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## Article

# Human capital and the internationalisation of SMEs: A systemic literature review

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# Human Capital and the Internationalisation of SMEs: A Systemic Literature Review

Monika Buzavaite, Renata Korsakiene

## ABSTRACT

**Objective:** The article aims to systematise the literature on human capital for the internationalisation of SMEs.

**Research Design & Methods:** The research adopts the quantitative and qualitative analysis of scientific papers. Quantitatively, the study is grounded on the classification approach of prevailing literature. Qualitatively, the study adopted a content analysis of scientific papers.

**Findings:** The classification of scientific literature on human capital and the internationalisation of SMEs has led to the framework of prevailing studies and future research agenda.

**Implications & Recommendations:** The obtained results indicate that additional studies are needed on human capital and the internationalisation of SMEs, especially in the context of developing and emerging countries. There is an opportunity to investigate service sectors, especially technology-intensive firms. Future studies have to consider the organisational level human capital and include the variables capturing all aspects of human capital. There is an opportunity to investigate the contribution of on-the-job training to the development of human capital and consequently the internationalisation of firms. Finally, the application of case studies and/or interviews and qualitative methods are needed for deeper understanding of human capital and the internationalisation of SMEs.

**Contribution & Value Added:** The research contributes to the scientific perception of consolidation between human capital and the internationalisation of SMEs by reviewing systematically papers published in the period of 26 years and included in Clarivate analytics/Web of Science and Scopus databases.

**Article type:** research article

**Keywords:** human capital; internationalisation; SMEs; literature review; Clarivate analytics/Web of Science; Scopus

**JEL codes:** M13, M12, M19

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## INTRODUCTION

Literature on international entrepreneurship considers human capital theory as a significant theory in explaining the internationalisation of small and medium-sized firms (SMEs). The smallness and newness of these firms appear to be a major restriction, limiting the international expansion of small firms. While playing an important role in the economies of countries, SMEs are lagging behind multinational firms in the accumulation and development of human resources. An increasing number of studies in recent years highlights these issues from both academic and managerial perspectives.

International activities of firms require appropriate resources and competencies. Human capital appears to be an important resource, impacting the identification and exploitation of international opportunities. While human capital is assumed to be an important determinant of internationalisation, studies demonstrate mixed results. Some studies revealed the significance of individuals' human capital on the internationalisation of SMEs (Mozas-Moral *et al.*, 2016; Pickernell *et al.*, 2016). Meanwhile, other studies disclosed that human capital did not significantly predict the propensity to export (Omri & Becuwe, 2014). Furthermore, the studies considered only some elements of human capital. Some studies applied formal education as a proxy of human capital (Javalgi & Todd, 2011; Falk & Hagsten, 2015; Fernandez-Ortiz, Ortiz & Emeterio, 2015; Mozas-Moral *et al.*, 2016). Meanwhile, other studies focused on knowledge and experience in export markets (Freeman & Styles 2013) or previous work experience and business management experience (Jiang *et al.*, 2016). Thus, a solid foundation for future investigations is needed. The article aims to systematise the extant scientific knowledge on human capital for the internationalisation of SMEs. More specifically, the article focuses on the identification of papers which adopted human capital theory, classifying and codifying these papers and developing a framework how to address the research gaps. The increasing amount of research in other fields demonstrates the popularity of literature analysis and the bibliometric technique (Jabbour, 2013; Kampen, Akkerman, & van Donk, 2012). Thus, the article fills the literature gap on the systematic analysis of human capital and internationalisation in the small business context by identifying less investigated areas and developing fruitful recommendations for future investigations.

The article is organised as follows. Firstly, materials and methods are presented. The next section presents literature review and theory development. In the fourth section the research results are discussed. Conclusions are presented in the final section.

## MATERIAL AND METHODS

The literature review appears to be the most common way to investigate various attitudes toward a particular topic (Lage & Godinho, 2010). Thus, aiming to systematise extant scientific knowledge and assess the research gaps on human capital and the internationalisation of SMEs, quantitative and qualitative analyses are applied. Quantitatively, the article is grounded in the classification approach which provides useful insights into the extant literature. The data were collected between March and June 2018. Considering the approach, suggested by Jabbour (2013), the process of literature analysis was split into sequential steps.

