



Internationalization of SMEs: a systematic review of 20 years of research

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Published online: 29 February 2020

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Abstract

This article shares the results of a systematic review of the literature on internationalization of small- and medium-sized enterprises (SMEs) based on bibliometric techniques. This review resulted in the identification of the main themes that have been the focus of researchers over 20 years, the emerging literature in the last 5 years, and a research agenda for future studies. It was also possible to propose a theoretical framework with the main influential factors in the various stages of the internationalization of SMEs. The analysis of 669 articles from 1998 to 2017 was carried out in two stages involving quantitative methods (bibliometric analysis and bibliographic coupling). The first analysis helped identify the main authors, journals, and countries that conducted research on internationalization of SMEs within these 20 years. In the second analysis, we divided the total period of 20 years into four sub-periods of 5 years, and the bibliographic coupling grouped similar articles in each period into research themes. The thematic clusters that emerged in the four sub-periods indicated that the more relevant themes of the cutting-edge literature were as follows: antecedents, patterns, and outcomes of the internationalization of SMEs. These themes were consistent with De Clercq et al.'s (2012) framework, making evident, by way of an exploratory method, the convergence of international business (IB) literature on the internationalization of SMEs, but with specific influential factors concerning SMEs.

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Abstrakt

Das Hauptziel dieses Artikels ist es, die Ergebnisse einer systematischen Literaturrecherche der letzten 20 Jahre der Forschung zur Internationalisierung von Kleine Unternehmen. Diese Literaturrecherche führte zur Identifizierung der Hauptthemen, auf die sich die Forscher in den letzten 20 Jahren konzentrierten, und der aufkommenden Themen in den letzten fünf Jahren. Der Hauptbeitrag dieses Artikels besteht darin, auf neue Themen in diesem Bereich hinzuweisen und Implikationen für das Management vorzuschlagen. Die Literaturrecherche von 669 Artikeln von 1998 bis 2017 erfolgte in zwei Schritten, die quantitative Methoden umfassten (bibliometrische Analyse und bibliografische Kopplung). Die erste Analyse ermöglichte es, die wichtigsten Autoren, Zeitschriften und Länder zu identifizieren, die in diesen 20 Jahren Untersuchungen der Forschung zur Internationalisierung von Kleine Unternehmen durchgeführt haben. In der letztgenannten Analyse haben wir den gesamten Zeitraum von 20 Jahren in vier zeiträume von jeweils fünf Jahren unterteilt und die bibliografische Kopplung ähnliche Artikel in jedem Zeitraum in Forschungsthemen gruppiert. Die in der letzten Periode (2013–2017) entstandenen thematischen Cluster haben gezeigt, dass die aktuellsten Themen der Literatur folgende sind: Einflussreiche Hintergründe, Internationalisierung Mustern und Leistungsergebnisse der Internationalisierung. Diese Themen standen im Einklang mit dem Rahmen von De Clercq et al. (2012) und machten anhand einer Erkundungsmethode die Konvergenz der IB-Literatur zur Internationalisierung von Kleine Unternehmen deutlich. In unserer Schlussfolgerung haben wir die Forschungsagenda für diese drei Themen vorgeschlagen.

Keywords Internationalization of SMEs · Systematic review · Bibliographic coupling

Schlüsselwörter Internationalisierung von Kleine Unternehmen · Systematische Literaturrecherche · Bibliografische Kopplung

Summary highlights

Contributions: This paper contributes with the knowledge on internalization of SMEs by identifying the main themes focused over 20 years (1998 to 2017) and the emerging literature. A theoretical framework was proposed with the main influential factors in each stage of the internationalization of SMEs.

Research questions: This article proposed to answer the following questions: What themes have been considered relevant in the literature on internationalization of SMEs in the 20-year period from 1998 to 2017? What is the state of the art in the literature on internationalization of SMEs? What gaps still exist in the literature that could be opportunities for future research in the field?

Methodology: The analysis in two stages involving quantitative methods. The first was a bibliometric analysis to identify the main authors, journals and countries that conducted research on internationalization of SMEs within the 20 years. In the second, the total period was divided into four sub-periods of 5 years, and a bibliographic coupling (BC) grouped similar articles in each period into research themes. The ones from the last period indicated the more relevant themes of the cutting-edge literature.

Results/findings: The thematic clusters from the four sub-periods, indicating the cutting-edge literature, were antecedents, patterns, and outcomes. These themes were consistent with De Clercq et al.'s (2012) framework for classification of the international entrepreneurship literature, but with specific influential factors concerning SMEs, which were gathered in a theoretical framework.

Limitations: The articles' selection method used for the BC could have excluded some important works from different unidentified themes. The clustering method may also have created a bias in the identification of the themes, as different ones could have emerged from other configurations.

Practical implications: The conceptual framework can help managers and entrepreneurs to carry out their internationalization processes more effectively, by highlighting the main factors that could influence their internationalization decisions, patterns and outcomes.

Future research directions: A future research agenda was proposed based on common gaps and opportunities for future studies found in the articles from each cluster published in 2013–2017 that were not yet well covered.

Introduction

Studies on international business (IB) focusing on the firm have been conducted since the 1960s (e.g., Simmonds and Smith 1968) mostly focused on large firms, although studies at the national level had been made previously (e.g., Hymer 1960). The literature in the field of IB that emerged near the end of the 1980s brought a new vision of the internationalization of smaller companies able to compete internationally from their early years of existence: international new ventures (INVs). The focus was upon different venture types that conducted their internationalization according to distinct patterns: export/import start-ups, multinational traders, geographically focused start-ups, and global start-ups. Another type of firm that internationalizes early and rapidly was called Born Globals (BGs) and was classified as such, primarily according to the timing and speed of internationalization (Jones et al. 2011), as this type is internationalized since its inception.

The study presented here focuses on small- and medium-sized enterprises (SMEs) and on understanding the strategic behavior of their selling-side/exports internationalization decisions, once the purchasing from international suppliers is not within the scope of this work. SMEs are different from large firms and have very specific characteristics that may influence their decision to enter international markets (Laufs and Schwens 2014). Some of these characteristics concern their structural, management, and property constraints, in addition to those related to financial and human resources (Johanson and Vahlne 2003). Others concern their behavioral strengths (Paul et al. 2017). SMEs usually present entrepreneurial dynamism, flexibility, and higher motivation, while large firms are stronger in economies of scale and scope and financial and technological resources. When beginning the internationalization process, the latter firms can deal more effectively with trade barriers, since their resources and capabilities are more developed than those of smaller firms (Paul et al. 2017; Zacharakis 1997). Several studies have found that SMEs have less commitment to internationalization

than do large firms for a number of reasons, such as lack of resources, more fragile structures, and little knowledge of target countries (Cheng and Yu 2008), which probably occur because of some of the previously mentioned structural limitations.

Given the importance of SMEs in today's marketplace, several reviews on the internationalization of this type of firm have recently been conducted. Some of these have been focused on specific steps of the SME internationalization process, while others have targeted international entrepreneurship (IE) in general, with SMEs as a sub-domain. Examples of the first group of reviews are those that studied established SMEs international involvement (Martineau and Pastoriza 2016), exporting challenges of SMEs (Paul et al. 2017), stimuli of SMEs for exporting (Francioni et al. 2016), the role of information knowledge in the internationalization process of SMEs (Costa et al. 2016), and SME entry modes (Bruneel and De Cock 2016; Laufs and Schwens 2014). Although these studies have concerned the SME internationalization process, a general review of this process considering all its stages conjointly has gone underexplored.

As examples of the second type of reviews, we can cite Ruzzier et al. (2006), who investigated the differences between multinational enterprise and SME internationalization processes, and Jones et al. (2011), who classified and summarized the literature on IE, including SMEs as a sub-domain. To the best of our knowledge, investigations with a broader focus on all types of internationalized SMEs, including BGs, INVs, and slow internationalizers, remain to be conducted.

