VNIVERSITAT DE VALÈNCIA Facultat d'Economia

TESIS DOCTORAL

BUSINESS MODELS FOR INTERNATIONALIZATION: AN ANALYSIS ON TRADITIONAL MANUFACTURING SMES

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A mis padres, María Jesús y Antonio, y a mi hermano Pablo.
A mis abuelos, Carmen y Manolo, Rosa y Manolo.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION AND MOTIVATION OF THE RESEARCH TOPIC

Small and medium-sized enterprises (SMEs) are an important actor in the economic development of nations. However, SMEs are not defined in the same way in all countries, due to the particularities of each location (Domingez and Mayrhofer, 2018). In China, an SME is considered a company with fewer than 1000 employees; in North America, SME is a company with fewer than 500 employees, and in Europe, SMEs is a company with fewer than 250 employees.

In Europe, 99.8% of companies are SMEs (Eurostat, 2019). In 2016, these companies represented 66.7% of the people employed and 56.2% of the GVA (Eurostat, 2019). Furthermore, European SMEs are responsible for half of value of intra-community trade in goods (Eurostat, 2017). In Spain, the data are similar: 99.8% of Spanish companies are SMEs and these companies create 65.3% of employment (Ministry of industry, commerce and tourism of the Government of Spain, 2019).

Despite the importance of SMEs for the economic and social development of nations, they suffer from forces that threaten their survival. Small firms have poorer survival prospects than large firms (Freeman, Carroll and Hannan, 1983), because small firms have more limited resources and greater difficulties in obtaining new ones (Lefebvre, 2020). This inequality is known as "liability of smallness" (Aldrich and Auster, 1986) and refers to the influence that the firm size has on its bundle of resources and capabilities and on its response to changes in the environment (Guercini and Milanesi, 2016). To increase the probability of surviving in this unfavourable situation, SMEs may choose to go international (Lee, Kelly, Lee and Lee, 2012), as a way to obtain valuable resources, face to saturated domestic markets, or minimize risks associated with location, among other positive consequences of internationalization (Javalgi,

White and Lee, 2000; Fernández-Ortiz and Lombardo, 2009; Lee et al., 2012). However, SMEs can suffer significant barriers to internationalization due to their lack of resources, especially different types of knowledge, and competencies (Javalgi et al., 2000; Crick and Barr, 2007). In summary, SMEs have resource limitations, derived from their size, that put their survival at risk and limit their possibilities to expand across borders and, therefore, access new resources. Therefore, and taking into account the impact that the success of SMEs has on the economy and society, research that promotes greater internationalization and high performance of SMEs, is necessary and pertinent.

Regarding the industrial sector in which the firms carry out their activities, traditional manufacturing companies present differences in terms of their business strategies and their international approaches with respect to those of intensive-knowledge industries (Bell, Crick and Young, 2004). Firms in non-knowledge-intensive industries are generally characterized by their small size, being "born-local" and having a low degree of technological intensity (Masiello and Izzo, 2019). This complex situation leads companies in traditional manufacturing industries to have difficulties in maintaining their competitiveness (Pla-Barber, Villar and Benito-Sarriá, 2020). In fact, there is a socio-scientific and public debate about modern societies based on the belief that only those firms dedicated to R&D or high technology will overguard employment and wealth in Western economies (Hirsch-Kreinsen, 2008).

In Europe (EU-27), manufacturing firms create 30,368.41 thousand full-time jobs, 14.7% of total full-time employment (Eurostat, 2018). In Spain, manufacturing industries represent 12.3% of GVA and create 10.4% of full-time employment (INE,

2019). Consequently, the importance of non-knowledge-intensive industrial sectors in traditional economies is difficult to ignore (Hirsch-Kreinsen, 2008).

The main objective of our study is to advance knowledge of the competitiveness of SMEs in traditional manufacturing sectors through the study of their business models.

Business model is receiving a great interest from management and business researchers (Wirtz, Pistoia, Ullrich and Göttel, 2016; Foss and Saebi, 2018). However, this interest is neither sudden nor unexpected, but rather the result of two decades in which the number of works about this topic has not stopped growing (Foss and Saebi 2017; Massa, Tucci and Afuah, 2017; Cosenz and Noto, 2018). The increase in popularity of business model is due to the great opportunities it offers for management research in general (Tallman, Luo and Buckley, 2018), and in international business (IB) in particular (Sainio, Saarenketo, Nummela and Eriksson, 2011; Bruneel and De Cock, 2016; Tallman et al., 2018). Despite the new opportunities that the study of business models opens up to broaden knowledge about business, there is a great deal of confusion surrounding this term (Klang, Wallnöfer and Hacklin, 2014) and a certain skepticism regarding its use. This situation is mainly due to the lack of a single definition of the term (Zott and Amit, 2010; DaSilva and Trkman, 2014; Crick and Crick, 2018), the lack of tools for its quantitative analysis (Child et al., 2017) and the lack of a solid theoretical framework (DaSilva and Trkman, 2014; Tallman, 2018). Therefore, we consider it necessary to clarify and order the business model framework for to encourage its study and promote the possibilities it offers to respond to traditional questions in the management and business literature from a new perspective.

1.2 OBJECTIVES OF THE DOCTORAL DISSERTATION

The main objective of this dissertation is to advance knowledge of the competitiveness of SMEs in traditional manufacturing sectors through the study of their business models. This objective is divided into smaller and more concrete goals.

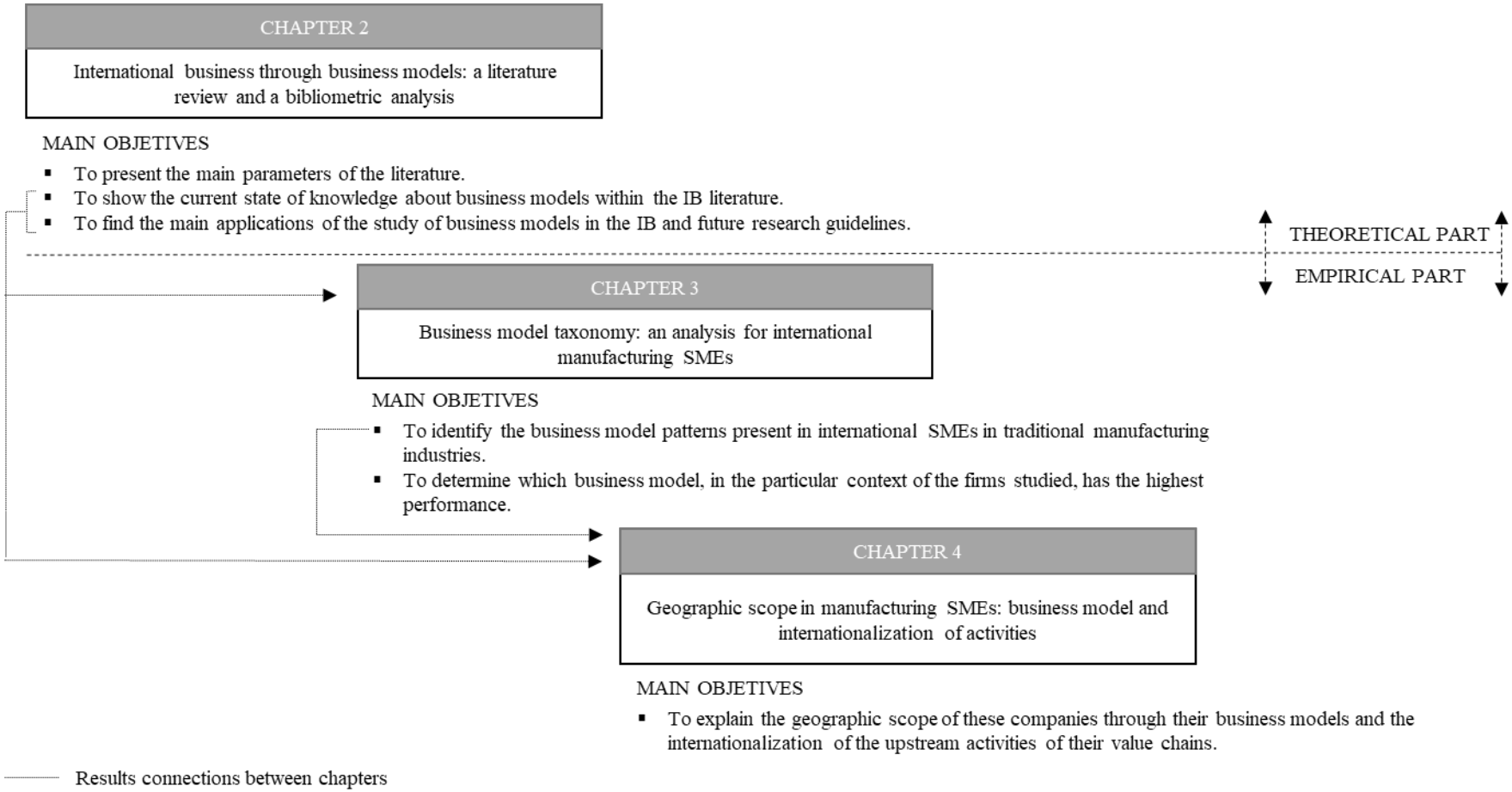
First, taking into account the confusion surrounding the study of business models (Klang et al., 2014), this dissertation aims to organize and clarify the current state of knowledge about business models in IB, showing a current image of its main parameters, identifying its main application areas and determining guidelines for future research.

Second, following the proposal of Baden-Fuller and Morgan (2010), on the business model as an aspect of the firm that can be subject to taxonomy, and the lack of inclusion of internationalization in the definition of business models identified by Onetti, Zucchella, Jones and McDougall-Covin (2012), we aim to show a list of business models present in Spanish international SMEs in traditional manufacturing industrial sectors.

Finally, due to the difficulties suffered by these firms and their great importance for the national economy, another objective of this dissertation is to show which routes of action that allow these firms to obtain better performance and greater international growth.

Figure 1.1. summarizes the specific goals of the dissertation and refers them to each chapter.

Figure 1.1 Main objectives in the doctoral dissertation



Source: own elaboration

1.3 STRUCTURE OF THE DISSERTATION

The thesis is structured in 5 chapters. The first chapter, the current chapter, corresponds to an introduction to subsequent chapters and presents the motivations and characteristics of the studies that make up this dissertation. The main part of this thesis consists of 3 chapters that can be grouped into two thematic blocks. The first part (Chapter 2) consists of the theoretical part of the dissertation, while the second part (Chapter 3 and Chapter 4) deal with the empirical research carried out.

Chapter 2 shows the current state of the IB literature through the business model framework. This chapter comprises a bibliometric analysis and a systematic literature review.

Chapter 3 presents the first empirical results of this dissertation. This chapter identifies different business models present in Spanish international SMEs in traditional manufacturing sectors and analyses which of them has a better performance.

Chapter 4 explores the propensity of SMEs to export to a large number of countries and to various regions depending on their international business models and the percentage of upstream activities of the value chain, in which they are integrated, that are carried out internationally.

Finally, chapter 5 collects the main conclusions derived from both the theoretical part and the empirical studies. This document also includes a summary in Spanish, where the interest and motivation of this study, the theoretical approaches in which it is included, the methodologies used, the results obtained and the conclusions are collected in a general way.

1.4 GENERAL THEORETICAL FRAMEWORK

Our dissertation relates different theoretical frameworks. The thesis is mainly based on two theories: the resource-based view (RBV) and the configurational theory. However, all the studies that we present are included within the business model framework. Below we present the theoretical approaches used in the thesis.

1.4.1 Resource-based view

Traditionally, the explanation of the existence of international organizations has been approached by the literature through efficiency-based approaches, such as the transaction cost economy (TCE) (Coase, 1937, 1960; Williamson, 1975) and value-creation approaches, where the RBV (Penrose, 1959; Wernerfelt, 1984; Barney, 1991) is integrated.

RVB describe the firm as a set of resources and capabilities (Penrose, 1959; Wernerfelt, 1984). This resources and capabilities, as bundles of tangible and intangible assets, generate sustained competitive advantage (SCA) (Barney, 1991). According to Barney (1991), only valuable, rare, imperfectly imitable and not substitutable resources are source of SCA.

In the review of the RBV of Barney, Wright and Ketchen (2001), some studies are collected, that highlight the evolution of the set of resources and capabilities of the firm as a way to generate SCA. Harrison, Hitt, Hoskisson and Ireland (1991), present that the complementary resources, in this case in acquisitions, allow the firm to learn new and valuable capabilities. Furthermore, Castanias and Helfat (2001), for managerial resources, highlight the need for change and adaptation to the conditions of the firm as the industry to generate rents. In the same line, Fiol (2001) proposes that

resources and the way which they are organized should change to generate temporary advantages, in as increasingly competitive and changing environment.

Therefore, through RBV theoretical approach, the firm's performance largely depends on their ability to acquire, adapt and manage valuable resources. This perspective is also very relevant for the case of IB (Barney et al., 2001; Peng, 2001).

According to Peng (2001), there are five areas of interest where RBV is integrated into the IB literature: multinational company management, strategic alliances, entry modes, emerging markets strategies and international entrepreneurship. In the study of international SMEs, which is the field of research that interests us, the RBV allows us to identify those specific resources through which SMEs acquire a competitive advantage in foreign markets (Peng, 2001), such as inherent advantages associated with being small (Liesch and Knigth, 1999).

1.4.2 Configurational approach

According to the configurational theory, the attributes of organizations tend to be grouped in coherent patterns, motivated by factors endogenous to the organizations, which generate a relationship of interdependence between them, and by exogenous factors such as the environment (Meyer, Tsui and Hinings, 1993). The configurational approach appears as a response to criticism of contingency approaches. Contingency approaches focus on the fit between two groups of variables to predict effectiveness. These approaches have generally focused on the relationship between organizational context and structure (Drazin and Van de Ven, 1985). Some criticisms of the contingency theory have been: an excess of reductionism (Meyer, Goes and Brooks, 1993), the assumption of unidirectional and simple causal relationships (Miller, 1988)

or the assumption that effectiveness is defined by the context (Drazin and Van de Ven, 1985). For its part, the configurational theory is based on holistic synthesis, presents reciprocal and nonlinear relationships, and allows equifinality for effectiveness (Meyer et al., 1993).

In business and management research, configurational approaches allow us to define strategic archetypes and organizational configurations. This quality is also applicable to IB literature. In this sense, through a configurational approach, it is possible to study, for example, multi-causal phenomena, such as international entrepreneurship (Ciravegna, Kuivalainen, Kundu and Lopez, 2018) or define archetypes of SMEs internationalization (Cerrato, Crosato and Depperu, 2016).

1.4.3 Business model framework

Business model, as an object of study, has multiple definitions (Morris, Schindehutte and Alen, 2005; Zott and Amit, 2010; DaSilva and Trkman, 2014; Crick and Crick, 2018) and, as a construct, it is made up of a series of very heterogeneous elements between studies (Osterwalder, Pigneur and Tucci, 2005; Shafer, Smith and Linder, 2005; Wirt et al., 2016). However, from a conceptual point of view, there are two great perspectives (Landau, Karna and Sailer, 2016).

On the one hand, from an activity-system perspective (Amit and Zott, 2001, 2012; Zott and Amit, 2008, 2010), the business model can be defined as "the content, structure, and governance of transactions designed so as to create value through the exploitation of a business opportunities" (Amit and Zott, 2001, p. 51).

On the other hand, from a value-based perspective (Richardson, 2005; Teece, 2010) the business model defines "how the enterprise creates and delivers value to customers, and then converts payments received to profits" (Teece, 2010, p. 173).

From both definitions we can discern that the business model is linked to the value creation for both the consumer and the enterprise. In addition, it is generally used to refer to new ways of creating value, hence its great success in the study of e-business (Ricart, 2009). For this reason, during the last two decades, interest in business models has grown considerably by researchers in strategy and business (Foss and Saebi, 2017; Massa, Tucci and Afuah, 2017; Cosenz and Noto, 2018), and the use of related management tools, such as the Business model canvas (Osterwalder and Pigneur, 2010), is widely extended among the management practitioners and are part of the teaching agenda of business schools and universities.

Regarding the IB literature, the study of business models opens a door to the study of IB from a new perspective (Sainio et al., 2011; Bruneel and DeCock, 2016; Tallman et al., 2018).

With regard to the theoretical basis of the business model framework, many papers lack a strong theoretical basis (Arend, 2013; DaSilva and Trkman, 2014; Tallman et al., 2018). However, business models, as an element of the firm, are capable of being studied from different perspectives. RBV is one of the most used theoretical perspectives in works on business models (Dasilva and Trukman, 2014; Massa et al., 2017). However, the business model goes further by incorporating other elements such as the networks or a more detailed description of the demand (Tallman et al., 2018). In this sense, Massa et al. (2017), proposes that business models can show a more

complete vision of some limitations of the RBV, such as: firms and customer have perfect information, firms and customers have unlimited cognitive abilities and act independently, there are no externalities, and competitive advantage is single-sourced, either position-based only or resource-based only, but not both.

Business model complexity allows RBV to be complemented by other theoretical approaches, depending on the aspect to be highlighted. For example, we can focus on transactions through TCT (Williamson, 1975) (DaSilva and Trkman, 2014), on network relationships through network theory (Jarillo, 1995; Lin, 1999) or on innovation with an approach to Schumpeter's theory of economic development (Schumpeter, 1936) (Morris et al., 2005). Furthermore, the business model can be related to other aspects under analysis through other theoretical frameworks, such as, for example, institutional theory or cognitive perspectives (Child, et al., 2017).

In the case of the configurational theory, it is interesting in the case of the business model since it can allow us a greater understanding of the complexity and interrelationships of the construct (Kulins, Leonardy and Weber, 2016). Configurational approaches allow us to define taxonomies and study multi-causal phenomena. In addition, these approaches make it possible to prove equifinality in the business model design (Kulins et al., 2016).

1.5 METHODOLOGY

In this section, we present a description of the sample used in the empirical studies of Chapter 3 and Chapter 4, and the statistical procedures used, with the objective of establishing a common basis between the studies of this dissertation.

1.5.1 Research design

Sample population was obtained from ORBIS database by Bureau van Dijk. Sample population is made up of SMEs, with less than 250 employees, located in Spain, which export their products internationally and they belong to the textile, furniture and footwear industrial sectors.

Data collection was carried out in 2019 through a survey questionnaire. From this questionnaire we obtained 120 valid responses. The sample contains different types of companies. 25.0% of our companies belong to the manufacture of furniture, 35.8% are dedicated to the manufacture of textile products and 39.2% focus their activities on the production of footwear. The size of the companies also varies, since we have a single micro-company and a similar proportion between small (50,8%) and medium-sized companies (48,3%). We also find differences in the age of the firms and their experience in international markets. In addition, there are companies with a low level of exports with respect to their total sales (around 3%) and others that dedicate 100% of their production to export. Table 1.1. displays a general descriptive.

Finally, these industries present a high concentration of companies in industrial districts (Marshall, 1890) (Boix and Galletto, 2006). In figure 4.2. the concentration of companies by Spanish provinces and sector is shown. In our sample we find, for example, textile companies located in the industrial clusters of *Cataluña*, *la Comunidad Valenciana* or *Galicia*; Furniture companies in *la Region de Murcia* and *Valencia*, or footwear companies located in the *Vinalopó* valley or in *La Rioja*.

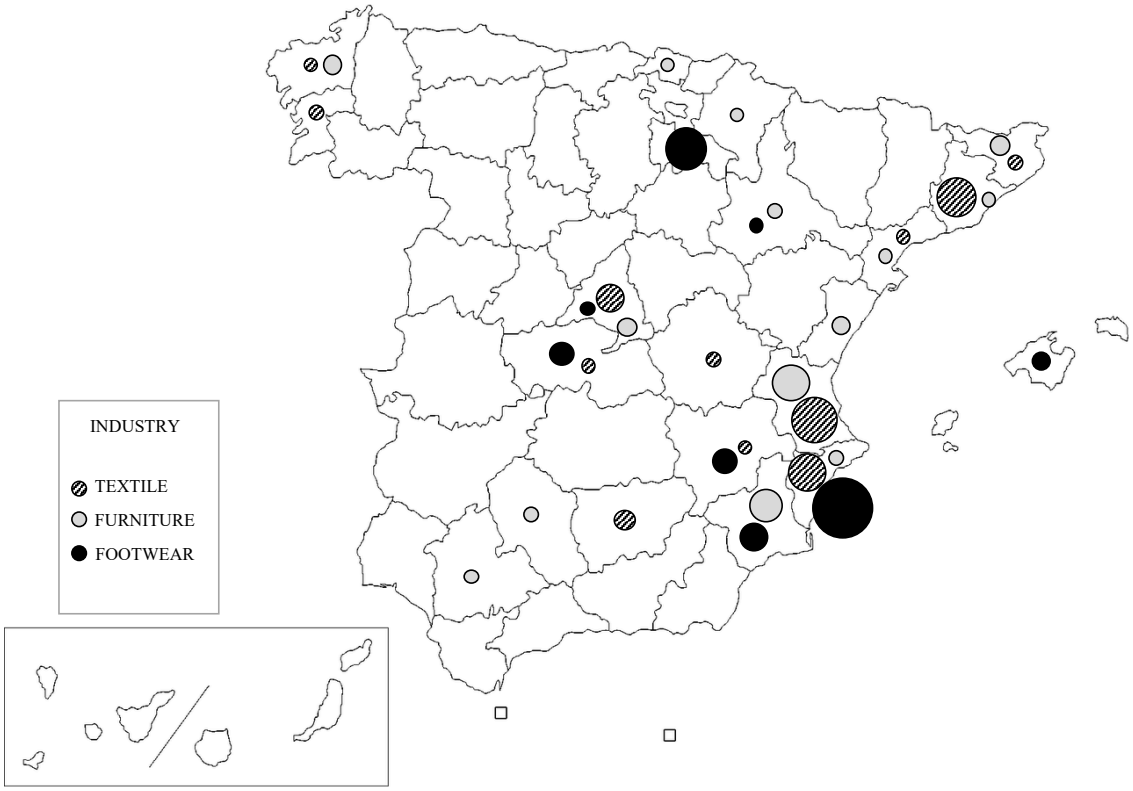
Table 1.1 Sample descriptive

		INDUSTRIAL SECTOR			
		Textile	Furniture	Footwear	Total
Firm size (nº of employees)	Micro	1	0	0	1
	Small	23	12	26	61
	Medium	19	18	21	58
	Total	43	30	47	120
	Total ratio	Textile mean	Furniture mean	Footwear mean	Total mean
Age (years)	(6 - 178)	50.19	38.00	32.87	40.36
International experience (years)	(2 - 126)	31.16	24.73	23.65	26.61
FSTS	(3% - 100%)	42.17%	25.96%	54.43%	47.39%

FSTS = Foreign sales / total sales *100. Age and international experience have as a reference year 2019.

Source: own elaboration

Figure 1.2 Distribution by province and industrial sector of the sample



Source: own elaboration

1.5.2 Statistical techniques in the dissertation

Throughout the thesis we use different methodologies and statistical analysis adapted to the research question to be solved in each chapter and the nature of the available data. Table 1.2. summarizes the applied methodologies.

Chapter 2 makes up the first block, dedicated to theoretical aspects. This chapter shows a bibliometric analysis, methodologically quantitative (Broadus, 1987), and a systematized literature review, based on qualitative research methods. Both analysis complement each other (Feng, Zhu and Lai, 2017).

The second block collects the empirical results of the study and is made up of chapter 3 and chapter 4.

Chapter 3 defines our main independent variable (business model) using a cluster analysis. As is traditional, we have performed a two-stage cluster analysis (Punj and Stewart, 1983). Chapter 3 also shows a confirmatory factor analysis (Gil, Moscoso and Rodríguez, 2000), to check the validity of the performance scale, and a Kruskal-Wallis H-test and a Mann-Whitney U-test, to check if there are differences in levels of performance based on the business model.

Chapter 4 collects the results of two logistic regressions, carried out to verify the statistical relationship of the independent variables in two complementary dependent variables. Finally, a robustness test is carried out joining both models in a single multinomial logistic regression.

Table 1.2 Summary of methodologies

CHAPTER	METHODOLOGY
Chapter 2. International business through business models: a literature review and a bibliometric analysis	Systematic literature review and bibliometric analysis
Chapter 3. Business model taxonomy: an analysis for international manufacturing SMEs	Cluster analysis and mean differences
Chapter 4. Geographic scope in manufacturing SMEs: business model and internationalization of activities	Logistic regression and multinomial logistic regression

Source: own elaboration

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CHAPTER 2: INTERNATIONAL BUSINESS THROUGH BUSINESS MODELS: A LITERATURE REVIEW AND A BIBLIOMETRIC ANALYSIS

ABSTRACT

Despite the growing interest in the use of business models as a unit of analysis by researchers in international business, there is some confusion about their meaning and their operationalization in research. This chapter aims to clarify the business model framework within the international business literature, show the current state of the literature and offer some guidance on where and how to apply this framework in future research. This work comprises a systematic literature review complemented with a bibliometric analysis. The results obtained show three main issues of application of the business model framework in international business literature: the differentiation between international companies, the international entrepreneurship and the adaptation to other regions, mainly emerging markets. Furthermore, this chapter also identifies different perspectives with which to approach the study of business models; shows a bibliometric analysis of the main journals, documents, keywords, authors, organizations and countries related to this topic, and shows future research lines.

2.1 INTRODUCTION

Currently, the term “business model” is receiving a great interest from researchers in management and business (Wirtz, Pistoia, Ullrich and Göttel, 2016; Foss and Saebi, 2018). It is easy to find this term in the main journals and conferences in these areas. But it is not a fad or a new appearance term. This interest is the result of two decades in which the number of works about this term has not stopped growing (Foss and Saebi 2017; Massa, Tucci and Afuah, 2017; Cosenz and Noto, 2018). In fact, business model concept appears in the 50s, but its use focuses on the context of information technology and is rarely used as a management tool (Wirtz et al., 2016). Since the turn of the century, the term has received special interest in the area of e-business to refer to the form of income generation on the internet (Ricart, 2009), but its use has also spread to other types of firms, becoming in a recurring term in the business area and its definition going from being very technological or economical orientation to taking a more strategic approach (Morris, Schindehutte and Allen, 2005; Wirtz et al., 2016).

