Population Survey) and qualitative interviews with experts (NES: National Experts Survey). The results indicate problems in Lithuanian enterprises that are examined via social capital dimensions.

2. Social capital and its relation to innovation capabilities

Within the scientific literature researchers often analyse different elements of social capital mitigating the role of ideologies among these elements. Coleman (1988) distinguishes communication channels, social norms, expectations and obligations as the essential elements that constitute to the creation of human capital. In a similar way Rooks *et al*. (2009) observe the importance of social capital while highlighting the dependence between networks and sustainable innovative performance. Social capital refers to trust (interpersonal and institutional), impacts of networks and social norms that facilitate the creation and maintenance of an adequate social structure together with other forms of capital. This should facilitate a long-term growth and sustainable development (Portela *et al*. 2012). Adler and Kwon (2002) point out that "… social capital facilitates access to broader sources of information and improves information's quality, relevance, and timeliness."

While tackling the importance of social capital from the organizational perspective Fukuyama (2002) relates social capital to human capital, which should be enhanced through education (thus, it requires investments in training and an institutional infrastructure). According to the author, apart from the transmission of certain specific skills and knowledge, social capital requires the inculcation of shared norms and values (habits, shared experience, and leadership). Stam and Elfring (2008) point out that 'high network centrality, then, facilitates an entrepreneurial orientation by increasing a firm's capacity to quickly identify, access, and mobilize external resources. Indeed, recent research supports this view and shows that ventures with high centrality pursue more sustainable innovative strategies and have better odds of acquiring venture capital'. Nahapiet and Ghoshal (1998) agree that elements of social capital can act as the basis for improving a sustainable business performance. Rahmani & Mousavi (2011) associate internal social capital as various organizational activities. Boulila *et al.* (2006) note that "…lower trust can discourage innovation. In this context, entrepreneurs must devote more time to monitoring possible malfeasance by partners, employees and suppliers and spend less time to devote to innovation of new products or processes". Covey and Merrill (2009) analyse the benefit of trust by using the formula of "economic trust" (Figure 1).

Fig.1. The formula of "economic trust"

Source: Covey and Merrill (2009)

"The greater the level of trust within a community is, the greater is the likelihood of cooperation" (Christoforou 2003). In companies where there is a high level of trust, it is easier to obtain the loyalty of employees, customers, suppliers and investors (Covey, Merrill 2009). The formula reflects the dependence among trust, speed and cost. It means that a low level of trust makes a negative impact on labour productivity (speed) and cost of products or services. "Trust can influence innovation through many mechanisms. First, the higher the general trust, the lower the monitoring costs of possible malfeasance or non-compliance by partners and the smaller the need for written contracts" (Kaasa *et al.* 2008). Hence, social capital acts as the fateful factor for a career success (Seibert *et al.* 2001).

Kaasa (2007) elucidates that innovation is, in general, the introduction of something new or significantly improved (products, services or processes). Though the introduction of innovations is costly, it always brings a smaller or larger effect. Thus, enterprises have to evaluate factors that may affect a sustainable performance of organizations (Figure 2).

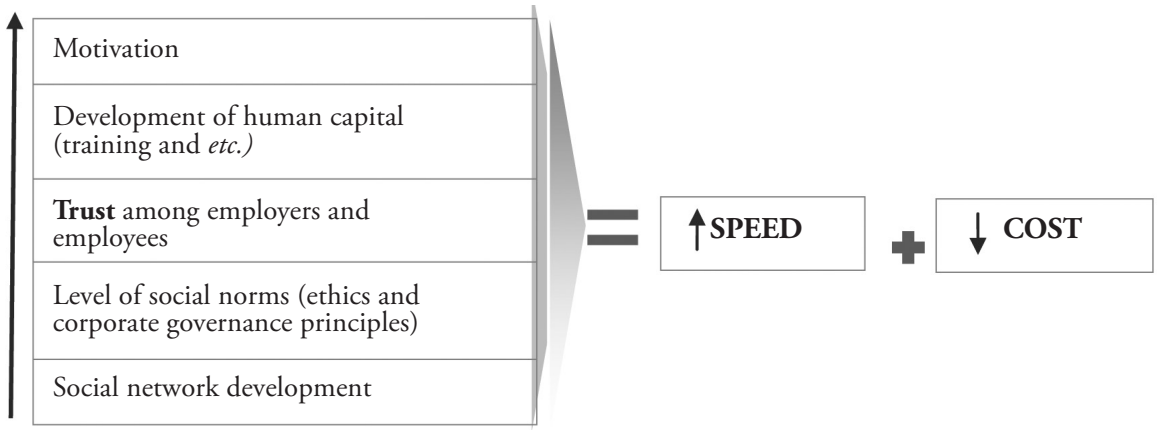


Fig.2. Expanded formula of 'economic trust' within organizations

Source: Adapted by authors, based on Covey and Merrill (2009)

The adapted formula indicates the elements that act as the driving factors in organizations. A high level of motivation, a sustainable development of human capital, trust, social norms and networks make influence on the companies' productivity (speed) and costs. Kaasa (2007), Allani *et al.* (2003), Landry *et al.* (2000), Rahmani and Mousavi (2011), Nielsen (2005), Kang and Kim (2009), Camps and Marques (2011) confirm that social capital is related to innovations. Kaasa (2007) observes "social capital as a relevant factor of innovation…", meanwhile, Rooks *et al.* (2009) state that social capital may not only make a positive impact on the economy and innovative activities, but also can act as a constraint. Human capital is considered as one of the key elements of social capital for sustainable innovative activities in organizations. Kassa (2007) reveals that "…social capital has a positive impact on education and human capital."