To fill this gap, the present study investigated the literature on the internationalization of SMEs of all these types (BGs, INVs, and slow internationalizers), considering all the stages of the internationalization process. We considered that all types of SMEs share similar characteristics and influential factors in their internationalization decision and in how they conduct their internationalization process that is different from large companies. Therefore, enlarging the focus of our review to all studies concerning the internationalization of SMEs was intended to bring new contributions to the field. To achieve this contribution, this article intends to answer the following questions:

- What themes have been considered relevant in the literature on the internationalization of SMEs in the 20-year period from 1998 to 2017?
- What is the state of the art in the literature on the internationalization of SMEs?
- What gaps still exist in the literature that could be opportunities for future research in the field?

With a view to answering these questions, we conducted a bibliometric analysis of the literature of these 20 years (with a total sample of 669 articles) in four groups of 5 years using the bibliographic coupling (BC) technique. This technique allowed us to understand the most relevant research topics in the field during the analyzed periods. Comparing these helped us understand which themes had emerged, which ones had lost relevance during the cited periods, and which ones remained relevant throughout the entire period. In our attempt to answer our research questions, we managed to classify the articles on SME internationalization into three main themes: antecedents, patterns, and outcomes. Most studies, rather than trying to understand all three aspects of the internationalization of SMEs, have generally focused on one of them. These thematic groups, which were stabilized during the last 5-year period, were consistent with the stages of De Clercq et al.'s (2012) framework that classified international

entrepreneurship literature into antecedents, processes, and outcomes. Although these stages were found to be valid for large international enterprises, we verified that the factors that influence each of the stages are different for SMEs and, among these factors, new research opportunities emerged as particularly significant.

Our article has six sections: this introduction that presents the objectives and relevance of the research at issue, followed by our literature review, in which we analyze the authors that conducted systematic reviews on different aspects of the internationalization of SMEs. In the third section, our research method is explained, including how we selected the sample of articles. The main aspects of the bibliometric analysis and the clusters that emerged from the BC are presented as our results in the fourth section. In our discussion, the fifth section, we propose and explain our conceptual framework, with factors that influence each stage of SME internationalization. In our conclusion, we highlight the main contributions of our article and propose a research agenda for each of the three stages.

Literature review

Studies from several fields have considered firm size as an important control variable when investigating diverse phenomena. One of the most used classifications for firm size divides firms into large enterprises (LEs) and small and medium enterprises (SMEs). Legal classifications are usually made according to size or total revenues. Regarding size, SMEs have a limit of 250 employees according to the EU standard (Eurostat 2019), 500 in the US definition (Office of the United States Trade Representative 2019) and up to 3000 for Chinese firms (Ecovis Beijing 2019). Considering revenues, the EU standard firms with up to €43 million. Although the importance of company size is relevant in the literature on exportation (e.g., Leonidou et al. 2010), the most recent studies related to international entrepreneurship challenge the importance of a firm's size for defining its export potential.

Various reasons are at the core of the differences between LEs and SMEs in their strategies, performance, and patterns. SMEs usually lack resources (financial, physical, and human) and capabilities to allow them to implement all the possible strategies that are available for LEs. Thus, when it comes to exporting, small firms face greater challenges than large firms (Paul et al. 2017). This lack of resources and capabilities also makes them less attractive to interested partners that could be a source of complementary resources (Laufs and Schwens 2014). SMEs also have less political influence on public policies affecting their interests. On the other hand, they are usually more flexible, which enables them to more quickly adopt emergent strategies that are most appropriate for drastic environmental changes (Cheng and Yu 2008; Zacharakis 1997).

The internationalization of SMEs is a subject that has been of increasing interest to scholars in the last few years. Although this subject has evolved based on several different theoretical models (Paul et al. 2017), research in this field is still fragmented. Blackburn and Kovalainen (2009) criticized the quality of research on small firms and entrepreneurship and listed its weaknesses as follows: diverse agendas and mixed stakeholder demands, underdevelopment of methodologies, and lack of engagement with the mainstream literature. In an attempt to contribute to a unified theoretical landscape, Kuivalainen et al. (2012) presented a conceptual framework composed of antecedents, internationalization patterns, and outcomes within which research on the

internationalization of SMEs could be conducted, identifying research gaps and highlighting specifically the need to target the time dimension of the internationalization patterns. Since 1994, with the study of Oviatt and McDougall (1994), important reviews on internationalization of SMEs and international entrepreneurship (IE) have been carried out. Most of them have focused on specific phases of the SME internationalization process (entry modes, international involvement, exporting stimuli, etc.), but there are also broader reviews of IE, including internationalization of SMEs as a sub-domain of the field (Jones et al. 2011). The following sections will discuss these reviews. More holistic and broader views focusing on the phenomenon of internationalization of SMEs are indeed an underexplored vein to which this article intends to contribute.

SME Internationalization Stages

Several reviews have focused on specific stages of SME internationalization, instead of capturing an integrative and holistic view of the entire process. Bruneel and De Cock (2016) and Laufs and Schwens (2014), for instance, reviewed the current state of SME foreign market entry mode choice. Bruneel and De Cock (2016) used De Clercq et al.'s (2012) international entrepreneurship (IE) framework as a basis to classify the literature on SME entry modes as antecedents, processes, and outcomes.

Regarding antecedents, including the decision to internationalize, we have several reviews. Francioni et al. (2016) proposed a classification framework for SMEs based on the classic 52 export stimuli carried out by Leonidou (1995), integrating emerging drivers that were divided into internal and external ones. Some of them were human resources, research and development (R&D), innovation, productivity, marketing/sales, and purchasing (internal) and home, host country drivers, and networks (external). Costa et al. (2016) proposed a systematic literature review on the role of information, knowledge, and collaboration in internationalization decisions of SMEs. Martineau and Pastoriza (2016) reviewed the research on established SME international involvement. Their work resulted in an integrative framework composed of antecedents, international involvement, and outcomes. Antecedents were disaggregated into environmental, firm, and individual levels. International involvement was divided into propensity and intensity. Outcomes were divided into general and performance outcomes. This work, although it treats the subject in a more integrated way, does not study the internationalization stages of SMEs but only international involvement. Laufs and Schwens (2014) related the theoretical models found in the articles reviewed (transaction costs theory, eclectic paradigm, institutional theory, and social capital theory/network theory) to the characteristics of SMEs found by the authors (financial and resource limitations, sensitivity to external influences, and family management structure).

Reviews about IE with SMEs as a Sub-domain

Some reviews analyzed IE as a field in which internationalization of SMEs is a sub-domain. Ruzzier et al. (2006), for example, developed an international entrepreneurship conceptual model to understand the differences and similarities of the internationalization of SMEs and multinational enterprises. The process presented in their framework

consisted of four important dimensions: mode, market, product, and time. The role of the manager (human and social capital) is emphasized, while firm and environmental characteristics precede the internationalization process. Firm performance is analyzed afterward. One of the criticisms of this proposed framework is that it does not address the interaction among its constructs; this is thus a point to be investigated. Jones et al. (2011) did an extensive job in classifying and summarizing the literature on IE from 1989 to 2009, trying to identify the themes investigated by the academy. The authors classified article themes into Type (A), entrepreneurial internationalization; Type (B), international comparisons of entrepreneurship; and Type (C), comparative entrepreneurial internationalization. The internationalization of SMEs, which is the main purpose of this article, can be found within Type (A), in the subgroup venture type. This demonstrates the importance of the theme as a sub-domain of IE.

Method

In order to conduct our research, we extracted articles that were published in peer-reviewed journals of the Scopus database (Elsevier 2019) that had the terms *internationalization * AND (sme * OR "small and medium enterprises")* in the title, abstract, or keywords and were in the business and management fields and were published in the period between 1998 and 2017. We decided to keep both conceptual and empirical papers in our sample to cover as many theoretical contributions as possible, based on the assumption that some theoretical papers' contributions may not have been tested empirically by operational means but could still contribute to the field. This filter was intended to guarantee that most of the important articles on the theme "internationalization of SMEs" from this 20-year period were considered. This period was chosen because we wanted to analyze the literature of a broader timespan and identify the evolution of the most relevant themes over the years. This evolution was examined through a comparative analysis of the four 5-year periods that comprised the 20 years (1998–2002, 2003–2007, 2008–2012, and 2013–2017).