For this reason, during the first decade of the 21st century, many authors have focused their efforts on defining what a business model is or what it is made of (e.g., Morris et al., 2005; Osterwalder, Pigneur, and Tucci, 2005; Shafer, Smith, and Linder, 2005), and what are its differences with respect to other terms such as "business strategy” (e.g., Magretta, 2002; Teece, 2010; Zott and Amit, 2008). In fact, 2010 is a year of great importance in the study of business models. In a special issue of the *Long Range Planning* called “Business models” and edited by Charles Baden-Fuller, some of the most important theoretical works on business models are published and the term achieved the recognition that it has today.

Currently, there are two main business model perspectives (Landau, Karma and Sailer, 2016): In *the value-based perspective*, Teece (2010, p. 173) proposes that 'a business model defines how the enterprise creates and delivers value to customers, and then converts payments received to profits' and in *the activity-system perspective*, Amit and Zott (2001, p. 51) define business model as 'the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities'. This last one is complemented with four parameters for the business model design: novelty, efficiency, lock-in and complementarities (Zott and Amit, 2010). However, these two are not the only approaches or definitions used by academics today and, consequently, the business model continues to be surrounded by great confusion.

"Business model" is a term that everyone talks about but few people really know what it is (Klang, Wallnöfer and Hacklin, 2014). This confusion is due mainly to four reasons: there is a large number of different definitions (Zott and Amit, 2010; DaSilva and Trkman, 2014; Crick and Crick, 2018), it is often confused with other similar terms (DaSilva and Trkman, 2014), there are not many clear measures or scales (Child et al., 2017) and it generally does not present a strong theoretical basis (DaSilva and Trkman, 2014; Tallman et al., 2018).

Nevertheless, the increase in its popularity is due to the great opportunities it offers for academic research (Tallman, Luo and Buckley, 2018). More specifically, the business model can be a tool with great potential to analyse aspects of internationalization from a new perspective (Sainio, Saarenketo, Nummela and Eriksson, 2011b; Bruneel and De Cock, 2016; Tallman et al., 2018). Therefore, it can become a recurring term in the international business (IB) literature in the coming years.

On the other hand, IB literature exists as a whole and can be analysed and revised globally (e.g., Morrison and Inkpen, 1991; Wright and Ricks, 1994; Buckley, 2002; Griffith, Cavusgil and Xu, 2008; Teagarden, Von Glinow and Mellahi, 2018). Nehrt, Truitt and Wright (1970) defines what aspects of academic research can be considered as IB literature (Wrigth and Ricks, 1994). In fact, there are works, prior to 2010, that already combine the IB literature with the business model framework. These works are pioneers in this field and provide an important basis for later literature.

On the one hand, Linder and Cartell (2001) includes internationalization as a driver of business model change. In this context, internationalization can be classified in two extreme models of change. It is a *realization model* when the firm expands geographically to grow (maximize revenues) and internationalization occurs by replicating its operational model in other countries (Linder and Cantrell, 2000; Dunford et al., 2010). And it is a *business model change* (*journey model*) in cases of globalization, when the company shifts its value proposition to highlight its global reach and capacity (Linder and Cantrell, 2000; Tallman et al., 2018). In addition, Morris et al. (2005) includes the option of "international market" in their questions to define a business model and Mitchell and Coles (2003, 2004ab) propose a business model definition that takes geography into account. On the other hand, Ojala and Tyrväinen (2006) analyze the relationship between different business model components and the entry modes, through a multiple case studies and Seelos and Mair (2007) connect the business model study with the low-income markets.

Regarding our work, it aims to clarify and promote the analysis of the business model within the IB literature. For this reason, a bibliometric analysis and a systematic literature review of the works published in the last decade, between 2010, with the

publication of the important special issue in *Long Range Planning*, and 2019 are presented. With this study, we complement other literature reviews about business model and Business Model Innovation (BMI) (e.g., Zott, Amit and Massa, 2011; Klang et al., 2014; Wirtz et al., 2016; Massa et al., 2017), and other theoretical papers on international business models. Finally, we want to emphasize that our objective is not to make an exhaustive analysis on the management theories applicable to the business model (see DaSilva and Trkman, 2014; Tallman et al., 2018), and as a DaSilva and Trkman (2014), our goal is not to generate another definition or list of components of business models or international business models (see Chapter 3), otherwise, to help clarify the framework.

2.2 METHODOLOGY

We used a systematic method to select the references that compose the study. With the use of this method, we provide the study with greater objectivity, facilitate the identification of relevant publications and allow the replicability of these studies in the future (Jones, Coviello and Tang, 2011).

We used *ISI Web of Science Data Base* (WoS) as a search and selection tool (search performance in January 2020). This database offers a variety of options for selection criteria, has high standards and is widely recognized in the academic community (Klang, et al., 2014). We searched in *WoS Core Collection* the keywords "business model*", and international*, multinational*, MNE* and MNC*, because they are the terms that best fit the subject matter of our review, with the search tag "topic" and separated them by the "and" connector. In this process, we selected "Article, Review, Editorials and Book chapters" (Klang et al., 2014), published between 2010 and 2019, and included in the categories: "Business" and "Management". Table 2.1. shows the

search and refinement process for each of the keywords used. Once the duplications in the selected works were eliminated, we had the first list of references (N=349).

In the second screening of works, all references were manually reviewed, in order to exclude those that did not cover the specific topic, based on whether they use the business model framework and also make a contribution to IB literature.

First of all, we compile the 129 references analysed by four major literature reviews on business model and BMI (Onetti et al., 2012; Klang et al., 2014; Fos and Saebi, 2017; Massa et al., 2017), to define what we can consider as a business model framework. Later, we check which of the works downloaded from *WoS* (N = 349) cited any of the 129 references considered as business model framework. We consider that a work which at least cites one of this 129 business model concepts is using the business model framework. However, there are some exceptions. For example, the publications of Seelos and Mair (2007); Yunus, Moingeon and Lehmann-Ortega (2010), or Dahan, Doh, Oetzel and Yaziji (2010), which are within the 129 business model references, define their own business model concept and at the same time are seminal papers in the study of low-income markets. For this reason, a paper on low-income markets which cites some of these three seminal papers is not, necessarily referring to business models. In this case, we demand that a paper, on low-income markets, makes an explicit mention of the business model concept of one of these three publications or cite other of the 129 references. This example is also extensible to other topics such as the study of e-business. This step is critical for sample selection, since "business model" is a term commonly used by researchers, managers and people in general. This fact, causes that there is a large number of publications in which this term is named at some point in the text. In line with this point, we also find publications

that analyse business models under their own perspective and whose definition of the term is not within the business model framework.

On the other hand, many publications study cases or use samples from multinational companies but do not make a contribution to IB literature. For this reason, we only accept those works that analyse aspects about the internationalization of companies or the internationalization of business models, that is, the adaptation of a business model from one market to another either by the same company or by a second company which adopts the same business model.

With these steps, we obtained a sample of 59 references. The drastic decrease in references is in line with other business model reviews (e.g., Zott et al., 2011). The selected works are shown in Table 2.2.

Once the sample was defined, a bibliometric research and a literature review were carried out. Both analyses complement each other (Feng, Zhu and Lai, 2017). On the one hand, bibliometric analysis allows studying a research field with quantitative methods (Broadus, 1987) and to show a complete picture of the data including authors, universities, journals or topics (Rialp, Merigó, Cancino and Urbano, 2019). On the other hand, the systematic literature review allows us to highlights the literature boundaries and identify potential research gaps (Tranfield, Denyer and Smart, 2003).

Table 2.1 Sample selection process

SEARCH PROCESS				
Web of Science Core Collection				
Year arrange: 2010 to 2019				
Topic: "Business Model*"				
And Topic:	International*	Multinational*	MNE*	MNC*
	1.052	186	33	29
Refinement:				
Web of Science Categories: Business and management	378	109	22	24
Document: Article, book chapter, review and editorial material	282	94	22	18
Duplicate removal:		349		
Manual review:		59		

Source: own elaboration

Table 2.2 Studies included in the analysis

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
1	Abrahamsson, Boter and Vanyushyn, 2019	IE, I	A	Q, SD	1367 (251 INVs) Different industries Sweden	INVs are more likely to BMI in external relationships, sales channels, and logistics than other international firms, and this effect is stronger in high-tech industries.
2	Ahokangas, Juntunen and Myllykoski, 2014	D	BC	CS	2 cases ICT services and 3D visualization solutions Finland	*Cloudification* requires effort and investment, and does not mean automatic internationalization. The biggest changes are made in the value proposition. Two different routes: technical and customer-centric.
3	Andersén, Ljungkvist and Svensson, 2015	IE	A	C	5 illustrative cases (SMEs)	An entrepreneurial orientation can be applied in each dimension of the BM. In the case of internationalization, it can be an entrepreneurial task in the dimension that refers to the market, especially in SMEs.
4	Asemokha, Musona, Torkkeli and Saarenketo, 2019	IE, I	A	Q, S4	95 SMEs ((≤ 240 employees) Different industries Finland	BMI mediates the relationship between entrepreneurial orientation and international performance. There are a positive relationship between BMI and international performance.
5	Autio, 2017	IE, I	A	C	-	Positive association between a new venture intensity of cross-border operations and competitive advantage. This association will be stronger when the INVs adopt an active learning orientation, when the INVs performs low cost BMI in different locations, when the INVs exploit cross-border asymmetries in their activity system, and when the INVs adopt a niche orientation.
6	Azari, Madsen and Moen, 2017	IE, I	A	Q, S	380 SMEs (≤ 240 employees) Different industries Norway	Grow ambitions as a driver of BMI. BMI has a negative association with export degree and scope.
7	Bialek-Jaworska and Gabryelczyk, 2016	S	A	CS, SD, I	7 cases (spin-offs) Biotechnology industry Poland	BM components for internationalization.

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
8	Breunig, Kvälshaugen and Hydle, 2014	ES	A	CS, SD, I	2 cases: Verico and Servco Professional services	Tree different BM patterns in international professional services firms: *Continuous BM*, *repetitious BM* and *Unique BM*.
9	Cao, Navare and Jin, 2018	ES, EM	A	CS, SD, I	15 cases Retail From Japan, France, Malaysia, Hong Kong, US, UK, Sweden, Germany & Spain to China	Tree patterns for BM innovation for internationalization. Retailers do not use only one pattern.
10	Casadesus-Masanell and Ricart, 2010	IBM, I	A	CS, I	6 cases: Albertis, Applus+, Ficosa, Mango, Metalquimia & Ros Roca Spain	BM must anticipate through innovation and internationalization to changes in the environment to generate competitive advantage.
11	Child, Hsieh, Elbanna, Karmowska, Marinova, Puthusserry, Tsai, Narooz and Zhang, 2017	AS, ER, SME	A	Q, I	180 SMEs (<250 employees) Clothing, software & biotechnology Arab Middle East, China, Denmark, India, Poland & UK	Tree different international BM. Industry like main BM predictor. Development of the home economy and the key decision-makers experience like BM predictors.
12	Dahan, Doh, Oetzel and Yaziji, 2010	BOP	A	C	Different illustrative examples	Cooperation between companies and NGOs to design or adapt the BM to emerging markets.
13	Dalby, 2014	IBM, I	A	CS, I	1 case IT-company Denmark to USA	Description of a BM change case based on cultural differences. The main challenges were in cooperation of employees and customers.
14	De Almeida Pereira, 2015	EM	A	CS, SD	1 case (Gol airlines) Brazil	BMI on an emerging market airline. Different aspects when adapting a low-cost low- fare model.
15	Dunford, Palmer and Benveniste, 2010	R	A	CS, SD, I	1 case (ING Direct) Bank Netherlands to Canada, Spain, Australia, France, US, Italy, Germany & UK	Four step to replication. Exploration as a fundamental aspect in the whole process.

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
16	Fleury and Fleury, 2014	ER, EM	A	C	3 cases (Swift Co.'s acquiring by JBS Friboi, Interbrew (Belgium) - Anheuser Busch (US) - AmBev (Brazil), and Sunoco (US) - Dow Chemical Co. (US) - Braskem (Brazil))	Description of BM of emerging economies. Description of BM of traditional economies. The total or partial acquisition of companies from traditional economies by companies from emerging economies with the objective of adapting their BM to the current competitive situation, moving towards more knowledge activities.
17	Gooderham, Ulset and Elter, 2016	BOP	BC	CS	1 case: Telenor in India (Unicor)	Analysis of the WB through economic terms. Export of innovations developed in BOP markets.
18	Gray and Farminer, 2014	IE	A	C	-	Stresses the importance of studying the links between internationalization, entrepreneurship and innovation. It raises the possibility of co-creating innovative value through collaboration with customers.
19	Guercini and Milanesi, 2017	S	A	CS, SD, I	1 case Fashion industry Italy	Distance as an asset. Location of production and price are very important for the customer perception.
20	Halme, Lindeman and Linna, 2012	BOP	A	CS, SD, I	2 cases (Nokia & ABB)	The introduction of inclusive BMs, the difficulties they have for innovation and the emergence of *intrapreneurial bricolage*.
21	Hennart, 2014	P BG/INV	A	C	3 cases (Volvo (Sweden), Atlassian (Australia), Logitech (Switzerland)	BM as a driver of accidental internationalization. INVs/BGs sell niche product/service. They do not need to make international marketing mix adaptation and use low-cost means of communication and delivery. They are from small home markets.
22	Jean, 2019	EM	A	Q, S	115 firms E-business China	Institutional capabilities consist of socio-political networking and BMI, and is positively related to international performance. This effect is positively moderated by cross-country institutional similarity and domestic institutional hostility, and negatively moderated by corporate reputation.

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
23	Kraus, Brem, Schuessler, Schuessler and Niemand, 2016	IE, I	A	Q, S	252 (46 BGs) Multisector German, Switzerland & Liechtenstein	To be BG has a positive influence on BM novelty and efficiency (not significant). Network intensity mediates the relationship between BM design (novelty and efficiency) and BG performance.
	Kraus, Brem, Schuessler, Schuessler and Niemand, 2016 (Continuation)	BG	A	CS, SD, I	11 cases (≤270 employees) Multisector Germany & Switzerland	BGs produce internally a small portfolio of products and services that are individualized, selling directly to customers. A BG's target business is B2B-oriented and its focus lies on international niche markets. BGs have strengths in sales and marketing, as well as technology and R&D. BGs stands out for its high efficiency or innovation, and for its speed and the quality of the products / services. Mixed revenue sources. They follow a clear strategy of expansion and they focus on their specific capacities.
24	Landau, Karna and Sailer, 2016	EM	A	CS, SD, I	1 case (AutoLux) Automobile industry Form Germany to India	Four different phases BM adaptation.
25	Laudal, 2018	BOP	A	C	-	Necessity of reconceive products and markets, redefine productivity measures and make possible the development of the local cluster in BOP markets.
26	Mäkelä and Lehtonen, 2011	S	BC	CS, SD, I	1 case (large company) Design and engineering (KIBS) Finland	BM in knowledge-intensive business service companies
27	Mase and Cohen-Cheminet, 2018	S	BC	CS	1 case (Repetto) France	BM of a fashion luxury brand.
28	Mattsson, Helmersson and Standing, 2019	Start-up	A	CS	1 case Digital trading platform Sweden	Relationships with partners are of great importance for the international development of start-ups.

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
29	McQuillan and Scott, 2015	ES	A	CS, SD, I	144 internationalization events (10 Firms) Architecture industry Ireland	Four international BM. Companies use more than one BM. They use a dominant BM and a secondary BM.
30	Mets, 2012	BG	BC	CS, SD, I	8 cases (SMEs) Hi-tech Estonia	Globalization is natural for hi-tech SMEs from small countries. It's not about BGs or BAGs, it's about Learned Globals. Sector defines the BM.
31	Monteiro, 2015	IMB, IN	A	Q, S, SD, I	1 large firm (ET) (137 processes) telecommunication services Provider	The more dissonant (in relation to the business model of the receiving unit) the opportunity to transfer external technology, the greater the likelihood that decision makers will eliminate it.
32	Onetti, Zucchella, Jones and McDougall-Covin, 2012a	P	E	C	-	Promotion of research that links BM, innovation and internationalization in new technology based companies..
33	Onetti, Zucchella, Jones and McDougall-Covin, 2012b	P	A	C	-	International BM concept: *Focus, Locus* and *Modus*.
34	Peerelly, De Fuentes and Figueiredo, 2019	BOP	A	CS, SD, I	1 case (Grameen Danone Foods Limited) Bangladesh	Two steps in BOP markets. First create operational capabilities, taking advantage of their position as latecomers. Later, develop innovative capabilities, including inclusive innovation.
35	Pels and Sheth, 2017	BOP	A	C	-	Conceptual framework about adaptation in emerging markets Four different BMs.
36	Rask, 2014	IBM, I	A	C	-	Four international BM, their innovation strategy and their entry mode.
37	Rasmussen and Tanev, 2015	LGS	A	C	-	Introduction and analysis of the concept of Lean Global Startup. Differences between LGS and BG.
38	Reficco and Gutiérrez, 2016	BOP	A	CS, SD, I	8 cases (Bimbo, General Electric, USEM, Amanco, TWI, CEMEX, HIR, PASA)	Importance of achieving organizational ambidexterity when implementing the new business in a BOP market.
39	Sainio, Saarenketo, Nummela and Eriksson, 2011a	P	BC	C	1 illustrative case ICT	Study of the BM through the perspective of the value chain.

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
40	Sainio, Saarenketo, Nummela and Eriksson, 2011b	SME	A	CS, SD, I	3 cases (SMEs) ICT	Design and architecture of the value formation of entrepreneurial companies Importance of partner relations both upstream and downstream in the value chain
41	Sanchez and Ricart, 2010	BOP	A	CS, SD, I	7 cases (2 cases in depth)	Two types of BM in low-income markets: Isolated BM and interactive BM.
42	Santos, Murmura and Bravi, 2018	ER, D	A	Q, S	73 Fab Labs Italy, France, Germany, Holland, Spain, USA	Differences between Italian fab labs, those of other European countries and the Americans.
43	Sharma, Dixit and Karma, 2016	EM	A	CS, SD, I	1 case (Air Deccan) Civil aviation industry India	Novelty for mitigate the effects of institutional voids. Need to include "elasticity" in the BM design. Do not copy the efficiency of advanced markets.
44	Sinkovics, Sinkovics and Yamin, 2014	BOP	A	CS, SD, I	5 cases ICT India	Introduction of the concept of “social value creation”.
45	Sleuwaegen, 2013	IBM, I	A	C	-	MATCH framework. Calculate the attractiveness of a market based on how it aligns with the BM elements.
46	Sohl, and Vroom, 2017	P	BC	C	-	Explanation of failures in cross-border mergers and acquisitions through the adjustment of BMs.
47	Sosna, Trevinyo-Rodríguez and Velamuri, 2010	IBM, I, R	A	CS, SD, I	1 case Naturhouse Spain	Analysis of a case of a BM reformulation and its phases
48	Sun, Xiao, Zhang and Zhao, 2018	IE	A	CS, SD, I	3 cases Technology China	A "simple rule" approach can be very useful for designing a BM under uncertain and fast-changing environments. This approach can especially benefit the internationalization process.
49	Tallman, 2014	P	A	C	-	Components and key aspects of Global BM
50	Tallman, Lou and Buckley, 2018	P	A	C	-	Key aspects of Global BM Theoretical base for International BM

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
51	Tanev, Rasmussen, Zijdemans, Lemminger and Svendsen, 2015	BG, LGS	A	CS, I	6 cases (BGs) Different technological industries Denmark and Canada	Introduction and analysis of the concept of *Lean Global Startup*. Two early internationalization paths: "Lean-to-global" and "Lean-and-global".
52	Vadana, Torkkeli, Kuivalainen and Saarenketo, 2019	D, IE	A	C	5 illustrative cases (Avito.ru, Farfetch, HelvetiBox, HelloFresh & Ikea)	Digitalization can improve the BM. International companies can be classify according to their degree of digitalization.
53	Wallin, Still and Henttonen, 2016	IE, LGS	A	CS, SD, I	21 cases Technology start-ups Finland	Many entrepreneurs express their grown ambitions through international expansion. After the institutional and market environment, the scalability of BM is the biggest determinant of ambition level.
54	Winterhalter, Zeschky, Neumann and Gassmann, 2017	BOP	A	CS, SD, I	5 cases (Different size firms) Medical Device and Laboratory Equipment Industry Asia	Proposes frugal innovation as a good way to adapt the BM to the needs of the BOP markets.
55	Wu, Ma and Shi, 2010	BOP	A	CS, SD, I	2 cases (UTStarcom and Taobao) China	Latecomer firms from emerging markets use secondary BMI
56	Wu, Zhao and Zhou, 2019	EM	A	CS, SD, I	4 cases eBook China	Search for legitimacy motivates firms to adapt their BMs to the host market The combination of regulative, normative, and cognitive legitimacy ensures the successfulness of adaptive BMI
57	Zähringer, Niederberger, Blind and Schletz, 2011	S	A	CS, SD, I	1 case (Zwick GmbH & Co. KG) Machine manufacturer (product-related services) Germany	BM components. Ownership advantages have only limited influence on the BM. The main objectives pursued by internationalization have strong influence on the BM. Location advantages have strong influence on the BM. Internationalization advantages have strong influence on service portfolio

	Author(s) and year	Theme	P	Method	Sample characteristics	Main results
58	Zarei, Nasseri and Tajeddin, 2011	IE	A	CS, I	44 cases SMEs (≤ 250 employees) ITC Iran	The positive influence of best practice network in the BM for the internationalization of firms..
59	Zijdemans and Tanev, 2014	LGS	A	C	-	Conceptualization of the BMs of innovative firms which are internationalized early (LGS).

*Ordered by alphabetical order of the authors name. Abbreviations: P = Publication type. Abbreviation in Theme column are: P = Perspective, IBM = International business model, I = Innovation, AS = Intra-sector typology, S = Sector typology, ES = Inter-sector typology, ER = Inter-region typology, D = Digitalization, IE = International entrepreneurship, BG = Born global, SME = Small and medium enterprise, BG/INV = Born global / International new venture, LGS = Lean global start-up, R = Replication strategy, EM = Emerging markets, BOP = Base of the pyramid, Abbreviations in P column are: A = Article, BC = Book chapter; E = Editorial. In line with Hutzschenreuter and Matt (2017), abbreviations used in the Methods column are: CS = Case study; Q = Quantitative; SD = Secondary Data, S = Survey, C= Conceptual. BM = Business model.

Source: own elaboration

2.2.1 Bibliometric analysis methodology

We have processed the data downloaded from *WoS* with the VOSviewer software (Van Eck and Waltman, 2010), in order to show a bibliometric analysis. VOSviewer has the ability to display visual and informational maps as well as perform analysis in an easy way (Rialp et al., 2019). This software allows us to examine the bibliographic data using different units and types of analysis.

This study focuses on the number of publications, citations, authors names, organizations, countries and keywords as a units of analysis. In addition, we complement this information with other bibliometric indicators from different sources. From *WoS* database we downloaded information on the years of publication, the journal impact factor, the journal 5-years impact factor and the quartile to which it belongs according to Journal Citation Report, the author H-index (Hirsch, 2005; Rialp et al., 2019) and average number of citations per year. In addition, we included the SCImago journal impact factor from *Scopus database* (Hall, 2011), and the position of the universities in the *Academic Ranking of World Universities* from Shanghai ranking (Rialp et al., 2019).

The article uses VOSviewer to carry out four types of analysis: co-authorship, citation, co-citation and co-occurrence analysis. Table 2.3. shows a summary of the analyses carried out, the maps and tables in which they are shown and the section of the results to which they belong.

According to Van Eck and Waltman (2019), the analyses show two attributes. On the one hand, co-authorship, citation, co-citation, and co-occurrence *links* show the number of links an item has with the rest of the items. On the other hand, the *total link*

strength shows the total strength of the links of an item. For their part, the maps obtained with VOSviewer are made up of different elements. The *labels* show the different items of the units of analysis. The larger each label, the greater the importance of that item. The *lines* represent the links between two items. The fatter they are, the greater the relationship between the two items. Finally, the *colours* represent the different clusters in which the items are grouped, that is, items with the same colour are closely related to each other than those with different colours. Items may belong to only one cluster.

