



Publisher

INTELLECTUAL CAPITAL AS A DRIVING FORCE OF INTERNATIONALIZATION: A CASE OF LITHUANIAN SMEs

Renata Korsakienė¹, Aušra Liučvaitienė^{2,3}, Monika Bužavaitė⁴, Agnė Šimelytė⁵

^{1,2,5} Vilnius Gediminas Technical University,
Saulėtekio al 11, LT-10223 Vilnius, Lithuania

³Vilniaus Kolegija University of Applied Sciences,
Saltoniškių 58, LT-08105 Vilnius, Lithuania

⁴Valuetech s.r.l.,
Corso Re Umberto, 31, 10128 Torino, Italy

E-mails: ¹renata.korsakiene@vgtu.lt, ²ausra.liucvaitiene@vgtu.lt, ⁴monikabuzavaite@gmail.com, ⁵agne.simelyte@vgtu.lt

Received 16 December 2016; accepted 26 February 2017

Abstract. Constantly changing technologies, increasing competition, unstable demand of consumers, economic and political changes encourage managers to seek new opportunities abroad and thus, expand their firms' activities. Considering the importance of knowledge in a number of industries, competition is shaped by the firms' intellectual capital. Referring to the intellectual capital theory, the assumption about the importance of intellectual resources in internationalization process is suggested. Grounded on intellectual capital theory and the main aspects of SMEs internationalization the paper aims to reveal the significance of some important factors in internationalization of Lithuanian SMEs. The study is based on expert evaluation method and reports the findings from questioning the representatives of science and business. The internationalization of SMEs is driven by work experience of employees, ability to transmit experience and international orientation of managers. These factors contribute to the development of technical knowledge and strategy development processes. Consequently, obtained technical expertise and strategies lead to the higher reputation of managers in international context. The findings are significant for entrepreneurs having strong intentions to expand their businesses and policy makers, concerning about promotion and support of internationalization processes. The insights into the development of future investigations are suggested.

Keywords: intellectual capital, human capital, structural capital, relational capital, internationalization, SMEs

Reference to this paper should be made as follows: Korsakienė, K.; Liučvaitienė, A.; Bužavaitė, M.; Šimelytė, A. 2017. *Intellectual capital as a driving force of internationalization: a case of Lithuanian SMEs*, *Entrepreneurship and Sustainability Issues* 4(4): 502-515. [http://doi.org/10.9770/jesi.2017.4.4\(8\)](http://doi.org/10.9770/jesi.2017.4.4(8))

JEL Classifications: M13, M16, M19

Additional disciplines: Sociology

1. Introduction

Constantly changing technologies, increasing competition, unstable demand of consumers, economic and political changes encourage managers to seek new opportunities abroad and thus, expand their firms' activities. Considering the importance of knowledge in a number of industries, competition is shaped by the firms'

intellectual capital (IC). Thus, IC is seen as a source of competitive advantage and significantly contributes to the performance of firms.

The role of small and medium size enterprises (SMEs) in the countries' economies is crucial and thus, determines the growth potential. On the other hand, small firms have limited resources and capabilities, limiting their ability to use international opportunities. Thus, a vast literature on SMEs internationalization aims to suggest the insights contributing to the expansion processes of small firms. While some studies emphasized a significance of human capital (Cerrato, Piva 2012; Colombo, Grilli, 2005; Galabova, McKie 2013), other studies investigated social capital (e.g. Johanson, Vahlne 2006), personal and inter-firm networks and their interrelationships with internationalization (e.g. Manolova et al. 2007). The investigations focused on IC of small firms are limited and are focused on the management of intangible assets (Cohen, Kaimenakis 2007). A significant number of reported researches were carried out in the context of developed countries. Meanwhile, the investigations of small firms in emerging markets contexts are less developed (Korsakienė, Baranauskienė 2011; Korsakienė, Tvaronavičienė 2012; Korsakienė et al. 2015). Hence, investigations of IC and interrelationships with internationalization of the SMEs is seen as a fruitful venue in the scientific literature. Grounded on IC theory and the main aspects of SMEs internationalization the paper aims to reveal the significance of some important factors in internationalization of Lithuanian SMEs.

2. Literature review

Intellectual capital

Intellectual capital is one of the main organisation's sources, contributing to competitive advantage, long-term prosperity and effectiveness. Though IC has attracted a significant number of researchers, the common agreement about the concept has not been achieved. Thus, the different scholars provide different definitions and adopt different approaches.