The first step consisted of a bibliometric analysis of the evolution of the publications throughout the 20 years and the identification of the most important journals, countries, and authors that published in the field of SME internationalization.

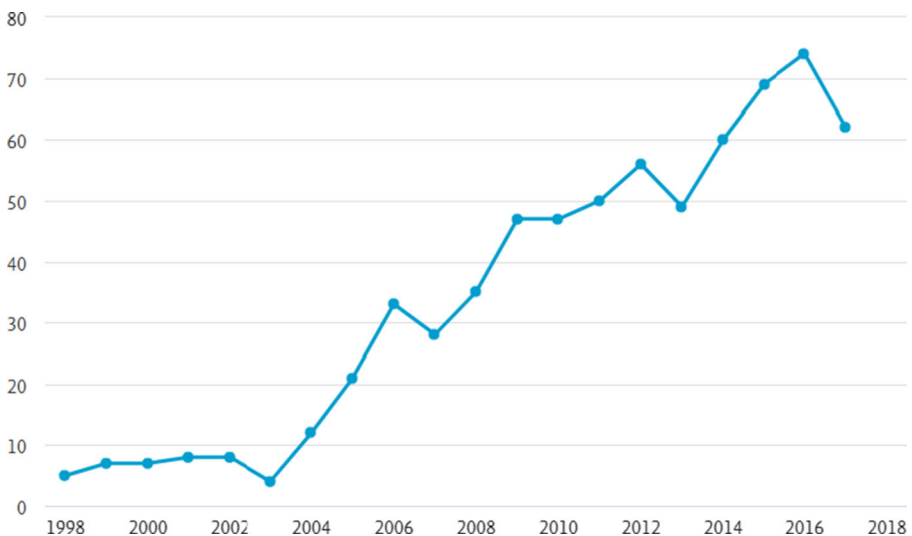
The second step consisted of identifying the main themes of each of the four periods of 5 years. It involved the use of the bibliographic coupling (BC) technique (Kessler 1963) to identify theoretical trends in the field in each of the four sub-periods. The BC technique groups similar articles into research themes that are formed by the association between the articles that compose them (Dagnino et al. 2015). VOS Viewer software was used for this analysis. For each 5-year period, the BC selected the pairs of articles with at least one common citation to form a list of pairs of articles (Kessler 1963). After that, the 50 articles with the most common quotes among them were selected and plotted in a 50 × 50 square matrix, with all articles in the lines and rows of each cell containing the number of common references between the articles. The decision to work with a maximum of 50 articles per period was necessary because of limitations in analyzing and grouping articles in maps with higher numbers; 50 articles were also used in previous studies (e.g., Gomes et al. 2017; Macedo-Soares et al. 2016). It is important to note that if one article had no common quotes with any other article, it was

dropped even if there were less than 50 articles in the sample (as occurred in the period of 1998–2002). The main diagonal of the matrix was filled with the number of quotes cited by the article represented by that position. The Pearson correlation coefficients for the matrix were then calculated (McCain 1990) to minimize scaling problems. Multidimensional scaling (MDS) was adopted to plot the 50 articles in a two-dimensional space in which the articles were positioned closer to most of the quotes in common (Hair et al. 2013). The assumption here is that articles with more quotes in common have a higher probability to address similar themes. Finally, hierarchical cluster analysis was used to group the articles by proximity in the bi-dimensional space (Hair et al. 2013). The content of the articles in each one of the clusters found was analyzed qualitatively as deeply as possible, so as to identify a common theme and name each cluster.

The value of BC for this research was that it created maps of the four sub-periods that allowed us to identify the prevalent thematic in each period—which ones lost their importance and which ones continued to be relevant compared to the previous periods. The clusters that emerged in the last few years (2013–2017) indicated the emerging themes that were gaining relevance in the cutting-edge literature. At the same time, clusters that were present in most or all periods and persisted until 2017 represented strong themes in the field that have not had their research questions fully answered and still capture researcher interest.

Results

As mentioned, the first part of our analysis was a bibliometric one of the complete period from 1998 to 2017. The filter on Scopus extracted 669 articles. Figure 1 shows that there was a significant growth in the publication of articles in the field at issue



Source: Elsevier (2019)

Fig. 1 Number of articles published between 1998 and 2017

during the period from 2003 to 2006, a small decrease in 2007 and the return of growth from 2008 to 2017 (with the exception of a slight decline in 2013). The years that presented slight declines (2007 and 2013) coincided with two of the sub-periods. The total of articles for each of the four periods analyzed were respectively 33 (1998–2002), 87 (2003–2007), 233 (2008–2012), and 316 (2013–2017).

The number of articles published in peer-reviewed journals, as well as that of the top publications, are presented in Table 1. In the entire period from 1998 to 2017, 22 journals published more than 50% of the articles (338 out of 669). The journal with the largest number of publications was the *Journal of International Entrepreneurship*, focused on articles that address the internationalization of small businesses, with 48 articles representing 7% of the total. The *International Business Review*, one of the most important journals in the field of international business, was next with 38 articles representing around 6% of the total. The third is the *Journal of Small Business and Enterprise Development*, also focusing on small business development, with 30 articles that accounted for 4% of the total.

The results of the analysis of the number of articles per author are presented in Table 2. We listed the eight most productive authors that published 81 articles throughout the period. The author with the highest number of articles is David Crick from the University of Ottawa, Canada, who has international entrepreneurship as his main research field. He has been publishing articles in the area since 2009, with the largest number of publications during the period between 2011 and 2014. The next author with the highest productivity is the Finnish author Sami Saarenketo, with a special interest in

Table 1 Articles per journal

Journal	Articles	H-index*	Percentual
<i>Journal of International Entrepreneurship</i>	48	32	7%
<i>International Business Review</i>	38	73	6%
<i>Journal of Small Business and Enterprise Development</i>	30	50	4%
<i>International Journal of Globalisation and Small Business</i>	21	13	3%
<i>International Journal of Entrepreneurship and Small Business</i>	20	23	3%
<i>Journal of World Business</i>	17	87	3%
<i>International Marketing Review</i>	16	71	2%
<i>Journal of Business Research</i>	14	144	2%
<i>International Journal of Business and Globalisation</i>	13	10	2%
<i>International Journal of Entrepreneurship and Innovation Management</i>	12	–	2%
<i>International Small Business Journal</i>	12	65	2%
<i>Journal of Small Business Management</i>	12	85	2%
Others (146)	416		62%
Total	669		100%

Source: adapted by the authors from Elsevier (2019)

*H-index – metric of journal impact counted as the number of articles for which a journal has been cited at the same number of times. For instance, if the H-index is 32, the journal has published at least 32 articles that was cited 32 times or more

Table 2 Most productive authors

Author	Document	Research area (in IB)
Crick, D.	14	International Entrepreneurship
Saarenketo, S.	12	International Marketing, Entrepreneurship, Business/Born Globals/ International New Ventures
Kuivalainen, O.	11	International Marketing, Entrepreneurship, Business
Zucchella, A.	10	International Business
Hilmersson, M.	9	SME Internationalization
Ojala, A.	9	International Entrepreneurship
Puumalainen, K.	9	International Business
Sandberg, S.	7	International Marketing, Entrepreneurship, Business/SME Internationaliza- tion
Others (201)	588	
Total	669	

Source: adapted by the authors from Elsevier (2019)

the internationalization of small firms. In third place comes Olli Kuivalainen, also from Finland, who has articles in the fields of international marketing and entrepreneurship.

The analysis of the number of articles by author's country (see Table 3) indicated that most of the published articles on the theme throughout the period (more than 80%) were concentrated in Europe and North America, with the UK, the USA, and Italy occupying the first three positions.