Table 2.3 Summary of bibliometric analysis

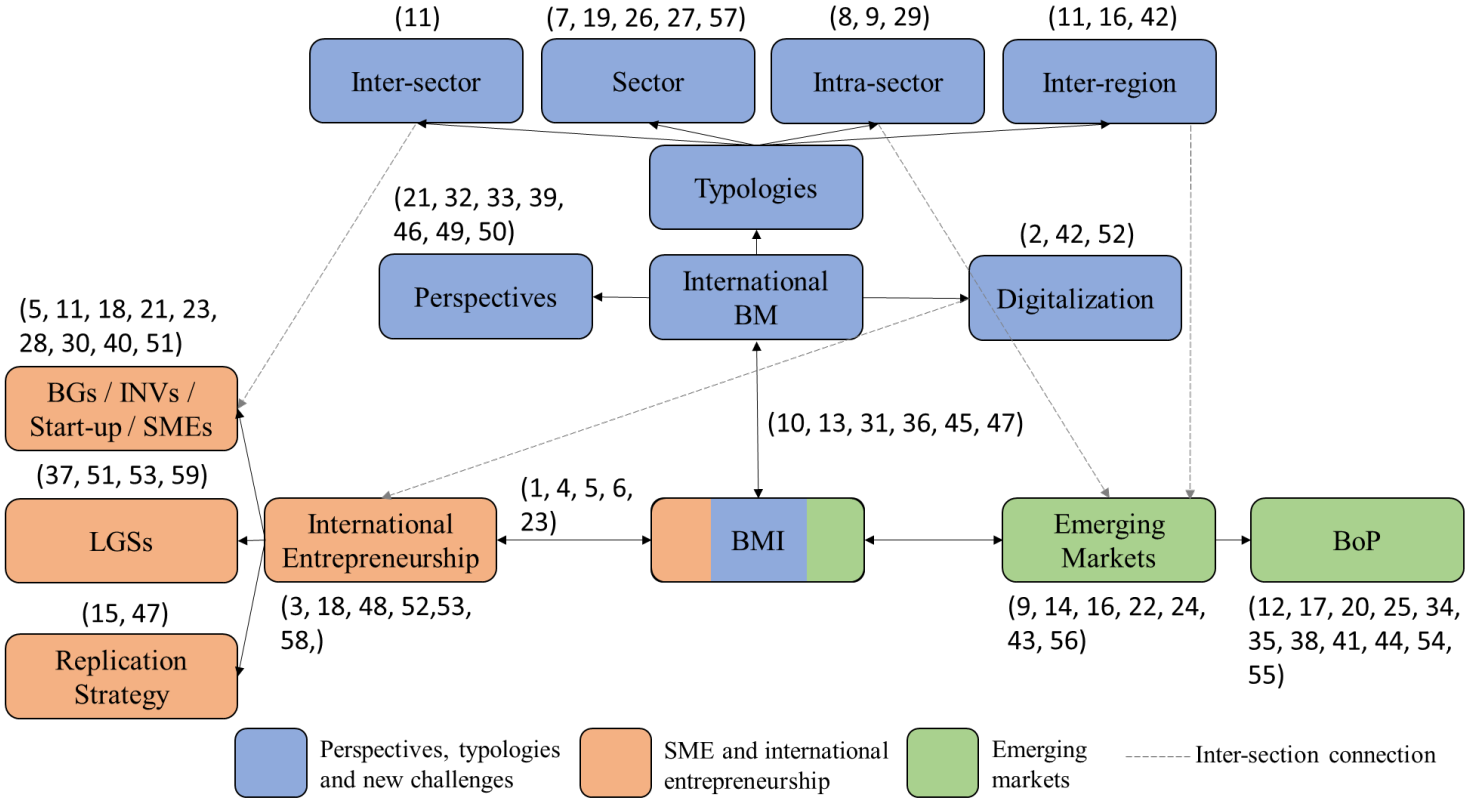
SECTION	UNIT OF ANALYSIS	LINKS	FIGURE	TABLE	OBJECTIVE
2.3.1.	Years	-	Figure 2.2	-	To show the number of publications per year and the main journals.
	Journals	-	-	Table 2. 4	
2.3.2.	Authors	Co-authorship	Figure 2.3	Table 2.5	To show the main authors, universities and countries and the networks of collaboration.
	Organizations	Co-authorship	-	Table 2.6	
	Countries	Co-authorship	Figure 2.4	Table 2.7	
2.3.3.	Documents	Citation	Figure 2.5	Table 2. 8	To show the main publications and the seminal works.
	Cited references	Co-citation	-	Table 2.9	
2.3.4.	Author keywords	Co-occurrence	Figure 2.6	Table 2.10	To show the keyword co-occurrence and the main literature research fields.
	Author keywords	Co-occurrence	Figure 2.7	Table 2.11	

Source: own elaboration

2.2.2 Literature review methodology

The literature review is organized according to three general themes identified through a systemic process of interpretive synthesis (Jones et al., 2011). In line with the methodology used in qualitative analysis (Van Maanen, 1998), we have applied comparative techniques to identify thematic similarities between the works. Figure 2.1. shows the three thematic sections of the literature review, the different topics covered and the works associated with these topics.

Figure 2.1 Thematic map



Source: own elaboration

2.3 BIBLIOMETRIC ANALYSIS

This section shows the current situation of the literature through tables and maps made with *WoS* and VOSviewer and complemented with other bibliometric data. The section is divided into four points. Firstly, we present the evolution in the number of publications of the last decade and the main journals interested in this literature. Secondly, we show the main authors, organizations and countries that publish in this literature and the collaborative relationships that exist between them. Third, we talk about the main works and how they are related through citation links, and what are the references most used by these works. Finally, we focus on the main keywords and how they are related, and on the main topics that are covered.

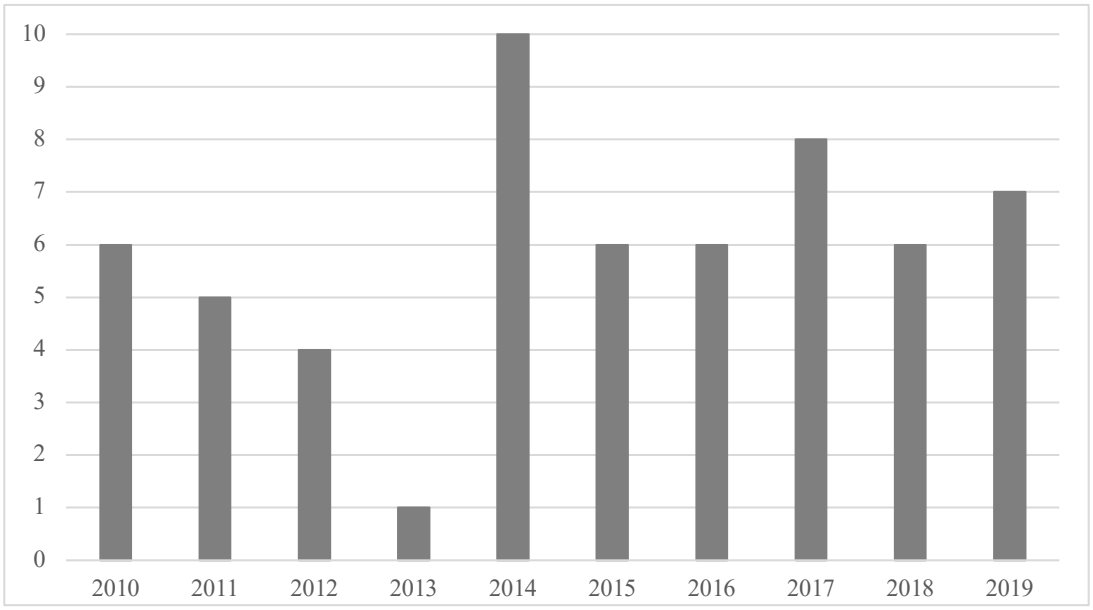
2.3.1 Year and journal

Our analysis found that during the last decade 59 works on IB that refer to the business model have been published within the *WoS Core Collection*. This data represents an annual average of 5,9 publications. This level of annual publications is slightly higher in the last 5 years (period from 2015 to 2019) where between 6 and 8 papers have been published annually. For its part, in the previous five-year period (period from 2010 to 2014) the rate of publications was much more unstable, with a decreasing trend between 2010 and 2013 and a peak in 2014, the year in which the largest number of papers were published, reaching 10 publications (see Figure 2.2.).

Of the 59 publications, 7 are book chapters, while the rest are published in 36 different journals. Of these articles, 86.54% (31 journals) are in the Scopus database and 55.78% (29 journals) are published in journals indexed in Journal Citation Report (JCR), 22 of which are published in journals indexed in the first and second quartile. The journals

with the highest number of published articles are *Journal of International Entrepreneurship* and *Long Range Planning*, as shown in Table 2.4.

Figure 2.2 Annual number of publications



Source: Web of Science and own elaboration

Table 2.4 Journals ranked by total publications

R	JOURNAL	P	IF	5Y-IF	Q	SJR
	Book Chapter	7	-	-	-	-
1	*Journal of International Entrepreneurship*	5	-	-	-	0.566
2	*Long Range Planning*	4	3.363	5.404	Q2	2.036
3	*Journal of Small Business and Enterprise Development*	3	-	-	-	0.504
4	*Technology Innovation Management Review*	3	-	-	-	-
5	*Journal of World Business*	2	5.789	6.078	Q1	2.672
6	*International Business Review*	2	3.639	4.03	Q2	1.373
7	*International Marketing Review*	2	3.447	3.833	Q2	1.397
8	*International Journal of Innovation Management*	2	-	-	-	0.389
9	*Journal of Management & Governance*	2	-	-	-	0.449
10	*Organization & Environment*	1	8,5	8.551	Q1	2.605
11	*Journal of International Business Studies*	1	7,724	9.713	Q1	5.548
12	*Entrepreneurship Theory and Practice*	1	6,193	9.547	Q1	5.073
13	*Journal of Management Studies*	1	5,839	7.924	Q1	3.141
14	*Technovation*	1	5,25	5.622	Q1	2.300
15	*Journal of Business Research*	1	4,028	4.747	Q1	1.684
16	*Marketing Theory*	1	3,577	4.159	Q2	1.522
17	*Strategic Entrepreneurship Journal*	1	2,956	5.41	Q2	2.817
18	*Global Strategy Journal*	1	2,73	3.886	Q2	2.176
19	*Management International Review*	1	2,689	3.164	Q2	1.564
20	*Journal of Manufacturing Technology Management*	1	2,642	-	Q2	0.954
21	*R&D Management*	1	2,354	3.004	Q2	1.163
22	*IEEE Transactions on Engineering Management*	1	1,867	2.268	Q3	0.833
23	*European Management Review*	1	1,6	2.588	Q3	0.676
24	*Baltic Journal of Management*	1	1,469	1.58	Q3	0.481
25	*Multinational Business Review*	1	1,436	-	Q4	0.999
26	*Service Industries Journal*	1	1,149	1.7	Q4	0.563
27	*Emerging Markets Finance and Trade*	1	0,934	0.891	Q4	0.417
28	*Advances in Strategic Management-A Research Annual*	1	0,745	1.436	Q4	1.297
29	*Entrepreneurship Creativity and Innovative Business Models*	1	-	-	-	-
30	*International Journal of Innovation*	1	-	-	-	-
31	*Journal of Asia Business Studies*	1	-	-	-	0.468
32	*Journal of Enterprising Culture*	1	-	-	-	-
33	*Journal of Strategic Marketing*	1	-	-	-	0.832
34	*Journal of Strategy and Management*	1	-	-	-	0.406
35	*Management Research the Journal of the Iberoamerican Academy of Management*	1	-	-	-	-
36	*Social Responsibility Journal*	1	-	-	-	0.432

*Ranking according to number of publications, IF and alphabetical order, in that hierarchical order. Abbreviations: R = Rank; P = Number of publications; IF = Impact factor of the Journal Citation Reports 2018; 5Y-IF = 5-year impact factor of the Journal Citation Reports 2018; Q = Quartile in Business and Management categories of the Journal Citation Reports 2018; SJR = SCImago Journal Rank 2018.

Source: Web of science, Scopus database and own elaboration

2.3.2 Leading authors, universities and countries

Of the 151 authors that make up the sample, the most productive are Sami Saarenketo, from *Lappeenranta University of Technology*, with 4 publications and Stoyan Tanev, from *Carleton University* with 3 publications which have generate 17 and 30 citations, respectively. Table 2.5. shows a ranking of the authors who present more than one work. From this list, the authors with the highest H-index are Sami Saarenketo and Xiaobo Wu, with an index of 18 and 17, respectively. Furthermore, Sami Sarrenketo is also the author with the highest number of co-authorship relationships with 8 links with other authors in the list and 12 links with all authors.

Of the 15 authors with more than one work, 12 show co-authorship relationships with other authors on the list, in fact, we detected 3 clusters of authors co-authorship (see Figure 2.3.). The first cluster (red one) it joins Sami Saarenketo, Taina Eriksson, Niina Nummela, Liisa-Maija Sainio and Lasse Torkkeli. The publications resulting from these relationships have in common the study of different aspects related to international entrepreneurial orientation. Furthermore, all the authors are currently affiliated with Finnish universities. The second cluster (green one) shows the relationship between Marian V. Jones, Patricia P. McDougall-Covin, Alberto Onetti and Antonella Zucchella. These authors sign an article and an editorial in the same issue of *Journal of Management & Governance* and show, among the authors with more than one work, the most successful co-authorship relationship in terms of citations, with a total of 111. Both conceptual works deal with the union of three concepts: BM, internationalization and innovation. Finally, cluster 3 (blue one) groups Stoyan Tanev, Erik Stavnsager Rasmussen and Erik Zijdemans. The three works of these authors analyze the Lean global startup (LGS).

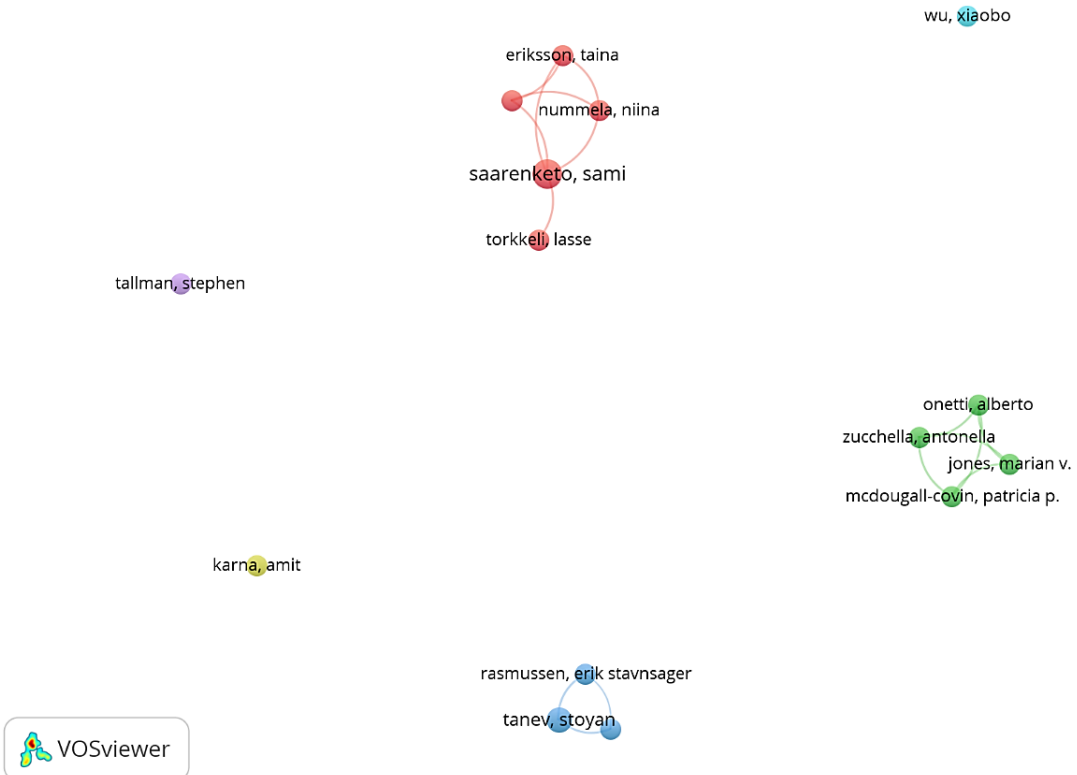
Table 2.5 Most productive authors and collaboration networks

R	AUTHOR NAME	ORGANIZATION	COUNTRY	P	C	H	LL	TL	G
1	Saarenketo, S.	Lappeenranta University of Technology	Finland	4	17	18	8	12	1
2	Tanev, S.	Carleton University	Canada	3	30	11	4	6	3
3	Eriksson, T.	University of Turku	Findland	2	17	6	6	6	1
4	Jones, M.	University of Sheffield	England	2	111	13	6	6	2
5	McDougall-Covin, P.	Indiana University System	USA	2	111	7	6	6	2
6	Nummela, N.	University of Turku	Finland	2	17	13	6	6	1
7	Onetti, A.	University of Insubria	Italy	2	111	4	6	6	2
8	Sainio, L.	Lappeenranta University of Technology	Finland	2	17	8	6	6	1
9	Zucchella, A.	University of Pavia	Italy	2	111	13	6	6	2
10	Rasmussen, E.	Amgen	USA	2	22	11	3	5	3
11	Zijdemans, E.	University of Southern Denmark	Denmark	2	19	2	3	5	3
12	Torkkeli, L.	Lappeenranta University of Technology	Finland	2	0	0	2	6	1
13	Karna, A.	Indian Institute of Management Ahmedabad	India	2	11	6	0	4	-
14	Tallman, S.	University of Richmond	USA	2	10	1	0	2	-
15	Wu, X.	Inner Mongolia University of Finance & Economics	China	2	39	17	0	4	-

*Ranking according to number of publications, co-authorship links and alphabetical order, in that hierarchical order. Abbreviations: R = Rank; P = Publications; C = Citations; H = WoS Author H-index; LL = Total link strength with authors from the list TL = Total link strength with the 151 authors; G = Co-authorship group or cluster.

Source: Web of Science and own elaboration

Figure 2.3 Author co-authorship



Source: Web of Science, VOSviewer and own elaboration

Regarding the 96 organizations from which the works come, Table 2.6. shows a ranking of the 16 universities with more than one affiliated work.

The University of Southern Denmark, in Denmark, with 5 works and the University of Navarra, in Spain, with 4 works are the organizations with the most published works, followed by the University of Pavia (Italy) and the Lappeenranta University of Technology (Finland) with three publications each. Of this list of 16 organizations, the University of Manchester (33), Aarhus University (60) and Zhejiang University (70) are the highest universities in the Shanghai ranking, and the University of Navarra and the China Europe International Business School (China) are the organizations with the highest number of citations with 423 and 330, respectively. It is also the latter Chinese university that has the highest number of links, 10 specifically, and it is the University of Pavia that has the most connections with other universities on the list (7). 11 universities are related by co-authoring papers and grouped into 4 clusters. The first cluster unites Lamppe University, the University of Manchester, the University of Turku and the University of Lut. The second cluster groups Indiana University, the University of Glasgow and the University of Insuria. The third cluster relates the two universities with the highest number of citations, the University of Navarra and the Chinese University. Finally, the third cluster joins the University of Pavia with the University of Tilburg. Cluster 2 and 4 are related through the University of Pavia, therefore, this Italian university has links both with the University of Tilburg (Cluester 4), and with the universities in cluster 2.

Table 2.7. shows the ranking of all countries with associated publications. We can see that there are 31 countries, of which the United States, Denmark and Finland are on the podium with 9 publications each. Spain, China and the United States are the

countries with the highest number of citations, 425, 380 and 378, respectively. In addition, 24 of the 31 countries share authorship with another country and these co-authorship relationships are grouped into 7 clusters 6 of which are connected to each other (see Figure 2.4.). The only cluster that is not connected is the one formed by Germany and India.

Table 2.6 Most productive organizations and collaboration networks

R	ORGANIZATION	COUNTRY	P	C	ARWU	LL	TL	G
1	University of Southern Denmark	Denmark	5	37	301-400	0	3	-
2	University of Navarra	Spain	4	423	701-800	1	6	3
3	University of Pavia	Italy	3	197	301-400	7	8	4
4	Lappeenranta University of Thecnology	Finland	3	85	901-1000	3	3	1
5	China Europe International Business School	China	2	330	-	1	10	3
6	Indiana University	USA	2	111	101-150	6	6	2
7	University of Glasgow	Scotland	2	111	151-200	6	6	2
8	University of Insubria	Italy	2	111	901-1000	6	6	2
9	Tilburg University	Netherlands	2	109	501-600	1	3	4
10	University of Richmond	USA	2	10	-	0	3	-
11	University of Manchester	England	2	68	33	2	2	1
12	University of Turku	Finland	2	17	301-400	2	2	1
13	Zhejiang University	China	2	39	70	0	2	-
14	Lut University	Finland	2	0	-	1	1	1
15	Aalto University	Finland	2	112	301-400	0	1	-
16	Aarhus University	Denmark	2	15	60	0	0	-

*Ranking according to number of publications, co-authorship links and alphabetical order, in that hierarchical order. Abbreviations: R = Rank; P = Publications; C = Citations; ARWU = 2019 Academic Ranking of World Universities (http://www.shanghairanking.com/); LL = Total link strength with organizations from the list TL = Total link strength with the 96 organizations; G = Co-authorship group or cluster.

Source: Web of Science, Shanghai Ranking and own elaboration

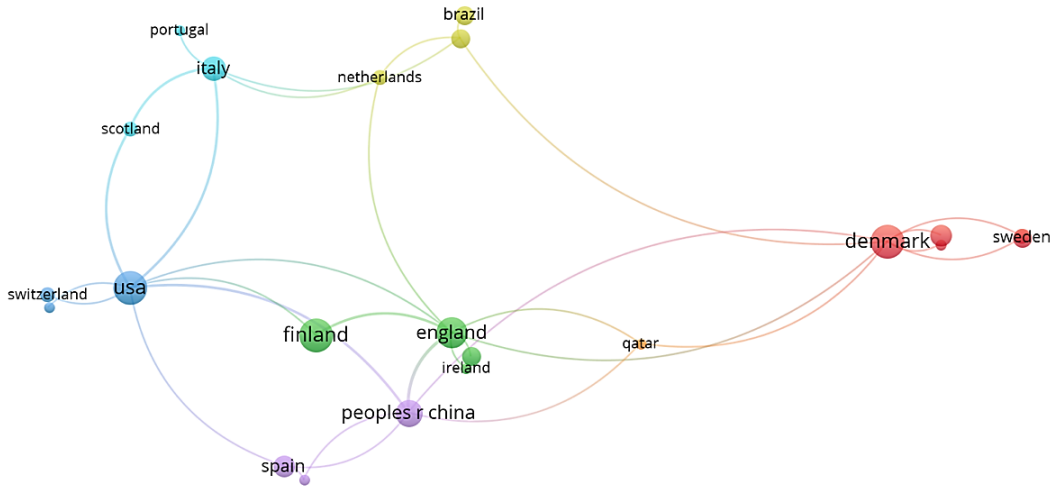
Table 2.7 Most productive countries and collaboration networks

R	Country	P	C	TL	G	R	Country	P	C	TL	G
1	USA	9	378	11	4	17	India	2	12	1	7
2	Denmark	9	76	8	1	18	Switzerland	2	227	1	4
3	Finland	9	210	3	2	19	Quatar	1	23	3	3
4	England	8	168	11	2	20	Mexico	1	310	2	3
5	China	6	380	9	3	21	Argentina	1	14	1	4
6	Italy	5	213	7	6	22	Ireland	1	2	1	2
7	Spain	4	425	3	3	23	Liechtenstein	1	5	1	1
8	Norway	4	14	1	1	24	Portugal	1	14	1	6
9	Canada	3	97	4	5	25	Belgium	1	4	0	-
10	Sweden	3	5	2	1	26	Colombia	1	4	0	-
11	Brazil	3	16	1	5	27	Estonia	1	1	0	-
12	France	3	31	1	2	28	Iran	1	3	0	-
13	Scotland	2	111	4	6	29	New Zealand	1	8	0	-
14	Netherlands	2	109	3	5	30	Poland	1	3	0	-
15	Australia	2	44	2	1	31	Taiwan	1	0	0	-
16	Germany	2	14	1	7						

*Ranking according to number of publications, co-authorship links and alphabetical order, in that hierarchical order. Abbreviations: R = Rank; P = Publications; C = Citations; TL = Total link strength; G = Co-authorship group or cluster.

Source: Web of Science and own elaboration

Figure 2.4 Countries co-authorship networks



Source: Web of Science, VOSviewer and own elaboration

2.3.3 References Analysis

To begin, Table 2.8. shows the top 10 of the most cited works within our sample. The articles of Sosna, Trevinyo-Rodríguez and Velamuri (2010); Dahan et al. (2010), and Halme, Lindeman and Linna (2012) are the publications with the highest number of WoS citations, with 310, 215 and 111 citations, respectively. In addition, these three papers are also the ones that show the most citations per year. It is interesting to note that 3 of these 10 publications belong to the same special issue of *Long Range Planning*, including the two most cited works. This data shows the great impact of this special issue for the study of the business models. On the other hand, of the 59 works that make up the sample, 39 are connected to each other through the citation structure, 37 of which are on the largest set (see Figure 2.5.).

Only the cluster consisting of Tallman (2014) and Tallman et al. (2018) is not connected to those 37 works. In addition, the analysis groups the connected works into 8 clusters and finds 72 links. The first cluster (red one) groups the publications whose first author and year are Dahan (2010), Halme (2012), Makela (2011), Peerally (2019), Reficco (2016), Sinkovics (2014) and Winterhalter (2017). The second cluster (green one) is made up of Azari (2017), Gray (2014), Kraus (2017), Onetti (2012a), Onetti (2012b) and Rask (2014). The third cluster (blue one) brings together Ahokangas (2014), Autio (2017), Casadesus-Masanell (2010), Mattsson (2019), Sohl (2017) and Sosna (2010). The fourth cluster (yellow one) is made up of Hennart (2014), McQquillan (2015), Sanchez (2010) and Vadana (2019). The fifth cluster (lile one) integrates Asemokha (2019), Child (2017), Landau (2016) and Sainio (2011b). The sixth cluster (turquoise one) refers to Abrahamsson (2019), Cao (2018), Dunford (2010) and Guercini (2017). The seventh cluster (orange one) defines Rasmussen

(2015), Tanev (2015) and Zijdemans (2014). The last Cluster (brown one) is made up of Fleury (2014) and Wu (2019).

Another interesting issue is to analyses the most cited documents by or 59 publications. The analyzed works have a total of 2875 references, of which 12 references appear in at least 15 works. Table 2.9. shows these 12 most influential documents. At the top of the list are three of the major seminal papers on business models. In the first position, with 25 citations, is David J. Teece's work published in *Long Range Planning* in 2010, which is the main work that defines the business model through the value-based perspective. In second position, with 21 citations, is the work of Raphael Amit and Christoph Zott published in *Strategic Management Journal* in 2001, which defines the value creation through an activity-system perspective. In the third position, with the same number of citations (21), is the work of Zott and Amit published in the same journal in 2008, which establishes the connections between the business model and the product market strategy. In addition to these three papers, other seminal publications on business models appear in the list. Of these publications we want to highlight the article by Alberto Onetti and his colleagues from 2012, since it is a work that is part of our sample and, therefore, it is, of the 59 works, the most cited by these works. On the other hand, we also found two works that do not deal with business models. This is the work of Kathleen M. Eisenhardt, published in *Academy of management Review* in 1989, which deals with the Agency Theory, and the work of Benjamin M. Oviatt and Patricia P. McDougall published in *Journal of International Business Studies* in 1994, which established the theory about the International new ventures (INVs).