Early definitions on IC emphasise to the wealth contributing knowledge, information, intellectual property and experience (Stewart 1997). Notably, the definition provided by Stewart (1997) was grounded on the analysis of several organizations (e.g. Skandia, Hughes Aircraft, etc.), which achieved appropriate level in managing IC phenomenon. Edvinsson and Sullivan (1996) assert that IC is a knowledge which can be transformed to value. The definition imply that the value of organisation lie in IC, comprised of knowledge, experience, organisations' technologies, relationships with customers and skills of employees, contributing to the achieved competitive advantage. Meanwhile, other scholars distinguish IC as the intangible assets of the organisation and the value of these assets "cannot be deducted from routine market transactions" (Bontis 1998). Therefore, IC do not comprise intellectual property such as copyrights, patents, design rights, trade and service marks and etc. Later on, Cohen and Kaimenakis (2007) defined IC as "the combination of knowledge-bearing intangible resources that the firm has at its disposal" whose effective management impact sustainable competitive advantage. The definition implies that the organisation doesn't own or control all these resources despite the fact that the non-competing contracts with former employees are signed. These resources are at the disposal of organisation and the effective management of these resources lead to the positive results. Grounded on previous investigations, the scholars concluded that IC is "total stocks of all intangible assets and capabilities in the company" at employee level and organisational level, comprised of human, structural and relational capital (Zerenler et al. 2008). The concept stems from the assumptions about tacit knowledge, personal knowledge and interactions through network relationships (Hsu, Wang 2010). Contrary to the early investigations on IC, the literature suggests main elements of IC such as, human capital, structural capital and relational capital.

Human capital (HC) is one of the most important components of IC. Hsu and Wang (2010) assert that HC is defined as knowledge, skill, innovations and abilities of organisation's employees, impacting the development of

intellectual assets and rights. HC is related to the individuals, working in the firm, and demonstrate their obtained knowledge and abilities (Korsakienė et al. 2015). Some scholars, investigating HC, suggest to include personal attitude, obtained relationships, loyalty and motivation, health and work ability (Galabova, McKie 2013). The contribution of individuals' knowledge and skill to the firm's productivity and efficiency stems from HC theory. Though aiming to "estimate employees' income distribution from their investments in human capital" (Unger et al. 2011), HC theory attracted considerable attention of scholars, working in entrepreneurship and management field. From the strategic management perspective, human capital is assumed as a considerable source of competitive advantage (Galabova, McKie 2013). Meanwhile, a number of studies revealed that human capital (e.g. education, industry specific knowledge, etc.) is related to the success of entrepreneurial firms (Collombo, Grilli 2005; Manolova et al. 2007; Rauch, Rijdsdijk 2013). Thus, it appears that the productivity and efficiency of the firm can be increased through appropriate investments into employees.

Structural capital (SC), comprising the infrastructure of the firm, is another component of IC. SC include a stock of knowledge owned by the firm, corporate culture, information technologies, explicit knowledge, process optimisation and others. The explanation of SC resides in the answers "what happens among people, how people are connected and what stays when the employees leave" (Halim 2010). Some scholars assert that structural capital include organisational capital which consists of the embedded knowledge, driving the performance of the firm and relational capital comprising relationships with stakeholders (Cohen, Kaimenakis 2007). Meanwhile, Hsu and Wang (2010) assert that SC should be conceptualised in terms of processes and information systems. Though, the adopted definition is different to the approaches suggested in strategic management literature, it discloses the importance of the way how employees use the information or in the workplace available knowledge resources and the information technologies used in managing knowledge.

The relationship capital (RC) is focused on the development, maintenance and nurturing relationships with organisations, individuals or groups of individuals (Welbourne, Pardo-del-Val, 2009). It appears that the conceptualisation of RC stems from social capital and network theories and thus, is concerned how to mobilise the resources through social structure. Some scholars suggest to define RC as implicit set of available resources and ongoing relationships (Shipilov, Danis 2006). The adopted approach implies that RC vary and depend on investigated relationships and the resources deployed through these relationships. In the small firm context, RC enable entrepreneurs to develop critical resources and capabilities required for both local and international expansion. On the other hand, the scholars emphasise key aspects of RC such as, trust, trustworthiness and cognitive dimensions, determining the perceptions of fairness in the relationships (Hsu, Wang 2010).

A stream of investigations on IC aimed to disclose how to manage intangible assets, knowledge stock and capabilities of organisation (Chen 2007). Thus, the investigations were concerned with value creation or competitive advantage of the firm achieved through intangible assets and capabilities. Another stream of studies was triggered by the attempt to measure intellectual capital. The scholars sought to measure intangible assets which are not represented by the financial reports. Meanwhile, the importance of IC on the firms' internationalisation is less investigated and thus, the phenomenon of IC in relation to internationalization of small firms requires deeper understanding.

Internationalization and intellectual resources

The increasingly integrated economy, continued decline of various barriers imposed by governments and advances in technology significantly contribute to internationalization of firms. The investigations of internationalization, especially in the small firm context, have gained vast popularity in the last few decades. While some scholars referred to the growth of the firm and internationalization as the interrelated concepts (Buckley and Ghauri 1993), others emphasized unique features to internationalization and disclosed the difference between growth at home and growth internationally (Ruzzier et al. 2006). The investigations have led to the

conclusion that internationalization activities are different from domestic activities because “they entail exchange between firms located in different countries” (Agndal 2004).

Internationalization of the firm is seen as a complex and multidimensional process. Thus, the definition can be conceptualised as the increased involvement of the firm in international operations, the expansion of geographical markets, the supply of products to the wider groups of customers, the change of operational methods, management philosophy and organisational behaviour. Notably, internationalization process is interrelated to the consistent international activities, experience and accumulated knowledge. International business literature, focused on large companies, has led to the insights that internationalization processes require more financial and non-financial resources, contributing to the successful performance (Caves 1982). The assumptions lie in the resource-based theory, emphasising the development of unique, difficult to imitate and immobile resources, contributing to competitive advantage in the market (Barney 2001). A stream of studies, adopting resource-based view, emphasise knowledge and thus, assume that knowledge is unique resource of the firm. Organisational processes, required for integration of various types and forms of knowledge, are essential aiming to gain and maintain competitive advantage (Grant 1996). Meanwhile, another stream of studies assume that higher performance lie in the developed network and the ability to manage various stakeholders (Dyer, Singh 1998). Thus, the network compensates the shortage of available resources and leads to the acquisition of essential resources outside the boundaries of the firm.