Table 3 Articles by author's country

Country	Document	Percentual ¹
UK	101	15%
USA	73	11%
Italy	64	10%
Sweden	55	8%
Spain	55	8%
Canada	48	7%
Finland	44	7%
Australia	34	5%
Germany	33	5%
France	29	4%
Portugal	29	4%
Others (59)	333	48%
Undefined	16	2%
Total	669	100%

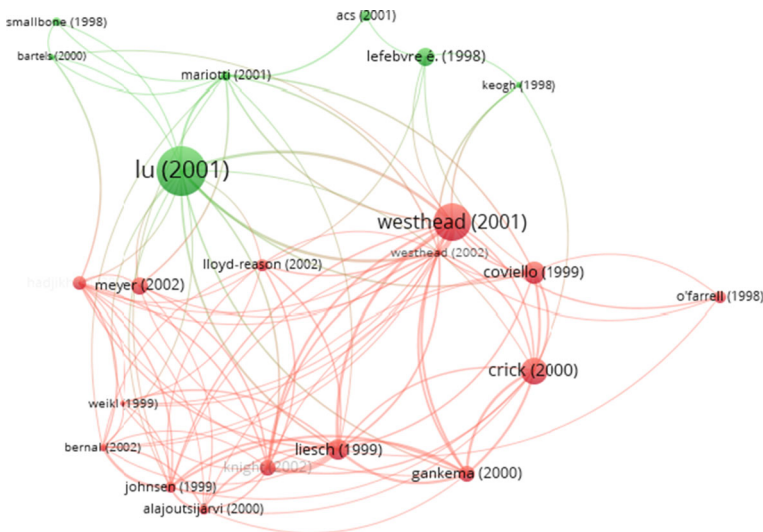
Source: adapted by the authors from Elsevier (2019)

¹ The sum is over 100% as one article may have authors from different countries and is thus counted more than once in this table

Analysis of the Four 5-year Periods (BC)

The next step was the analysis of the four sub-periods of 5 years. Regarding the first sub-period (1998–2002), the BC extracted only 22 articles. For the other three periods, we limited the number of articles analyzed to the 50 with the strongest connections among them, as cited in the Method section. The lists of articles per group per period are in Appendix I, II, III and IV. In the first sub-period, between 1998 and 2002, the 22 articles formed two clusters. Figure 2 shows the articles positioned in a two-dimensional space in which the distance among them is proportional to the strength of their connections, which means that articles with more similar themes (more quotes in common) are closer, tending to form thematic clusters. The first cluster (in red and composed of 15 articles, reference article—Westhead et al. 2001) was named *Patterns* in accordance with the theme of its articles. The second cluster (in green and composed of 7 articles, reference article—Lu and Beamish 2001) was named *Outcomes*.

The subjects of the articles in the first cluster presented some similarities, notably regarding the factors that can influence the internationalization strategy of SMEs. Knight and Liesch (2002) studied the impact of the internalization of information, used as a strategy by SMEs, during a firm's internationalization process, contributing to, and advancing, the conceptualization of knowledge creation by SMEs. Westhead et al. (2002), Crick and Jones (2000), and Coviello and Martin (1999) analyzed patterns and other factors that influence an SME's internationalization process. The authors contributed to SME internationalization literature by highlighting the export behavior of established “micro” as well as “small” firms and arguing that the internationalization literature should recognize and account for the patterns and processes of smaller firms. Meyer and Skak (2002) suggested that SMEs evolve to internationalization gradually with the development of their networks.



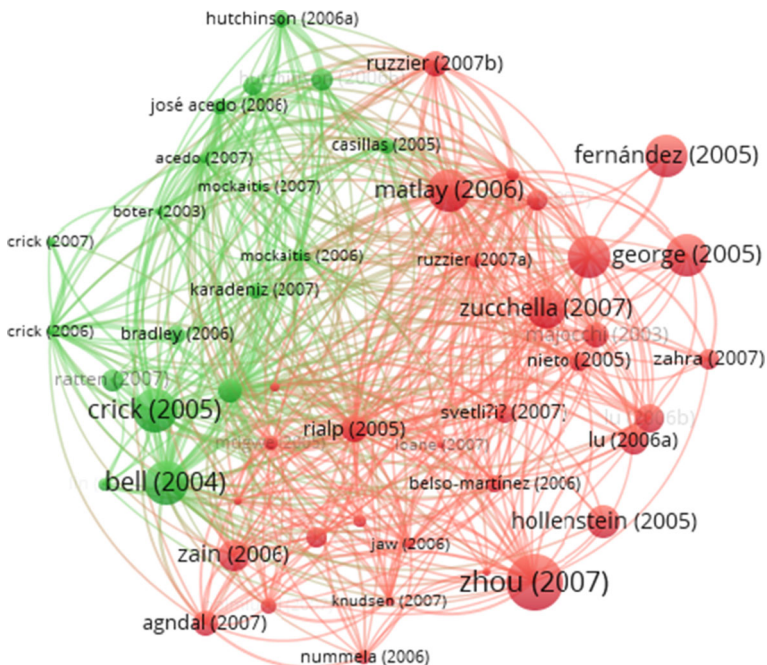
Source: elaborated by the authors

Fig. 2 BC of the period 1998–2002 (two clusters)

The second cluster followed the research theme of Lu and Beamish (2001), focusing on studies that tried to explain how the internationalization strategy of a small company impacts its outcomes and found that the extent of a firm's foreign direct investment (FDI) activity has a positive impact on the internationalization and performance of SMEs. Lefebvre et al. (1998) argued that R&D-related capabilities are determinants of different types of export performance and that this set of determinants varies according to firm internationalization processes. We noticed that relevant factors, such as networks, knowledge creation in SMEs, and new internationalization patterns, emerged in the articles shown in the first cluster and factors related to firm capabilities (R&D) and internationalization strategies, such as FDI, emerged in the second cluster in this period.

The analysis of the sub-period 2003–2007 also presented two clusters (see Fig. 3). We observed the emergence of a new thematic cluster that did not exist in the previous period. It was named *Antecedents* (in red, composed by 25 articles, reference article—Zhou et al. 2007). The articles found in this cluster studied factors that influenced the beginning of the internationalization process of an SME. Note that the second cluster *Patterns* (in green, with 25 articles, reference article—Bell et al. 2004) had already emerged in the first period.

The articles of the first cluster mainly addressed the question of the influence of the participation of SMEs in networks before and during their internationalization process. The most important article in this cluster (Zhou et al. 2007) refers to a study of the role of social networks and their influence on internationalization, as well as on SME performance. The results suggested that international business managers should



Source: elaborated by the authors

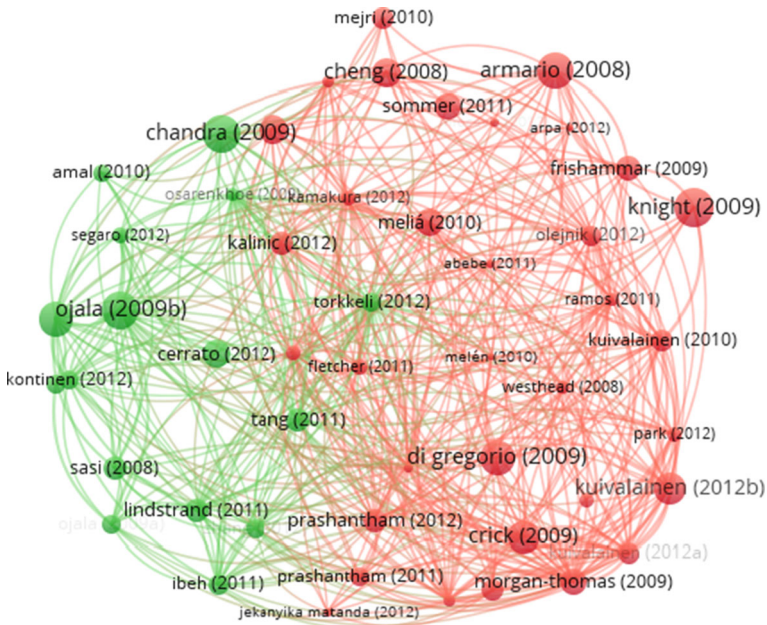
Fig. 3 BC of the period 2003–2007 (two clusters)

consider adopting social networks to help SMEs to internationalize more rapidly and profitably. Fernández and Nieto (2005) found evidence of a negative relationship between family businesses and internationalization measured by export activities. George et al. (2005) argued that SME ownership structures influence their propensity to take risks and expand the scale and scope of their internationalization efforts. In both cases, the authors contributed by suggesting that SMEs have more efficient organizational structures to increase their networks in the internationalization processes. Ruzzier et al. (2006) studied factors that have an influence before the internationalization of SMEs, such as the firm's international orientation, and proposed a new model of international entrepreneurship based on four internationalization properties (mode, market, product, and time), internationalization performance and key antecedents, as well as the consequences of the internationalization process.