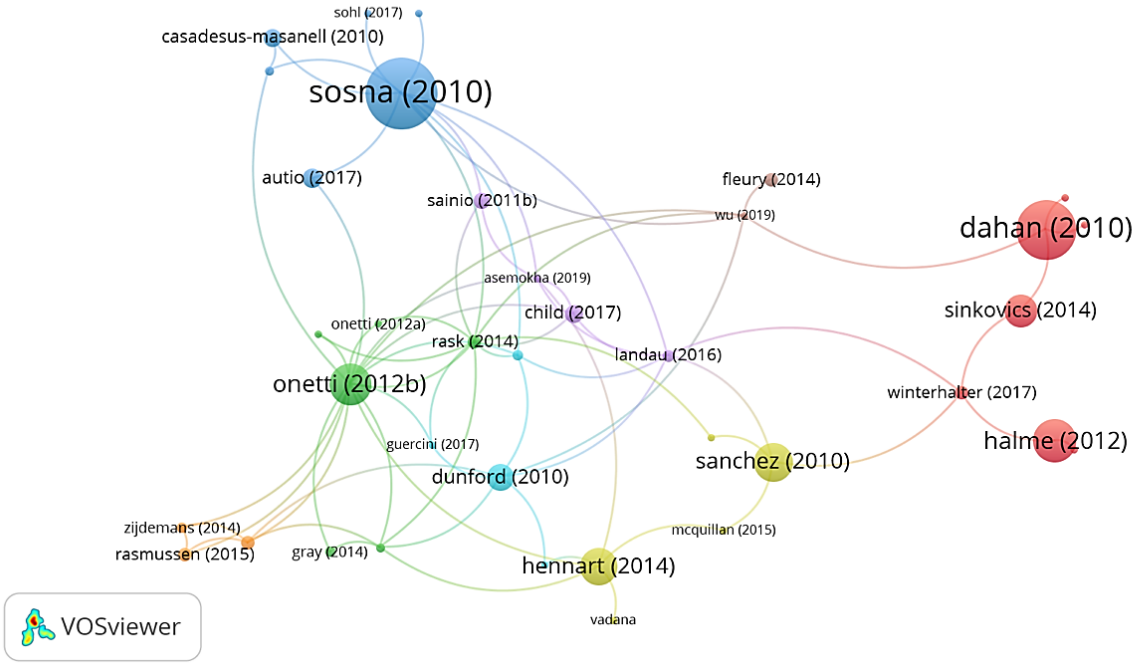
Table 2.8 The 10 most cited studies

R	STUDY	YEAR	TC	C/Y
1	Sosna, M., Trevinyo-Rodríguez, R. N., and Velamuri, S. R. *Long range planning*, *43*(2-3), 383-407	2010	310	28,18
2	Dahan, N. M., Doh, J. P., Oetzel, J., and Yaziji, M. *Long range planning*, *43*(2-3), 326-342	2010	215	19,55
3	Halme, M., Lindeman, S., and Linna, P. *Journal of Management Studies*, *49*(4), 743-784.	2012	111	12,33
4	Onetti, A., Zucchella, A., Jones, M. V., and McDougall-Covin, P. P. *Journal of Management & Governance*, *16*(3), 337-368	2012	107	11,89
5	Sanchez, P., and Ricart, J. E. *European management review*, *7*(3), 138-154	2010	92	8,36
6	Hennart, J. F. *Entrepreneurship Theory and Practice*, *38*(1), 117-135.	2014	86	12,29
7	Sinkovics, N., Sinkovics, R. R., and Yamin, M. *International Business Review*, *23*(4), 692-707.	2014	68	9,71
8	Dunford, R., Palmer, I., and Benveniste, J. *Long Range Planning*, *43*(5-6), 655-674.	2010	43	3,91
9	Wu, X., Ma, R., and Shi, Y. *IEEE Transactions on Engineering Management*, *57*(1), 51-62.	2010	37	3,36
10	Autio, E. *Strategic Entrepreneurship Journal*, *11*(3), 211-227.	2017	25	6,25

*Ranking according to total citations. Abbreviations: R = Rank; TC = Total citations; C/Y = Citations per year.

Source: own elaboration

Figure 2.5 Citation network



Source: Web of Science, VOSviewer and own elaboration

Table 2.9 Most influential studies

R	STUDY	YEAR	C	TL	T
1	Teece, D. J. *Long range planning*, *43*(2-3), 172-194.	2010	25	102	BM
2	Amit, R., and Zott, C. *Strategic management journal*, *22*(6-7), 493-520.	2001	21	104	BM
3	Zott, C., and Amit, R. *Strategic management journal*, *29*(1), 1-26.	2008	21	104	BM
4	Zott, C., and Amit, R. *Organization science*, *18*(2), 181-199.	2007	20	94	BM
5	Chesbrough, H., and Rosenbloom, R. S. *Industrial and corporate change*, *11*(3), 529-555.	2002	20	87	BM
6	Osterwalder, A., Pigneur, Y., and Tucci, C. L. *Communications of the association for Information Systems*, *16*(1), 1.	2005	18	85	BM
7	Magretta, J. *Harvard Deusto business review*, (110), 28-35.	2002	18	80	BM
8	Zott, C., and Amit, R. *Long range planning*, *43*(2-3), 216-226.	2010	17	99	BM
9	Zott, C., Amit, R., and Massa, L. *Journal of management*, *37*(4), 1019-1042.	2011	17	84	BM
10	Eisenhardt, K. M. *Academy of management review*, *14*(1), 57-74.	1989	16	82	AT
11	Oviatt, B. M., and McDougall, P. P. *Journal of international business studies*, *25*(1), 45-64.	1994	16	70	INV
12	Onetti, A., Zucchella, A., Jones, M. V., and McDougall-Covin, P. P. *Journal of Management & Governance*, *16*(3), 337-368	2012	16	61	BM

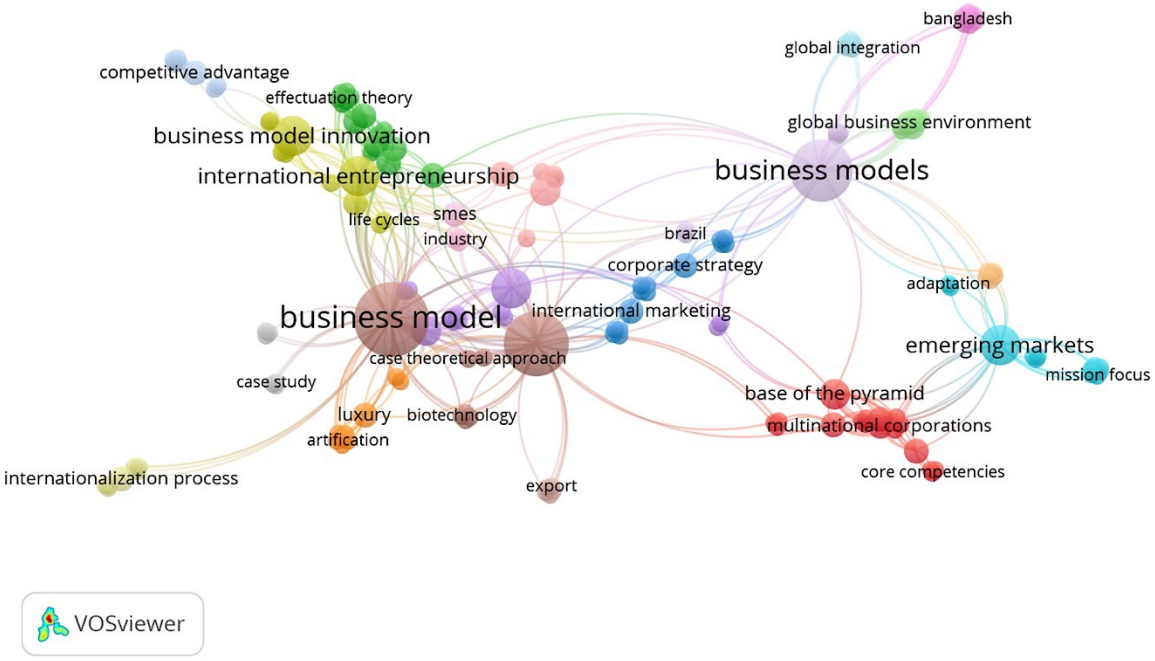
*Ranking according to number of citations. Abbreviations: R = Rank; C = Co-citations; TL = Total link strength; T = Theme; BM = Business model; AT = Agency theory; INV = International new venture.

Source: own elaboration

2.3.4 Keyword Analysis

During these ten years, the published works are tagged with a multitude of different keywords. In the following analysis, we show how keywords are connected through co-occurrence relationships, that is, which ones appear together in the same work. In the selected publications we found a total of 188 different author keywords, 167 of which are connected in the largest set. Figure 2.6. shows the graphical representation of this set through the VOSviewer mapping. The map shows 20 clusters and 190 co-occurrence links. The main keywords, represented by a larger label are "Business model", "Internationalization" and "Business models", with a co-occurrence of 17, 13 and 12, respectively. Within this set there are 20 clusters or groups of keywords, 572 links and 599 total link strength.

Figure 2.6 Co-occurrence of author keywords



Source: Web of Science, VOSviewer and own elaboration

As Table 2.10. shows, there are 30 keywords that appear in at least 2 works. But this table also shows the co-occurrence of the keywords in two different 5-year periods (from 2015 to 2019 and from 2010 to 2014). In the period of 2015-2019, with respect to the previous period, new keywords appear. Of these new authors keywords, we highlight those that refer to specific types of firms (“Born global firm”, “International new venture” and “SMEs”), the use of the plural of business model and the keyword "Business model innovation" as a new category of innovation, to the detriment of "Innovation", the which is much more generic.

In order to improve the visualization of co-occurrence relationships and identify the main research topics. We repeated the analysis, but this time showing all the keywords, connected or not, but eliminating the three main keywords (“Business model”, “Internationalization” and “Business models”) and highlighting those clusters that group at least 10 items. As seen in Figure 2.7., 5 clusters are connected to each other.

3 of them (lilac, yellow and red) connected through the keyword "Innovation" and 2 of them appear connected to another cluster as an extension of it (green with yellow and turquoise with red). Finally, we find a cluster (blue) that is not connected to the previous ones. Most of the rest of small clusters or groups of keywords refer to different perspectives, geographical areas or industrial sectors.

The 5 clusters have been renamed based on the keywords they group together (see Table 2.11.). Clusters 1 (red) and 6 (turquoise) refer to two topics, specifically to the BOP literature and more generically to emerging markets, respectively. The main keywords of cluster 5 (purple) are about the innovation and improvement of business models. In cluster 4 (yellow) some keywords also include the term "Innovation", but most of them refer to international entrepreneurship. Along the same line, cluster 2 (green) collects terms on the global Born (BG). Finally, cluster 3 (Blue) is disconnected from the rest and many of its keywords speak about digitization and digital marketing. Therefore, we have identified these 6 research topics through this analysis. These topics are reorganized and completed through the systematic literature review methodology.

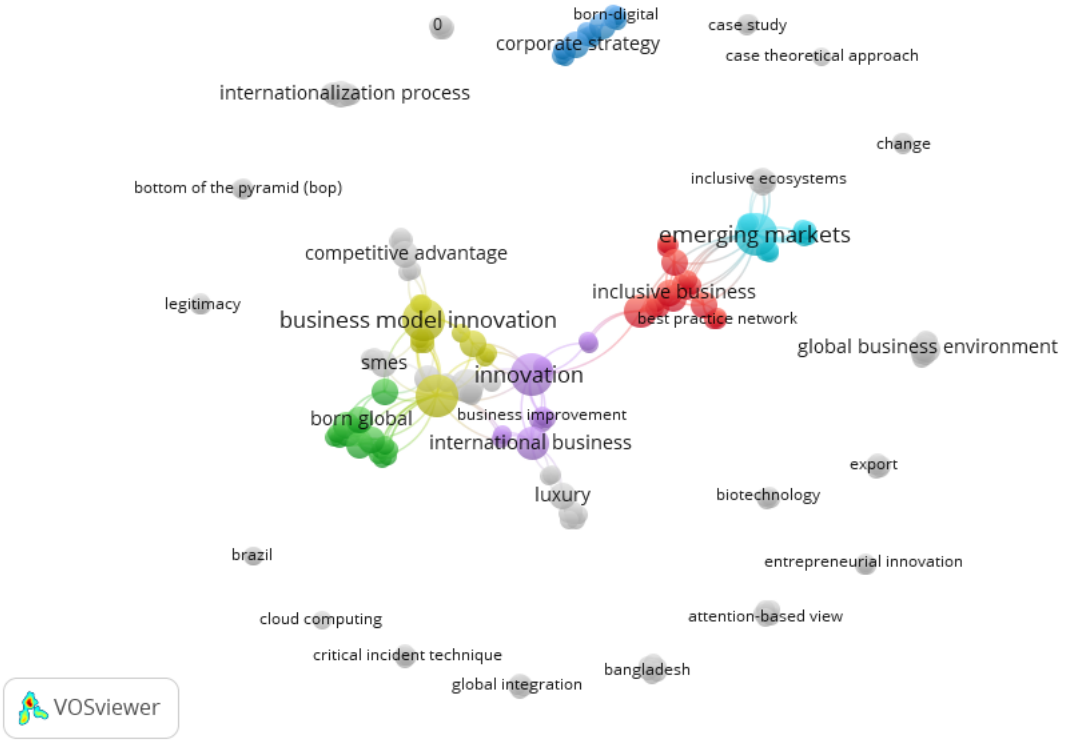
Table 2.10 Top author keywords

	GLOBAL			2015-2019			
R	Keyword	Oc	TL	R	Keyword	Oc	TL
1	Business model	17	74	1	Business model	8	38
2	Internationalization	13	53	2	Business models	7	33
3	Business models	12	53	3	Internationalization	7	31
4	International entrepreneurship	5	28	4	Emerging markets	5	27
5	Emerging markets	5	27	5	Business model innovation	4	12
6	Innovation	5	22	6	Born global firm	2	14
7	Business model innovation	5	17	7	International entrepreneurship	2	13
8	Base of the pyramid	3	18	8	Luxury	2	12
9	International business	3	15	9	Strategy	2	12
10	Entrepreneurship	3	10	10	International new venture	2	10
11	Born global firm	2	14	11	SMEs	2	10
12	Inclusive business	2	14	12	International performance	2	9
13	Multinational corporations	2	14	13	Entrepreneurial orientation	2	8
14	Small and medium enterprises	2	13	14	Internationalization process	2	7
15	Early internationalization	2	12	15	Entrepreneurship	2	6
16	Luxury	2	12				
17	Strategy	2	12		2010-2014		
18	Corporate strategy	2	11	R	Keyword	Oc	TL
19	International marketing	2	11	1	Business model	9	36
20	Innovation management	2	10	2	Internationalization	6	2
21	International new venture	2	10	3	Innovation	5	22
22	SMEs	2	10	4	Business models	5	20
23	Global business environment	2	9	5	International entrepreneurship	3	15
24	International performance	2	9	6	International business	2	10
25	Value proposition	2	9	7	Base of the pyramid	2	9
26	Born global	2	8				
27	Entrepreneurial orientation	2	8				
28	Competitive advantage	2	7				
29	International new ventures	2	7				
30	Internationalization process	2	7				

*Ranking according to occurrence, co-occurrence links and alphabetical order, in that hierarchical order. Abbreviations: R = Rank; Oc = Occurrence; TL = Total link strength.

Source: Web of Science and own elaboration

Figure 2.7 Main thematic clusters



Source: Web of Science, VOSviewer and own elaboration

Table 2.11 Main research themes according to the author keywords co-occurrence

G	RESEARCH THEME/TOPIC	3 MAIN KEYWORDS	K
1	Base of the pyramid	Base of the pyramid, Inclusive business, multinationals corporations	18
2	Born global	Born global, Early internationalization, Innovation management	16
3	Digitalization	Corporate strategy, International marketing, Born-digital	14
4	International entrepreneurship	Business model innovation, International entrepreneurship, International new ventures	12
5	Innovation	Innovation, International Business, Business improvement	12
6	Emerging markets	Emerging markets, Adaptation, China	11

*3 Main keywords selected and ranking according to occurrence and alphabetical order, in that hierarchical order.
Abbreviations: G = Co-occurrence group or cluster; K = Number of keywords in this cluster.

Source: Web of Science and own elaboration

2.4 LITERATURE REVIEW

Below, we show the main results obtained from the review of the 59 selected works. This review is structured in a section that shows some general aspects of the sample and three sections that delve into the different research fields. The second section includes those works that define perspectives to analyse international business models, those that use the business model as a classification tool and those that raise issues such as digitization or value social, which are marked the adaptation of the business models to current needs. On the other hand, the remaining two sections refer to the two main topics analysed by this literature: the early and rapid internationalization, and the BMs adaptation to the context of emerging markets.

2.4.1 Distribution of publications: Type of works and general approaches

Figure 2.8. shows how the works are distributed according to whether they are conceptual or the size of the companies that makes up their sample, and the general business model perspective they take.

As can be seen, 32.20% of the publications are conceptual. Of the empirical works, 33.9% were specifically samples or cases of large companies, compared to 19.64% studying SMEs. It is important to point out that many of the conceptual works refer to aspects related to small companies.

Taking into account the different perspectives of business model, we can see that the majority of works are integrated into the two main ones. On the one hand, 16 publications focus on value, taking a value-based perspective. Some of the main references that define this perspective are Richardson (2005) or Teece (2010). On the other hand, a large number of works, 20 specially, analyse or define the BM as a system of activities. This perspective also integrates works focused on the value chain. Some

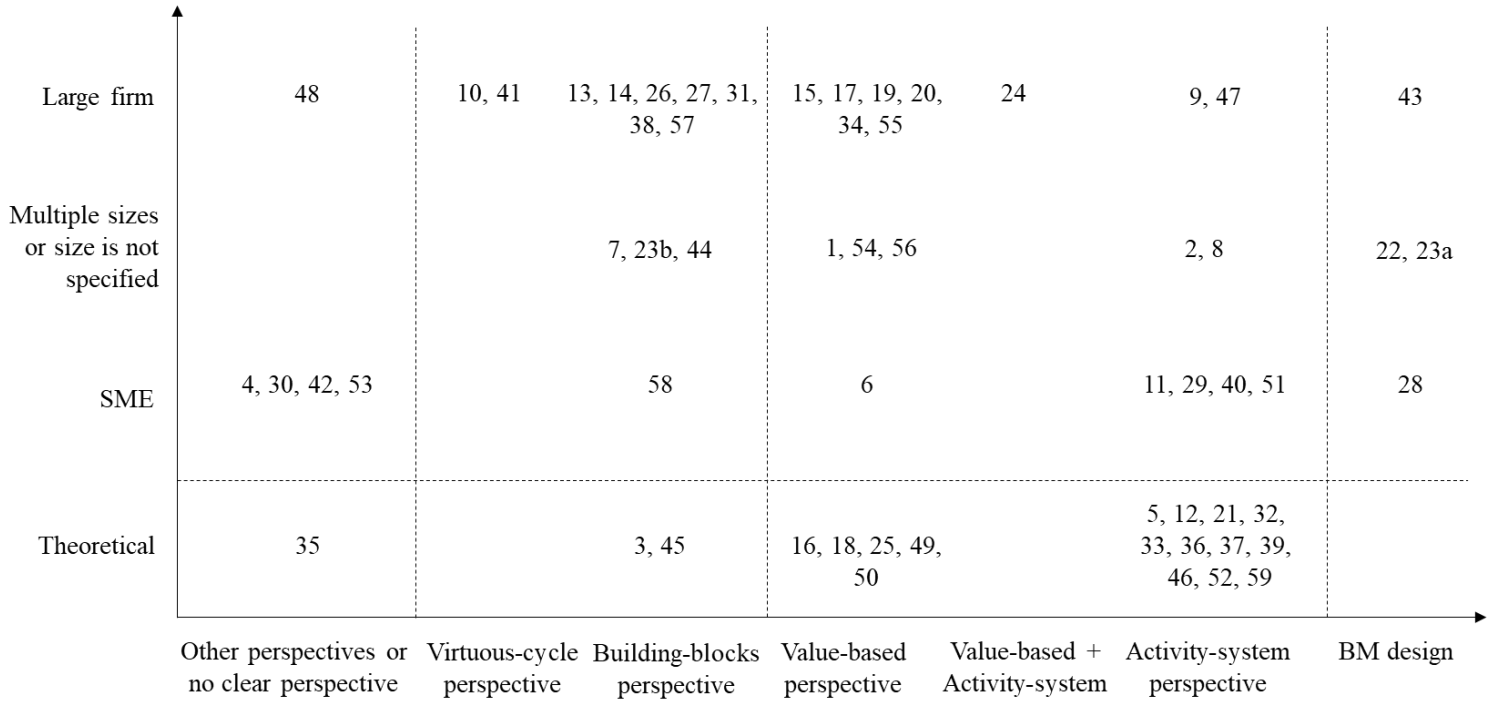
works that we have considered as defining this trend are Amit and Zott (2001), Mitchell and Coles (2003) (2004a,b), Zott and Amitt (2010) or Onetti et al. (2012b). Within the activity-system perspective we found a branch, in our case 4 works, that refers to business model design (Amit and Zott, 2012; Zott and Amit, 2008, 2010).

We found 13 works that define the business model through a series of constructs or blocks. Some works that define these blocks are Chesbrough and Rosenbloom (2002), Morris et al. (2004), Osterwalder (2004), Osterwalder, Pigneur and Tucci (2005) or Osterwalder and Pigneur (2010).

These models are widely used as tools, since the blocks allow to operate, with relative ease, the study of the business model. We also find 2 works under a perspective that we have baptized as a Virtuous-cycle perspective. These works take as reference publications like Casadesus-Masanell and Ricart (2007) and define the business model as a series of "elections" and "consequences".

Finally, there are a number of works that either use other perspectives or take different definitions of different perspectives, making it difficult to catalog them in a specific perspective.

Figure 2.8 Sample distribution by perspective



*23a and 23b are two studies from the same publication.

Source: own elaboration

2.4.2 International business models: Perspectives, typologies and new management challenges

In our literature review, we found a series of conceptual works that define a perspective for studying international BMs and are the basis for future research in this field. Onetti, Zucchella, Jones and McDougall-Covin (2012, a, b) point out the need to introduce geography in the business model conceptualization. Consequently, Onetti et al. (2012b, p.360) define business model as "the way a company structures its own activities in determining the focus, locus and modus of its business". In this business model definition "locus" is the location or locations of activities and these locations may be international. Otherwise, Sainio, Saarenketo, Nummela and Eriksson (2011a) analyse the business model from the value chain perspective, and Tallman (2014) and Tallman et al. (2018) propose the theoretical and conceptual bases for the study of global business models. Apart from these works, we found others that answer some of the main questions about IB through the business model. Some of these questions are: the rapid and early internationalization (Hennart, 2014) or the failure of some mergers and acquisitions (Sohl and Vroom, 2017).

Currently, managers must anticipate changes in the environment by successfully imaging, designing and implementing new business models (Casadesus-Masanell and Ricart, 2010). According to Casadesus-Mananell and Ricart (2010) each firm follows its own routes of innovation and internationalization to generate competitive advantages. In this line, Dalby, Lueg, Nielsen, Pedersen and Tomoni (2014) dismiss the need to make adjustments in the business model due to the cultural differences that exist between regions. Furthermore, Sleuwaegen (2013) proposes a new way of measuring the attractiveness of a new market based on its good fit with the elements

of the firm's business model. In similar markets, the firms may exploit their business models, but in markets with characteristics different from the domestic market, the firms will need to carry out trial-and-error tests in order to learn new ways of doing business (Sosna et al., 2010). But despite the vision that the literature on business model change shows about the naturalness of learning and change, changes are not simple. In fact, we find a work that analyses subsidiaries and how they integrate external knowledge in the business model (Monteiro, 2015), which shows how decision-makers are reluctant to incorporate technology that does not have a perfect fit with the business model settled down. On the other hand, Rask (2014) proposes internationalization through BMI presenting four business models, associated with four innovation strategies and the entry modes they have linked, depending on the global or domestic focus of production and markets. He proposes a domestic-based business model based on standardization, an import-based business model focused on specialization, an export-based business model intensive in adaptation and a semi-global business model oriented to coordination.

As we can see in the case of Rask (2014), business model can be approached as a tool for the typology or taxonomy (Baden-Fuller and Morgan, 2010). In fact, in our literature review we found works that define typologies or patterns of international business models. These works study the differences between different samples, inter-sector, intra-sector or inter-regional.

The industrial sector seems to be the main predictor of business model (Child et al., 2017). In fact, Child et al. (2017) define three business model types, each of which belongs to most firms in the same industry. (1) Firms grouped within the clothing manufacturing industry adopt a traditional market-adaptive international business

model, based on customer and supplier relationships, flexibility and rapid delivery, and direct export to retailers or trading houses. (2) Software firms adopt a technology-exploiter international business model, exporting through direct sales on the internet and highlighting their ability to innovate and exploit technology. Finally, (3) Biotech firms adopt an ambidextrous explorer international business model, which stands out for its dependence on universities and research institutes to offer novel products.

Consequently, we found a large number of works that define the business model of a particular industry through a case study: Mäkelä and Lehtonen (2011) study the case of an engineering services company, Bialek-Jaworska and Gabryelczyk (2016) analyse a biotech spin-off, Guercini and Milanesi (2017) and Mase and Cohen-Cheminet (2019) focus on the luxury fashion industry, and Zähringer, Niederberger, Blind and Schletz (2011) examine a machinery manufacturing firm.

In other matters, Breunig, Kvalshaugen and Hydle (2014) and McQuillan and Scott (2015) define business model patterns within professional services companies. Breunig et al. (2014) establishes three types of business model, that pursue a transnational strategy, with different levels of global integration in the three phases of the services (initiation, execution and delivery): the continuous business model, with a local focus in the first phase and global in the following ones; the repetitious BM, with a great global integration in all the phases, and the unique business model, with a global approach in the first phase and global in the remaining two. For their part, McQuillan and Scott (2015) show four alternative business model types: multiple local, global, niche global and local to global. Finally, Cao, Navare and Jin (2018) establishes three routes by which retailers adapt their business model to an emerging

market like China. We show these three routes in greater detail in the following sections.

In addition to comparing intra-sector or inter-sector aspects, the business model can be used to compare different regions. This is the case of Santos, Murmura and Bravi (2018), who study the differences between the European and American Fab Labs, or Fleury and Fleury (2014), who identify differences between business models in developed and emerging economies. In fact, Child et al. (2017) identify the level of development of the home economy as the other important predictor of the international business model. And is that firms from developed economies are focused on knowledge-intensive industries and the provision of services, through business models that can protect, and firms from emerging markets are focused on low-knowledge industries (Fleury and Fleury, 2014). Other specifications of emerging markets are shown later in the section dedicated to emerging markets, as well as the differences in the business models between typologies of entrepreneurial companies, which will be shown in the following section.