Firstly, a set of pre-established keywords was selected (Table 1). Corresponding to the search settings of the database, the stream of keywords was supplemented by words which could possibly refer to the same aspects in the articles (e.g. human capital, human resources). Therefore, the final stream of keywords was developed as follows: ((TS = (human capital OR human resource\* AND internationalisation) AND TS = (SME\* OR small firm\* OR small business\* OR small and medium enterprise)).

**Table 1. Keywords used in search**

A N D			
O R	SME*	human capital*	internationalisation
	small firm*		
	small business*	human resource	
	small and medium enterprise		

Source: own study.

Considering the database, we selected Clarivate analytics/Web of Science (WoS) and Scopus databases. These databases are the most significant bibliographic databases and provide a journal classification system. Thus, the search in the selected databases led to the improved research accuracy (Wang & Waltman, 2016).

Aiming to get more relevant articles, the search focused on more specific criteria, such as language, document type, category and timespan. We selected the following criteria: language – English, document type – article, refined by categories – management or economics or business, timespan – 1990-2017. This search resulted in the total of 856 articles from both Web of Science and Scopus databases.

Secondly, the abstracts of articles were carefully analysed and only those matching our interest were selected. Some articles did not refer to internationalisation, human capital/human resources and SMEs. For example, if some articles focused on the human capital of SMEs and did not consider internationalisation, those articles were excluded. Thus, 65 articles from WoS and Scopus databases which precisely matched our interest were selected for further investigations (Table 2).

**Table 2. Number of selected papers from Clarivate analytics/Web of Science and Scopus databases in 1990-2017**

Criteria of selection	Number of papers (WoS & Scopus)
Articles resulted by key words in the search engine	856 (100%)
Articles after abstracts review	65 (7.6%)

Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculations.

Thirdly, a classification system of the research object was developed. The classification approach was grounded on the framework suggested by Amui *et al.* (2017). The framework considered the national context (coded as developed countries, developing countries, emerging and not applicable (Niebel, 2018)), the sector of analysis (coded as production, services, cross-sectional), the location from which the research came (Africa, America, Asia, Central & Eastern Europe, Oceania, Western Europe), the level of analysis (coded as individual or organisational), research methods (case studies and/or interviews, conceptual studies and/or reviews, surveys, the combination of quantitative and qualitative

methods). The final step of the classification approach led to the analysis of the obtained results and the identification of the main gaps. The adopted procedure let us apply quantitative methods and, consequently, to gain insights into the theory development. Finally, the article adopted the qualitative analysis of the papers. This approach led to the analysis of current research, the obtained results and future research questions.

## LITERATURE REVIEW

In this section the review of literature on human capital for internationalisation of SMEs is presented. First, the concept of human capital is discussed and interrelations with internationalisation studies are presented. Next, the section presents the analysis of selected scientific papers according to the adopted classification scheme comprising the national context, sector, location, the level of analysis and research methods.

### The Role of Human Capital in the Internationalisation of SMEs

The concept *Human capital* originated in the field of economics and was suggested by Gary Becker (1964). While initially criticised by some scholars due to allusions with slavery, later on the concept became one of the most popular topics and attracted researchers from various fields (Tan, 2014). The concept refers to any knowledge or the acquired characteristics of a person which contribute to his or her economic productivity (Garibaldi, 2006). Human capital is assumed to be a significant element of the economic growth theory which emphasizes knowledge as a significant source for increasing returns to scale and consequently for long-run growth (Storper & Scott, 2009). Thus, the growth theory focuses on knowledge ingrained in better educated and productive individuals (Lucas, 1988). The proponents of human capital theory assumed that the value of individuals' learning capacities is similar to other resources. From this perspective, scholars set to investigate investments into human resources and gains from education and training (Nafukho, Hairston, & Brooks, 2004). The investigations suggest that better educated labour force contributes to productivity of organisations and thus encourages growth on both the national and international level. Though some scholars challenged human capital theory and disclosed prevailing shortcomings, recent studies emphasized the insightfulness of human capital theory (for a more comprehensive discussion see Tan, 2014).