In the second cluster, Bell et al. (2004) investigated the links between the overall global strategy of an SME and its relationship to the internationalization patterns and processes. They suggested that business policies linked to ownership and/or management changes have an important influence on a firm's international pattern decision. Crick and Spence (2005) studied high-performance firms in the UK and concluded that their strategic choices regarding internationalization did not follow systematic patterns as predicted in stage model theories. Suárez-Ortega and Álamo-Vera (2005) examined the managerial and organizational aspects of an SME and their impacts on the internationalization process. They proposed a synthesized model for researchers who are interested in investigating this issue further, based on firm characteristics, management characteristics and export marketing strategic capabilities. Acedo and Casillas (2007) combined theories about international entrepreneurship and institutional theory and presented a model that helps understand the speed of the internationalization of SMEs. This sub-period highlighted once again the importance of the network but now as an influential factor of the antecedents of SME internationalization processes. Other themes, such as a firm's international orientation and ownership structure, also emerged as influential factors at the beginning of a firm's internationalization process. As in the previous period, the Patterns cluster was composed mainly of articles highlighting the influence of management and organizational structure on the strategic pattern adopted.

For the sub-period of 2008 to 2012, the groups are presented in Fig. 4. Here, again, two clusters emerged, representing the following themes: *Outcomes* (in green, with 18 articles, reference article—Ojala 2009) and *Patterns* (in red, with 32 articles reference article—Knight and Kim 2009). The same two clusters from the first period emerged in this sub-period.

In the first cluster, Armario et al. (2008) presented a model composed of the following dimensions: market orientation, knowledge acquisition and market commitment. The direct and indirect effects of these dimensions on SME outcomes were described. Knight and Kim (2009) investigated several factors that supported the international superior performance of SMEs, and Miocevic and Crnjak-Karanovic (2012) studied the relationship between the global mentality of an SME and its export performance and suggested that it positively influences firm profitability. Crick (2009) investigated whether there were performance differences between Born Globals and international new ventures in foreign markets and offered insights into managerial practices of different types of firms that have the same international



Source: elaborated by the authors

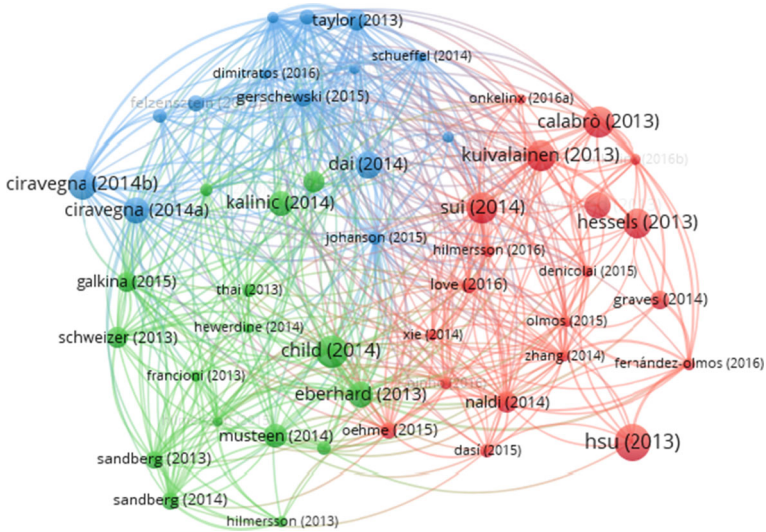
Fig. 4 BC of the period 2008–2012 (two clusters)

marketing behavior. Kuivalainen et al. (2012) presented an integrative model of internationalization modes, their antecedents and results.

Regarding the second cluster, Ojala (2009) studied the role of network relationships that existed during the process of SME internationalization and argued that the important relationships were actively utilized or developed to achieve market entry. Chandra et al. (2009) investigated the process of international opportunities recognition and the role it plays in an SME's entry mode into international markets. Finally, Kontinen and Ojala (2010) tried to cover the existing gap concerning the way family SMEs that do not have existing network ties recognize international opportunities. This sub-period presented new influential factors for the Outcome cluster: market orientation, knowledge acquisition, market commitment, and global mentality. For the *Patterns* cluster, networks continued being relevant in the articles, but international opportunities recognition also emerged as an important factor in this period.

The last analyzed sub-period was 2013–2017. Figure 5 presents the clusters and articles in a two-dimensional map. In this sub-period, all three of the clusters found in previous periods were present: *Outcome* (in red, with 20 articles, reference article—Hsu et al. 2013), *Antecedents* (in green, with 16 articles, reference article—Child and Hsieh 2014), and *Patterns* (in blue, with 14 articles, reference article—Ciravegna et al. 2014b).

In the first cluster, Calabrò and Mussolino (2013) analyzed the export intensity of a family-owned business, observing how the structure of the company's board of directors influenced its internationalization strategy, and contributed theoretically and practically to managers, showing that formal and informal governance mechanisms positively influence family SME export intensity. D'Angelo et al. (2013) presented



Source: elaborated by the authors

Fig. 5 BC of the period 2013–2017 (three clusters)

evidence from an empirical study that showed the determinants of export performance varied according to geographic scope and that the product's degree of innovativeness positively impacted its export performance. Hsu et al. (2013) studied the impact of CEO attributes on the performance of SME export relationships and suggested that age, educational level, and international experience of the CEO have moderating effects on the relationship between internationalization and firm performance.

In the second cluster, Child and Hsieh (2014) used the contingency theory as a basis for a systematic analysis of the most likely associations among entry modes, the use of information, and the network connections among internationalized SMEs. The authors contributed analytically to the field, arguing that the knowledge domain of the SME and the international experience of its main decision-maker are key factors in the internationalization process. Eberhard and Craig (2013) found evidence that interpersonal networks and interorganizational networks positively influenced the internationalization of SMEs. Musteen et al. (2014) used the literature on social networks and international entrepreneurship to investigate the role of the structural and relational insertion of international networks in the internationalization of SMEs.

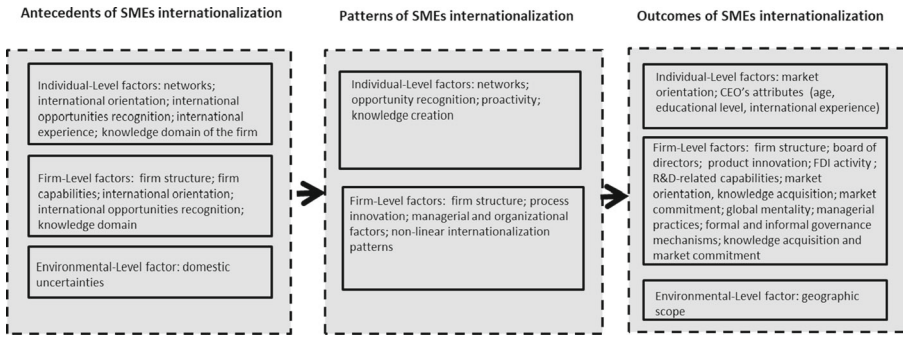
In the third cluster, Ciravegna et al. (2014b) analyzed how exporters began their internationalization process by leveraging information. They concluded that SMEs that have found their first international customers using “proactive” research are more likely to export faster, more intensively, and to a greater number of markets. They also studied the internationalization of high-tech SMEs and explored how they used networks, and relied on the information provided, to penetrate their first external market. Finally, Dai et al. (2014) analyzed the influences of innovation, proactivity, and decisions, under uncertain scenarios, and their impact on an SME's ability to expand its scope regarding international markets.