To end this section, we want to highlight a highly hot topic that pose a challenge for multinationals in the 21st century, the digitization of businesses. Vadana, Torkkeli, Kuivalainen and Saarenketo (2019), propose different stages in firms according to their degree of internationalization, their degree of digitization and their age, and they use the term "Born digital" to refer to those firms with a high degree of digitization of the value chain. To achieve these new growth ambition goals, the use of cooperation networks, such as Fab Labs, can help small entrepreneurs to go digital without taking large investments (Santos et al., 2018). On the other hand, *cloudification* represents

the highest degree of digitization and involves changes in most of the business model elements (Ahokangas, Juntunen and Myllykoski, 2014).

2.4.3 International entrepreneurship: Business model and the rapid and early internationalization

International expansion is one of the most common expressions of entrepreneurial grow ambitions (Wallin, Still and Henttonen, 2016). For many SMEs, internationalization can be a highly entrepreneurial task, because in many cases it is associated with a high risk and the need to be innovative and proactive (Andersén, Ljungkvist and Svensson, 2015). According to Sun, Xiao, Zhang and Zhao (2018) entrepreneurs build their business models based on simple rules that they acquire from experience and use these rules to adapt and update their business models. These rules help companies to expand internationally (Sun et al., 2018). Other aspects that can accelerate internationalization are networking and acquisition best practice knowledge in their business model (Zarei, Nasseri and Tajeddin, 2011), and digitalization (Vadana et al., 2019). Far from the Uppsala model of internationalization, these companies use an innovative process of expansion. But in addition to designing an innovative business model, these companies need to review it to be sustainable over time (Gray and Farmines, 2014).

Nowadays, it seems that the business model is the cornerstone of the study of internationally entrepreneurial firms such as: International New Ventures (INVs) (Cavusgil and Knight, 2015; Coviello, 2015) and Born Globals (BGs) (McDougall and Oviatt, 2000; Oviatt and McDougall, 1994). In fact, Hennart (2014) proposes that INVs/BGs are accidental internationalist, due to the fact that, thanks to their business model, they do not have to make a greater effort to get foreign clients than for national

ones. Characteristics of the business model of these companies mean that the time and investment necessary for internationalization is less (Hennart, 2014). That is to say, business model can be an important driver of early and rapid internationalization.

In our literature review we found a large number of works that analyse the business model of INVs/BGs, international start-ups and others entrepreneurial SMEs. In this context, international SMEs seem to design business models restricted by certain characteristics of the industry (Mets, 2012; Child et al., 2017) and the experience and prior knowledge, sometimes acquired by the entrepreneur before the creation of the company, plays a fundamental role in their early and accelerated internationalization (Mets, 2012; Mattsson, Helmersson and Standing, 2019). Next, we show some characteristics of their business models using the distribution of business model components proposed by Richardson (2005).

Value proposition. The entrepreneurial SMES, are characterized by offering value to the customer through a little portfolio of high quality products and services (Kraus, Brem, Schuessler, Schuessler and Niemand, 2016), generally oriented to a specific market or niche (Mets, 2012, Hennart, 2014; Krauss et al., 2016; Autio, 2017). In addition, they have a small domestic market (Hennart, 2014).

Value creation and delivery. These firms are strong in sale, marketing technology and R&D (Krauss et al., 2016), and they do low-cost experiments with different business models in different markets and exploit the cross-border resources and knowledge asymmetries to get competitive advantage (Autio, 2017). They do not have to make great adaptations of their marketing mix (Hennart, 2014), because they trend to follow a global approach (Mets, 2012). Multidisciplinary teams grow in importance in these

companies (Mets, 2012). They have important relationships with partners in their international value chain (Sainio, Saarenketo, Nummela and Eriksson, 2011b), such as customers, with whom they can co-create innovative value (Gray and Farmines, 2014, Tanev, Rasmussen, Zijdemans, Lemminger and Svendsen, 2015). In fact, many of these companies have a network approach, where relationships are essential for their early internationalization (Mattsson et al., 2019). Many times BGs use direct export to distribute their products and services internationally (Autio, 2017) or use low-cost channels (Hennart, 2014).

Value capture. These firms usually use mixed revenue sources derived from the combination of products and services (Krauss et al., 2016). In addition, if their products or services are expensive and the customer needs financing, debt collection and debt management are faster and easier with industrial customers (Hennart, 2014).

Lean global startup (LGS) is another type of SME that is internationalized in an accelerated way, but in addition, this type of firm raises the characteristics of a lean startup (Blank, 2013). Consequently, LGSs develop new products and services and reaches a large number of customers quickly (Rasmussen and Tanev, 2015). LGSs are global and innovative as a one process (Zijdemans and Tanev, 2014). Hence, they differ from BGs due to their technological base, their ability to detect new niche markets and the novelty of their business models (Rasmussen and Tanev, 2015), all features related to their innovative entrepreneurship. Depending on the location of the upstream resources, these companies can be lean-to-global or lean-and-global (Tanev et al., 2015). In addition, the business model plays a fundamental role in the international success of these companies. In fact, the scalability of their business models seems to be one of the main causes of the growth ambitions of technology

startups (Walling et al., 2016). Due to the combination of innovation and international entrepreneurship presented by these firms, the best approach to analyse their business model is that defined by Onetti et al. (2012b) (Zijdemans and Tanev, 2014; Rasmussen and Tanev, 2015; Tanev et al., 2015).

In LGSs, the BMI can be seen as a driver of their internationalization. In line with the aforementioned, Abrahamsson, Boter and Vanyushyn (2019) detects that INVs are more likely to the BMI than other international firms, especially if they are in high-tech industries. In addition, according to Krauss et al. (2016) INVs/BGs have a more novelty-centered business model than the traditional MNEs. Still, in international SMEs, without taking into account the age and speed of expansion, the results are more confusing. Whereas Asemokha, Musona, Torkkeli and Saarenketo (2019) demonstrate a positive relationship between BMI and international performance, and Autio (2017) proposes the internationalization as a powerful BMI enabler, Azari, Madsen and Moen (2017) detects a negative relationship between BMI and the degree and scope of exports.

On the other hand, according to Baden-Fuller and Morgan (2010), the business model can be focused as a recipe, and therefore, it can be copied. In fact, there are firms that are internationalized in an accelerated way thanks to the application of a flexible business model replication strategy in different foreign markets (Dunford et al., 2010). This expansion strategy can be applied in markets with similar characteristics (Sosna et al., 2010). Dunford et al. (2010) study the case of ING Direct's international expansion and identifies four phases for the principle-based replication: (1) establishing the core business model elements, (2) responding to local contextual differences, (3) innovating in the subsidiaries of each location by testing new products

or processes and (4) taking advantage of the experience of others. They detect exploration in all phases of the replication process. The work of Dunford and his colleagues, connects the business model study with other literature on the replicability of the essential characteristics of the business as a rapidly expanding strategy. Some important examples of such literature are Winter & Szulanski (2001) and Jonsson & Foss (2011) which in contrast to Dunfors et al. (2010) detect a first phase of exploration and a second phase of exploitation.

2.4.4 Emerging markets: Special attention to BoP

When multinationals enter an emerging market, they have to overcome challenges that force them to make changes in the way they manage the business (Landau et al., 2016). Emerging economies have different characteristics from those of developed economies, such as the needs of consumers or the institutional framework. Therefore, this new environment requires adaptations in the business model (Landau et al., 2016). But the reformulation of the business model to adapt it to the environment of the emerging economies is not a task that only multinationals have to face, local companies must also adapt the traditional business models, generally developed by companies from developed economies, to their local environment. Therefore, we not only talk about the internationalization of companies, but we also talk about the internationalization of business models, since a business model developed in an environment can be adopted by a company from a different environment. In the case of emerging markets, these business models will have to be changed or adapted. In fact, the same efficiency characteristics should not be introduced as those of the traditional economy business (Sharma, Dixit and Karma, 2016).

Innovation plays a fundamental role in the internationalization of business models, as it can boost the survival of firms in emerging markets (Fleury and Fleury,2014; Wu, Zhao and Zhou, 2019). Firms must develop institutional capabilities to respond to the weak institutional framework of these markets (Jean and Tan, 2019). Part of these institutional capabilities are social-political networking and BMI (Jean and Tan, 2019). For their part, Wu et al. (2019), find that the search for legitimacy motivates BMI. But also the BMI search can motivate the internationalization of firms. Fleury and Fleury (2014) analyses the total or partial acquisition of US companies by Brazilian companies and establishes this strategy as a way to modify the business model, moving towards activities with of higher knowledge content. In other words, internationalization can be a way of to move up the value chain and to develop more competitive business models (Fleury and Fleury, 2014).

Cao et al. (2018), detects three patterns of resource deployment in the process of BMI: *Extension*, based on the exploitation of home-based resources; *Embeddedness*, based on the exploitation of local-based resources, and *Autonomy*, characterized by the exploration of local-based resources and innovation. In the case of the internationals retailers in China, follow at least two of this patterns simultaneously (Cao et all., 2018).

But the business model adaptation, or where appropriate the new business model design, is a process and therefore its implementation goes through different phases. Sharma et all. (2016) identify three phases for the adaptation of the model: A first phase where great adaptations are applied, a second phase of rapid business growth and a final phase of buffering or business model consolidation. For their part, Landau et al. (2016) are more specific with the period in which the adaptations are applied and identify four phases, which begin with the adaptation of the value proposition and

value capture, continues with the adaptation of the value delivery, extends to the adaptation of the value creation and ends with local consolidation through the redesign of all components.

In the case of the expansion of a manufacturing firm to Asia, Landau et al. (2016) finds that the firm make stronger adjustments to the value creation and delivery, and the structure and governance of activity system than to value proposition or the content of activity system. On the other hand, De Almeida Pereira, Imbrizi, de Freitas and Alvarenga (2015) and Sharma et al. (2016) analyse two cases of airlines that adapt their business model to emerging markets, Latin America and Asia respectively. These works suggest that the main key is the adoption of a low cost business (de Almeida Pereira et al., 2015; Sharma et al., 2016), based on the standardization, systematization and automation of resources and operations (de Almeida Pereira et al., 2015); but also developing elasticity as an important business model element, to cover unexpected increases in demand, which occur in emerging economies (Sharma et al., 2016). In addition, it can be helpful to hire experienced staff for the most important activities, which due to its efficiency leads to a reduction in costs, and counting cheaper professionals for the rest of the activities (de Almeida Pereira et al., 2015). In short, it is necessary to rethink the characteristics of the traditional business model and design a novel business model (de Almeida Pereira et al., 2015; Sharma et al., 2016), since a novel business model can mitigate the negative effects of institutional voids (Sharma et al., 2016), which are one of the main problems for companies located in emerging regions.

In our literature review, we found a large number of papers that connect the study of business model with Bottom/Base-of-the-Pyramid literature (BoP) (Prahalad and Hart, 2002). These low income markets require other strategies, which understand the social environment, and mix of capabilities compared to advanced markets or Top-of-the-pyramid (London and Hart, 2004). Laudal (2018), building on the work of Porter and Kramer (2011), highlights the need to reconceive products and markets, redefine productivity measures and make possible the development of the local cluster. This situation is a great challenge for companies. In fact, it is difficult to find cases of large corporations that have been successful in BOP markets (Reficco and Gutierrez, 2016).

In these environments, inclusive business models appear, which pursue, at the same time, financial and social objectives (Halme et al., 2012; Winterhalter, Zeschky, Neumann and Gassmann, 2017), perhaps considering collaboration with non-conventional partners, such as non-profit nongovernmental organizations, to help facilitate new modes of value creation (Dahan, et al., 2010), including social value creation (Sinkovics, Sinkovics and Yamin (2014).

Sánchez and Ricart (2010) propose two viable business models in low income markets. On the one hand, Isolated business model adapts to the difficulties of the new environment, but without transforming the original BM. This pattern uses the flexible replicability of the business model to grow rapidly (see Dunford et al., 2010). The main objective of this business model is to seek efficiency by entering a virtuous circle of cost reduction, through the scope of economies of scale; price reduction, and increase in customers. In the other hand, Interactive business model focuses on increasing the customer's willingness to pay. This model requires interaction with local actors to create opportunities to increase revenue. In the same line, Pels and Sheth (2017), raises

four business model patterns based on the perception of the low-income consumer's conditions (constraints/opportunities) and the business model approach (bottom-up/top-down from Viswanathan, Seth, Gau and Chaturvedi (2009)). The first, Market adaptation business model is based on the adaptation of the original model to the constraints of low-income consumers. The second, radically different business model are based on the opportunities found in these markets. The third, Mission focus business model aims at compensate some of the weaknesses of the region through business (e.g. microfinance). The last, Inclusive ecosystem business model tries to take advantage of the interrelationships of market conditions to solve several problems simultaneously. Therefore, the Interactive business model (Sánchez and Ricart, 2010), and the Mission focus business model and the Inclusive ecosystem business model (Pels and Sheth, 2017) can be considered inclusive business models.

Creating that binomial of economic / social benefit implies the design of innovative business models. These business models must be able to generate innovative products and services, adapted to the specific technical needs of the markets, through a cost structure which allows the firm to offer low prices. The answer to this paradox may be to take advantage of the opportunities to be a latecomer firm and adapt a traditional business model, which has disruptive technologies, to the emerging markets framework (Wu, Ma and Shi, 2010) or the frugal innovation (Winterhalter et al., 2017). Therefore, the new business models can generate frugal innovation through aspects such as: innovation in the search for other uses or applications to existing technologies, or locate value creation activities in emerging markets to take advantage of their low supply and manufacturing costs (Winterhalter et al.,2017). However, in some cases, the ability of general frugal innovation is negatively affected by aspects such as: the

objective of maximizing short-term benefits, structures based on business units or the logic of avoiding uncertainty (Halme et al., 2012). In these cases, the "Intrapreneurial bricolage" concept appears, which refers to innovation with few resources from entrepreneurial staff within the firm (Halme et al., 2012). Peerally, De Fuentes and Figueiredo (2019), propose that firms, in these markets, begin to create operational capabilities, taking advantage of their position as latecomers, and in time develop innovative capabilities, including inclusive innovation. For their part, Reficco and Gutiérrez (2016), point out the importance of achieving organizational ambidexterity when implementing the new business in a BOP market. Finally, the practices developed in the BOP markets can be very relevant in other more advanced markets, so companies must develop mechanisms to transfer these practices to the company's headquarters or other parts of the multinational (Gooderham, Ulset and Elter, 2016).

2.5 CONCLUSIONS AND FUTURE RESEARCH LINES

In recent years, as this work shows, taking the business model as a unit of study has been consolidated as something recurrent in business and management research. Leaving aside the skepticism of the early years, more and more authors see the study of business models as an opportunity to answer multiple questions and expand knowledge about business in general and the IB in particular. Our work delves into the literature, from the last 10 years (between 2010 and 2019), regarding the framework of business models within the IB, through two studies with complementary methodologies (Feng et al., 2017).

On the one hand, we show a bibliometric analysis, which allows us to know the evolution that the literature has followed, highlighting aspects such as the cooperation networks between authors, universities and countries, or the networks of citations

between the selected works. But in addition, our bibliometric analysis shows aspects that can be very useful for future research, such as the main scientific journals interested in this literature or seminal works.

On the other hand, our work shows a systematic literature review. From it we can draw the following conclusions.

First, in line with Baden-Fuller and Morgan (2010), the business model, by its nature as a model, shows three different approaches: as a tool for typology or taxonomy, as an instrument of scientific questions (as in biology) and as a recipe. In our literature review we can observe these uses of the business model. We found a large number of studies that establish typologies of companies, detecting different business models within the same sector (e.g., Breunig et al., 2014), comparing different industries (e.g., Cao et al., 2018) or even comparing the model of typical business from different regions (e.g., Fleury and Fleury, 2014). We also found works that are based on the observation of specific cases and analyze their evolution (e.g., Sosna et al., 2010), and we even detected articles focused on the replicability of the business model (e.g., Dunford et al., 2010).

Second, we show the great diversity of perspectives that literature takes for the study of business models. Although there are two main perspectives (Landau et al., 2016), the value-based perspective (Teece, 2010) and the activity-system perspective (Amit and Zott, 2001), there are works that hardly fit into one of these majority perspectives. For example, many works understand the business model as a set of interrelated elements (e.g., Osterwalder, 2004), an aspect that facilitates the operationalization of

its study, while others focus on posing it as a virtuous circle of elections and consequences (Casadesus-Masanell and Ricart, 2007), among other perspectives.

Third, we detect two main areas of application of the business model framework in the IB literature: the explanation of the rapid and early internationalization of some firms, connecting the business model with the international entrepreneurship literature, and the business models adaptation to different environments, with great emphasis on emerging markets. In addition, we find other aspects in which business models must adapt in the present, such as digitization or the social value creation. These issues present interesting research opportunities.

In line with the aforementioned, some interesting aspects for future research and that the reviewed works raise, are the digitization of business models (Autio, 2017), or the creation of social value (Sinkovics et al., 2014) or, in the case of BoP markets, the subsequent period of de-growth and post-development in these regions (Peerally et al., 2019).

At a general level, the literature on business models poses an important challenge for future research: defining a scale that allows analyzing the business model. More clear measures are needed for this term (Child et al., 2017).

The role of environment and the contextual factors is an issue that opens many doors for future research It would be interesting to see how the business model adapts to the environment (Landau et al., 2016; Child et al., 2017) and how it affects in the performance of entrepreneurial firms as the INVs/BGs (Autio, 2017) and in the time necessary for their internationalization (Hennart, 2014).

Another issues are the role of knowledge in the evolution of the business model or the changes in the entry mode based on the international experience of the company (Hennart, 2014). But it is also interesting to study other drivers of business model change (Asemokha, et al., 2019) and to differentiate between radical adaptation and continuous adjustments (Landau et al., 2016).

One of the questions that still remain is the relationship between BMI and the internationalization of companies, due to the different results obtained. It is important to analyze the relationship between innovation and exports (Azari et al., 2017; Autio, 2017) and the contextual factors that affect it (Cao et al., 2018), but other very interesting topics also appear, such as open innovation (Azari et al., 2017; Autio, 2017) and inclusive innovation (Peerally et al., 2019).

In addition to these new research lines, the works reviewed highlight the need to focus studies on specific contexts. First, some authors emphasize the importance of analyzing specific types of firms such as "Born again global" (Bell, 1995) (Kraus et al., 2016) or digital-based firms (Wu et al., 2019). Second, they highlight the necessity to identify different types of firms in a specific industrial sector (Kraus et al., 2016; Asenmokha et al., 2019) or to compare sectors (Krauss et al., 2016). Third, it is also interesting to replicate the studies in different sectors (Dunford et al., 2010; Breunig et al., 2014, De Almeida Pereira et al., 2015; Kraus et al., 2016; Guercini and Milanesi, 2017) or with different firm sizes (Asenmokha et al., 2019). Finally, many authors highpoint the need to analyze other environments (Dunford et al., 2010; Kraus et al., 2016; Azari et al., 2017; Guercini and Milanesi, 2017; Cao et al., 2018; Jean & Tan, 2019), such as emerging markets (Landau et al., 2016) and specifically in Sub-Saharan Africa and South America (Child et al., 2017).

Regarding the methodology, it is necessary to design new methodologies (Autio, 2017). The great majority of authors highlight the need for longitudinal studies (Hennart, 2014; Kraus et al., 2016; Autio, 2017; Jean and Tan, 2019; Wu et al., 2019). Regarding the type of methodology used, there are authors who highlight the need for more qualitative or mixed studies (Sharma et al., 2016), but more quantitative studies are also necessary to allow us to obtain statistically significant results. Along these lines, many authors propose that their works be tested empirically in the future (Breunig et al., 2014; Landau et al., 2016; Guercini and Milanesi, 2017; Autio, 2017). Another tip from many authors is to analyze larger databases (Child et al., 2017).

We have found some limitations when carrying out this study. The first is the difficulty in selecting the works, due to the large number of these that, although they use the required terms, are not included within the business model framework. The other great limitation has been the access to some of the works, especially book chapters.

For the future, we propose to replicate this work using other databases as a search tool for the sample or searching with other keywords. Finally, we also suggest updating this study in order to include recent knowledge.

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CHAPTER 3: BUSINESS MODEL TAXONOMY: AN ANALYSIS FOR INTERNATIONAL MANUFACTURING SMES

ABSTRACT

This work identifies different international business models present in traditional manufacturing SMEs, with the aim of better understanding the success of these firms in a highly competitive international market. The study is located in Spain and in three industrial sectors: textile, furniture and footwear. We theoretically discuss the hierarchical position of the business model within the taxonomy of organizations and define a list of elements for the study of these international models. SMEs are grouped into three empirically defined business models through a cluster analysis. The results show a traditional business model, a business model derived from a customer orientation and a business model resulting from a product orientation. The characteristics of each model are discussed and the performance level of each group of firms is compared. The analyses show higher performance by customer-oriented business models as a result.

3.1 INTRODUCTION

Small and medium-sized enterprises (SMEs), and specifically those that operate in traditional manufacturing industrial sectors, are very important for the local economy and society. However, these SMEs have significant difficulties in surviving in the global market, due to constraints derived from their size, their location and the technological level of their industries. First, small firms have poorer survival prospects than large firms (Freeman, Carroll and Hannan, 1983). This inequality is known as "liability of smallness" (Aldrich and Auster, 1986) and is explained by the limitation that small size generates in terms of resources and capabilities, and in the response of firms to environmental changes (Guercini and Milanesi, 2016). In addition, SMEs can suffer significant barriers to internationalization due to the lack of different knowledge and skills (Crick and Barr, 2007) and barriers to innovation (Teece, 1996; Madrid-Guijarro, Garcia and Van Auken, 2009). Second, companies in mature industries from traditional countries have very saturated domestic markets and some disadvantages such as high labour costs or problems in accessing raw materials. Other locations have advantages that make it more profitable to carry out or relocate some activities to these markets (Dunning, 1980). In fact, according to Enright (2009), when studying the investment patterns of Western companies (from North America, Europe and Japan) in Asia-Pacific, there is a negative relationship between the level of development of the host country and investment in production activities, due to the countries with the highest per capita income tend to have high wage rates. Consequently, European countries do not appear, a priori, to be the optimal location for manufacturing firms. Finally, there is a widespread belief that only those organizations dedicated to R&D or high technology will guard employment and wealth in Western economies (Hirsch-

Kreinsen, 2008), and therefore, low/medium-tech firms may have difficulty finding highly qualified workers or support from institutions or society in general.

Despite this unfavourable situation, we find a large number of these firms that compete in foreign markets and face pressure from large global companies. The objective of this work is to increase the knowledge about these resistant companies through the perspective of the business model. Popularly, the business model has been used to explain the international success of large companies. This is the case of companies such as IKEA (Jonsson and Foss, 2011) or ING direct (Dunford, Palmer and Benveniste, 2010). But in this case, we are going to focus on the business models of SMEs, which despite their limitations, manage to expand in markets dominated by giants. To do this, we propose the following research question: What business models can we find in traditional manufacturing SMEs that are internationally successful?

Some authors have already defined types of business models through different methodologies and tools (e.g., Weill, Malone, D'Urso, Herman and Woerner 2005; Camisón and Villar-López, 2010; McQuillan and Scott, 2015; Child et al., 2017; Pels and Sheth, 2017). But among these works, we find, in addition to differences in methodology, very large differences in the operationalization of the business model concept. Each work focuses on different characteristics of the firm to define the business models. In this work we have described the models through 34 questions derived from compiling the main theoretical and empirical works on business models. We have also included aspects of internationalization, generally forgotten by the main business model definitions (Onetti, Zucchella, Jones and McDougall-Covin, 2012).

Finally, starting from the configurational theory, we consider that the business model is not just a set of isolated elements. The elements that make up the business model must be aligned with the same approach. In addition, the model must be aligned with factors exogenous to the firm, such as the characteristics of the environment. Under this idea, we propose that those business models with a design more aligned with the characteristics of the current global market present better performance.

The chapter consists, first, of an analysis of the theoretical framework, where the position of the business model is analysed within the taxonomy of the firm, and especially with respect to the business strategy; the definition of components of the business model for international manufacturing SMEs, and the definition of hypotheses on those models for high performance. Second, the methodology used is presented. Third, the results obtained from the statistical analyses performed are shown. Fourth, the results are discussed based on the theoretical framework and the hypotheses previously presented. Finally, the work includes a section on conclusions and future research lines.

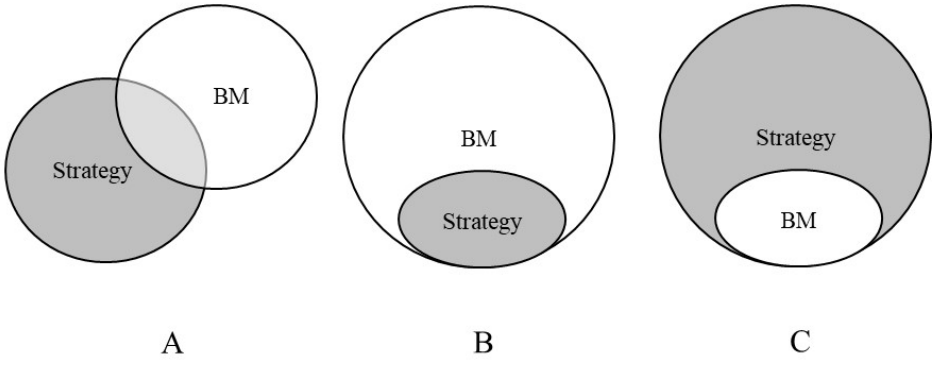
3.2 THEORETICAL APPROACH AND HYPOTHESIS

3.2.1 Organization Taxonomy: Business Model Positioning

Traditionally, business and management researches have classified organizations into groups with the goal of identifying patterns of behaviour and common characteristics, and simplifying the complex business reality. A group of organizations can be classified through common sense, through prior theoretical knowledge, or through an empirical process based on similarities and contrasts (Warriner, 1984). This last procedure is known as taxonomy, which classifies individuals empirically, in a hierarchical system, and not through theoretically based types (Rich, 1992; Baden-

Fuller and Morgan, 2010). Taxonomy is widely used in sciences such as biology, where, despite the particularities of each unit, living organisms can be classified into "species", and them into "groups" and "families". This same method of classification can be exported to the study of business (Rich, 1992). For this reason, in this work we use an empirical method to classify the firms into groups. But the firm's taxonomy is not a new research line. In fact, many strategy researches have already grouped firms into categories, for example, based on their strategic orientation (e.g., Miles, Snow, Meyer and Coleman, 1978; Hagen, Zucchella, Cerchiello and Giovanni, 2012). In this work we focus on the business model of companies. But, what is the difference between a classification of strategies and one of business models? The answer to this question lies in the definition of both concepts and the interaction between them. But the relationship between "strategy" and "business model" has long been a matter of debate. For this reason, we find different conceptual positions that reflect this relationship (see Figure 3.1.).