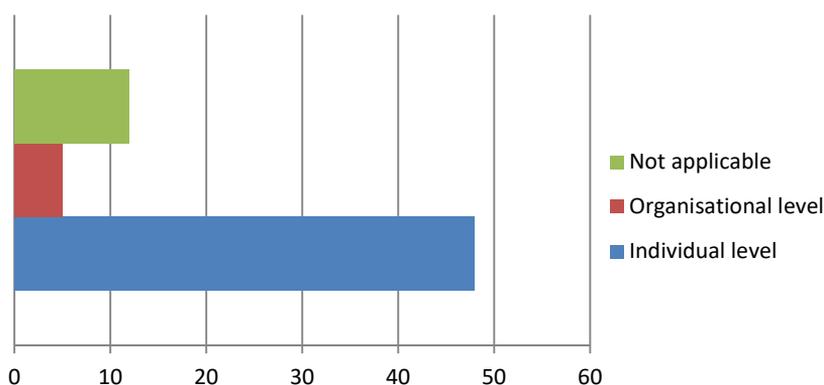
The studies performed at the micro and macro organisational levels demonstrated a positive relationship of human capital and the firm-level performance (Crook *et al.*, 2011; Wen-Tsung, Hsiang-Lan, & Chia-Yi, 2013; Cingano & Pinotti, 2016). It appears that human capital available to an organisation has potentially important performance implications (Bilgin, Marco, & Demir 2012; Celec, Globocnik, & Kruse, 2014; Chandran, Gopi Krishnan, & Devadason, 2017; Diaz-Chao, Sainz-Gonzalez, & Torrent-Sellens, 2015). Meanwhile, the development of resource-based theory revealed the significance of human capital as the main determinant which explains why some firms outperform others. While valuable, rare, inimitable, and non-substitutable resources influence the competitive advantage of the firm, the accumulation of appropriate human resources leads to long-term survival and growth. Hence, scholars adopted the resource-based perspective and suggested considering training, experience, relationships, and insights of individuals (Barney, 1991, p. 101). The overall competencies and know-how skills residing in the personnel support the performance of firms. Meanwhile, some scholars argue that human capital is created and

managed through the organisational system and thus the HR system is assumed to be the most important asset (Becker & Huselid, 2006).

The international expansion appears to be significant for the firm's growth and thus studies acknowledged the impact of managers' human capital on the international performance of firms (Denicolai, Hagen, & Pisoni, 2015; Hamid, 2017; Ismail, 2013; Korsakiene, *et al.*, 2017; Ruzzier, *et al.*, 2007). It is agreed that individuals with a higher level of human capital are able to identify and exploit more international opportunities. A stream of studies, focused on large companies, adopted the upper-echelons theory (Hambrick & Mason, 1984) and assumed that the strategic choices and performance of firms are determined by values and cognitive characteristics of top managers. On the other hand, demographic characteristics and experiences of top managers influence their cognitive characteristics and knowledge, which subsequently shapes decision making. The theory was grounded on the assumption that top managers face cognitive limitations and thus are boundedly rational. Meanwhile, studies in the small business context emphasized the significance of an entrepreneur in the international expansion of the firm and aimed to investigate the elements of human capital, contributing to the international performance (Lafuente, Stoian, & Rialp, 2015; Lin, Mercier-Suissa, & Salloum, 2016; Lucchella, Palamara, & Denicolai, 2007; Urban & Shree, 2012). The emphasis was put on knowledge, skills, talent and experience of entrepreneurs, contributing to strategic choices and consequently value of the firm (Javalgi & Todd, 2011). The review of selected papers revealed some dominant elements, related to internationalisation, which will be discussed in detail.

### Individual versus Organisational Human Capital

Considering the individual versus the organisational level of analysis, the investigation revealed that majority of articles focused on the individual level (Figure 1). Only few articles considered organisational human capital. Meanwhile, twelve articles are classified as conceptual and case studies or reviews. These articles apply secondary data and thus do not specify the level of analysis.



**Figure 1. Distribution of selected articles according to the fifth criterion – individual vs. organisation human capital**

Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculation.

The individual-level investigations revealed significant characteristics of managers and owners. Education appears to be an important factor affecting the internationalisation of firms. Considering the education level, the studies suggest that university education impacts decisions to export (Mozas-Moral *et al.*, 2016; Pickernell *et al.*, 2016). Work experience, attributed to the specific human capital, is often investigated in the studies. For instance, international experience of managers has a positive impact on international commitment (Fernandez *et al.*, 2015) and propensity to internationalise after the start-up (Reuber & Fisher, 1997). Thus, managers with export-oriented skills are assumed to be a driving force of the export performance (Freeman & Styles, 2014). Though cognitive abilities are less investigated as the dimensions of human capital, some studies revealed that entrepreneurs' characteristics, such as self-efficacy and risk avoidance did not impact the level of export (Evald, Klyver, & Christensen, 2011). However, our review reveals some contradicting patterns related to general human capital. Stucki (2016) investigated Swiss start-ups and used two different proxies as the measures of general human capital, i.e. the education level of founders and the average years of work experience. While general human capital impacted propensity to export, the impact on the intensity of export was not significant (Stucki 2016). The investigation of UK high-tech firms revealed that general experience of entrepreneurs did not have a significant effect on export propensity (Ganotakis & Love, 2012). On the other hand, general education and general experience had a positive impact on export intensity. A similar pattern was observed considering specific education. While specific education (business and technical) did not impact export propensity, the impact on export intensity was significant.