New factors emerged in the last period, once literature in the field started to present consolidation: for *Antecedents*, the importance of networks was reinforced, and international experience of the key decision-maker and the knowledge domain of the firm emerged. For *Patterns*, networks kept coming up, as well as process innovation and proactivity, influencing internationalization path decisions. Finally, for *Outcomes*, geographic scope, product innovativeness, and CEO's attributes emerged as new factors influencing firm international performance and outcomes.

Discussion and conceptual model

As a result of our analysis, we verified that the three most relevant themes of the 20-year period were *Antecedents*, *Patterns*, and *Outcomes* of SME internationalization. They alternated in importance throughout the years and all of them were more recently reinforced. The three clusters emerged when using an exploratory method; however, a more careful analysis indicated that they fit into previous conceptual frameworks found in the IB literature. The thematic clusters that emerged from the BC could be organized into three stages, presenting similarities to post-entry internationalization dynamics of newly internationalized firms (Meschi et al. 2017; Morgan-Thomas and Jones 2009) that combine patterns of country choice and entry modes (e.g., multiple channel strategies) and use time adequately to create internal knowledge for the execution of their internationalization strategies. These three stages are consistent with the framework proposed by De Clercq et al. (2012) that inspired us to name our three clusters/stages. The authors organized their review around the “stages” of early internationalization of IE. This sequential continuum seemed to be a useful framework since it was similar to the dynamic development of new international ventures that included issues regarding: When and why do ventures engage in the first foreign entry? What are the processes and patterns of early internationalization? What are the outcomes of early internationalization? De Clercq et al. (2012) summarized these stages as antecedents, internationalization processes, and outcomes. Using this as a basis to classify the state of the art found in IB literature on SME internationalization helped us to understand how the themes converged.

The first stage in our framework (see Fig. 6), called *Antecedents of SMEs' internationalization*, was composed of articles that investigated the factors that can influence a company in its decision to internationalize. Authors such as Zou and Stan (1998) and Leonidou et al. (2010) summarized the antecedent factors for exporting into three types: environmental (recession, political-legal impediments), organizational (size, age, experience, product type), and managerial (education, language knowledge, risk, innovativeness, quality, etc.). In our framework, the factors that influenced the *Antecedents* stage were also divided into three categories: individual level (which concerns the entrepreneur), firm level, and environmental level. This division was proposed because of the concentration of articles that focused on the influence of networks in which the decision-maker is involved (individual level), the different kinds of firm structures and organizational capabilities for initiating the SME internationalization process (firm level; Hilmersson and Papaioannou 2015; Kalinic et al. 2014; Eberhard and Craig 2013; Hilmersson 2013) and contingency theory, as well as the use of external information (environmental level) as a basis for the most likely associations among



Source: elaborated by the authors

Fig. 6 Conceptual framework: *Internationalization of SMEs*

entry modes (Child and Hsieh 2014). Martineau and Pastoriza (2016) argued that one of the most frequently researched environmental-level antecedents is home market difficulties. When competitors start to be a threat, SMEs usually decide to expand abroad. Efrat and Shoham (2012) argued that during the initial stages of internationalization, it is common that BGs' strategic performance depends on external factors.

The second stage, *Patterns of SMEs' internationalization*, refers to the different activities that the firm carries out to achieve internationalization. From the pre-internationalization studies up to those focused on internationalization proper, there have been many attempts to understand internationalization patterns. The notion of behavioral patterns suggests that a firm (and its managers) tends to have a recurrent response when faced with similar situations (Kuivalainen et al. 2012). Vissak and Masso (2015) developed a typology of export patterns, classifying firms entering similar countries using exports as a first entry mode as *slow and incremental* patterns, adopting what was called the Uppsala (U-) model (Johanson and Vahlne 1977, 1990; Johanson and Wiedersheim-Paul 1975) and innovation-related internationalization (I-) models (Bilkey 1978; Morgan and Katsikeas 1997). Firms that entered culturally distant countries, achieving a high share of foreign turnover, were classified as *very fast internationalizers*. Finally, firms that presented a *fluctuating* pattern lacked consistent international involvement. In other words, they were firms that would permanently or temporarily exit some markets. In our framework, the influential factors of the *Patterns* stage were subdivided into individual and firm-level factors. Most articles focused on the influence of networks, opportunity recognition, and the proactivity of the manager (individual level) during the firm's internationalization process (Ciravegna et al. 2014a; Ciravegna et al. 2014a; Dai et al. 2014; Dimitratos et al. 2016), as well as on the influence of firm-structure, organizational aspects, and process innovation (firm level) on the changes of the firm's strategy during the internationalization process and on the emerging nonlinear internationalization patterns (Ciravegna et al. 2014a; Crick and Crick 2014).

The third stage was *Outcomes of SME internationalization*. The influential factors of this stage were subdivided into individual, firm, and environmental level, as it concentrated articles that considered the influence of market orientation, knowledge acquisition, and market commitment of managers (individual level; Calabrò and Mussolino 2013; Fernández-Olmos et al. 2016; Hsu et al. 2013), as well as on the influence of firm

structure and product innovation (firm level) on the performance of not only BGs and INVs but also on already internationalized firms (Denicolai et al. 2015; Love and Ganotakis 2013; Naldi and Davidsson 2014).

Some of the elements of our conceptual model were also found in other reviews in the field. Blackburn and Kovalainen (2009) observed that family businesses and networks constantly emerged in the IB literature, not only as an influential factor at the beginning of the internationalization process but also as a factor that influenced internationalization patterns and outcomes. Jones et al. (2011), Dzikowski (2018), and Garcia-Lillo et al. (2017) included opportunity recognition (Jones et al. 2011), dynamic capabilities and strategic management, and the strategic choices of international new ventures (Garcia-Lillo et al. 2017) as influential factors of SME internationalization patterns.

In addition to the similarities with the framework of De Clercq et al. (2012), our model presents elements of the frameworks of Martineau and Pastoriza (2016) and Bruneel and De Cock (2016) that contemplate, respectively, established SME international involvement and SME entry modes. However, our model presents original contributions in that the influential factors of each phase were based on articles that considered all types of SMEs in different stages of their internationalization life cycle. It thus offers a more general view regarding factors that influence all internationalized SMEs in each of the three stages.

Another important contribution of the analysis of the four 5-year periods (BC) is that it helped identify how the factors of each theme evolved. In the first period, from 1998 to 2002, two main themes emerged: *Patterns* and *Outcomes*. Articles from this period made evident the importance of the recognition of smaller firm internationalization patterns, as they were not the same as the patterns previously found in large firms. Articles within this period also stressed the importance of the knowledge that SMEs were developing by following new internationalization patterns. In the second period (2003–2007), two clusters emerged: *Antecedents* that did not feature in the previous period and *Outcomes*, also present in the first period. The social network was one of the central factors that influenced an SME's international venture. Here again, networks emerged as a central influential factor at the beginning of the SME's internationalization process, but the international orientation and ownership structure were also identified as important antecedents. Managerial and organizational capabilities were presented as factors that influenced SME international patterns.

During 2008–2012, the *Patterns* and *Outcomes* clusters emerged, calling attention to new factors: market orientation, knowledge acquisition, market commitment, and global mentality, along with their influence on SME international performance. Network theory and international market orientation were used to explain international strategic choices and patterns of SMEs. Other factors, such as knowledge acquisition and market commitment, were explored in their connection to SME international performance. International opportunities recognition emerged as having an influence on a firm's international patterns, and networks continued being relevant for SME internationalization decisions.