Figure 3.1 Relationship between strategy and business model



BM = Business model.

Source: own elaboration

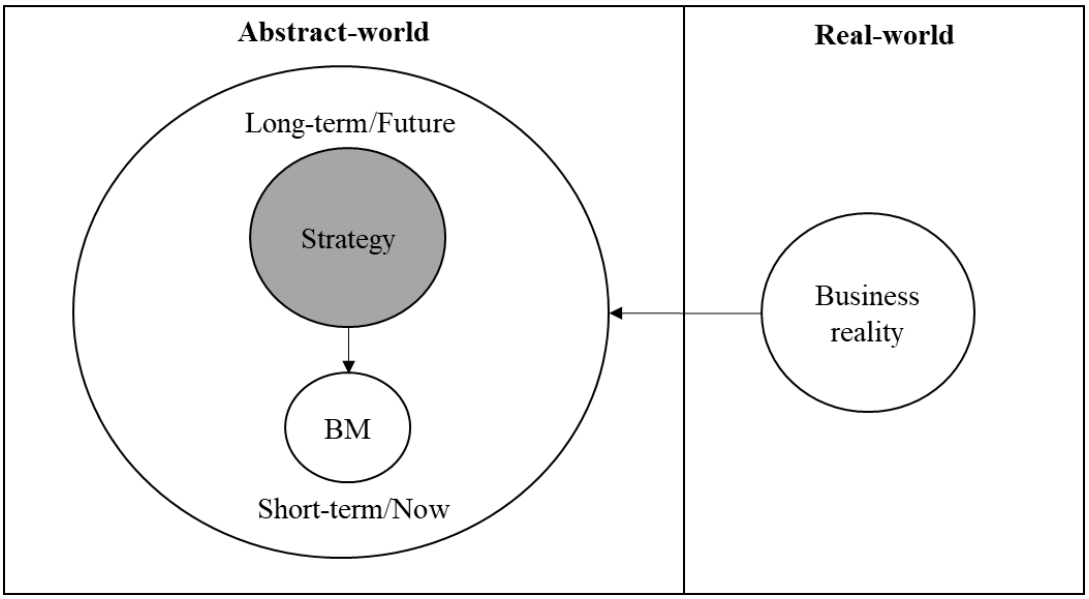
At first, the interest of the academy focused on separating both concepts, to show the need and interest in the study of business models. With this objective, many researchers show the business model as a complementary concept to that of strategy. According to Magretta (2002, p. 6) "Business model describe, as a system, how the pieces of a business fit together". This definition is very similar to Porter's definition of strategy, which states that "strategy defines how all the elements of what a company does fit together" (Porter, 2001, p. 71). But despite the sameness, Magretta (2002) establishes an important difference: competition, which is the job of the strategy and not the business model. In addition, to this difference, academics interested in business models focus on other aspects, such as the role of the customer in the value creation process or the partnership relationships, less studied in the strategy literature (Zott, Amit and Massa, 2011). Therefore, although they present some similarities, both are complementary concepts when studying the firms (position A in Figure 3.1.).

Additionally, other authors advocate a hierarchical relationship between both concepts as a way to show their differences. On the one hand, according to Teece (2010, p. 180) "Selecting a business strategy is a more granular exercise than designing a business model". In other words, the business model shows a more general image of the company. In fact, under this premise, some works consider the competitive strategy as a component of the business model (e.g., Hamel, 2000; Richardson, 2008; Tallman, 2014) (position B in Figure 3.1.).

On the other hand, in recent years, we can observe a consolidation of the opposite positioning. In other words, the same strategy can be pursued through different business models (Seddon and Lewis, 2003; Zott and Amit, 2008) and, therefore, can be considered as a hierarchical level higher than the business model (position C in

Figure 3.1.). Casadesus-Masanell and Ricart (2010, p. 206) say that "every organization has some business model", but "not every organization has a strategy". Also, they claim that "Strategy refers to the choice of business model through which the firm will compete in the marketplace" (Casadesus-Masanell and Ricart, 2010, p. 196). Therefore, the strategy has a long-term focus and shows what the firms aim to operate, while the business model has a short-term focus and shows how the firms operate today (DaSilva and Trkman, 2014) (see Figure 3.2.). Da Silva and Trkman (2014) say that both concepts are connected through the dynamic capabilities of the firm. That is, the "strategy (a long-term perspective) sets up dynamic capabilities (a medium-term perspective) which then constrain possible business models (present or short-term perspective) to face either upcoming or existing contingencies" (Da Silva and Trkman, 2014, p. 383).

Figure 3.2 Relationship between the concepts of business strategy and business model, and the reality of the business



Source: own elaboration based on DaSilva and Trkman (2014).

In this work we are based on two ideas derived from the above. The first idea is that although much of the literature focuses on the unique characteristics of each business model, it can also be studied capturing its essence, which can be the same for several companies (Morris, Schindehutte and Allen, 2005) and it can be classified through a taxonomy (Baden-Fuller and Morgan, 2010). The second idea is that the business model is the current representation of an implemented strategy, including the result of a lack of strategy.

3.2.2 Business Models Components in International Manufacturing SMEs

The study of the business model as an element of analysis can be confusing due to the multitude of definitions existing in the literature (DaSilva and Trkman, 2014; Massa, Tucci and Afuah, 2017). While for practitioners, the *Business Model Canvas* (Osterwalder and Pigneur, 2010) is the most widely used tool to describe business models, for academics there is no consensus on the combination of components that make up a business model (Morris et al., 2005; Shafer, Smith and Linder, 2005; Osterwalder, Pigneur and Tucci, 2005; Wirtz, Pistoia, Ullrich and Göttel, 2016; Massa et al., 2017). In addition, the components must be adapted to the reality of the firms to be studied. Internationalization is a feature overlooked by the vast majority of business model concepts (Onetti, et al., 2012), but in our study, it is one of the most important aspects. Therefore, we consider that it should influence our definition of components. In addition, we also have to take into account other aspects of manufacturing SMEs.

However, in this confusion we can identify some clarity. From a value-based perspective, business model components must enable us to answer three questions: What is their value proposition? How is value created and distributed? And how is the

value captured? These three firm's aspects are used by a large number of works to describe the models (e.g., Richardson, 2008; Landau, Karma and Sailer, 2016).

The value proposition generally includes aspects of what the company offers and to whom it offers it (Richardson, 2008). In other words, it is important to define the characteristics of the products and the characteristics of the target customer/markets in order to know the reasons why the customer values the company's offer. But from the business model perspective, we consider it important to include two aspects that are sometimes forgotten by other empirical studies.

On the one hand, to these two aspects a third element is added, the "customer perceived value" or "customer value proposition" (CVP), which is key to the definition of a business model (Payne, Frow and Eggert, 2017). According to Zeithaml (1988 p. 14) CVP represents the "consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given", and offer a superior value to the buyer it is important for competitiveness (Porter, 1990) Therefore, in order to know the value proposition of a firm, it is important to know the type and degree of value that the firm offers to the consumer. On the other hand, while traditional theories of value creation and value delivery assume that value is only created by the producers (Priem, 2007), the BM approach takes into account that value can also be created on the demand side (Massa et al., 2017) and for that reason, we consider it important to include the possibility that the value is co-created with the client (Ngo and O'Cass 2009; O'Cass and Ngo 2011). Therefore, we begin the business model description with three constructs: the offering characteristics, including the possibility that the product is created in collaboration with the client; the CVP, and the market characteristics.

In addition, the firm must adapt the value proposition to changes in conditions between markets (Tallman, Luo and Buckley, 2018). International firms can strategically develop a global marketing mix or specially adapted to target markets (Powers and Loyka, 2010). This is an BM aspect that affects the internationalization time of companies (Hennart, 2014) and, therefore, it must also be taken into account when describing an international business model.

Furthermore, the business model shows how value emerges through the interaction of the firm with customers and other actors (Ehret, Kashyap and Wirtz, 2013; Massa et al., 2017). This interaction with actors outside the boundaries of the firm occurs in two different modes. On the one hand, the value must have delivered to consumers. This occurs through customer relational channels (Osterwalder et al., 2005) and transactional channels (Child et al., 2017), which in this case can be international in scope. In fact, other authors have considered the operational modes abroad a fundamental part of the international business models (e.g., Rask, 2014; McQuillan and Scott, 2015). On the other hand, business model may be influenced by the company's relationship with other actors in the market, such as clients, suppliers or competitors, and other non-market actors, such as research institutes or local governments and institutions. In fact, the literature identifies networks as one of the main factors in the international success of SMEs (Child et al., 2017). Consequently, it is also of interest to include the transactional channels and the degree of intensity of the firm's networks with partners or actors in the environment.

But in addition to the networks, the internal competences of the firm are fundamental to define its business model (Morris et al., 2005, Child et al., 2017).

Finally, we must include aspects of value capture, since the income and cost structure is an important aspect of the business model (Osterwalder et al., 2005; Morris et al., 2005; Richardson, 2008; Teece, 2010).

Table 3.1. shows our description of the business model construct.

Table 3.1 International manufacturing business models constructs

Construct	Description	Constructs used in other works with similar definitions
Offering characteristics	Description of the main characteristics of the products offered by the firm..	Artefacts (Mason and Spring, 2011), Offering (Morris et al., 2005; Richardson, 2005), Products (Landau et al., 2016), Value proposition (Osterwalder et al., 2005), etc.
Market characteristics	Description of the main characteristics of the market to which the company is referred.	Customer (Magretta, 2002), Market factor (Morris et al., 2005), Market segment (Chesbrough and Rosenbloom, 2002), Target customer (Osterwalder et al., 2005; Richardson, 2005; Landau et al., 2016), etc.
Value customer proposition	Description of the combination of value that the consumer perceives in the products offered by the firm.	Customer value (Magretta, 2002), Offering (Landau et al., 2016), Value (Mason and Spring, 2011), Value proposition (Chesbrough and Rosenbloom, 2002; Boons and Ludeke-Freund, 2012), etc.
Adaptation to foreign markets	Description of the level of adaptation of the marketing mix of the firm to the different international markets.	Marketing mix adaptations (Hennart, 2014).
Transactional channels	Description of the channels that the firm uses to interact with new clients and to operate in its different international markets.	Customer interface (Boons and Ludeke-Freund, 2012), Relationship (Osterwalder et al., 2005), Distribution channel (Osterwalder et al., 2005), Transactional channels to foreign markets (Child et al., 2017), etc.
Internal competences	Description of the main internal competences of the firm to generate value.	Core competency (Osterwalder et al., 2005), Core competency strengths (Child et al., 2017), Competences (Demil and Lecocq, 2010), Internal capability factors (Morris et al., 2005), Resources and capabilities (Richardson, 2005), etc.
Key partners	Description of the main external relationships that the firm has to generate value.	Key external network links (Child et al., 2017), Partner network (Osterwalder et al., 2005), Position in the value network (Richardson, 2005), etc.
Economic factors	Description of the income and cost structure of the firm.	Cost structure (Chesbrough and Rosenbloom, 2002; Osterwalder et al., 2005), Economic factors (Morris et al., 2005), Economics of the business (Richardson, 2005), Financial model (Boons and Ludeke-Freund, 2012), Revenue and Costs (Landau et al., 2016), Revenue model (Osterwalder et al., 2005), etc.

Source: Own elaboration

3.2.3 Traditional Manufacturing SMEs Business Models for High-Performance

Despite the fact that this work raises a large number of defining elements of the business model, these elements are developed in an interconnected system. According to the configurational theory, the attributes of organizations tend to be grouped in coherent patterns, motivated by factors endogenous to the organizations, which generate a relationship of interdependence between them, and by exogenous factors such as the environment (Meyer, Tsui and Hinings, 1993). In fact, under this theory, Ward, Bickford and Leong (1996), raises a series of relationship patterns between the manufacturing strategy, the competitive strategy, the structure and the environment, and warns of a misalignment leading to poor overall performance. In this work we develop the idea that the alignment between the endogenous elements of the firm and the environment leads to better performance, taking its business model as the firm's unit of analysis.

Business models play an important role in explaining firm performance (Zott et al., 2011), because firms compete through their business models (Casadesus-Masanell and Ricart, 2010). In fact, SMEs must recognize opportunities in the environment and capture them through the innovation of their business models to achieve higher performance (Cucculelli and Bettinelli, 2015; Guo, Tang, Su and Katz, 2017). Business model innovation refers to the process of discovery (Markides, 2006) and re-design or modification (Amit and Zott, 2010) of a business model. Consequently, high-performance SMEs design, re-design or adapt their business models to the characteristics of the environment, capturing the opportunities it offers them. This is because SMEs must innovate towards a business model that allows them to achieve competitive advantage and, through it, high performance (Anwar, 2018).

In the case of traditional manufacturing SMEs, the environment in which they operate has changed the rules in recent decades, putting the survival of many companies at risk. Globalization brought with it an increase in competition, coming from large firms and low-cost firms; a change in consumer habits, reducing the life cycle of products, and a great specialization by traditional economies in high value-added activities and services; among other novelties. But in more recent years, there have also been global economic and political changes, social changes towards more responsible consumption habits with the environment and society, and technological changes, which present opportunities for these firms. Consequently, those business models that better align with these new environmental conditions can be expected to perform better. For this reason, we propose the following hypothesis:

H1: The different business models presents in traditional manufacturing SMEs exhibit different levels of performance.

A large part of the literature on high-performance models has focused on studying the Mittelstand model as an alternative to traditional Anglo-Saxon model. This model refers to German industrial companies that have achieved a large global market share, despite, in many cases, being SMEs and family-owned, which are aspects traditionally negatively related to internationalization and high-performance. The Mittelstand model is based on long-term relationships with customers, located in narrow niche markets, through the supply of high-quality products (Venohr, Fear and Witt, 2015; Audretsch, Lehmann and Schenkenhofer, 2018). These companies are characterized by their extensive international expansion and a global focus (Venohr et al., 2015; Audretsch et al., 2018). Institutionally, these companies have a domestic support network made up of both public and commercial organizations (Venohr et al., 2015).

Consequently, we can determine that the business model of the Mittelstand is defined by a product and customer orientation, and an active attitude towards internationalization.

Similar strategic approaches, related to the high-performance of SMEs, can be found in other locations, such as Italy (Hagen, et al., 2012) or the United Kingdom (Bamiatzi and Kirchmaier, 2014). These studies find three main approaches: an approach aimed at maximizing customer satisfaction by adapting the value proposition to their needs, an approach aimed at differentiating products, and an orientation towards international expansion.

In the case of Spain, Pla-Barber, Villar and Benito-Sarriá (2020) find that traditional high-performance industrial SMEs share a model based on the customization of products and services to the needs of customers, a combination of local production and international production adapted to each market, a large use of high control distribution channels, an increasing concern for sustainability and a great importance of networks.

Consequently, and taking into account that the selected population in our study has a clear objective of growth abroad, it is possible to foresee that those business models that articulate their elements towards maximizing consumer satisfaction and/or those that do so towards the improvement and differentiation of its product lines present a higher performance than those that have any other strategic orientation, such as a cost orientation or simply present a conservative attitude towards changes in the environment and compete through a model based on traditional rules. Therefore, we define the following hypotheses:

H2a: The business models derived from a customer orientation exhibit a higher performance than the rest of the business models of traditional manufacturing SMEs.

H2b: The business models derived from a product orientation exhibit a higher performance than the rest of the business models of traditional manufacturing SMEs.

3.3 METHODOLOGY

3.3.1 Data collection and sample

The sample population was obtained from ORBIS database by Bureau van Dijk. We selected this database because, unlike others databases such as Data-stream, ORBIS offers information about SMEs (Mahnken and Moehrle, 2018). Sample population is made up of SMEs, with less than 250 employees (European Union), located in Spain, who export their products internationally and whose economic activity is referenced with the NACE 2009 codes of 13, 15 or 31.

The data collection was carried out in 2019 through a survey questionnaire. This method has become the main tool that society has to study itself (Heeringa, West and Berglund, 2010) and allows us to obtain non-financial data, necessary to answer our research question. The questionnaire was designed taking into account the recommendations of Podsakoff, Mackenzie, Lee and Podsakoff (2003) to avoid common method bias ex-ante and was pretested on academic and professional experts (Collins, 2003).

We obtained 120 valid responses. This number of observations is sufficient to ensure statistical power in the social sciences (Cohen, 1992). Sample contains different types

of companies. The size of the SMEs varies between 5 and 246 employees. In addition, there are companies with a low level of exports with respect to their total sales (around 3%) and others that dedicate 100% of their production to exports. Regarding the distribution of the sample with respect to the industrial sector of the companies, 25.0% belong to the manufacture of furniture, 35.8% are dedicated to the manufacture of textile products and 39.2% focus its activities in the production of footwear. Lastly, 83.3% of our companies are family-owned.

3.3.2 Measurements of variables

The business model has been described through 36 7-point Likert scales that measure the degree of agreement or disagreement of the respondent with respect to each item (1 being totally in disagreement and 7 totally agreeing). Appendix Table 3.7 lists the questions posed in the questionnaire. The items are grouped into 8 constructs: offering characteristics (Morris et al., 2005), CVP (Sweeney and Soutar, 2001), market characteristics (Morris et al., 2005; Hennart, 2014), marketing mix adaptation (Lages, Abrantes and Lages, 2009), Transactional channels, main partners, main competences (Morris et al., 2005) and economic factors (Morris et al., 2005). We have used these items to define a quantitative variable, which refers to the business model implemented by the firm.

On the other hand, performance measures typically focus on the profitability or revenues of the firm (Kafouros, Buckley, Sharp, and Wang, 2008). In this work we use a latent variable by 4 items that refer to both aspects of the firm performance. The indices used are sales growth, market share, productivity and profitability. The four items are 7-point Likert scales and measure the degree of agreement of the respondent with respect to 4 statements that compare their result with those of the main competitor

in the last 3 years. We performed a confirmatory factor analysis to assess the psychometric properties of latent variable, following the recommendations of Chin (1998) (see table 3.2). We checked the reliability of individual items, which are higher than 0.7 in all items. Likewise, the scale provided a good composite reliability index, higher than 0.8, a good convergent validity, examined through the AVE index, higher than 0.5, and a Cronbach's Alpha higher than 0,8.

Table 3.2 Performance scale

Items in the scale	Item loading	Cronbach's Alpha	Composite Reliability	AVE
Sales growth	0.807	0.806	0.869	0.624
Productivity	0.846			
Market share	0.738			
Profitability	0.765			

Source: own elaboration

3.3.3 Statistical analysis

The empirical analysis is organized in two stages. First, the cluster analysis has been carried out using the recommendations of other authors (Punj and Stewart, 1983; Hair, Black, Babin, Anderson and Tatham, 1998). Clustering is a technique widely used by strategy researchers to define taxonomies (Hagen et al., 2012). In our case, we have applied a traditional protocol consisting of two stages. In a first stage, we have carried out a hierarchical cluster analysis, in order to identify the number of groups present in the sample. In a second stage, we have carried out a K-means analysis (non-hierarchical cluster analysis), to identify each cluster and assign each firm its permanence cluster. To run the K-means analysis we have used Ward's method, which minimizes the within cluster differences and avoids problems associated with other clustering methods (Aldenderfer and Blashfield, 1984). As a post-hoc analysis, the validity of the cluster analysis has been verified and the results obtained have been

described through Kruskal-Wallis H-test. Finally, we compare the models based on their performance. To carry out this part of the study, two statistical analyses are carried out: A Kruskal-Wallis H-test and a Mann-Whitney U-test.

3.4 RESULTS

3.4.1 Cluster analysis

Hierarchical cluster analysis allows us to identify the number of clusters present in our sample. There is a great distance between the agglomeration coefficients of 3-clusters and 2-clusters solutions, as shown in Table 3.3. For this reason, we have considered grouping the firms into 3 clusters as the most appropriate solution. Next, we have performed a K-means cluster analysis to define the 3 clusters. The 3 groups identified are composed of 51, 47 and 22 firms, respectively. Table 3.4 shows the mean of the 34 items for each cluster and for the total number of firms. These values determine the characteristics of the clusters that are analysed further on. Additionally, we have performed a post-hoc analysis, through Kruskal-Wallis H-test, to check if the individual distribution of each item between clusters is sufficiently different. Kruskal-Wallis H-test shows that the 3 cluster differed significantly for 31 items ($p < 0.05$) and do not find significant differences in 3 items. These items correspond to the importance of customers (CLI1) and suppliers (CLI2) as main partners, and the quality of the products (VAL1). These items show very high means in all groups. These 3 items have not been removed from the cluster analysis because even though they do not show significant differences between clusters, they intervene when defining the 3 clusters (Hair at al., 1998) and the Kruskal-Wallis is a post-hoc analysis carried out for informational purposes. Kruskal-Wallis H-test can be seen in Appendix Table 3.8. The results for each group of firms, with the same business model, are discussed below,

accompanying some statements with data presented as follows: (cluster mean-overall mean).

Table 3.3 Hierarchical cluster analysis

NUMBER OF CLUSTERS	AGGLOMERATION COEFFICIENT	CHANGE IN AGGLOMERATION COEFFICIENT
2	8696,384	869,019
3	**8054,400**	**641,848**
4	7676,237	378,227
5	7386,989	289,284
6	7110,403	276,586

Bold values refer to selected number of clusters and relative agglomeration coefficients.

Source: own elaboration

Table 3.4 Clusters means

BM Block	Item	Cluster 1 (N=51)	Cluster 2 (N=47)	Cluster 3 (N=22)	Overall mean
Offering characteristics	Broad line of products	4,22	**3,70**	5,27	4,21
	Deep lines of products	**4,04**	4,91	5,00	4,56
	Highly customized products	4,75	5,51	**4,18**	4,94
	Co-created with the client	**3,96**	5,00	4,09	4,39
Customer value proposition	High quality*	5,84	6,28	5,41	5,93
	Low price or cost saving	**3,86**	4,77	4,68	4,37
	High affective value	**4,00**	5,62	5,14	4,84
	Social status	**3,55**	5,81	4,73	4,65
Market characteristics	B-to-b market	4,82	5,36	**3,77**	4,84
	Niche market	**4,31**	5,28	4,50	4,73
International adaptation	Product	**2,86**	4,11	3,59	3,48
	Promotion methods	**2,14**	4,30	4,14	3,35
	Distribution methods	**2,35**	4,21	4,27	3,43
	Price	**2,90**	4,68	5,14	4,01
Channels	Impersonal customer contact channels	**1,65**	1,98	2,05	1,85
	Indirect export	3,53	**2,40**	5,45	3,44
	Direct export	4,27	5,19	**2,41**	4,29
Main partners	Client*	6,25	6,55	6,27	6,37
	Supplier*	5,90	6,28	6,00	6,07
	Competitors	**4,00**	5,04	4,68	4,53
	Local authorities and / or governments	**2,39**	3,89	3,14	3,12
	Research institutes and universities	**2,22**	3,53	3,41	2,95
	Sector associations	**2,59**	3,68	3,82	3,24
Main internal competences	Production/operating system	5,00	5,72	**4,77**	5,24
	Selling/marketing	**4,59**	5,36	5,27	5,02
	Information management	**4,63**	5,26	4,91	4,93
	Technology/R&D/creative or innovative	**4,14**	5,68	5,23	4,94
	Financial	**4,39**	4,89	5,32	4,76
	Supply chain management	**4,65**	5,26	5,14	4,97
	Networking/resource leveraging	**4,45**	5,36	4,77	4,87
Economics factors	High volumes	**4,25**	5,21	5,32	4,82
	High margins	**3,49**	4,85	4,00	4,12
	High operating leverage	**3,86**	5,21	4,50	4,51
	Price is fixed	**3,55**	3,57	5,09	3,84

Shaded values refer to highest values and the bold values refer to lowest values. * There are no statistically significant differences between the clusters.

Source: own elaboration

Cluster 1

The first business model and the most used, stands out for offering a low depth of product line (4.04-4.56) and a low co-creation relationship with the client (3.96-4.39). This model is the one that offers the least value for the client both in economic value (3.86-4.37) and in affective value (4.00-4.84) or social status (3.55-4.65) and is based on mainly offering high quality (5.84-5.93) to less specific markets than the other models (4.31-4.73). This model contacts its new customers through traditional channels, such as fairs or sales agents, since it is the one that uses the least new, more general channels, such as the internet, advertisements in the media or social networks (1.65-1.85). In addition, it operates abroad through a mix of indirect (3.53-3.44) and direct export (4.27-4.73). In international markets, it presents a marketing mix that is very poorly adapted to the characteristics of the different markets, both in terms of product (2.86-3.48) and promotion methods (2.14-3.35), distribution methods (2.35-3.43) or price (2.90-4.01). This business model has the client as its main partner (6.25), but generally has the fewest networks. It also has lower competences than the other two models, less in its productive capacity and operations management (5.00-5.24), which is also its main competence. Finally, this model does not sell large volumes of product (4.25-4.82) nor does it reach high margins (3.49-4.12), it also does not present high operating leverage (3.86-4.51) compared to the other two models and the price of the product is largely negotiable, since it presents a low level of fixed prices (3.55-3.84). We rename this business model as a traditional business model.

Cluster 2

The business model of the cluster 2 firms stands out for offering a low variety of products (3.70-4.21), but with a high level of customization (5.51-4.94), in fact, there is a high relationship of co-creation with the client (5.00-4.39). This model is the one that offers the greatest value for the client both in quality (6.28-5.93), economic value (4.77-4.37), affective value (5.62-4.84) or social status (5.81-4.65). This value proposition is aimed at specific markets or niche (5.28-4.73), largely made up of other companies (5.36-4.84). This model distributes value abroad mainly through direct export (5.19-4.29) and in these host markets it adapts its marketing plan, highlighting the adaptation of the product (4.11-3.48) and the adaptation of promotion methods (4.30-3.35), above the rest of the models business of the competition. Value is created thanks to high internal competences. In fact, this model presents the highest means on 6 of the 7 proposed competences. But also thanks to important networks, of which the client (6.55) stands out for being the main partner and the competitors (5.04-4.53); local authorities and governments (3.84-3.12), and research institutes and universities (3.53-2.95) for being more important partners in this model than in the rest. Finally, these companies have a value capture model where their high margins stand out (4.85-4.12) and a cost structure based mainly on fixed costs (5.21-4.51). We rename this business model as a customer-oriented business model.