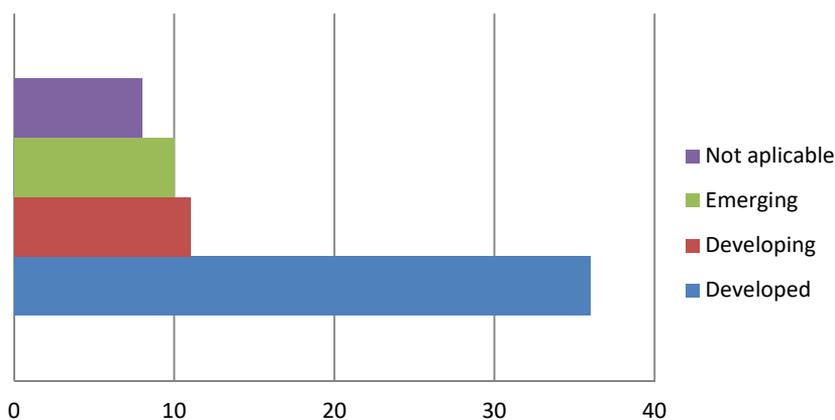
The organisational-level studies of human capital attracted less attention of scholars (Thangavelu & Neak, 2017). Though owners and managers significantly impact the internationalisation of firms, human capital of employees plays an important role in the expansion of firms. Apparently, education was used as the proxy of human capital in the scientific studies. For instance, some studies which measured human capital as the ratio between the number of graduate employees and the total number of employees concluded that firm-level human capital impacts export propensity and intensity (Cerrato & Piva, 2012). Meanwhile, Onkelinx, Manolova & Edelman (2016a) applied other measurements of the organisational-level human capital, i.e. the index of the weighted average education level of newly hired employees and the average wage level of all employees. The investigation of Belgian firms disclosed that added human capital of firms with gradual internationalisation, contrary to accelerated internationalisation, did not lead to higher export intensity (Onkelinx *et al.* 2016a). Thus, firms with accelerated internationalisation experience a positive effect of investments in employee human capital (Onkelinx, Manolova, & Edelman, 2016b). While the internationalisation of SMEs requires a higher level of employees' skills, the studies confirm that skills intensity of employees is related to export probability (Falk & Hagsten, 2015).

### **The National Context**

The national context is an important factor to be investigated. It appears that developed countries outperform developing and emerging countries in terms of the quality of capital (Tan, 2014; Niebel, 2018). Therefore, studies were dedicated to understanding countries' peculiarities. The results indicated that developed countries were investigated more intensively as compared to developing countries (Figure 2). While some studies were performed in one country's context (e.g. Jiang *et al.*, 2016; Clavel *et al.*, 2017; Wadhwa, McCormick, &

Musteen, 2017), other studies were carried out in several countries (e.g. Jin, Woo & Chung, 2015; Musteen, Ahsan, & Park, 2017). Eight articles did not indicate the national context (Musteen & Ahsan, 2013; Demir, Wennberg, & McKelvie, 2017; Tegtmeier & Classen, 2017; Francioni, Pagano, & Castellani, 2016; Terjesen, Hessels, & Li, 2016; Ashourizadeh *et al.*, 2014; Prijcker *et al.*, 2012; Evald, Klyver, & Christensen, 2011). The papers to which the national context was not applicable were conceptual papers.

The higher level of human capital in developed countries suggests that individuals are better prepared to internationalisation. Meanwhile, the studies performed in the context of developing and emerging countries revealed that a lack of international experience, managerial skills and business know-how were human capital constraints, hindering possibilities of firms to initiate early internationalisation (Gittins *et al.*, 2015; Ketkar, 2014). On the contrary, some studies did not disclose a significant difference between emerging and developed countries (Nowinski & Rialp, 2013). However, scholars suggest that firms from emerging and developing countries as compared to their foreign competitors tend to adopt a “catching up” position due to a lower level of human capital (Jardon & Molodchik, 2017). A stream of studies focused on return migrant entrepreneurs revealed that externally acquired human capital was transferred to new ventures and consequently influenced the internationalisation of SMEs from emerging countries (Gittins *et al.*, 2015; Gittins & Fink, 2015; Vinogradov & Jørgensen, 2017).