Allani *et al.* (2003) note that human capital plays a crucial role for companies willing to seek for major competitiveness, increasing sustainable innovative capabilities of business. Kaasa and Vadi (2008) associate innovations with some kind of change and uncertainty, as cultures with a strong uncertainty avoidance are more resistant to innovations. On the other hand, cultures with a stronger uncertainty avoidance tend to protect the intellectual property by patenting. However, developing and patenting innovations are sequential phenomena: if there are no innovations there is nothing to patent as well.

Kaasa and Vadi (2008) point out that employees of individualistic societies have more possibilities to try something new in contrast to collectivistic societies, i.e., individuals of individualistic societies have more driving motives or opportunities to receive recognition for innovative ideas. Nevertheless, Everdingen and Waarts (2003) reveal that within organizations with a high power distance, the centralized decision structures, authority and formal rules dominate, whereas sharing of information is limited. The author confirms that the level of centralization and formalization is related to the one of innovations. On the other hand, the teams' ability to adapt to the changing environment is closely related to sustainable innovative capabilities, i.e., there must always be enough attention paid to employees, focused on gaining knowledge, ideas and integration. Indeed, "the innovation process cannot be successfully completed without acceptance and implementation of new ideas and practices by majority of team members. However, a novel and innovative idea may be imported by an opinion leader, it can only be successfully implemented at a team level when team members agree on and accept it through diffusion processes, based on team members' social network" (Kang, Kim 2009).

Őzdemir and Demirci (2012) approve the importance of leadership in sustainable innovative processes. "In order to support the innovation processes, leaders should also be able to develop competencies and culture for innovation. Last, but surely not least, leaders are respon-

sible for ensuring healthy flow of information within the organization. Both internal and external, and formal and informal information is crucial to creativity and learning that in return sparks the innovation initiatives." In a similar way as Őzdemir and Demirci (2012), Kang and Kim (2009) point out that "team members' social capital alone cannot guarantee successful team innovation without an opinion leader's role."

In addition, the level of innovations may depend on historical events. Tonoyan (2004) indirectly indicates that the level of social capital is lower in countries that belonged to the Soviet Union. The author emphasizes that the level of corruption is increasing gradually and it is the highest in Soviet Union countries. On the one hand, the corruption does not depend on social capital concepts, but from a different perspective, the level of corruption may depend on individuals' values, norms, traditions and the environment. The history of countries determines the level of innovativeness in organizations and it partly explains the differences of corruption levels between the Eastern and Western countries. Svendsen (2003) confirms that a high level of corruption may lead to a negative trust which endangers a sustainable economic growth.

Anis and Mohamed (2011) while interpreting Birley's (1985), Hulsink's and Elfring's (2003) research results, denote that a high level of social capital helps entrepreneurs to get more funding, and, according to Jenssen and Greve (2002), interpersonal relationships among entrepreneurs and bankers facilitate the access to financial capital. The regression analysis indicates the dependence between social capital and the receipt of funding. These findings can be backed by Heikkilä *et al.* (2009) who discovered that there was a correlation between social capital and borrowing from financial institutions. The analysis confirmed the existing relation between social capital and innovations via the receipt of financing.

Nevertheless, social capital associates with the access to information which is beneficial for entrepreneurs. Entrepreneurs with a great diversity of human capital are able to get more relevant information of high-quality. The variety of human capital indicates the experience of entrepreneurs or teams in organizations. Entrepreneurs can better evaluate the breadth of experience, quality and new information, its usefulness, and integrate it in the existing knowledge base. It is emphasized that these entrepreneurs have broader social networks, in line with more opportunities to choose the right partners (Cantner, Stuetzer 2010).

Within a well-developed scientific literature on innovation capabilities the level of innovations depends on social capital in organizations. Camps and Marques (2011) submit that there are four factors that make influence on a sustainable development of social capital (stability, closure, interdependence, interaction) (Figure 3).