Cluster 3

The third business model and the least used, stands out for offering broad (5.27-4.21) and deep (5.00-4.56) product lines, and low customization (4.18-4.94). This model offers a lower quality than the rest of the models (5.41-5.93) and directs its proposal

to a market that to a lesser extent is made up of companies (3.77-4.84). This model is the one that uses the most impersonal channels to contact its new clients (2.05-1.85) and indirect export as a foreign operations mode (5.45-3.44). In international markets, it presents a marketing mix adapted especially in distribution methods (4.27-3.43) and price (5.14-4.01). As in the previous models, the main partner is the client (6.27), but this model has a greater collaboration relationship with its sector associations (3.82-3.24) than the rest. Regarding its internal competences, it has the lowest level of production and operations (4.77-5.24) and its financing capacity (5.32-4.76) stands out especially. Finally, it should be noted that this model sells high volumes of product (5.32-4.82) with a fixed price (5.09-3.84). We rename this business model as a product-oriented business model.

3.4.2 Business models and performance

On the one hand, the results of the H-test of Kruskal-Wallis can be seen in Table 3.5. The level of performance of a firm is affected by its business model, $H(2) = 15.528$, $p < 0.05$. Therefore, we can accept hypothesis H1. On the other hand, the results of the isolated comparison of cluster 2, and later of cluster 3, with respect to the rest of clusters are shown in Table 3.6. Cluster 2 firms present a higher median than the rest of the companies, therefore we can accept hypothesis H2a, since companies that have a customer-oriented business model present a higher performance than companies with other orientations, $U= 1080.000$, $p < 0.05$.

Regarding the business model of the cluster 3 firms, the statistical analysis does not show significant differences with respect to the rest of the companies, therefore, we reject hypothesis H2b, due to the fact that we cannot affirm that the firms that have a

product-oriented business model present a higher performance than the rest of companies, U= 1008.500, p > 0.05.

Table 3.5 Kruskal-Wallis analysis

Null hypothesis tested	Cluster 1 mean	Cluster 2 mean	Cluster 3 mean	Kruskal-Wallis H-test	Degrees of freedom	Sig.
The distribution of PER is the same between clusters	19.549	21.830	20.682	15.528	2	0.000

Source: own elaboration

Table 3.6 Mann-Whitney analysis

	Reference cluster mean	Other clusters mean	Mann-Whitney U-test	Wilcoxon W	Z	Sig.
Cluster 2 – (Cluster1 and Cluster 3)	21.823	19.890	1080.000	3781.000	-3.438	0.001
Cluster 3 – (Cluster 1 and Cluster 2)	20.682	20.643	1008.500	5859.500	-0.474	0.635

Source: own elaboration

3.5 DISCUSSION

Next, we are going to comment on the characteristics of the three business models identified in the study, but first we want to point out two characteristics common to the three models and that seem to be the basis of traditional manufacturing SMEs. First, the three models sell high-quality products focused on a niche market. This competitive positioning in SMEs is associated with higher levels of sales abroad (Hennart, Majocchi and Forlani, 2019) and a better export performance (Namiki, 1988). Second, all the groups highlight the support they receive from their direct partners in the value chain, that is, from customers and suppliers. These partnerships are also positively related to the export performance of traditional SMEs (Zucchella and Siano, 2014).

Business model 1: Traditional manufacturer business model

This business model is characterized by having a simple value proposition and a somewhat isolated situation, aspects that seem to be the result of a traditional vision of the business. First, the value proposition is simple because it is based on little deep product lines, product standardization and a global proposition for all international markets, and focuses on a less specific market. Second, this model has fewer networks than the others: it places little importance on partners and has the lowest levels of co-creation with the customer. Third, it uses traditional channels to capture new customers and supplies them internationally through a mix of direct and indirect exports. Fourth, production and operations management have the greatest competence, and the least competence in technology, innovation and creativity. Finally, they present the lowest values of economic factors, highlighting the possibility of price negotiation and low sales margins.

Business model 2: International customer-oriented business model

This business model seems to derive from a strategic customer-orientation. The value proposition of this model is characterized by maximizing consumer satisfaction and focusing on a market niche, characteristic aspects of customer-oriented firms (Hagen et al., 2012). We can intuit that these firms focus on knowing the customer and satisfying their needs better than the competition, because they present the highest degree of international adaptation and the greatest customization of the product. In fact, they integrate the client into the value generation process. This great customer adaptation is compensated by narrow product lines. In addition, due to the need to have a closer relationship with the client, these models mainly use direct export as a foreign

operations mode. In terms of value creation, this model has the highest level in most internal competences, including networks. Its main partner is the client, as in the rest of the models, but its cooperative relationship with competitors also stands out. This relationship of coopetition, with other companies in the market, helps the expansion of the firm (Luo, 2007; Brandenburger and Nalebuff, 2011), since these firms compete in some activities, while they can cooperate in aspects such as compensate for host market failures; share suppliers or distribution channels, or found industrial clusters (Luo, 2007). In terms of value capture, this model presents higher margins and high fixed costs. Consequently, this business model requires more resources than other models when it comes to being implemented and it is possible that for this reason it is generally adopted by medium-sized companies.

Business model 3: International product-oriented business model

This business model seems to derive from a strategic product-orientation. The value proposition is very varied, with broad and deep product lines, but very little customization, so we can think that it is very focused on expanding the product range. In fact, it has a high level of internal competency for technology, innovation and creativity. These characteristics are typical of firms focused on differentiation (Bamiatzi and Kirchmaier, 2014). Although it has the lowest level of product quality, this is its main CVP aspect, as Hagen et al (2012) do in the group of product-oriented companies. This value proposition is generally aimed at non-corporate customers and therefore these firms use the highest levels of generic and impersonal customer contact channels. The products are distributed internationally through indirect export. But far from being a passive internationalization, these companies adapt aspects such as distribution methods and prices to different foreign markets. Consequently, there is a

significant focus on international sales. This idea is reinforced by its significant competency in sales and marketing, only behind the competency in financing. In addition, these companies sell high volumes of products with a very little negotiable price, but adapted to each market. Finally, this model is also supported by partners, of which the sector associations stand out.

Of the business models presented above for traditional manufacturing SMEs, the customer-oriented business model presents better performance results than the rest of the business models. This may be because it aligns better with newer features on the market. These firms can face high competition by customizing their value proposition, both at the intra-market level, customizing the characteristics of their products, and at the inter-market level, adapting the offer to each geographic market. In addition, these companies present a business model designed to support this value proposition.

3.6 CONCLUSIONS

In this chapter, we identify, through an empirical process, three different business models present in international SMEs of traditional manufacturing industries and, based on the configurational theory, we identify that a business model derived from a clear customer orientation is adapted better to the new characteristics of the current global market and therefore presents a higher performance. These results represent valuable contributions to the spread of knowledge about traditional manufacturing SMEs. These firms are of great importance for economies such as Spain, although they are subject to economic forces that limit their ability to expand abroad and even survive in their domestic markets. Therefore, the study of these companies is very pertinent and contributes not only to expanding scientific knowledge, but it can also be useful for managers and politicians. Our results show evidence that can be taken by

practitioners to improve the performance of SMEs, designing strategies focused on implementing business models with a greater customer orientation, and by politicians to propose policies adapted to the current environment of these industries.

Returning to the academic contributions made by our study, this chapter allows us to expand the knowledge in different aspects.

First, the results of this study make an important contribution to the literature on SMEs, showing behavioural patterns associated with success. Second, our study incorporates a new level in the taxonomy of organizations: the business model. Third, the study of business models contributes to the configurational theory, showing the relationship patterns of the internal elements of the firm. Finally, this work shows an example of operationalization of the business model for a quantitative methodology.

However, this study is not without limitations. The lack of previous studies on the business models of manufacturing SMEs makes it necessary to take a theoretical framework based on strategic approaches. Therefore, more empirical and theoretical studies on the models of these firms are necessary. The characteristics of the study sample limit the contributions of this work. In the future it would be interesting to analyse another company profile, regarding its home country, its industry and its level of internationalization, to see if the same patterns are maintained. It is also interesting to analyse a larger sample, which allows to identify more business models or to look for more detailed models that show the equifinality of the business models, in such a way that different business models are identified which pursue the same strategic approach. Finally, future research should study the business models identified from a qualitative methodology that allows finding the links between the design of the model

and the characteristics of the environment and that delves into current issues such as industry 4.0 or sustainability in traditional manufacturing SMEs.

3.7 REFERENCES

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Campania Region. *International Studies of Management & Organization, 44*(1), 21-41.

3.8 APPENDIX

Table 3.7 Business model items

		Item	Likert scale
	Offering		
1	OFF1	Broad line of products.	1: totally disagree – 7: totally agree
2	OFF2	Deep lines of products.	
3	OFF3	Highly customized products.	
4	OFF4	Our products are created in collaboration with the client.	
	Value for the customer		
5	VAL1	High quality products perceived by the consumer.	1: totally disagree – 7: totally agree
6	VAL2	Low price or cost savings products perceived by the consumer.	
7	VAL3	High affective value products perceived by the consumer.	
8	VAL4	Products with an associated social status perceived by the consumer.	
	Target customer		
9	CLI1	Only other companies (b-to-b)	1: totally disagree – 7: totally agree
10	CLI2	Products targeted to a specific market (niche).	
	Adaptation to foreign markets		
11	ADA1	Products characteristics	1: totally disagree – 7: totally agree
12	ADA2	Promotion methods	
13	ADA3	Distribution methods	
14	ADA4	Price	
	Channels		
15	CHA1	We use general, impersonal and low-cost channels to contact the client (e.g. TV, internet, social networks, etc.) compared to other traditional channels such as referrals or direct contact	1: totally disagree – 7: totally agree
16	MOD1	We use indirect export compared to other international entry modes	
17	MOD2	We use direct export compared to other international entry modes	
	Main partners		
18	PAR1	Client	1: totally disagree – 7: totally agree
19	PAR2	Suppliers	
20	PAR3	Competitors	
21	PAR4	Local authorities and / or governments	
22	PAR5	Research institutes and universities	
23	PAR6	Sector associations	
	Main competences		
24	CAP1	Production/operating system	1: totally disagree – 7: totally agree
25	CAP2	Selling/marketing	
26	CAP3	Information management	
27	CAP4	Technology/R&D/creative or innovative capabilities	
28	CAP5	Financial	
29	CAP6	Supply chain management	
30	CAP7	Networking/resource leveraging	
	Economic factors		
31	ECO1	High volumes	1: totally disagree – 7: totally agree
32	ECO2	High margins	

33	ECO3	High operating leverage
34	ECO4	The price of our products is fixed and is not negotiable

Source: own elaboration

Table 3.8 Post Hoc test

Item	Kruskal-Wallis H-test	Degrees of freedom	Sig.
OFF1	9.626	2	0.008
OFF2	15.719	2	0.000
OFF3	13.177	2	0.001
OFF4	10.870	2	0.004
CLI1	11.505	2	0.003
CLI2	7.963	2	0.019
VAL1	**2.326**	**2**	**0.313**
VAL2	13.512	2	0.001
VAL3	29.012	2	0.000
VAL4	45.734	2	0.000
MOD1	33.924	2	0.000
MOD2	32.176	2	0.000
CHA1	10.153	2	0.006
ADA1	10.292	2	0.006
ADA2	36.209	2	0.000
ADA3	30.527	2	0.000
ADA4	28.945	2	0.000
PAR1	**3.815**	**2**	**0.148**
PAR2	**1.108**	**2**	**0.575**
PAR3	12.119	2	0.002
PAR4	21.665	2	0.000
PAR5	19.921	2	0.000
PAR6	15.918	2	0.000
CAP1	11.795	2	0.003
CAP2	8.983	2	0.011
CAP3	11.572	2	0.003
CAP4	31.428	2	0.000
CAP5	13.943	2	0.001
CAP6	7.770	2	0.021
CAP7	14.712	2	0.001
ECO1	13.344	2	0.001
ECO2	29.581	2	0.000
ECO3	28.387	2	0.000
ECO4	21.300	2	0.000

Bold values refer to non-significant items.

Source: own elaboration

CHAPTER 4: GEOGRAPHIC SCOPE IN MANUFACTURING SMES: BUSINESS MODEL AND INTERNATIONALIZATION OF ACTIVITIES

ABSTRACT

This study is focused on the geographic scope and its interplay with the business model as important elements driving the international success of traditional manufacturing SMEs. We analyse two dimensions of geographic scope: the breadth of countries and the breadth of regions, and we propose the internationalization of the upstream activities of the value chain and the business model as drivers for both types of foreign growth. Our results show differences in the relationship of the factors with each of the dimensions of the geographic range. While the internationalization of upstream activities and the design of a customer-oriented business model show a positive relationship with the expansion in number of countries, the design of customer-oriented or product-oriented business models show a positive relationship with a breadth, at least, bi-regional. In the light of these findings, we show two routes to globalization associated with both dimensions.

4.1 INTRODUCTION

In recent years the economic environment has been characterized by a process of homogenization of consumer tastes and increasing flow of information, technology, financial resources and ideas between countries. Driven by the technological improvements that have reduced the costs of participation in foreign markets (Acs and Preston, 1997), this has generated a favourable environment for international trade in the so called "global market". However, many scholars argue that we are now entering a new era characterised by protectionism limiting foreign trade (Witt, 2019) and a certain degree of de-globalization (Petricevic and Teece, 2019). In addition, the current Covid-19 pandemic has caused great changes in the position that countries, companies and consumers take in the global market, and the long-term consequences of the pandemic will vary between countries (Zahra, 2021).

These major changes posit brand new challenges for firms aiming to expand internationally. At the business level, the global market has created the opportunity to produce and sell products around the world, but it has also created a much more competitive environment. Many small and medium-sized enterprises (SMEs) have been prompted to join this race to cover more and more geographic markets, becoming increasingly global in scope.

In this study we aim to analyse the elements determining the geographic scope of SMEs by considering not only the internationalization of downstream, but also upstream activities from a resource-based perspective framed within the business model logic. Researchers analysing the drivers of the international diversification of these firms have often focused on two factors: intangible resources (e.g., Fernández-Olmos and Díez-Vial, 2013) and networks (e.g., Zimmerman, Barsky and Brouthers,

2009). However, global expansion involves a greater effort and requires more resources, due to the liability of foreignness which applies specifically in the internationalization across regions (Rugman and Verbeke, 2004; 2007; Qian, Li & Rugman, 2013).

The expansion across multiple countries or regions is even more complicated in the case of SMEs (Liñán, Paul and Favolle, 2020). Further, geographic scope is considered as an important dimension for the study of internationalization (Zahra and George, 2002; Delios and Beamish, 1999). A broad geographic scope or breadth entails greater access to customers and resources (Cerrato and Fernhaber, 2018), and is therefore associated with greater international diversification (Cerrato and Fernhaber, 2018; Hsieh et al., 2019). Firms with broader market (country) portfolios minimize risk since geographic diversification can be a crucial aspect for the survival of SMEs in an increasingly uncertain, competitive and changing global market. Nevertheless, international business (IB) literature in this field such as international entrepreneurship - typically related to the study of SMEs - has mostly focused on the phenomenon of early internalization, leaving dimensions such as geographic breadth with requirements for further research (Hsieh et al., 2019). For this reason, and due to the great importance of SMEs for the economy and society, it is necessary to deepen in our understanding of the factors that reduce the barriers in the global expansion of SMEs.

In this study we identify some factors associated with a great geographic scope by SMEs. We contextualize this research in European firms with Spain as home market in traditional manufacturing industrial sectors, which have suffered particularly the recent crisis given the nature of its activity.

To accomplish this goal, we rely on the resource-based view (RBV) which, in spite of being largely applied to multinationals, still requires further research in the case of international SMEs (Dabić et al., 2020). We propose two elements as drivers of the globalization of SMEs: the business model, understood as a combination of strategic resources and capabilities focused on creating, distributing and capturing value, and the internationalization of upstream activities, as a source of useful resources for the firm's competitive advantage.

In so doing, we aim to make three main academic contributions. First, we expand our knowledge about the geographic scope of SMEs. Up to date, studies on international entrepreneurship have offered a limited picture on the behavioural patterns of country and regional diversification in SMEs, partly due to the varied measurements and conceptualizations employed. Second, we introduce the business model logic as a framework to explain how geographical breadth relates to a firm global or regional strategy, as well as its customer orientation. As such, our study portrays the business model as a source for competitive advantage, rooted in the resource and knowledge-based views (KBV). We propose a simplified but solid operationalization of business model which can be introduced in further quantitative studies aiming to account for the heterogeneity of the business model and its crucial implications for the SMEs' international expansion. Third, our study identifies differences in terms of useful resources in the internationalization patterns of SMEs beyond home-region orientation. We therefore extend previous studies drawing on the RBV logic to identify resources for inter-regional expansion in the case of multinational firms (Villar, Dasí and Botella-Andreu, 2018), contributing to the scarce literature on global strategy in SMEs.

The chapter is structured as follows: first, we identify the main factors that define international SMEs, to highlight the importance of geographical breadth for research on international SMEs. Second, we propose our hypotheses, linking geographical breadth to the degree of internationalization of upstream activities and to the business model. Next, we show the characteristics of the methodology used in the study. We then perform the data analysis and provide the results. Finally, we discuss our contributions, present the limitations of the study and provide avenues for future research.

4.2 THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

4.2.1 Knowledge and geographical scope of SMEs

According to RVB firms possess a bundle of resources and capabilities which, combined in unique ways, allow them to achieve sustainable competitive advantage (Barney, 1991). Firms constantly need to obtain new resources to continue generating competitive advantage for their international expansion. RBV is therefore particularly appropriate to study international expansion, since it serves to identify the resources involved in the diversification process (Peng, 2001).

In the case of SMEs, their need for resources to gain competitiveness in international markets is noteworthy. SMEs have been found to face important resource limitations not only confined to financial resources (Hutchinson and Xavier, 2006). SMEs rely heavily on intangible resources such as networking capabilities (Johanson and Mattson, 1988), marketing capabilities (Piercy, Kaleka, and Katsikeas, 1998), innovation and knowledge management processes (Hitt, Ireland and Lee, 2000), technological resources (Knight and Cavusgil, 2004), experience (Villar, Pla-Barber

and Alegre, 2012) or human capital (Fernández-Olmos and Díez-Vial, 2013). Although these resources can be acquired internally, they are often facilitated by the cluster in which the SMEs is immersed (Foss, 1996).

A recent literature review by Liñán, Paul and Fayolle (2020) conclude that small firms have a series of barriers to their expansion in the global market such as "... financial constraints, insufficient information, the selection of reliable partners and distributors, cognitive bias, lack of negotiating power, insufficient resources, the liability of foreignness, little international experience, the lack of protection from the government, and demand insufficiency for the products ... " (2020:701). This is particularly evident in the context of manufacturing SMEs; for instance, researchers have analysed the importance of acquiring external resources for Spanish SMEs often located in local clusters (e.g., Belso-Martínez, 2006; Pla-Barber and Puig, 2009; Fernández-Olmos and Díez-Vial, 2013). In a similar vein, D'Angelo, Majocchi, Zucchella and Buck (2013) also report the lack of resources as a main barrier to reach global scope for SMEs from Italy.

Besides providing access to strategic resources, internationalization can act as a generator of new capabilities (Zahra, Ireland and Hitt, 2000; Blomstermo, Eriksson, Lindstrand and Sharma, 2004; Teece, 2007; Kafouros, Buckley and Clegg, 2012; Riviere and Bass, 2019). In this sense, from a RBV viewpoint internationalization can be understood as a virtuous circle, allowing access to new resources which in turn improve the firm's competitiveness for internationalization. Considering knowledge as the most crucial resource for the firm, KBV has emerged as an extension of the RBV, positing that the acquisition and proper use of relevant knowledge could explain the different results among organizations (Grant, 1996; Zander and Kogut, 1995). Most

studies proposing internationalization as a source of resources focus on the acquisition of knowledge (Hernández and Nieto, 2016).

International entrepreneurship and geographical scope of SMEs

The interest in the phenomenon of international SMEs has led to an extensive own literature and a wide range of terms to name and classify these enterprises. Still, although this large number of terms can cause confusion when studying international entrepreneurial SMEs, most of them focus on three aspects of internationalization: the mode in which they operate internationally, the speed at which they internationalize and their geographical scope. To illustrate this diversity, Table 4.1. lists the main names that international SMEs receive and shows which one or which of the above aspects they refer to.

Table 4.1 International SMEs terminology

Terminology	Authors	International dimension		
		Entry mode	Geographic breadth	Time/speed
International new ventures (INVs)	Oviatt & McDougall, 1994			X
Born globals (BGs) and Born-again globals	Rennie, 1993; Knight and Cavusgil, 1996; Madsen and Servais, 1997; Bell, McNaughton and Young, 2001		X	X
Micromultinationals (mMNEs)	Dimitratos, Johnson, Slow and Young, 2003	X		
Global smaller firms (GSFs)	Dimitratos, Plakoyiannaki, Pitsoulaki, and Tüselmann, 2010		X	
Born micromultinationals (Born mMNEs)	Vanninen, Kuivalainen, and Ciravegna, 2017	X		X

Source: own elaboration

Derived from this brief terminology review, we can identify three characteristics that are relevant for IB researchers to differentiate SMEs according to their international profile:

Multinational: the terms that include the name "multinational", such as "micromultinational" (Dimitratos, Johnson, Slow and Young, 2003) or "Born micromultinational" (Vanninen, Kuivalainen, and Ciravegna, 2017), refer to small or medium-sized multinational companies. These terms take an operating definition of a multinational company, being a multinational company the one that uses advanced (non-exporting) foreign operations modes, and thus a firm may or may not be labelled "multinational" depending on the entry modes used for its international expansion.

New or born: the nomenclatures that include the name "new" or "born" refer to firms that have become internationalized shortly after their foundation, such as the "International new ventures" (INV) (Oviatt and McDougall, 1994) and the “Born globals” (BG) (Knight and Cavusgil, 1996), or that have expanded rapidly after their first international experience such as the "Born-again globals" (Bell, McNaughton and Young, 2001).

Global: in most cases the terms “BG” and “INV” are used indifferently, encompassing both in a single theoretical approach. However, the BGs hold a vision of the world without borders (Cavusgil and Knight, 2009) and a clear active orientation towards international expansion; some authors even differentiate the BG from the INV due to its global character (e.g., Crick, 2009; Dimitratos, Plakoyiannaki, Pitsoulaki, and Tüselmann, 2010).

Furthermore, there is no consensus in measuring the level of globality of a firm. In line with the proposal by Rugman and Verbeke (2004; 2007), some authors differentiate between global or inter-regional company, considering as "global" the one that is located in various regions (e.g., Lopez, Kundu and Ciravegna, 2009), while in the literature we find other authors defining a global firm such as one that is present in the main markets of its industry (e.g., Berry, Dimitratos and McDermott, 2002). Regardless of the concept of global company adopted, the globalization of a company is certainly defined by its presence in multiple markets (countries) through a commercial vision without borders, such that the greater the geographic scope, the greater the probability to achieve superior performance due to the possession of resources (Delios and Beamish, 1999).

4.2.2 Internationalization of upstream activities and geographic scope

Geographical scope (or breadth) refers to the actions of the firm in multiple geographical environments (Riviere and Bass, 2019) and is related to international diversification (Delios and Beamish, 1999; Cerrato and Fernhaber, 2018; Hsieh et al., 2019). Hitt, Hoskisson and Ireland (1994) define geographical scope as "expanding across country borders into geographic locations (e.g., markets) that are new to the firm" (1994:298). Specifically, in this study we analysed geographical scope at both country and regional level. However, because different types of knowledge are valuable resources for acquiring a competitive advantage, the international competitiveness of SMEs driven by their own internationalization can be further analysed from two sources: the internationalization of upstream activities and downstream activities consistent with the classical geographical and value scope dimensions.

Recent years have been characterized by the creation of cross-border dispersed networks and the fragmentation of activities such as the production process across different countries (Buckley and Ghauri, 2004), either integrated within the same company or organized between companies in global value chains (Gereffi, Humphrey and Sturgeon, 2005). Due to this disaggregation of activities between companies, the source of knowledge can also be through direct experience or indirect experience through their networks (vicarious knowledge acquisition) (Huber, 1991; Fletcher and Harris, 2012).

SMEs obtain different types of knowledge depending on the type of activities located internationally (Naldi and Zahra, 2007), because the knowledge differs whether if it is obtained from locating upstream activities outside the borders (e.g., supply, design or production) or downstream activities (e.g., marketing, sales or after-sales service). Indeed, previous studies such as Naldi and Zahra (2007) depict the internationalization of upstream activities as a source of technological knowledge, whereas the internationalization of downstream activities as a source of market knowledge. Following this logic, the fragmentation of value chain and the internationalization of upstream activities can be considered as a way to improve the international competitiveness of the company. Such variety of sources can help to build the capabilities required for international diversification, thus facilitating expansion beyond borders. In order to test its impact on the geographical scope in manufacturing SMEs, we split this effect into country and regional breadth. We propose the following hypotheses:

H1: Manufacturing SMEs that have internationalized upstream activities in the value chain exhibit a greater breadth of countries

H2: Manufacturing SMEs that have internationalized upstream activities in the value chain will exhibit a greater breadth of regions

4.2.3 Business model design and geographic scope in SMEs

Firm-focused approaches such as RBV and KBV highlight that the value of resources resides on their ability to offer unique value to consumers. through the RVB, the business model is structured around a value proposition derived from maximizing the value of strategic assets and core competences (Rassmusen, 2007). In this regard, the business model shows a more complete vision, considering the connections between the company's resources and capabilities, but also its network, and offering a more detailed description of the demand (Tallman, Luo and Buckley, 2018).

The business model, as an element through which the firm competes in the marketplace (Casadesus-Masanell and Ricart, 2010), must have a strong relationship with the form, speed, depth and scope of the firm's internationalization. In fact, Hennart (2014) proposes that the business model can become a driver of internationalization, even if the firm does not take an active position in the face of such cross-border expansion. For the particular context of international Spanish manufacturing SMEs and based on the results obtained in Chapter 3, we found three general business models: traditional, customer-oriented and product-oriented.