**Figure 2. Distribution of selected articles according to the first criterion – the national context**

Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculation.

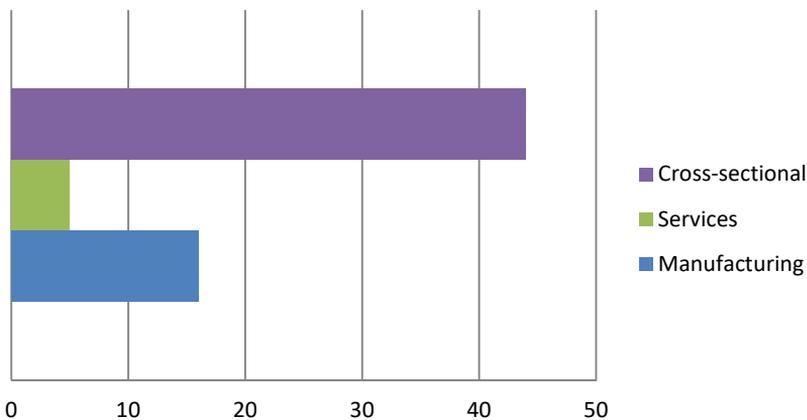
### Economic Sector

The investigation of the manufacturing sector versus the service sector reveals some differences (Gunasekaran & Gallar, 2012). Thus, the articles were analysed considering the economic sector (manufacturing and service). The data revealed that majority of articles did not focus on a specific economic sector and investigated cross-sectional SMEs (Figure 3).

Though some studies investigated both less knowledge-intensive and more knowledge-intensive manufacturing industries (Wadhwa *et al.*, 2017), a number of studies were focused on traditional industries, such as textiles, agribusiness and chemicals (Mozas-Moral *et al.*, 2016; Pena-Vinces *et al.*, 2017), apparel and food manufacturing

(Bernhardt & Dickenson-Jones, 2017; Kungwansupaphan & Siengthai, 2014; Trapczynsky *et al.*, 2016). Meanwhile, only few articles focused on services: IT, administrative and technical work. Ng & Hamilton (2015) investigated the information and communication technology industry in New Zealand. Reuber & Fischer (1997) investigated Canadian software product firms. Falk & Hagsten (2015) study was based on SMEs operating in Swedish computer and business service industries.

The investigation revealed a few patterns. First, highly skilled employees determine the internationalisation of SMEs in all economic sectors. Second, the increasing significance of knowledge intensive sectors requires further investigations. The studies disclosed that internationally experienced management teams were a resource leading to a higher degree of internationalisation (Reuber & Fischer, 1997). Furthermore, a set of advantageous skills of managers in the internationalisation process was emphasized (Ng & Hamilton, 2015). However, the investigations demonstrate that micro enterprises and other small and medium-sized firms differ in the importance of human capital even in knowledge intensive sectors (Falk & Hagsten, 2015; Xiao, Larson, & North, 2013; Pena-Vinces, Cepeda-Carrion, & Chin, 2012). Finally, the studies suggest that the development of firm's human resources in relation to internationalisation strategy is more an imperative for service firms rather than manufacturing ones (Raymond *et al.*, 2014).



**Figure 3. Distribution of selected articles according to the third criterion – economic sector**

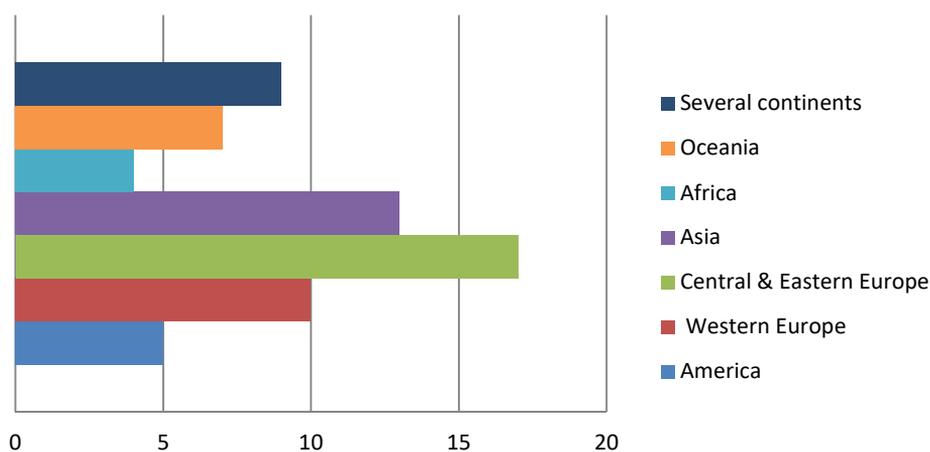
Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculation