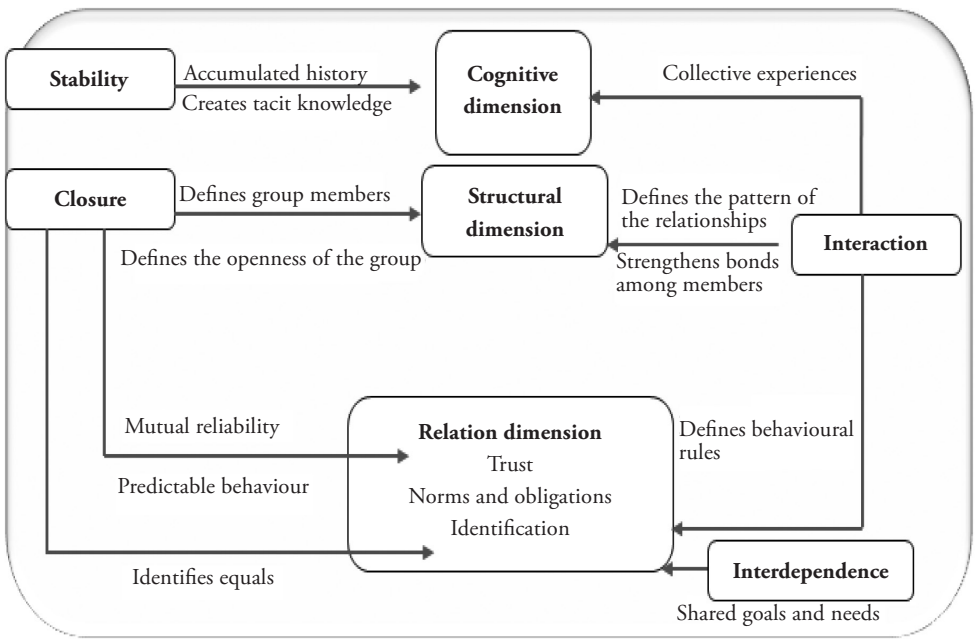


Fig.3. The effect of drivers on social capital dimensions

Source: Camps, Marquès (2011)

While scrutinizing the importance of social capital in business Johnson *et al.* (2002) point out that the structural dimension is the concept of social capital which describes relationship among people in networks. Social networks provide the access to resources that bring to enterprises a wide range of opportunities and some constraints. Cantner and Stuetzer (2010) suggest that the access to resources has an intrinsic importance for small and newly established businesses that usually suffer from the deficiency of financial resources, insufficiently skilled labour force, suitable equipment for researches and development and manufacturing.

The relational dimension involves the motives of behaviour (Chang *et al.* 2006). Nahapiet and Ghoshal (1989), analysing the structural dimension, indicate trust, norms, expectations as the relevant elements. Relying on the Nahapiet's and Ghoshal's (1989) argumentation, Rahmani and Mousavi (2011) reflect that this dimension describes individuals' relationships. Inkpen and Tsang (2005) note that the cognitive dimension expresses the common understanding and objectives among the network members. According to Nahapiet and Ghoshal (1989), individuals' beliefs are one of the elements of cognitive dimension in the organizational environment which can influence the organizational culture formation, as a result stopping a sustainable innovative performance. However, there could be interpreted Nahapiet's and Ghoshal's (1989) thoughts, where elements of the cognitive dimension are not just belief, but also ideals, values, mental models, schemata. Also, the tacit knowledge can be attributed to the cognitive dimension (Monaka, Konno 1998). "Tacit knowledge is what we know as human beings. Sometimes we are not aware that we have tacit knowledge. In an organization, the amount of tacit knowledge is much more than other types of knowledge (explicit and embedded). For this reason, we ought to know the value of tacit knowledge in an organizations and we have to find out how can it be managed by CEO" (Sagsan 2003). Thus, the dependence between social capital and innovations exists (Figure 4).