The studies, focused on the small business internationalization, emphasise the scarce resources as the main obstacle to expand business abroad (Ruzzier et al. 2006). A number of studies investigated the importance of various types of resources (human, financial, organisational, etc.) and the role of knowledge in internationalization processes (Cerrato, Piva 2012; Casillas et al. 2014). Referring to the IC theory, we recognize the importance of intellectual resources in internationalization process. Thus, combination of human, structural and relational capital is seen as significant contributor to the expansion of small firms and especially to the firms, operating in knowledge-based industries.

3. Method

Lithuanian SMEs

The number of Lithuanian SMEs comprises 99,8% of all Lithuanian businesses and play a significant role in Lithuania’s economy growth and development. Statistical data reveal that the biggest share of SMEs predominates by very small firms having less than 10 employees. The majority of all firms are established and operate in the biggest cities of Lithuania (e.g. Vilnius, Kaunas, Klaipeda) and thus, demonstrate uneven distribution of small firms among all municipalities. On the other hand, Lithuanian firms tend to be bigger than in the EU (Table 1).

Table 1. Small and medium-sized enterprises in Lithuania

	Number of enterprises			Value added		
	Lithuania		EU27	Lithuania		EU27
	Number	Share	Share	Bill. EUR	Share	Share
Micro	143 843	91,5%	92.8%	2,3	17,3%	21,2%
Small	10 913	6,9%	6.0%	3,3	25,0%	18,0%
Medium-sized	2 064	1,3%	1.0%	3,7	28,1%	18,2%
SMEs	156 820	99.8%	99.8%	9,2	70,3%	57,4%

Source: SBA Fact Sheet 2016-Lithuania

Considering value added of SMEs by sectors, transportation sector, construction sector information and communication sector and manufacturing demonstrate positive trends. For instance, SMEs contribute by 30% of value added in transportation sector and exceeds the EU average. Meanwhile, in 2010-2015 value added in construction sector more than doubled, in information and communication sector increased by a quarter and in manufacturing increased by almost a third (SBA Fact Sheet, 2016). Despite the positive trends, Lithuanian SMEs, in comparison to the EU average, demonstrate lower performance in terms of internationalization. The explanation resides in the fact that the Russian Federation is country's main trading partner and thus, the negative tendencies are reflected in the World Bank's evaluation.

Expert selection and data collection

The study, aiming to reveal the significance of IC on internationalization of Lithuanian SMEs, is grounded on expert evaluation method. To date, expert evaluation is assumed as the approach suitable to investigate a problem, process or phenomenon requiring vast knowledge, skill and experience (Vveinhardt, Gulbovaitė 2016). The method has been applied in various investigations and thus, is suitable for scientific investigations in social sciences. The procedure leads to the combined opinions and suggested solutions of experts. Considering the fact, that the method relies on competent persons, we decided to combine knowledge and experience of experts, representing science and business. Thus, a group of experts include five experts, representing Lithuanian high education institutions (1st group), five experts (owners and managers), representing Lithuanian SMEs (2nd group) and five experts (consultants dealing with SMEs), representing a branch of Scandinavian bank, operating in Lithuania (3rd group). The experts from high education institutions were selected considering the following criteria: field of scientific research, scientific degree and work experience. Meanwhile, owners and managers of SMEs were selected considering their management experience, business founding experience and international experience. The experts, representing a branch of Scandinavian bank, operating in Lithuania, were selected considering the following criteria: work experience in a field of small business, work experience in a banking sector and high education diploma. Notably, the work experience in a field of all experts range from 5 to 15 years. The number of experts correspond to the suggested in scientific literature and thus, guarantee reliable and objective results (Podvezko 2008).

The analysis of scientific literature on IC let us develop the questionnaire. Grounded on scientific investigations, the questionnaire included factors from HC, SC and RC perspectives (Table 2).

Table 2. Components of intellectual capital

Intellectual capital	Factors	References
Human capital	Attitude of employees	Hornsby, Kuratko (2003)
	Educational level of employees	Wang (2008)
	Ability to transmit experiences	Jardon, Martos (2012)
	Work experience of employees	Ruzzier et al. (2007)
	Formal human resource management practices	Hayton (2003)
	International orientation of managers	Manolova et al. (2002)
	Ability to evaluate investment risks	Jardon, Martos (2012)
	Capacity for innovations in processes, products or markets	Ireland, Webb (2007)
	Training of employees	Jardon, Martos (2012)
	Productivity of employees	Hsu, Wang (2010)