### Geographical location

While the country context remains an important factor of human capital investigations (Dakhli & De Clercq, 2004), a close look should be taken at the geographical location. Majority of articles were from Central & Eastern Europe and Asia (Figure 4). A lower number of articles was from Western Europe and Oceania. Even fewer articles presented the cases of America and Africa (five and four articles, respectively). Meanwhile, nine articles investigated and compared several continents (Musteen *et al.*, 2017; Raymond *et al.*, 2014). Ketkar (2014) investigated data from 57 developing countries, while Prijcker *et al.* (2012) combined data from five different European countries, Evald *et al.* (2011) – from forty-five countries.

The investigations of countries from several continents let the scholars better capture the variations across the markets (Ketkar, 2014). For instance, the investigation of low-income locations in Latin America, Europe, Africa and Asia revealed that domestic firms with higher levels of human capital gained benefit from reduced corruption in their home countries and engage in global activities (Ketkar, 2014). Meanwhile, the investigation of industrialised countries such as the US and South Korea demonstrated that SMEs tended to adopt offshoring as an entrepreneurial solution to overcome the challenges of lower human capital (Musteen *et al.*, 2017). The investigation of forty-five countries from the Global Entrepreneurship Monitor revealed that human capital affected the level of intended exports (Evald *et al.*, 2011). Finally, the study of SMEs from Canada and France let the scholars to conclude that developing human capital constitutes a necessary yet insufficient condition for SMEs to be successful internationally (Raymond *et al.*, 2014).

A close look at the collaboration of scholars revealed a tendency of joint efforts from the same countries (e.g. the USA, Spain and the UK). It appears that scholars from the UK, Spain, Austria, Italy and the USA tend to collaborate with researchers from other countries.

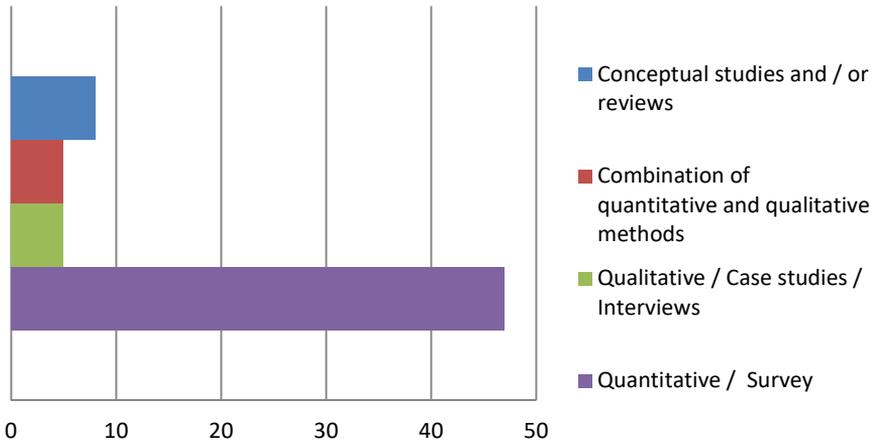


**Figure 4. Distribution of selected articles according to the fourth criterion – geographical location**

Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculation.

### Research Methods

The most popular research method among the selected articles was the quantitative method usually associated with a survey. Meanwhile, qualitative studies, usually associated with the case study approach or interviews, were adopted in five articles. The application of several research methods appears to be limited (Figure 5). Only five articles combined quantitative and qualitative methods (Mozas-Moral *et al.*, 2016; Trapczynsky *et al.*, 2016; Ng & Hamilton, 2015; Colapinto *et al.*, 2015; Arte, 2017). In addition, eight articles presented conceptual studies or reviews.