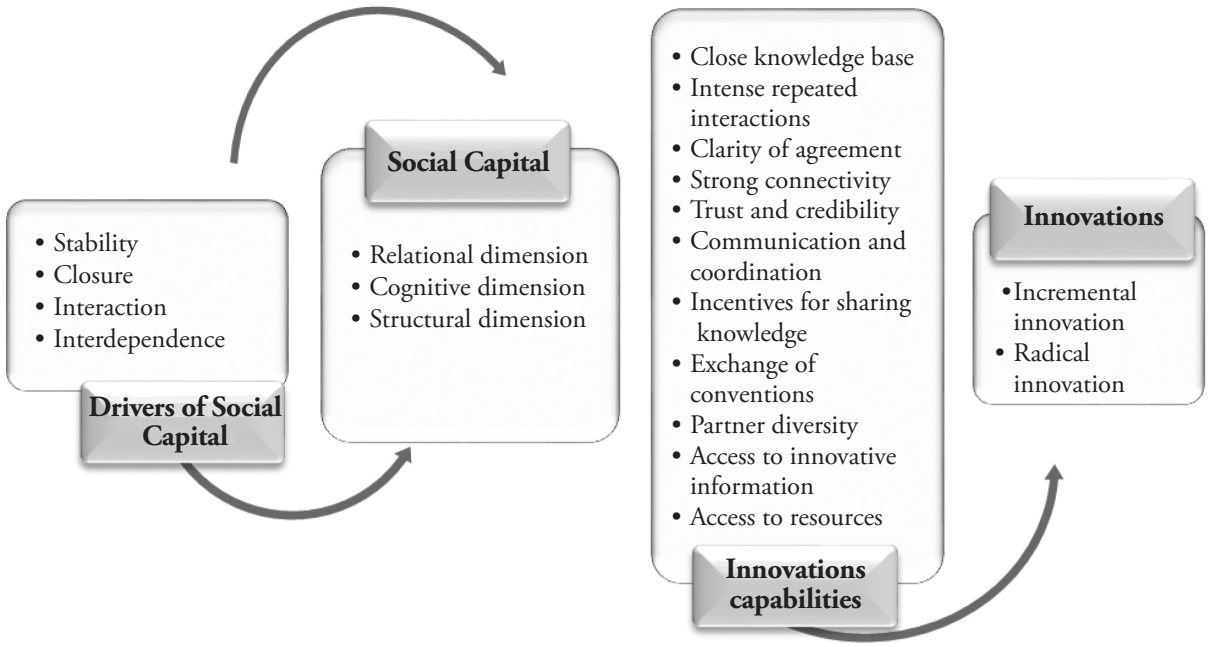


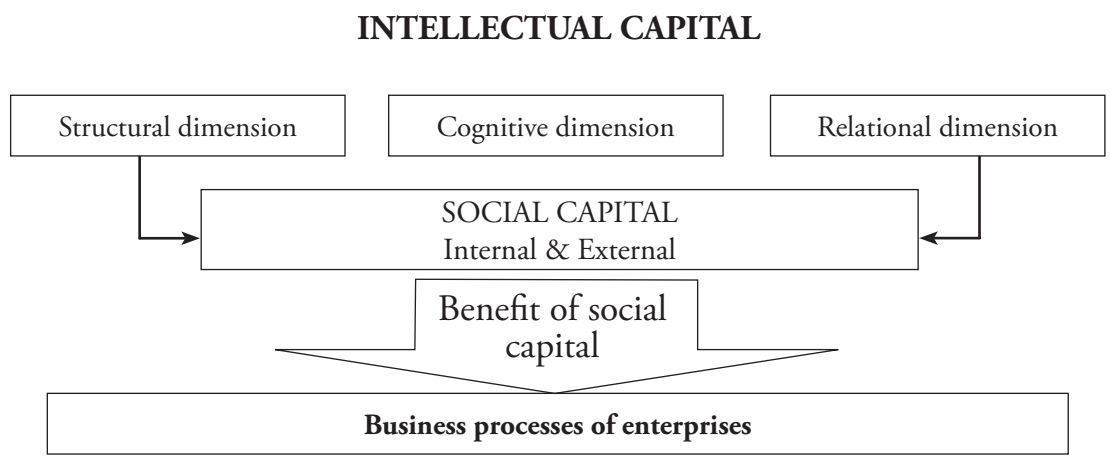
Fig.4. The relation between social capital and innovations

Source: prepared by authors, based on Jamali *et al.* (2011), Camps, Marquès (2011)

Rahmani, Mousavi (2011) determined innovations as "…(1) the ability to develop products to meet the needs of market, (2) the ability to use existing technology to develop products, (3) the ability to develop new products or update existing products to meet the needs of markets, and (4) the ability to acquire new technology to create new opportunities." Innovations cover formal and informal relations among companies and various actors in their own environment, and learning is diversified, which includes *learning-*

by-using, *learning-by-doing* and *learning-by interacting*. Nielsen (2005) indicates four possible types of knowledge, i.e., *know-what*, this type of knowledge is described as knowledge about facts and *know-why* includes scientific knowledge, whereas *know-how* emphasizes the ability to do something, *know-who* is knowledge about who knows what and how to do it. It can be stated that the importance of knowledge acts as the essential element for sustainable innovative activities; however, social capital is a driving key creating a competitive advantage.

Mačerinskienė and Aleknavičiūtė (2011) point out that "social capital is a component of intellectual capital. It is based on a set of values and the subsequent indicators such as confidence, loyalty, sincerity, compromise, transparency, solidarity, responsibility, honesty, and ethics." Also, Nahapiet and Ghoshal (1989) reveal that social capital makes influence on the development of new intellectual capital creating benefits for sustainable innovative activities (Figure 5).



- Reduced transaction;
- Less time consumption;
- Strengthened relations with suppliers and customers;
- Reduced business risk;
- Easier to reach company goals;
- Improved manufacturing processes;
- Renewed production and expanded its distribution;
- Increased sales and profits of the enterprise
- Increased flexibility of a company;
- Better communication between companies and reduced uncertainty,
- Strengthened interpersonal relations;
- Ensured sustainable business development;
- Easier access to new markets
- Ensured better portfolio of employees for the enterprise;
- Effective relationships between employees and employers,
- High efficiency of the company;
- Reduced the rotation of employees;
- Fostered better diffusion of information within a company;
- Stimulate innovation and intellectual capital creation in enterprise;
- Strengthened reputation of enterprise

Fig.5. Social capital's benefits to enterprise's business processes

Source: Mačerinskienė, Aleknavičiūtė (2011)