In the last period (2013–2017), all three clusters found in the previous periods emerged together: *Antecedents*, *Patterns*, and *Outcomes*. In the first cluster, the international experience of the key decision-maker and the knowledge domain of the firm emerged as important

antecedents at the beginning of the internationalization process. Process innovation and proactivity emerged in the second cluster as influencing internationalization path decisions and geographic scope. Here, innovation appears as a tendency of the firm to experiment new ideas, products, technologies, and techniques, and, for this reason, it tends to influence a firm's ability to internationalize (Dai et al. 2014). And product innovativeness and CEO's attributes were the main factors that emerged in the third cluster, influencing the firm's international outcomes. The main factors found for each of the three themes are presented in our conceptual framework (see Fig. 6).

Conclusions

Our systematic literature review answered our main research questions and helped to understand the strategic behavior of the selling-side/export internationalization decisions of small- and medium-sized enterprises (SMEs). The first question was: What themes have been considered relevant in the literature on the internationalization of SMEs in the 20-year period from 1998 to 2017? As mentioned in the results and discussion section, the main recurring themes over the last 20 years (comparing four periods of 5 years) were identified. The composition of the clusters encompassing the major themes found in the four periods made evident the concerns of researchers in deepening their knowledge regarding the antecedents of SME internationalization strategies, their internationalization patterns, and the outcomes/performance characteristics for new internationalizers as well as for international established firms. It became clear that there were similarities concerning the internationalization of all types of SMEs (BGs, INVs, late internationalizers). The main similarities concerned post-entry internationalization dynamics of newly internationalized firms (Morgan-Thomas and Jones 2009; Meschi et al. 2017).

The second question was: What is the state of the art in the literature on the internationalization of SMEs? The interchange of the three clusters (representing three stages of internationalization of SMEs) in each of the four periods and the consolidation of the three in the last period indicate that the state of the art is not formed by new, disruptive themes but by the consolidation of traditional themes from the IB literature that were fragmented in SME literature. The main focus of today's authors is on the identification of factors that influence the internationalization of this type of firm in each of the three stages that were consolidated in our framework in this literature review (see Fig. 6).

The last research question was: What gaps still exist in the literature that could be opportunities for future research in the field? Concerning this question, we proposed a research agenda (see Table 4) based on the common gaps and opportunities for future studies found in the articles from each cluster published in 2013–2017 that were not yet well covered. A separate agenda was created for each one of the three themes/stages of our framework: Antecedents of SME internationalization; Patterns of SME internationalization; and Outcomes of SME internationalization (see Table 4). The research agenda was based on questions proposed by previous researches but including potential novel contexts. All research questions in Table 4 were proposed to be investigated within a cross-country or industry segment comparison context.

The two main suggestions regarding the first theme are to investigate: (1) the influence of specific individual-level and firm-level capabilities on SME decisions to

Table 4 Proposed research agenda

Cluster	Research agenda	Authors
Antecedents of SMEs' internationalization	Develop cross-comparison studies, with managers from SMEs from developed and emerging countries or from different industry segments, to understand the influence of their managerial experience, social capital, and personal characteristics as well as educational background on the SMEs expansion	Child and Hsieh (2014); Francioni et al. (2016); Galkina and Chetty (2015); Glavas and Mathews (2014); Musteen et al. (2014); Sandberg (2014); Schweizer (2013)
	Analyze SMEs from different countries, clusters, or industry segments to understand how cultural background of the decision-maker may have an influence on SME expansion as well as on the selection of international partners, and if the selection of the partners is effective	Hilmersson and Papaioannou (2015); Kalinic et al. (2014); Eberhard and Craig 2013; Hilmersson (2013)
Patterns of SMEs' internationalization	Investigate the influence of entrepreneurial orientation (innovativeness, risk-taking, and self-efficacy) of SMEs from different country's clusters or different industry segments, and its influence on international performance	Ciravegna et al. (2014b); Dai et al. (2014); Ciravegna et al. (2014a); Dimitratos et al. (2016)
	Are SMEs located in different countries or industries using new internationalization patterns or even multiple internationalization strategies in different ways?	Ciravegna et al. (2014a); Crick and Crick (2014)
Outcomes of SME internationalization	Is the internationalization of SMEs located in different countries or from different industry segments presenting different effects on performance considering family and nonfamily firms? Which family businesses' characteristics are more critical for the firm internationalization and performance within those contexts?	Calabrò and Mussolino (2013); Fernández-Olmos et al. (2016); Graves and Shan (2014); Hessels and Parker (2013); Hsu et al. (2013)
	Does SMEs from different countries or industry sectors present differences regarding the type of innovation introduced in different degrees of internationalization?	Denicolai et al. (2015); Love and Ganotakis (2013); Naldi and Davidsson (2014)

Source: elaborated by the authors

internationalize and (2) the social aspects of networks and on the international expansion of SMEs. The first suggestion was inspired by articles that recommended conducting further research on specific capabilities at the individual and firm levels. At the individual level, Francioni et al. (2016) suggested carrying out research on how different types of managerial experience (international, positive and negative) influence

the beginning of the SME internationalization process. Hilmersson and Papaioannou (2015) recommended more research on the social capital of the entrepreneur and its influence on SME expansion. Kalinic et al. (2014) emphasized the need for a deeper understanding of the influence of the decision-makers' personal characteristics, educational background, and work experience on the internationalization of SMEs. At the firm level, Glavas and Mathews (2014) suggested research on IE characteristics that may have an influence on the development of Internet capabilities for international business processes. The second suggestion was inspired by Galkina and Chetty's (2015) recommendation to further explore the issue of internationalization through networks. They raised questions such as, "Does the effectual behavior of managers differs depending on their culture? Is the selection of international partners linked with effectual networking?" Hilmersson (2013) pointed to the need for further investigation into how the degree of openness of the network influences the relationship between different types of firm experience. Sandberg (2014) proposed exploring whether accumulated knowledge is what determines the network node configuration, or if it is the participation in certain nodes that leads to the accumulation of knowledge.

The research suggestions regarding the second theme are to investigate: (1) the role of entrepreneurial orientation and opportunity recognition in the internationalization of SMEs and (2) the studies on the new internationalization patterns and multiple strategies of SMEs (rapid internationalization). For the first suggestion, Ciravegna et al. (2014b) stressed the need for a better understanding of the determinants and nature of proactivity and its influence on internationalization processes. Dimitratos et al. (2016) recommended further investigations into the relationship between opportunity-driven internationalized SMEs and international performance of SME internationalization processes. Swoboda and Olejnik (2016) highlighted the need for further research on firm-level factors and their relation to entrepreneurial orientation (innovativeness, risk-taking, and self-efficacy) and their influence on the internationalization process. The second suggestion was inspired by articles such as that of Crick and Crick (2014) that proposed more studies to distinguish particular characteristics of various types of rapidly internationalizing firms and that of Ciravegna et al. (2014a) that suggested exploring multiple strategies for the search for clients in new markets to better support SME internationalization processes.

The research agenda for the third theme also includes two suggestions: (1) the role of firm resources (family and nonfamily businesses) and their relationship to SME international performance and (2) the impact of innovation types on degrees of internationalization. Some articles served as an inspiration for the first suggestion. Calabrò and Mussolino (2013) proposed further research on how family firm dual governance influences their internationalization performance. Fernández-Olmos et al. (2016) emphasized the need of empirical analysis to understand which family business characteristics are more critical for firm internationalization and performance. Dasí et al. (2015) suggested investigating further the effect of slack resources on manager intentions and its influence on international performance, considering that SMEs may present differences from that of larger firms because of their less complex structures. Graves and Shan (2014) recommended examining social capital and network ties to explain differences in the effect of internationalization on performance among family and nonfamily firms. Hessels and Parker (2013) stressed the need for more studies on the role of individual interactions in different types of interfirm relations and how they impact firm international performance, while Hsu et al. (2013) suggested research on

other dominant members of the firms rather than focusing on CEOs and the relationships between internationalization and firm performance. The articles that inspired the second suggestion were that of Denicolai et al. (2015) that pointed to the need for more investigations to understand if the type of innovation varies according to the different degrees of internationalization. Love and Ganotakis (2013) proposed further research on international strategies and performance of innovation-intensive SMEs. Naldi and Davidsson (2014) suggested understanding better growth through sales to new customer segments and its relation to performance.