	International business skills	Ruzzier et al. (2007)
Structural capital	Organisational culture	Jardon, Martos (2012)
	Organisational structure	Chen et al. (2004)
	Product technologies	Jardon, Martos (2012)
	Strategy development process	Jardon, Martos (2012)
	Customer databases	Chen (2008)
	Total innovations	Ordóñez de Pablos (2004)
	Product development processes	Jardon, Martos (2012)
	Supply processes	Jardon, Martos (2012)
	Marketing processes	Jardon, Martos (2012)
	Service processes	Jardon, Martos (2012)
	Intellectual property rights	Sharabati et al. (2010)
	Infrastructure of the firm	Ordóñez de Pablos (2004)
	Relational capital	Managerial reputation
Distribution channels type		Jardon, Martos (2012)
The direct relationships with end customers		Jardon, Martos (2012)
Relationships with government agencies		Castro et al. (2004)
Relationships with partners		Jardon, Martos (2012)
Relationships with community		Castro et al. (2004)
Financial reputation		Castro et al. (2004)

Selected experts received individual questionnaires by e-mail. Thus, the adopted approach corresponds to the suggested in the scientific literature (MacCarthy, Atthirawong 2003) and let us assure that the experts do not affect each other's views.

Assessment procedure and consistency of experts' opinions

The experts were asked to assess what factors affect internationalisation of SMEs and to assign a rank to each factor from separate groups. The approach imply that the most important factors are assigned the highest ranks and the sum of all rankings is equal to 100 points.

The obtained data are assumed to be reliable if the assessments of all experts are consistent. A stream of scholars adopted a view how to assure consistency of experts' opinions (e.g. Podvezko, 2005; Zavadskas, Vilutienė 2006, etc.) Thus, the literature suggests to calculate concordance coefficient W . Though the experts can apply different measurement scales, the concordance coefficient requires to apply preliminary ranking of all ratings. The ranking imply that the most important criterion is assigned the highest value equal to 1, the next important criterion is assigned the value equal to 2, etc. The least important criterion is assigned to the value equal to m . The value m refers to the number of investigated criteria. Notably, equivalent parameters have equal value - arithmetic mean of ordinary rankings.

The concordance coefficient W is calculated as follows:

$$W = \frac{12S}{r^2 m(m^2 - 1)} = \frac{S_f}{S_{max}}, \quad (1)$$

where: m – the number of investigated criteria (factors), r – the number of experts.

The sum of the squares (S_f) is calculated as follows:

$$S_f = \sum_{i=1}^m (e_i - \bar{e})^2. \quad (2)$$

Meanwhile, the mean of all ranks is calculated as follows:

$$\bar{e} = \frac{\sum_{i=1}^m e_i}{m} = \frac{\sum_{i=1}^m \sum_{j=1}^r e_{ij}}{m}. \quad (3)$$

The highest value, calculated as the sum of the squares (S_{max}), is as follows:

$$S_{max} = \frac{r^2 m(m^2 - 1)}{12}. \quad (4)$$

If the opinions of experts are consistent, the value of obtained concordance coefficient W is close by 1. Meanwhile, if the opinions are different, the value of W is close by 0.

Additionally, the opinions of experts are checked by calculating the significance of concordance coefficient. If the number of investigated objects is $m > 7$, the literature suggests to determine the significance of concordance coefficient by applying criterion χ^2 (Podvezko 2005). The random value of χ^2 is calculated as follows:

$$X^2 = Wr(m - 1) = \frac{12S}{rm(m+1)}. \quad (5)$$

4. Results

The aspects of IC let us develop the system of investigated factors and carry out expert evaluation. The investigation of obtained data let us reveal that the representatives of higher education distinguish educational level and productivity of employees as the main factors impacting internationalisation. In addition, attitude of employees and training of employees are assumed as important in internationalisation process. The least important factors comprise international business skills, formal human resource management practices and work experience of employees. Meanwhile, the representatives of business firms distinguish work experience of employees, ability to transmit experience and international orientation of managers. Notably, the representatives of bank emphasise ability to transmit experience, work experience of employees and international business skills. Though educational level is seen as one of the most important aspects of human capital, surprisingly, the representatives of business indicate that educational level is the least important to internationalisation of small firms (Table 3).

Table 3. Assessment of human capital

	1st group		2nd group		3rd group	
	Ranking	Weight	Ranking	Weight	Ranking	Weight
Attitude of employees	1	0.25	9	0.08	10	0.066
Educational level of employees	9	0.06	11	0.05	4	0.08
Work experience of employees	10	0.056	1	0.13	2	0.156
Formal human resource management practices	6	0.06	10	0.06	6	0.08
Ability to evaluate investment risks	5	0.078	7	0.08	8	0.07
Capacity for innovations in processes, products or markets	7	0.06	5	0.1	7	0.08
International orientation of managers	8	0.06	3	0.11	5	0.082
Ability to transmit experiences	4	0.11	2	0.11	1	0.144
Training of employees	2	0.11	4	0.11	9	0.06
Productivity of employees	11	0.056	6	0.09	11	0.062
International business skills	3	0.1	8	0.08	3	0.12

Source: own

The responses of experts have led to the calculation of the consistency of experts' opinions. Considering formulas (1-5) the following data were obtained. The responses of the 1st group have led to: $\bar{e} = 30.0$; $S_f = 1390.5$; $W_f = 0.506$; $\chi^2 = 25.282$; $\chi^2_{kr} = 18.307$; $S_{max} = 2750$. The responses of the 2nd group have led to: $\bar{e} = 30.0$; $S_f = 1153.5$; $W_f = 0.419$; $\chi^2 = 20.973$; $\chi^2_{kr} = 18.307$; $S_{max} = 2750$. Finally, the responses of the 3rd group have led to: $\bar{e} = 30.0$; $S_f = 1096.5$; $W_f = 0.399$; $\chi^2 = 19.936$; $\chi^2_{kr} = 18.307$; $S_{max} = 2750$. The obtained data let us observe that the calculated value χ^2 is higher than critical value, i.e. $\chi^2 > \chi^2_{kr}$. Thus, grounded on prevailing investigations (Podvezko 2005), we can conclude that the opinions of experts are consistent.