Thus, benefits of social capital increase the innovative performance. According to Mačerinskienė, Aleknavičiūtė (2011), social capital makes the influence on the access to new markets, reduces the employee turnover and business risk, and fosters a better diffusion of information. It is obvious that social capital stimulates sustainable innovations and creation of intellectual capital in enterprises. Indeed, incremental and radical innovations depend on intellectual capital. Amiri *et al.* (2011) reveal that structural capital

includes buildings, equipment, software, processes, patents and trademarks. Structural capital encompasses image of organizations, information systems and proprietary databases. The essential elements of structural capital can be analysed as organizational process and innovative capital. Organizational capital is realized as an organizational philosophy and framework. Another dimension is process capital including methods, procedures and programs, which help to strengthen the delivery of goods and quality of service. Innovation capital encompasses the intellectual property and intangible assets.

Amiri *et al.* (2011) claim that relational capital examines trademarks, licenses, franchises, focusing less on communication and relationships with customers. Human capital can be understood as a part of intellectual or social capital. Thus, intellectual capital makes the impact on incremental and radical innovations. On the other hand, social capital affects organizations via incremental and radical innovations.

Camps and Marquès (2011) announce that "the greater the stability, the greater the potential to build stocks of social capital in the three dimensions: stability promotes the creation of networks and relationships, allows people to share experiences which drive same vision and language, and finally it facilitates the creation of trust, norms and obligations." The authors note that "closure refers to the existence of dense social network boundaries that distinguish members of a group from non-members, and within which all actors have relationships with each other" (Camps, Marquès 2011). To continue, Camps and Marquès (2011) indicate that the interdependence reflects common goals and business success. Camps and Marques (2011) note that communication reflects relationships among individuals by indicating quantity, quality and strength. Jamali *et al.* (2011) underscore "the importance of both structural and relational elements as in ensuring partner diversity (structural) but also relational elements as in fostering incentives for sharing knowledge and effective coordination mechanisms to ease concerns about opportunism and ensuring the sharing of critical and timely knowledge between partners."

Hill (2003) reveals that the creativity and innovations are important factors for entrepreneurship; however they are not synonyms. Creativity is often a solitary, individual process and refers to the generation of novel ideas. These ideas may have very little value to anyone else except to the creator. In other words, creativity can be defined as "a process of being sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies etc".

Also Hill (2003) notes that "innovation refers to the process which follows the conception of a novel idea and often involves several people who each offer different suggestions and contributions." Indeed, a high level of social capital may contribute to a sustainable growth of innovations in organizations. Notwithstanding all the benefits of social capital, Camps and Marquès (2011) reminds that building social capital requires considerable investments of time and resources, mainly because of maintaining ongoing relationships and norms and slack resources.

Nielsen (2005) states that social capital affects the product and service innovations in several ways "it helps to reduce malfeasance, induces reliable information to be volunteered, causes agreements to be honoured, enables employees to share tacit information, and places negotiators at the same wavelength." Figure 6 reflects the importance of a high level social capital within the product life cycles, covering the product and process innovations.

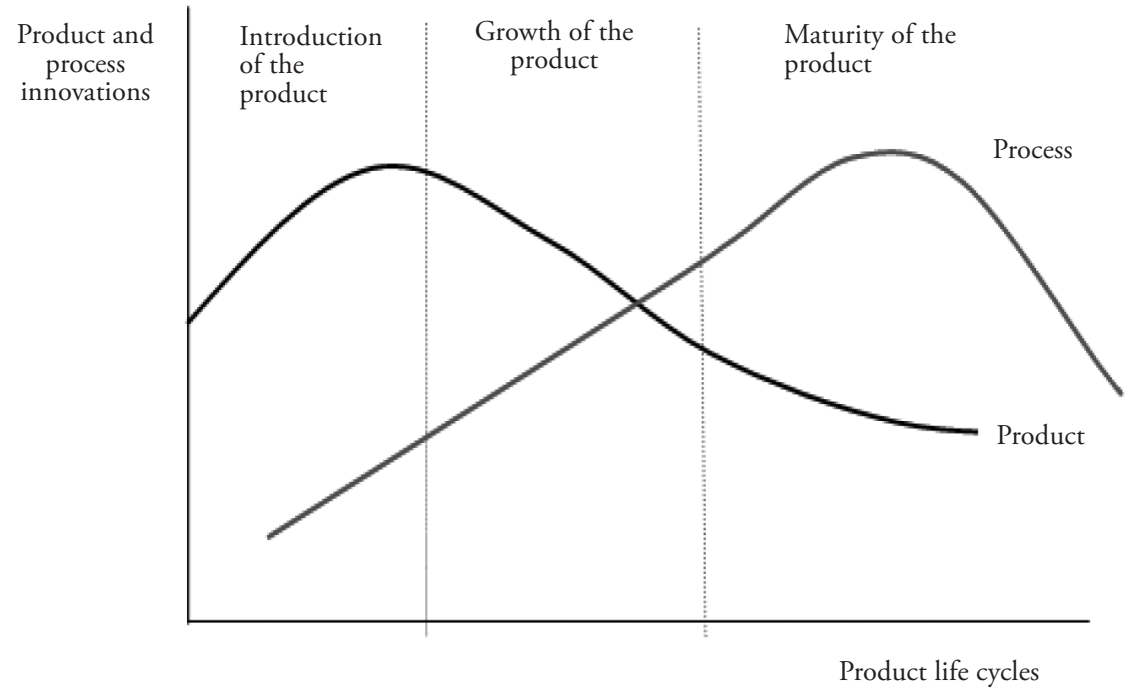


Fig.6. Product and process integration through product life cycles

Source: McDaniel (2002)