Our research has some limitations. The method of article selection and the filter used for the bibliographic coupling, which included the 50 most connected articles based on the number of common citations among them, could have excluded some important works from different unidentified themes. The clustering method may also have created a bias in the identification of the themes, as different ones could have emerged from other configurations. Finally, the boundaries of the clusters may be somewhat fluid, with articles near them addressing more than one theme. However, this limitation could be partially overcome in the scope of qualitative content analysis by changing an article obviously misclassified from one cluster to the correct adjoining one.

These limitations did not prevent our study from providing significant contributions. We believe that our conceptual model can contribute to helping managers and new entrepreneurs to carry out their internationalization processes more effectively, by highlighting the main factors that could influence the antecedents of the internationalization, its patterns and outcomes. Specifically, the framework highlights some individual factors that entrepreneurs can develop if they want their firms to internationalize successfully. One of the main factors to develop is a network of international partners that opens diversified future options. A diversified network becomes a strength in that it increases a firm's probability to gain an advantage from market opportunities and mitigate risks created by environmental factors. Consistent with this, firms should invest in international orientation, experience, and opportunity recognition. Training, participation in events, and hiring experienced people in this area may improve the ability to perceive the opportunities that can be harnessed through the previously mentioned networks. Finally, we should like to highlight knowledge acquisition and development. The development of knowledge can occur through internal R&D, partnerships, or preferably both. More knowledge increases innovativeness that is fundamental for access to markets or to create new markets and thus be competitive internationally.

Acknowledgments The present research was conducted with the support of FAPERJ, Carlos Chagas Filho Foundation for Research Support of the State of Rio de Janeiro, and CNPq, National Council for Scientific and Technological Development.

The authors would like to thank for the valuable contributions of the Editor-in-Chief of *JIEN* and four anonymous reviewers that helped to improve the quality of this article.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Appendix: List of articles per cluster (1998–2002)

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- Patterns Coviello NE, Martin KAM, (1999) Internationalization of service SMEs: an integrated perspective from the engineering consulting sector. *Journal of International Marketing*, 7; 42–66
 Crick D, Jones MV (2000) Small high-technology firms and international high-technology markets. *Journal of international marketing*, 8; 63–85
 Gankema HG, Snuif HR, Zwart PS (2000) The internationalization process of small and medium-sized enterprises: an evaluation of stage theory. *Journal of Small Business Management*, 38; 15
 Knight GA, Liesch PW (2002) Information internalisation in internationalising the firm. *Journal of Business Research*, 55; 981–995
 Liesch PW, Knight, GA (1999) Information internalization and hurdle rates in small and medium enterprise internationalization. *Journal of International Business Studies*, 30; 383–394
 Lloyd-Reason L, Mughan T, (2002) Strategies for internationalisation within SMEs: the key role of the owner-manager. *Journal of small business and enterprise development*, 9; 120–129
 Meyer K, Skak A, (2002) Networks, serendipity and SME entry into Eastern Europe. *European Management Journal*, 20; 179–188
 Westhead P, Binks M, Ucbasaran D, Wright M, (2002) Internationalization of SMEs: A research note. *Journal of Small Business and Enterprise Development*, 9; 38–48
 Westhead P, Wright M, Ucbasaran D, (2001) The internationalization of new and small firms: A resource-based view. *Journal of business venturing*, 16; 333–358
 Weikl C, Grotz R, (1999) Transnational technology transfer of SMEs and its impact on regional development. *Entrepreneurship Regional Development*, 11; 301–315
- Outcomes Acs ZJ, Morck RK, Yeung B (2001) Entrepreneurship, globalization, and public policy. *Journal of International management*, 7; 235–251
 Bartels FL, (2001) International competition and global co-operation. *Journal of Euromarketing*, 9; 85–97
 Keogh W, Evans G, (1998) Strategies for growth and the barriers faced by new technology-based SMEs. *Journal of small business and enterprise development*, 5; 337–350
 Lefebvre E, Lefebvre L A, Bourgault M, (1998) RD-related capabilities as determinants of export performance. *Small Business Economics*, 10; 365–377
 Lu JW, Beamish PW, (2001) The internationalization and performance of SMEs. *Strategic management journal*, 22; 565–586
 Mariotti S, Piscitello L (2001) Localized capabilities and the internationalization of manufacturing activities by SMEs. *Entrepreneurship Regional Development*, 13; 65–80
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Source: elaborated by the authors

Appendix: List of articles per cluster (2003–2007)

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- Antecedents Agndal H, Chetty S, (2007) The impact of relationships on changes in internationalisation strategies of SMEs. *European Journal of Marketing*, 41; 1449–1474
 Antonio Belso-Martínez J, (2006) Do industrial districts influence export performance and export intensity? Evidence for Spanish SMEs' internationalization process. *European Planning Studies*, 14; 791–810
 Cal Bouzada M, Verdugo M, Fernandez-Jardon C, (2007) Internationalization cooperation in the SME of Vigo and its metropolitan area. *Revista Gallega de Economía*, 16; 173–186
 Carlos Pinho, J, (2007) The impact of ownership: Location-specific advantages and managerial characteristics on SME foreign entry mode choices. *International Marketing Review*, 24; 715–734
 Fernández Z, Nieto MJ, (2006) Impact of ownership on the international involvement of SMEs. *Journal of international business studies*, 37; 340–351
 Fernández Z, Nieto, MJ, (2005) Internationalization strategy of small and medium-sized family businesses: Some influential factors. *Family Business Review*, 18; 77–89
 Festing M, (2007) Globalisation of SMEs and implications for international human resource management research and practice. *International Journal of Globalisation and Small Business*, 2; 5–18
 Fink M, Kraus S, (2007)

- Mutual trust as a key to internationalization of SMEs. *Management Research News*, 30; 674–688
- Esra Karadeniz E, Göçer K, (2007) Internationalization of small firms: A case study of Turkish small-and medium-sized enterprises. *European Business Review*, 19; 387–403
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- Knudsen MP, Servais P, (2007) Analyzing internationalization configurations of SME's: The purchaser's perspective. *Journal of Purchasing and Supply Management*, 13; 137–151
- Kuivalainen O, Lindqvist J, Saarenketo S, Åijö T. (2007) International growth of Finnish software firms: starting points, pathways and outcomes. *Journal of Euromarketing*, 16; 7–22
- Loane S, Bell J, Deans KR, (2007) Internet adoption by rapidly internationalising SMEs: a further challenge to staged e-adoption models. *International Journal of Entrepreneurship and Small Business*, 4; 277–290
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- Mtigwe B, (2005) The entrepreneurial firm internationalization process in the Southern African context: A comparative approach. *International Journal of Entrepreneurial Behavior Research*, 11; 358–377
- Nummela N, Loane S, Bell J, (2006) Change in SME internationalisation: an Irish perspective. *Journal of Small Business and Enterprise Development*, 13; 562–583
- Nummela N, Puumalainen K, Saarenketo S, (2005) International growth orientation of knowledge-intensive SMEs. *Journal of International Entrepreneurship*, 3; 5–18
- Nieto MJ, Fernández Z, (2005) The role of information technology in corporate strategy of small and medium enterprises. *Journal of International Entrepreneurship*, 3; 251–262
- Prashantham S, McNaughton RB, (2006) Facilitation of links between multinational subsidiaries and SMEs: The Scottish Technology and Collaboration (STAC) initiative. *International Business Review*, 15; 447–462
- Rialp A, Rialp J, Urbano D, Vaillant Y, (2005) The born-global phenomenon: A comparative case study research. *Journal of International Entrepreneurship*, 3; 133–171
- Ruzzier M, Hisrich RD, Antoncic B, (2006) SME internationalization research: past, present, and future. *Journal of small business and enterprise development*, 13; 476–497
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Source: elaborated by the authors

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Source: elaborated by the authors

Appendix: List of articles per cluster (2013–2017)

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