Meanwhile, the assessment of structural capital let us disclose that the representatives from high education institutions distinguish product technologies, total innovations and organisational culture as the most important factors of internationalisation. The least important factors comprise infrastructure of the firm, supply processes and intellectual property rights. The representatives of business firms emphasised product technologies, strategy development process and marketing process as the most important in internationalisation of the firms. Finally, the representatives of the bank distinguished strategy development process, organisational structure and product technologies. Notably, intellectual property rights and infrastructure of the firm are seen as the least important factor in internationalisation process (Table 4).

Table 4. Assessment of structural capital

	1st group		2nd group		3rd group	
	Ranking	Weight	Ranking	Weight	Ranking	Weight
Organisational structure	6	0.078	4	0.11	2	0.104
Product technologies	1	0.14	1	0.13	3	0.132
Strategy development process	4	0.092	2	0.12	1	0.118
Customer databases	8	0.084	10	0.07	8	0.068
Organisational culture	3	0.09	12	0.04	7	0.07
Total innovations	2	0.12	5	0.09	9	0.062
Product development processes	5	0.084	9	0.06	11	0.046
Marketing processes	7	0.07	3	0.11	5	0.106
Service processes	9	0.066	6	0.08	6	0.078
Intellectual property rights	10	0.064	11	0.04	10	0.076
Supply processes	11	0.056	7	0.08	4	0.116
Infrastructure of the firm	12	0.056	8	0.07	12	0.024

Source: own

The responses of experts have led to the calculation of the consistency of experts' opinions. Considering formulas (1-5) the following data were obtained. The responses of the 1st group have led to: $\bar{e} = 32.7$; $S_f = 1453.7$; $W_f = 0.407$; $\chi^2 = 22.365$; $\chi^2_{kr} = 19.675$; $S_{max} = 3575$. The responses of the 2nd group have led to: $\bar{e} = 32.5$; $S_f = 1379.5$; $W_f = 0.386$; $\chi^2 = 21.223$; $\chi^2_{kr} = 19.675$; $S_{max} = 3575$. Finally, the responses of the 3rd group have led to: $\bar{e} = 32.5$; $S_f = 1397.0$; $W_f = 0.391$; $\chi^2 = 21.492$; $\chi^2_{kr} = 19.675$; $S_{max} = 3575$. The obtained data let us observe that the calculated value χ^2 is higher than critical value, i.e. $\chi^2 > \chi^2_{kr}$. Based on previous investigations (Podvezko 2005), we conclude that the opinions of experts are consistent.

The investigation of relational capital let us disclose that managerial reputation is the most important factor distinguished by all groups of experts (Table 5). The representatives of high education and business firms emphasised financial reputation. Meanwhile, representatives of the bank distinguished relationships with government agencies. While the experts from high education and business firms distinguished distribution channels type as the least important factors, representatives of the bank emphasised financial reputation as the least important in small firms' internationalization.

Table 5. Assessment of relational capital

	1st group		2nd group		3rd group	
	Ranking	Weight	Ranking	Weight	Ranking	Weight
Financial reputation	1	0.18	1	0.19	7	0.09
The direct relationships with end customers	4	0.16	3	0.15	4	0.146
Relationships with partners	3	0.16	5	0.15	3	0.18
Relationships with government agencies	6	0.11	4	0.15	1	0.176
Distribution channels type	7	0.09	7	0.09	6	0.112
Relationships with community	5	0.12	6	0.11	5	0.12
Managerial reputation	2	0.18	2	0.16	2	0.176

Source: own

The responses of experts have led to the calculation of the consistency of experts' opinions. Considering formulas (1-5) the following data were obtained. The responses of the 1st group have led to: $\bar{e} = 20.0$; $S_f = 313.0$; $W_f = 0.447$; $\chi^2 = 13.414$; $\chi^2_{kr} = 12.592$; $S_{max}=700$. The responses of the 2nd group have led to: $\bar{e} = 20.4$; $S_f = 319.2$; $W_f = 0.456$; $\chi^2 = 13.681$; $\chi^2_{kr} = 12.592$; $S_{max}=700$. Finally, the responses of the 3rd group have led to: $\bar{e} = 20.3$; $S_f = 388.4$; $W_f = 0.555$; $\chi^2 = 16.647$; $\chi^2_{kr} = 12.592$; $S_{max}=700$. The obtained data let us observe that the calculated value χ^2 is higher than critical value, i.e. $\chi^2 > X^2_{kr}$. Prevailing studies (Podvezko 2005), let us conclude that the opinions of experts are consistent.