In the stage of product introduction the level of innovations grows gradually, while process innovations are extremely limited, compared to innovative products. A producible product is focused on a suitable size and shape with the aim of manufacturing well-made products beneficial for final customers. Sometimes manufacturers allow consumers to test items so that they could check properties of product exploitation. When manufacture innovations are dominating, processes and products enter the final stage of the product maturity. The driving force in this stage focuses on automation of manufacturing and volume enhancement (McDaniel 2002).

"Innovation processes thrive on trust, networks and norms that decrease transaction costs, increase the quantity and quality of information, facilitate coordination and diminish collective action problems. Innovation can be seen as an intermediate variable. Social capital enhances innovation, and innovation generates a sustainable economic growth and development" (Nielsen 2005). It is obvious that social capital makes influence on product and process integration through product life cycles.

3. Methodology

The research is based on the methodology and data of Global Entrepreneurship Monitor (GEM) for the year of 2011. GEM is considered the largest dataset on entrepreneurship in global markets, where nearly 70 economies are investigated, and Lithuania takes the part of this consortium. Two research methods are combined: the quantitative adult survey (APS: Adult Population Survey) and qualitative interviews with experts (NES: National Experts Survey). While APS examines the influence of an individual, his or her characteristics, motives, attitudes or actions in the life-cycle of entrepreneurial processes, NES is to collect the data on the role of institutions and framework conditions for developing entrepreneurial activities in the economy. To elucidate the specificity of Lithuanian entrepreneurs, there was a list of additional questions related to social image of entrepreneurs in Lithuania prepared.

The APS survey in Lithuania covered the sample of 2003 adults from 18 to 64 years. The regional proportions of respondents within this survey are in line with the regional spread of population at the county's level. The Lithuanian survey of experts took place in September 2011. It was conducted by the team of the In-

ternational Business School at Vilnius University (Dr. Mindaugas Laužikas, Dr. Erika Vaiginienė, Dr. Vikinta Rosinaitė, Aistė Miliūtė, Skaistė Batulevičiūtė, Simona Dailydaitė). The responses came from two groups of respondents: starting or helping to start a business having no revenue generated yet (N=255) and business owners (N=307).

The expert interviews enclosed 36 experts from 9 different fields: finances, governmental policies and programs, education and trainings, R&D, business and physical infrastructure, the market openness or cultural and social norms. The NES is more qualitative than quantitative in its original conceptualization. In qualitative research, i.e. focus groups and similar, it is considered that with at least 4 qualified opinions one can calculate a representative average opinion about a thematic item. In the NES, all experts make opinions about all proposed items using Likert scales of 5 points: 1 = completely false and 5 = completely true. In the worst scenario, including non-responses to some items among the experts, there are always more than 20 opinions in each item. Experts must not know that each one of them was selected by its expertise in one of the 9 areas: this remains secret for them and only the GEM team has this information (GEM 2012).

4. Trust, norms and networks in Lithuanian firms

Driven by the insights presented within the scientific literature review, the first focus of the present research is on trust and networks. The research results show that nearly 50% of respondents absolutely agree and one fourth (26,1%) of respondents agree that dealing with people provides with a lot of business opportunities. To continue, only one third of respondents had difficulties to decide, whether they would understand better business activities under the management or consulting of other people, while 40% of respondents were fond of initiating changes in business processes themselves.

In spite of researches and publications tackling the issue of trust in business, the analysis is always challenging, because of the difficulty to measure it. One of the possible ways to measure trust in business is to examine the social image of entrepreneurs and who are the principle contributors to social image. The research results indicate that notwithstanding a positively evaluated social image of entrepreneurs by both experts and respondents, some key-strategic groups should be more dynamic in promoting entrepreneurial initiatives. Only 8,6% of respondents suppose that universities and lecturers contribute to the social image of entrepreneurs, while groups and group mates were mentioned by 6,2 %. In addition, there is a huge potential to strengthen the social image of entrepreneurs at the level of secondary schools: nearly 95% of respondents did not receive necessary knowledge on entrepreneurship from school professors. The modest contributors were the family members (7%). It is of significant importance that 50,4% of respondents emphasize the power of media in building the social image of entrepreneurs. Friends and relatives were mentioned by 38,6% and other entrepreneurs by 39,8% of respondents.