**Figure 5. Distribution of selected articles according to the sixth criterion – research methods**

Source: Clarivate analytics/Web of Science (2018); Scopus (2018). Own calculation.

Though case studies are an appropriate method to answer the questions “how” and “why” (Nowinski & Rialp, 2013), such studies are far from being representative (Arte, 2017). Case studies rely on a small number of cases and thus, the longitudinal approach (Duarte Alonso, & Austin, 2016) or a greater sample size (Gittins & Fink, 2015) are recommended. Meanwhile, survey methods let scholars involve a higher number of respondents into the research and obtain statistical validity of the results. Thus, the application of both quantitative and qualitative methods is needed for the theory development and empirical validations.

## RESULTS AND DISCUSSION

The analysis, based on the quantitative and qualitative investigation of scientific papers, provides interesting insights into future investigations. Thus, the framework how to address the research gaps is presented.

The analysis let us observe that human capital of key employees appears to be an important determinant of internationalisation. Therefore, the investigation of such elements of human capital as education, work experience, skills requires further attention and refinement in line with the development of internationalisation studies. While different studies demonstrate contradicting results (Ganotakis & Love, 2012; Stucki, 2016), future investigations are needed considering propensity and intensity of internationalisation. Furthermore, the elaboration on diverse experience of key employees (Freeman & Styles, 2014; Fernandez *et al.*, 2015) is seen as a promising area for future investigations. While human capital of owners and managers attracted vast attention of scholars, the research disclosed a lack of organisational level studies (e.g. Cerrato & Piva, 2012; Onkelinx *et al.*, 2016a; Onkelinx *et al.*, 2016b). Furthermore, a number of studies used education as the proxy of human capital. Human capital is assumed to be a multifaceted construct and thus it is important to investigate the variables, capturing all aspects of human capital (e.g. international experience, internationalisation-related skills of employees, etc.). Apparently, there is a need to investigate the determinants impacting the human capital of

SMEs. For instance, the informal learning which occurs through on-the-job training may contribute to the development of human capital. Thus, it would be useful to investigate the interrelationships of informal training, human capital development and internationalisation of small firms. Finally, the investigation how the controlling effect of owners/managers' characteristics influence the firm's internationalisation is needed.

The cultural differences between nations influence the international behaviour of small firms (D'Angelo *et al.*, 2013; Obeng, Robson, & Haugh, 2014; Tse, Yu, & Zhu, 2017). The literature review demonstrates that considering the national context there are opportunities to investigate developing and emerging countries. Furthermore, the comparison of several countries appears to be a promising venue for future investigations (Nowinski & Rialp, 2013). Comparative studies call for a need to join the efforts of scholars from different countries. Furthermore, considering the geographical location, there is an opportunity to focus on less investigated continents (e.g. Africa, Oceania).

The peculiarities of industries significantly differentiate the internationalisation of firms. However, the majority of articles investigated cross-sectional firms. Thus, considering the economic sector there is a new opportunity to focus on service sectors. More specifically, the increasing significance of technology intensive sectors call for a need to investigate technology intensive firms (Ruzzier & Ruzzier, 2015; Devins *et al.*, 2016; Gomezelj & Antončič, 2015). On the other hand, the comparison of technology intensive industries and more traditional industries would be beneficial, aiming to understand the early internationalisation of small firms. The investigation how technological intensity and competitive intensity moderate the relationship between human capital and internationalisation appears to be an interesting research area. Finally, the investigation of research methods revealed that case studies and/or interviews and the combination of both qualitative and quantitative methods are less applied in the scientific studies.

## CONCLUSIONS

The article investigated extant scientific knowledge and assessed the research gaps on human capital and the internationalisation of SMEs. The classification of scientific literature on human capital and the internationalisation of SMEs has led to the framework of future research agenda.

The research contributes to our understanding of human capital and the internationalisation of SMEs by reviewing systematically papers published in the period of 26 years and included in WoS and Scopus databases. However, this study is not without limitations. Firstly, the literature review was grounded on a set of pre-established keywords and analysis of the abstracts. Thus, the future investigations have to consider other approaches to the literature analysis. For example, bibliometric data can be analysed by applying "VOSviewer" software, etc. Secondly, the research did not attempt to focus on the articles which adopted other theories relevant to human resources (e.g. the upper-echelons theory). Finally, the challenges of human capital development shape the directions for future investigations. Thus, future studies can be grounded on the dimensions contributing to human capital development in firms (e.g. work-based training, etc.).

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