Conclusions

Global trends have been forcing small firms to increase productivity, expand into new markets, adopt new technologies, attract and secure workforce. The changing business context requires to focus on the firm's resources as the main factors, contributing to the competitive advantage in both local and international markets. Hence, scientific investigations, adopting resource-based approach, emphasise the significance of intangible resources which contribute to the customers' added value and sustainability of competitive advantage.

Knowledge based economy is driven by knowledge and thus, knowledge is considered as a key asset of businesses and individuals. Though new technologies, patents or strategic positions in the market are important determinants, the ability to manage knowledge which is embodied in human beings is a key success factor of any firm. The studies confirm the significance of knowledge and conclude that success of organisations depends on their abilities to manage human resources (Pfeffer 1995). Hence, knowledge, abilities and skills of the firm's employees drive value of the firm and motivate to innovate. The aspirations to maintain competitive advantage require efficiently apply knowledge and expand the potential to innovate. Consequently, these aspirations lead to the internationalization of the firms' activities. Hence, internationalization of small firms is interrelated with intellectual capital.

Human capital appears to be the most investigated component of intellectual capital in the small firms' context. The investigations confirmed a positive relationship of human capital and internationalization of SMEs (Cerrato, Piva 2012; Colombo, Grilli, 2005; Galabova, McKie 2013). Though some studies investigated social capital (e.g. Johanson, Vahlne 2006), personal and inter-firm networks and the interrelationships with internationalization (e.g. Manolova et al. 2007), relational capital and structural capital are less investigated.

Based on the main components of intellectual capital, we set forth to investigate the significance of some of the factors in internationalization process of small firms. First, the study highlighted the perceptions of managers and consultants about importance of work experience of employees, ability to transmit experience, international orientation of managers and international business skills. These findings are in line with other investigations (e.g. Cerrato, Piva 2012). Though general capital can be applied in different contexts, it appears to be the least important factor for the representatives of business contrary to the representatives of high education institutions. The low importance of educational level could be explained by the fact that economy of the country is predominated by traditional industries and thus, the representatives of business do not differentiate the education of employees. On the other hand, high-tech industries are dependent on the educational level of workforce and thus, the future investigations have to target the experts, representing these business sectors. Secondly, product technologies were distinguished by all expert groups as the important factor in internationalization processes. The up to date product technologies available by SMEs guarantee overseas expansion. The firms have to promote technological knowledge aiming to expand their business. Notably, internationalization of business requires to set the objectives, collect information and deploy internal resources and capabilities and thus, the strategy development process is assumed as the important factor by business representatives and consultants. As it was pointed above, the lower significance of intellectual property rights could be explained by the structure of economy and thus, require more close investigation in the future. Thirdly, the study revealed the significance of managerial reputation in the internationalization process of small firms. Notably, entrepreneurs and managers of small firms play a primary role in the expansion of firms and their reputation among foreign partners becomes a crucial factor contributing to the success.

To conclude, the internationalization of SMEs is driven by work experience of employees, ability to transmit experience and international orientation of managers. These factors contribute to the development of technical knowledge and strategy development processes. Consequently, obtained technical expertise and strategies lead to the higher reputation of managers in international context. The findings are significant for entrepreneurs having strong intentions to expand their businesses and policy makers, concerning about promotion and support of internationalization processes. The limitations of the study lie in the applied method and selected factors of intellectual capital. Thus, the future investigations have to consider other scientific approaches and tools and include other factors of intellectual capital.

References

- Agndal, H. 2004. Internationalization as a Process of Strategy and Change - A Study of 16 Swedish Industrial SMEs. Jonkoping University. Published doctoral thesis.
- Barney, J. B. 2001. Resource-Based Theories of Competitive Advantage: A Ten – year Restrospective on the Resource-Based View. *Journal of Management* 27: 643–650
- Bontis, N. 1998. Intellectual capital: an exploratory study that develops measures and models. *Management Decision* 36 (2): 63-76. <http://dx.doi.org/10.1108/00251749810204142>
- Buckley, P. J.; Ghauri, P. N. 1993. Introduction and overview. In P. J. Buckley and P. N. Ghauri, Ed. *The internationalization of the firm*. London: Academic Press, pp. ix-xxi.
- Casillas, J. C.; Barbero, J. L.; Sapienza, J. H. 2014. Knowledge acquisition, learning, and the initial pace of internationalization. *International Business Review* 24 (1): 102–114. <http://doi.org/10.1016/j.ibusrev.2014.06.005>
- Castro, G. M.; Sáez, P. L.; López, J. E. N. 2004. The role of corporate reputation in developing relational capital. *Journal of Intellectual Capital* 5(4): 575-585. <http://dx.doi.org/10.1108/14691930410567022>