Another interesting finding is related to the characteristics of the respondents living place: more than two thirds (70,5%) of respondents' stated that over the last two years they did not know people who had started business in their environment, while 28 % admitted, that they knew businessmen in their environment. Such answers are supported by the perception of business opportunities in a living environment in the upcoming 6 years: only 19% of respondents consider their living place as having good possibilities to start the business. Analogically, the two thirds consider their living place being not in favour to start business. The negative perception of a living place was accompanied by a negative evaluation of skills, knowledge and expertise necessary to start a business (only one third of respondents had evaluated their skills, knowledge and experience as suitable).

It is not enough to generate innovative ideas and evaluate business opportunities; often those ideas are unrealized because of the lack of initiatives to execute those ideas. Only 10 % of respondents helped to execute ideas during the period of the past 12 months. The half of respondents needed one year or more for helping to establish a business, other needed up to one year for helping to establish a business. 80,2 % of respondents were the principle or co-owners of a business; 61,3% established and developed their business in a two-people team, and 26,3% were three people in a team while starting their business.

The previous experience in a company helped 46,5% of respondents to form the business or innovation idea, and only 13,4% of employers provide or intend to provide the support for the business development or serve a necessary physical infrastructure (86,6% of

employers do not provide such support). The previous experience is also useful because 46,7% respondents who have established their business intend to employ their ex or present colleagues. Apart from human and financial resources, each business needs technological resources. This is confirmed by 44,4% respondents already having their business established, where the technologies in use are related to technologies of their previous or current employer. Though more than 63,9% of respondents involved in business (starting or helping to start businesses) use technologies and apply procedures necessary for the creation of products and services for longer than 5 years, a rapidly changing business environment, progress of information technologies and a severe competition in global markets demand from 25,9% entrepreneurs to renew technologies and procedures more often, as technologies and procedures last from 1 to 5 years, and 10,1% of respondents need to do this every year. Among respondents who already have their business established and own it 19,4% need to renew them in the period from 1 to 5 years, while 8,6% of respondents need to make necessary changes annually.

For 51,5% respondents who started their business the previous job experience helped to build the business idea. However, 90,4% of respondents indicated that their current or previous employers avoid of providing their business with the financial support of physical infrastructure. 31,1% of respondents accentuated the importance of working in other companies and particularly intentions to employ their current or ex colleagues. 44,6% respondents-business owners use technologies that completely or partially related to the previous or current employer.

Trust and networks could be also translated to such factors as entrepreneurs' investments in initiatives of other people. 58,8 per cent of respondents who invested in other businesses allocates those investments to their relatives, and 31,6% to neighbours and friends. Other 2,6% dedicated their investments to colleagues, and 6,1% to unknown people with a good idea.

The role of trust and networks could be illustrated by the fact that many entrepreneurs are working for other employers while executing their initiatives. Thus, it is important to have a look at the employment status of respondents. It appears that 54,9% of respondents were employed full time, 7,3% of respondents were part-time employees, 17,4% were self-employed, 10,6% were looking for a job, 9,4% of respondents were on their retirement leave or with disabilities, and 7,6% were students. 61% were employed in profit seeking companies, 26,2% in governmental organizations, 10,1% were employed in non-profit organizations. The majority of respondents (63,1%) were working in organizations with the headcount of more than 2 employees.

Within the variety of organizations 19,1% of respondents were involved in the creation or realization of new activities. 57,6% were involved in such processes with no respect whether these activities take place in their current organization or not. 71,9% of respondents were involved in the generation process of new entrepreneurial and innovation ideas over the last three years. 33,9% of respondents managed such processes, 53,6% helped to generate such ideas, and 12,5% executed, managed and supported entrepreneurial processes. 57,4% of respondents were continually preparing and executing ideas not stopping themselves at the generation stage: 37,8% managed the preparation activities and execution processes, 48,9% helped to prepare and execute activities, and 13,3% were responsible for both functions.

Notwithstanding quite high numbers on respondents involved in entrepreneurial activities, the indicators of sustainable innovation performance among Lithuanian entrepreneurs were quite disappointing, as 71% of respondents-owners could not characterize their products and services as innovative for their customers/ clients, and 66,7% of respondents felt a strong competition in the market. Therefore, the innovativeness and competitive advantages of Lithuanian companies trigger many doubts.

Deriving from the scientific literature analysis the role of social capital on Lithuanian companies should be examined via cultural and social norms in Lithuania. According to the interrogated experts; cultural and social norms do not encourage the risk-taking and entrepreneurial activities: 72% experts do not agree that cultural and social norms encourage the entrepreneurial spirit, and 56% of experts believe that the national culture does not sufficiently enhance the creativeness and innovativeness of the Lithuanian nation.

Summarizing the research results there could be a conceptual model designed to illustrate the role of social capital on a sustainable innovation performance of Lithuanian companies. It gets clearer how trust, networks and cultural and social norms affect the innovativeness of Lithuanian companies (Figure 7).