- Caves, R. E. 1982. *Multinational enterprise and economic analysis*. Cambridge, UK: Cambridge University Press.
- Cerrato, D., Piva, M. 2012. The internationalization of small and medium-sized enterprises: the effect of family management, human capital and foreign ownership. *Journal of Management and Governance* 16 (4): 617-644. <http://10.1007/s10997-010-9166-x>
- Chen, Y. S. J. 2008. The Positive Effect of Green Intellectual Capital on Competitive Advantages of Firms. *Journal of Business Ethics* 77 (3): 271–286. <http://10.1007/s10551-006-9349-1>
- Chen, J. Zhu, Z.; Xie, H. Y. 2004. Measuring intellectual capital: a new model and empirical study. *Journal of Intellectual Capital* 5 (1): 195 – 212. <http://dx.doi.org/10.1108/14691930410513003>
- Cohen, S.; Kaimenakis, N. 2007. Intellectual capital and corporate performance in knowledge-intensive SMEs. *The Learning Organization* 14 (3): 241 – 262. <http://dx.doi.org/10.1108/09696470710739417>
- Colombo, M. G.; Grilli, L. 2005. Founders' human capital and the growth of new technology-based firms: A competence based view. *Research Policy* 34: 795-816. <https://doi.org/10.1016/j.respol.2005.03.010>
- Dyer, J. H.; Singh, H. 1998. The relational view: cooperative strategy and sources of interorganizational competitive advantage. *The Academy of Management Review* 23 (4): 660–679. <http://10.5465/AMR.1998.1255632>
- Edvinsson, L.; Sullivan, P. 1996. Developing a model for managing intellectual capital. *European Management Journal* 14 (2): 356-64. [https://doi.org/10.1016/0263-2373\(96\)00022-9](https://doi.org/10.1016/0263-2373(96)00022-9)
- Galabova, L.; McKie, L. 2013. The five fingers of my hand: human capital and well-being in SMEs. *Personnel Review* 42 (6): 662–683. <http://dx.doi.org/10.1108/PR-01-2012-0017>
- Grant, R. M. 1996. Prospering in Dynamically – Competitive Environments: Organizational Capacity as Knowledge. *Integration, Organization Science* 7: 375–387. <http://dx.doi.org/10.1287/orsc.7.4.375>
- Halim, H. 2010. Statistical analysis on the intellectual capital statement. *Journal of Intellectual Capital* 11 (1): 61 – 73. <http://dx.doi.org/10.1108/14691931011013334>
- Hahyton, J. C. 2003. Strategic human capital management in SMEs: An empirical study of entrepreneurial performance. *Human Resource Management* 42 (4): 375–391. <http://10.1002/hrm.10096>
- Hornsby, J. S; Kuratko, D. F. 2003. Human resource management in U.S. small businesses: A replication and extension. *Journal of Developmental Entrepreneurship* 8(1) 73-92
- Hsu, L.-C; Wang, C.-H. 2010. Clarifying the Effect of Intellectual Capital on Performance: The Mediating Role of Dynamic Capability. *British Journal of Management* 23 (2): 179–205. <http://10.1111/j.1467-8551.2010.00718.x>
- Ireland, R. D.; Webb, J. W. 2007. Strategic entrepreneurship: Creating competitive advantage through streams of innovation. *Business Horizons* 50 (1): 49–59. <https://doi.org/10.1016/j.bushor.2006.06.002>
- Jardon, C. M.; Martos, M. S. 2012. Intellectual capital as competitive advantage in emerging clusters in Latin America. *Journal of Intellectual Capital* 13 (4): 462 – 481. <http://dx.doi.org/10.1108/14691931211276098>
- Johanson, J.; Vahlne, J. E. 2006. Commitment and opportunity development in the internationalization process: a note on the Uppsala internationalization process model. *Management International Review* 46 (2): 165–178. <http://10.1007/s11575-006-0043-4>
- Korsakienė R.; Baranauskienė, A. 2011. Factors impacting sustainable internationalization: a case of multinational company. *Journal of Security and Sustainability Issues* 1 (1): 53-62. [http://dx.doi.org/10.9770/jssi.2011.1.1\(5\)](http://dx.doi.org/10.9770/jssi.2011.1.1(5))
- Korsakienė, R.; Tvaronavičienė, M. 2012. The internationalization of SMEs: an integrative approach. *Journal of business economics and management* 13 (2): 294-307. <http://dx.doi.org/10.3846/16111699.2011.620138>