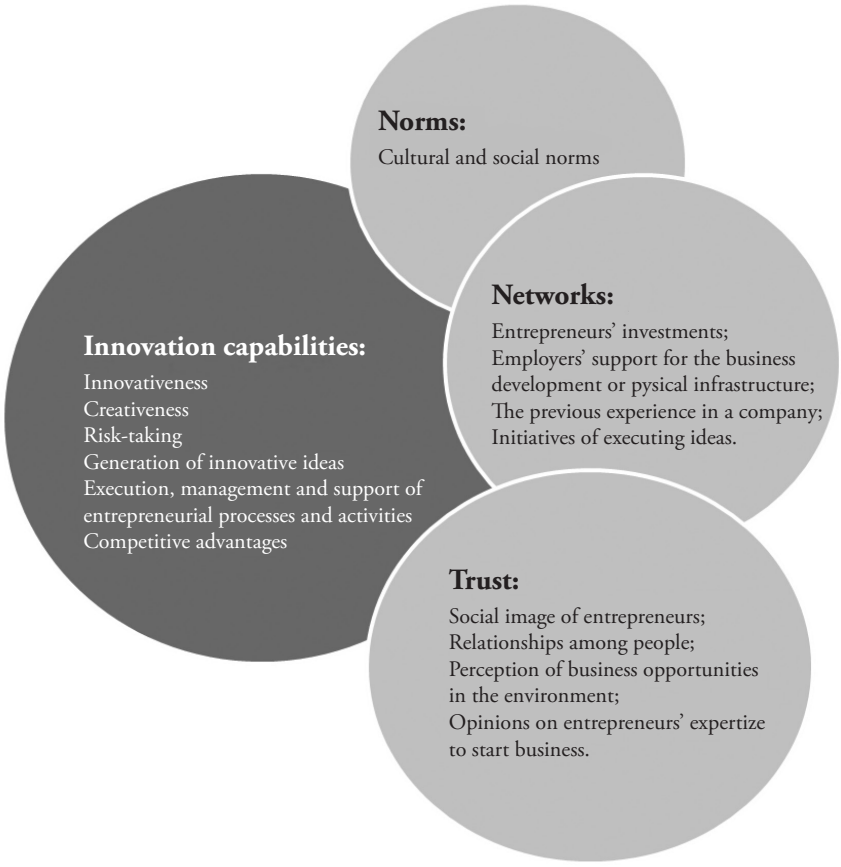


Fig.7. Effects of social capital on innovation capabilities

Source: prepared by authors, based on the research results

As it is illustrated in the above presented model innovation capabilities are translated to such factors as the perception of innovativeness and creativeness, risk-taking, generation of innovative ideas along with execution, management and support of entrepreneurial processes and activities. All of these factors contribute to competitive advantages of Lithuanian companies that are difficult to achieve without trust, because trust influences the social image of entrepreneurs, relationships among people, perception of business opportunities in the environment as well as respondents' opinions on entrepreneurs' skills and knowledge to start business. It should be added that competitive advantages are achievable only via the key strategic partnerships and co-operation; thus, networks contribute through entrepreneurs' investments, the employers' support for a sustainable business development or physical infrastructure, the previous experience in a company and numbers of initiatives of executing ideas. In a broader perspective, all these elements act within a set of cultural and social norms that support of prohibit a sustainable innovation performance. Therefore, the role of education organizations and education itself on business should be the object of the further researches in order to use the existing potential of Lithuanian companies.

Conclusions

Social capital is an important factor in disseminating knowledge across the society and business, while entrepreneurship affects a sustainable economic development (Portela *et al.* 2012). Relying on Mačerinskienė and Aleknavičiūtė (2011) "confidence, civic behaviour and associativity strengthens the social networks, contributing to the sustainable economic development."

The interaction of various elements of social capital acts as the catalyst creating and strengthening competitive advantages. Based on Musai *et al.* (2011), social capital can facilitate the accumulation of human capital, financial investments, sustainable innovation processes, creativity and the management efficiency.

The analysed social capital elements (trust, relations and norms) significantly contribute to the performance of Lithuanian companies. More than there fourths of respondents agree that relationships among

people bring many business opportunities. Trust and networks cover such important aspects as co-operation with employers, employing ex or current colleagues, the social image of entrepreneurs, perception of the innovativeness and creativeness, entrepreneurs' investments in activities of other people as well as the accumulated experience in a company.

Though 57,4% of respondents are continually preparing and executing ideas not stopping themselves at the stage of generating ideas (37,8% manage the preparation activities and execution processes, 48,9% help to prepare and execute activities, and 13,3% of respondents are responsible for both functions), 71% of respondents-owners do not characterize their products and services as innovative while 66,7% of respondents feel a strong competition in the market. It is closely related to the fear of risk and social and cultural norms that, according to experts, do not encourage the creativeness and innovativeness of the Lithuanian nation. It draws the implication that the educational and governmental policies and/ or programs should concentrate more on entrepreneurship and sustainable innovations in Lithuania. Only when the creativity and sound strategic management are employed in business the sustainable innovation capabilities can be acknowledged and fully used.

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