- Korsakienė, R.; Stankevičienė, A.; Šimelytė, A.; Talačkienė, M. 2015. Factors driving turnover and retention of information technology professionals. *Journal of Business Economics and Management* 16 (1): 1-17. <http://dx.doi.org/10.3846/16111699.2015.984492>
- Korsakienė R.; Diskienė, D.; Smaliukienė, R. 2015. Institutional theory perspective and internationalization of firms. How institutional context influences internationalization of SMEs? *Entrepreneurship and Sustainability Issues* 2 (3): 142-153. [http://dx.doi.org/10.9770/jesi.2014.2.3\(3\)](http://dx.doi.org/10.9770/jesi.2014.2.3(3))
- MacCarthy, B. L., Atthirawong, W. 2003. Factors Affecting Location Decisions in International Operations—a Delphi Study. *International Journal of Operations & Production Management* 23 (7): 794–818. <http://dx.doi.org/10.1108/01443570310481568>
- Manolova, T. S.; Carter, N. M., Manev, I. M., Gyoshev, B. S. 2007. The differential effect of men and women entrepreneurs' human capital and networking on growth expectancies in Bulgaria. *Entrepreneurship Theory and Practice* 407-426. <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6520.2007.00180.x>
- Manolova, T. S., Brush, C. G., Edelman, L. F., Greene, P. G. 2002. Internationalization of small firms: personal factors revisited. *International Small Business Journal* 20 (1): 9-31.
- Ordóñez de Pablos, P. 2004. Measuring and reporting structural capital: Lessons from European learning firms. *Journal of Intellectual Capital* 5 (4): 629 – 647. <http://dx.doi.org/10.1108/14691930410567059>
- Pfeffer, J. 1995. Producing Sustainable Competitive Advantage through the Effective Management of People. *Academy of Management Executive*. 9 (1): 55-69.
- Podvezko, V. 2005. Agreement of expert estimates. *Technological and Economic Development of Economy* 2 (11): 101-107.
- Rauch, A.; Rijdsdijk, S. A. 2013. The effects of general and specific human capital on long-term growth and failure of newly founded businesses. *Entrepreneurship: Theory and Practice* 37 (4): 923-941. <http://10.1111/j.1540-6520.2011.00487.x>
- Ruzzier, M.; Hisrich, R. D.; Antoncic, B. 2006. SME internationalization research: past, present, and future. *Journal of Small Business and Enterprise Development* 13 (4): 476-497. <http://dx.doi.org/10.1108/14626000610705705>
- Ruzzier, M., Antoncic, B., Hisrich, R. D., Konecnik, M. 2007. Human capital and SME internationalization: a structural equation modelling study. *Canadian Journal of Administrative Science* 24: 15-29. <http://onlinelibrary.wiley.com/doi/10.1002/cjas.3/abstract>
- SBA Fact Sheet. 2016. Lithuania. [Interactive] [Accessed 2 December, 2016.]. Access through Internet Available on Internet: <http://ec.europa.eu/DocsRoom/documents/21188/attachments/21/translations/en/renditions/native>.
- Sharabati, A. A.; Jawad, S. N.; Bontis, N. 2010. Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management Decision* 48 (1): 105 – 131. <http://dx.doi.org/10.1108/00251741011014481>
- Shipilov, A.; Danis, W. 2006. TMG social capital, strategic choice and firm performance. *European Management Journal* 24: 16–27. <https://doi.org/10.1016/j.emj.2005.12.004>
- Stewart, T. A. 1997. *Intellectual Capital: The New Wealth of Organizations*, Nicholas Brealey Publishing, London.
- Unger, J. M.; Rauch, A.; Frese, M.; Rosenbusch, N. 2011. Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing* 26: 341-358. <https://doi.org/10.1016/j.jbusvent.2009.09.004>
- Vveinhardt, J.; Gulbovaitė, E. 2016. Expert Evaluation of Diagnostic Instrument for Personal and Organizational Value Congruence. *Journal of Business Ethics* 136(3): 481–501. <http://link.springer.com/article/10.1007/s10551-014-2527-7>
- Wang, J.- Ch. 2008. Investigating market value and intellectual capital for S&P 500. *Journal of Intellectual Capital* 9(4): 546 – 563. <http://dx.doi.org/10.1108/14691930810913159>

Welbourne, T. M.; Pardo-del-Val, M. 2009. Relational Capital: Strategic Advantage for Small and Medium-Size Enterprises (SMEs) Through Negotiation and Collaboration. *Group Decision and Negotiation* 18(5): 483–497. <http://link.springer.com/article/10.1007/s10726-008-9138-6>

Zavadskas, E. K.; Vilutienė, T. 2006. A multiple criteria evaluation of multi-family apartment block's maintenance contractors: I—Model for maintenance contractor evaluation and the determination of its selection criteria. *Building and Environment* 41(5): 621–632. <https://doi.org/10.1016/j.buildenv.2005.02.019>

Zerenler, M.; Hasiloglu S. B.; Sezgin M. 2008. Intellectual capital and innovation performance: empirical evidence in the Turkish automotive supplier. *Journal of Technology Management and Innovation* 3: 31–40. <http://dx.doi.org/10.4067/S0718-27242008000200003>

Renata KORSAKIENĖ - PhD, works as Associate Professor at Business Management Faculty, Vilnius Gediminas Technical University. She authored and co-authored more than 80 scientific papers, published in scientific journals and conference proceedings. Her research interests involve: strategic management, internationalization and international entrepreneurship, entrepreneurship and human capital. ORCID ID 0000-0002-4119-4521.

Aušra LIUČVAITIENĖ – PhD, works as Associate Professor at Business Management Faculty, Vilnius Gediminas Technical University and Vilniaus Kolegija University of Applied Sciences. Her research interests involve economics. ORCID ID 0000-0002-1768-8863

Monika BUŽAVAITĖ – Holds Master degree in Business Management. She is Erasmus+ grant holder and currently is an intern at Valuetech s.r.l., Italy. Her research interests involve human resource management.

Agnė ŠIMELYTĖ - Holds PhD in social sciences, works as an associate professor at Vilnius Gediminas Technical University, Department of Economics and Management of Enterprises. She is the author and co-author of more than 20 scientific articles in scientific journals and conference proceedings. Research interests: foreign direct investments, globalization, and sustainability. ORCID ID 0000-0002-9475-9645

Copyright © 2017 by author(s) and VsI Entrepreneurship and Sustainability Center

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