Traditional business model: this business is based on a simple and standardized value proposition, both at a global level and at the individual level of each client and aimed at a more general market than that of other companies in the sector. Generally, in this model an indirect and direct export mix is employed to grow internationally, the firm is also in a more isolated situation than the rest of the companies, having few types of partners in its network.

Customer-oriented business model: this business model seems to derive from a strategic customer-orientation (Hagen, Zucchella, Cerchiello and Giovammi, 2012). Its value proposition is composed of few product lines but that seek to maximize consumer satisfaction, which is in a niche market. The offering is highly adapted to each market and personalized to the client's requirements. This model uses direct export to operate in foreign markets, deploying a high level of internal competences and a strong network capability.

Product-oriented business model: This business model seems to derive from a strategic orientation towards the product (Haguen et al., 2012; Bamiatzi and Kirchmaier, 2014). On the one hand, this model has a wide range of products, yet with little customization. In addition, it has significant competences in technology, innovation and creativity. On the other hand, it has a very active approach towards internationalization with high-level competences in sales and marketing, as well as greater adaptation of the distribution methods and product pricing to each foreign market. The entry mode generally used is indirect export.

Due to the difficulties presented by the operationalization of the business model as an element of quantitative analysis and the relative novelty of its use in IB research, we found few studies that analyse its relationship with the internationalization of the firm in general and less with the geographical scope in particular. However, we find in the literature some works studying international success in different profile of firms from which we believe some key elements can be extrapolated for traditional manufacturing companies:

a) *Offering characteristics, Customer value proposition and market characteristics.* High product quality seems to be a key characteristic of international SMEs (Krauss, Brem, Schuessler, Schuessler and Niemand, 2017). In fact, all of our international business models share this aspect. Targeting a niche market can also be related to the speed at which firms expand internationally (Hennart, 2014, Krauss et al., 2017; Autio, 2017), a characteristic that we find in the product-oriented business model and especially in the customer-oriented model. We found other aspects related to customer orientation associated with international entrepreneurial firms, such as co-creation with the client (Gray and Farmines, 2014; Tanev, Rasmussen, Zidemans, Lemminger and Svendsen, 2015) or the focus on the b-to-b market (Hennart, 2014). But experience in product diversification is associated with useful management skills for international diversification (Hitt, Hoskisson and Kim, 1997), and high product diversification is a characteristic of the value proposition of product-oriented models.

b) International adaptation. International firms must decide between standardizing or adapting their marketing mix to different international markets, based on internal forces (firm and product characteristics) and external forces (industry and market characteristics) (Cavusgil and Zou, 1994). This strategic choice has been widely addressed in the literature, but it seems difficult to find an optimal solution due to the advantages and disadvantages associated with each strategy and the role of the market as a determining factor in the decision. On the one hand, standardization can generate economies of scale and strong brand image (Levitt, 1983), and by simplifying the internationalization process, standardization can accelerate the internationalization of firms (Hennart, 2014). Traditional business model offers a highly standardized value proposition. Standardization works well between homogeneous countries (Kustin,

2004), but this approach seems difficult to apply when the firm is highly diversified internationally, especially if it has a presence in different regions. On the other hand and for this reason, other authors advocate adaptation as the best way to act in foreign markets (e.g., Navarro-García, Peris-Ortiz and Barrera-Barrera, 2016; Albaum and Tse, 2001; Cavusgil, Zou and Naidu, 1993). Customer-oriented business model fits these types of companies with a high adaptation of their marketing mix. Finally, firms can obtain a high degree of adaptation only in those aspects that generate a better international performance (Theodosiou and Leonidou, 2003). In this case, the product-oriented business model presents a high adaptation of aspects such as the distribution method or price, but a low adaptation of the product characteristics.

c) Transactional channels. The study of the choice of entry modes by SMEs is especially complex. In these firms, decisions are sometimes based on the personal interest of the entrepreneur (Laufs and Schwens, 2014); also, the literature is divided as regards which form is the most suitable to expand internationally. On the one hand, the limited resources suffered by these companies makes them choose non-equity entry modes (Cassiman and Golovko, 2011). On the other hand, precisely due to this constraints specific resources must be protected, and the choice of equity entry modes seems more appropriate (Brouthers and Nakos, 2004). However, many factors are involved at different levels (personal, firm, business relationships, industry and country) (Bruneel and De Cock, 2016) and it is a dynamic choice (Benito, Petersen and Welch, 2009).

In the business model literature, the choice of non-equity entry modes seems to be associated with faster internationalization processes (Hennart, 2014; Krauss et al., 2017). Child et al. (2017) identifies that the business model present in traditional

industries such as clothing manufacturing generally uses direct export, due to the important role of customers in this business model. In our case, the majority of firms are only exporters. The customer-oriented business model relies mainly on direct export and the product-oriented business model on indirect export, while the traditional model mixes the two. Considering other aspects of these business models, it appears that the entry mode choice is largely based on alignment with the other elements of the model, and consequently, it is difficult to determine that an export type, by itself alone, is associated with a great international breadth.

d) Internal competences and partners. From the RBV the firm's resources are essential to generate critical competences and competitive advantage. In the case of SMEs, their limited resources make it a challenge to achieve core competences. Among the business models that we find in Spanish SMEs in traditional manufacturing industries, the customer-oriented one generally has greater competences, but the product-oriented one has greater capability to have financing, a fundamental aspect and especially difficult to achieve in the case of the SMEs.

In general, the literature advocates that SMEs can use network relationships to compensate for various limitations (Zain and Ng, 2006), and in this way, networks facilitate the internationalization process (Lu and Beamish, 2001; Sainio, Saarenketo, Nummela and Eriksson, 2011; Mattsson, Helmersson and Standing, 2019). Although some studies suggest that they can also limit the international scope of the firms (Coviello and Munro, 1995). Zucchella and Siano (2014) empirically demonstrate that partnership with suppliers and customer are positively related to export performance in Italian manufacturing SMEs. In the case of Spanish firms, consumer-oriented and product-oriented business models depict a major importance of networks.

e) Economic factors. With regard to the economic factors of the firms, in the product-oriented model the price of the product is not negotiable, an aspect that facilitates early internationalization (Hennart, 2014), and large batches of product are sold. But on the other hand, in the consumer-oriented business model, margins are higher, as is operating leverage, both aspects associated with higher profitability.

Taking into account the limited prior knowledge about the relationship between the business model and the geographic scope of SMEs, we aim to test these aspects in the context of manufacturing firms. To do so, we propose the following hypotheses:

H3a: Manufacturing SMEs with a business model derived from a customer orientation exhibit a greater breadth of countries.

H3b: Manufacturing SMEs with a business model derived from a product orientation exhibit a greater breadth of countries.

H4a: Manufacturing SMEs with a business model derived from a customer orientation exhibit a greater breadth of regions.

H4b: Manufacturing SMEs with business model derived from a product orientation exhibit a greater breadth of regions.

4.3 METHODOLOGY

4.3.1 Research design

Our population was obtained from ORBIS database by Bureau van Dijk, which contains financial information about more than 300 million companies. Firms in the population are Spanish companies meeting the following criteria: less than 250 employees according to the parameters to be considered as SMEs in Europe, which also export their products internationally. The economic activity of these firms is referenced with the NACE 2009 codes of 13, 15 or 31 (furniture, textile and footwear),

these being some of the most representative and important businesses in traditional manufacturing industries. Based on our search in the ORBIS database, 7,038 firms fit these criteria.

The data collection was carried out in 2019 through a survey questionnaire. The questionnaire was designed taking into account the recommendations of Podsakoff, Mackenzie, Lee and Podsakoff (2003) to avoid common method bias ex-ante and was pretested on academic and professional experts (Collins, 2003).

We obtained 120 valid responses. Although firms belong to different sectors, the sample composition is relatively balanced, in that 25.0% of our firms belong to the manufacture of furniture, 35.8% are dedicated to the manufacture of textile products and 39.2% to the production of footwear. Firms in our sample differed in terms of number of employees, age or international experience, accounting for the heterogeneous profiles of firms that compete in these sectors.

4.3.2 Measurement of variables

Dependent variable.

Our empirical analysis consists of two models (model A and model B) that analyse complementary aspects of the *geographic scope* of the firm. Model A has the breadth of countries as the dependent variable and model B has the breadth of regions as the dependent variable.

Breadth of countries is a binary variable and is coded according to the general evaluation of our data set. This variable is derived from the number of markets (countries) to which the firm exports products (Casillas & Acedo, 2013; Welch & Luostarinen, 1988). The variable takes the value 0 if the firm exports to a moderate

number of countries (up to 15 countries) and takes value 1 if the firm exports to a large number of countries (more than 15 countries). Of the 120 cases that make up our sample, 63 take a value of 0 (52.5%) and 57 take a value of 1 (47.5%) for this variable.

Breadth of regions is a binary variable derived to the number of regions to which the firm exports. The variable takes a value of 0 if the firm's exports have a regional scope (1 single region) and take a value of 1 if the scope of the firm is bi-regional or global (at least 2 regions). This variable is distributed in 43 cases that take a value of 0 (35.8%) and 77 cases that take a value of 1 (64.2%).

Independent variables.

Business model is a categorical variable, defined through a cluster analysis with 34 items that describe different elements of the firm's business model (see chapter 3). This variable takes 3 possible options: international traditional business model, international customer-oriented business model and international customer-oriented business model. In our sample, 51 firms have a traditional business model (42.5%), 47 have a consumer-oriented business model (39.2%) and 22 show a product-oriented business model (18.3%).

Degree of internationalization of upstream activities is a continuous variable that indicates the percentage of upstream activities of the value chain, in which the firm is embedded, that are carried out within the firm or by another firm abroad, either totally or partially.

Control variables.

As control variables we have introduced variables traditionally used to study the internationalization of firms: *size*, measured by number of employees; *international*

experience, measured in years from the first international experience of the firm until 2019; *professional board of directors*, taken as 1 if the company has a professional board of directors, and *sector*, measured by a categorical variable that refers to the industrial sector in which the firm carries out its activities. This last variable can take 3 categories: textile, furniture or footwear.

Firm size influences the intensity of exports (Majocchi, Bacchiocchi and Mayhrofer, 2005). International experience is also a factor to take into account and important when selecting foreign markets (Erramilli, 1991). The fact that the firm has a professional board of directors influences the internationalization of family firms (Gallo and Sveen, 1991), which are very present in our sample. Finally, the industrial sector also influences the export propensity (Javalgi, White and Lee, 2000).

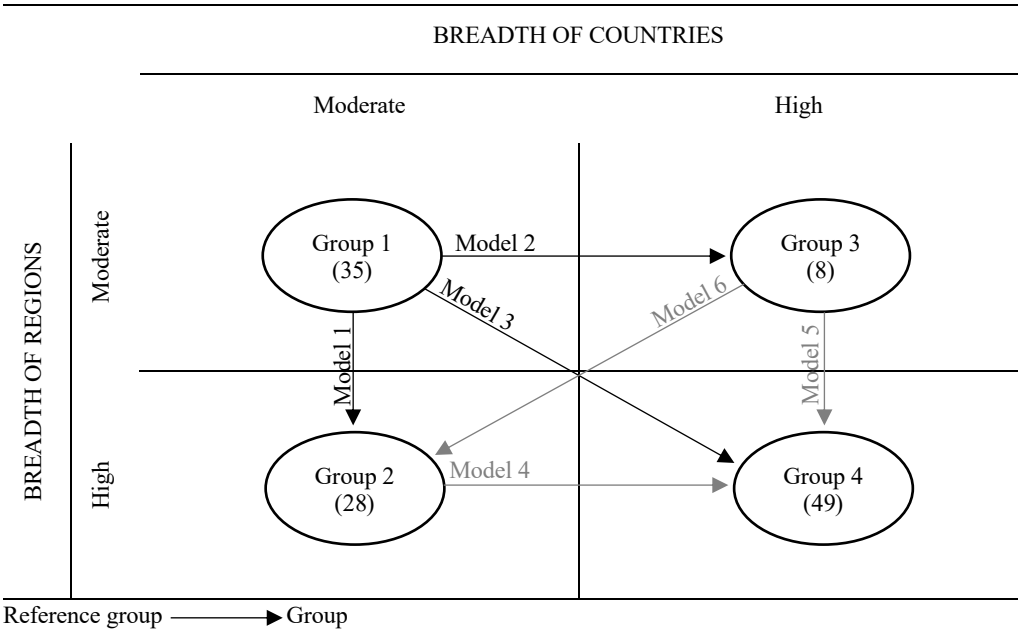
4.3.3 Statistical analysis

To test our hypothesis, we employed two logistic regression analysis, one for model A (country) and another for model B (region). We chose logistic regression analysis because our dependent variables are dichotomous categorical variables that can take two possible values.

Furthermore, a third test was carried out to complement the results from logistic regression and provide the study with greater robustness. In order to analyse the effect of the independent variables (business model and degree of internationalization of upstream activities) on the dependent variable, we proceeded to a multiple regression logistic analysis. We compiled both dependent variables into a single qualitative variable that takes 4 values: the variable takes value 1 if the firm exports to a moderate number of countries in a single region, takes value 2 if the firm exports to a moderate

number of countries but located in at least two regions, takes value 3 if the firm exports to large number of countries located in a single region, or it takes value 4 if the firm exports to a large number of countries located in several regions. Figure 4.1. shows this analysis and the 6 models derived from it.

Figure 4.1 Multinomial logistic regression model configuration



Source: own elaboration

4.4 RESULTS

Table 4.3. reports the means, standard deviations, variance inflation factor (VIF) and correlations of the variables. The maximum correlation between variables is -0.431 and the largest VIF is 1.439, which is well below the suggested threshold of 10 (Hair, Black, Babin and Anderson, 2009). Thus, there are no concerns related to multicollinearity even including interaction terms.

Table 4.2 Descriptive statistics, correlations and VIFs

	Mean	S.D.	V.I.F.	1	2	3	4	5	6	7	8
International upstream activities	0.1939	0.16850	1.067	1.000							
Business model (Customer-oriented)	0.3917	0.49017	1.439	0.061	1.000						
Business model (Product-oriented)	0.1833	0.38856	1.297	0.060	-0.380**	1.000					
Size	58.517	44.6896	1.199	0.168	0.259**	0.004	1.000				
International experience	26.6133	19.84313	1.164	0.005	0.271**	-0.086	0.161	1.000			
Professional board of directors	0.442	0.4987	1.181	0.159	0.180*	0.012	0.274**	-0.059	0.100		
Sector (Textile)	0.3583	0.48152	1.409	-0.073	0.041	-0.264**	-0.049	0.172	0.105	1.000	
Sector (Furniture)	0.2500	0.43483	1.319	-0.034	0.168	0.075	0.141	-0.055	0.068	-0.431**	1.000

Notes: two tailed test; *p < 0.1; **p < 0,05; ***p < 0.01.

Source: own elaboration

4.4.1 Country scope (Model A)

We estimated two models. model A1 shows the effects of the control variables on the dependent variable (breadth of countries) and model A2 includes the hypothesized independent variables. In model A2 we observe an improvement in the amount of variance explained with respect to model A1. Model A2, correctly classifies 68.3% of cases (69.80% and 66.7% for moderate breadth of countries and high breadth of countries, respectively), and has a moderated fit (R^2 Nagelkerke = 0.265 and R^2 Cox & Snell = 0.199). In model A2, degree of internationalization of upstream activities is statistically significant and positive ($\beta = 2.802$, $p < 0.05$) representing the magnitude of the change in the logic of the dependent variable. Therefore, we can accept H1.

For business model, on the one hand, the results show that competing with a customer-oriented business model, compared to the reference category is positive and statistically significant ($\beta = 1.304$, $p < 0.01$) related to the change in the logic of the breadth of countries. Therefore, we can accept H3a. As for the magnitude of this effect in our logistic regression, an analysis of odds ratio indicates that the customer-oriented business model, being the rest of variables constant, an increase in this variable rises in 3.684 times the probability of a firms to cover great breadth of countries. On the other hand, competing with a product-oriented business model does not significant increase the probability of having a great breadth of countries. Therefore, we cannot accept H3b. These results are controlled for several variables at the firm and industry levels. However, model A2 does not show any statistically significant control variable. Table 4.3. shows the logistic regression results.

4.4.2 Breadth of regions (Model B)

For the dependent variable breadth of regions, we have also estimated two models, model B1 and model B2. Model B1 is a baseline model that includes only our control variables and the amount of variance explained improves when including independent variables in model B2, which correctly classifies 80.0% of cases (72.1% and 84.4% for moderated breadth of regions and great breadth of regions, respectively). Model B2 has a good fit (R^2 Nagelkerke = 0.348 and R^2 Cox & Snell = 0.254). In Model B2, degree of internationalization of upstream activities does not significant increase the probability of having a great breadth of regions. Therefore, we cannot accept H2.

For H4, on the one hand, the results show that competing with an international customer-oriented business model, compared to the reference category is positive and statistically significant ($\beta = 1.154$, $p < 0.05$) related to the change in the logic of the level of breadth of regions. Therefore, we can accept H4a. As for the magnitude of this effect in our logistic regression, an analysis of odds ratio indicates that the customer oriented business model, being the rest of variables constant, an increase in this variable rises in 3.171 times the probability of a firms is high breadth of regions. On the other hand, competing with an international product-oriented business model is statistically significant and positive ($\beta = 2.777$, $p < 0.01$) representing the magnitude of the change in the logic of the dependent variable. In this case, the probability of high breadth of regions rises in 16.063 times when the firm has a product-oriented business model. Therefore, we can accept H4b. About the control variables, professional broad of directors is statistically significant in Model B2 ($\beta = 1.091$, $p < 0.05$) and the international experience ($\beta = 1.327$, $p < 0.1$). The rest of the control

variables are not statistically significant in Model B2. Table 4.4 shows the logistic regression results.

Table 4.3 Logistic regression results for breadth of countries (Model A)

Variables	Model A1	Model A2
International upstream activities		2.802**(1.301)
Business model (Customer-oriented)		1.304***(0.488)
Business model (Product-oriented)		0.341(0.583)
Size (log)	1.367**(0.656)	0.750(0.700)
International experience (log)	0.926(0.632)	0.574(0.658)
Professional board of directors	0.575(0.418)	0.436(0.444)
Sector (Textile)	-0.347(0.476)	-0.382(0.522)
Sector (Furniture)	0.266(0.495)	0.145(0.540)
(Constant)	-3.781***(1.315)	-3.328**(1.392)
R^2 Nagelkerke/R^2Cox & Snell	0.147/0.110	0.265/0.199
-2LL	152.008	140.406
% Global classification	66.7%(69.8%/63.2%)	68.3% (69.8%/66.7%)

N = 120. Dependent variable: breadth of countries. Notes: two tailed test; *p < 0.1; **p < 0,05; ***p < 0.01. Standard errors in parentheses. Reference category for business model: traditional manufacturing business model. Reference category for sector: footwear.

Source: own elaboration

Table 4.4 Logistic regression results for breadth of regions (Model B)

Variables	Model B1	Model B2
International upstream activities		1.565(1.458)
Business model (Customer-oriented)		1.154**(0.508)
Business model (Product-oriented)		2.777***(0.879)
Size (log)	0.997(0.675)	0.384(0.757)
International experience (log)	1.088*(0.656)	1.327*(0.743)
Professional board of directors	1.132**(0.462)	1.091**(0.502)
Sector (Textile)	-0.510(0.501)	-0.233(0.553)
Sector (Furniture)	0.273(0.544)	0.165(0.618)
(Constant)	-2.780**(1.355)	-3.236**(1.530)
R^2 Nagelkerke/R^2Cox & Snell	0.187/0.136	0.348/0.254
-2LL	139.003	121.481
% Global classification	66.7%(34.9%/84.4%)	80.0% (72.1%/84.4%)

N = 120. Dependent variable: breadth of regions. Notes: two tailed test; *p < 0.1; **p < 0,05; ***p < 0.01. Standard errors in parentheses. Reference category for business model: traditional manufacturing business model. Reference category for sector: footwear.

Source: own elaboration

4.4.3 Ad-hoc robustness analysis

Results from multinomial logistic regression show that differences between groups are statistically significant (Chi-square = 67.645, p < 0.001), with 60.0% of the cases being correctly classified by reference to the variables. The pseudo-R Square falls between 0.431 (R^2 Cox & Snell) and 0.470 (R^2 Nagelkerke). Overall model shows a good fit (McFadden = 0.226).

Degree of internationalization of upstream activities is statistically significant and positive comparing the groups associated with high breadth of countries (groups 3 and 4) with the group with a moderate geographic breadth (group 1)., in models 2 and 3. Models 1, 2 and 3 show a significant relationship between the customer-oriented business model of the group with a high breadth of countries (group 3), the group with a high breath of regions (group 2), and the group of global companies (group 4) with respect to the reference group. (group 1). The last of the independent variables raised, the product-oriented business model, shows significant and positive results in models 1 and 3, in which companies with high breadth of regions (groups 2 and 4) are compared with the group 1, with moderate geographic scope. Regarding the control variables, professional broad of directors are statistically significant in models 3 and 5, which refer to the pairwise comparison of groups 4 and 1, and groups 4 and 3. In model 5 (group 4-group 3), international experience is statistically significant and positive. The rest of control variables do not show statistically significant results in any model. Finally, model 4 (comparison between groups 4 and 2) and model 6 (comparison of model 2 with 3) do not show any statistically significant factor. Table 4.5 shows the multinomial logistic regression results.

Table 4.5 Multinomial logistic regression (ad-hoc robustness analysis)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Group	2	3	4	4	4	2
Reference group	1	1	1	2	3	3
	β (Sig.)	β (Sig.)	β (Sig.)	β (Sig.)	β (Sig.)	β (Sig.)
Intersection	-0.329	1.496	-3.945	-3.616	-5.442	-1.826
International upstream activities	2.314 (0.237)	6.385 (0.038)	3.644 (0.045)	1.330 (0.408)	-2.741 (0.345)	-4.071 (0.171)
Business model (Customer-oriented)	1.387 (0.054)	1.861 (0.079)	1.791 (0.005)	0.404 (0.538)	-0.070 (0.944)	-0.474 (0.650)
Business model (Product-oriented)	3.461 (0.003)	1.875 (0.265)	2.710 (0.021)	-0.751 (0.283)	0.835 (0.556)	1.586 (0.254)
Control variables						
Size (log)	-0.518 (0.598)	-0.736 (0.677)	0.472 (0.594)	0.990 (0.263)	1.208 (0.486)	0.218 (0.902)
International experience (log)	-0.103 (0.919)	-2.440 (0.128)	1.241 (0.196)	1.344 (0.123)	3.681 (0.017)	2.337 (0.123)
Professional board of directors	0.566 (0.377)	-1.061 (0.389)	1.063 (0.072)	0.497 (0.364)	2.124 (0.074)	1.627 (0.177)
Sector (Textile)	-0.680 (0.337)	-1.536 (0.244)	-0.646 (0.334)	0.035 (0.958)	0.891 (0.498)	0.856 (0.522)
Sector (Furniture)	-0.716 (0.382)	-1.420 (0.285)	0.033 (0.965)	0.749 (0.268)	1.453 (0.254)	0.704 (0.586)

N = 120, Chi-Square = 67.645, Correct classification = 60.0% , R^2Cox & Snell = 0.431, R^2Nagelkerke = 0.470, McFadden = 0.226.

Source: own elaboration

4.5 DISCUSSION

Drawing on RBV, in this work we analyse two complementary aspects of the firm's geographic scope: the breadth of countries (Welch and Luostarinen, 1988; Casillas and Acedo, 2013) and the breadth of regions (Lopez, Kundu and Ciravegna, 2009). A great geographic breadth allows the firm to access more clients and resources and is associated with greater international diversification (Cerrato and Fernhaber, 2018). Diversification makes it possible to minimize risks associated with the environment (Brainard and Cooper, 1965) in a market that is increasingly homogeneous in costumer tastes (Cleveland and Bartsch, 2019), but economically heterogeneous.

Our results show that SMEs that export to a great breadth of countries tend to have a higher percentage of the upstream activities of the value chain located internationally and a customer-oriented business model. The customer-oriented business model offers a highly customized and internationally adapted value proposition for the customer, with a niche market approach and a large percentage of industrial customers. The value proposition is supported by a large number of internal competences and network relationships, both key assets for the international success of firms. The advantage that the customer-oriented business model seems to have, by itself, in international markets is complemented by resources, especially knowledge, learned from the internationalization of upstream activities in the value chain (Zahra, Ireland and Hitt, 2000; Naldi and Zahra, 2007) and obtained through personal experience or through partners (Huber, 1991; Fletcher and Harris, 2012).

Regarding the breadth of regions, our results show empirically that it is positively related to the customer-oriented business model and to a greater extent with the product-oriented business model. The product-oriented business model presents a

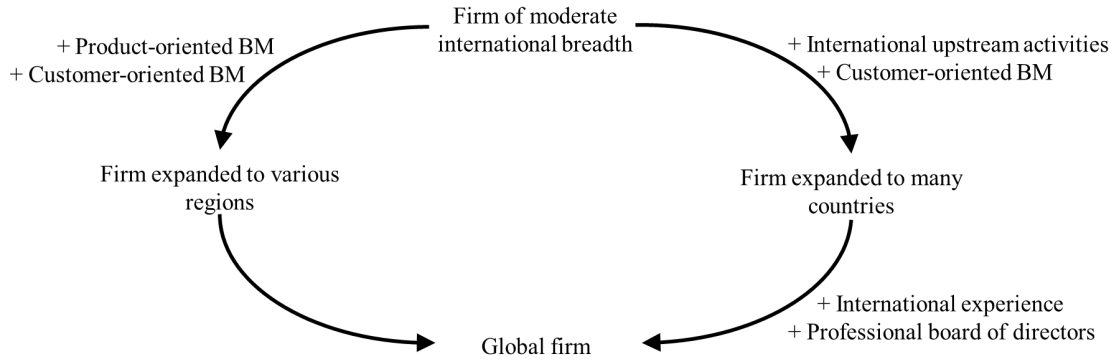
highly standardized value proposition, with a certain degree of international adaptation in key aspects and greater product diversification than the rest of the models.

A product-oriented business model presents some key aspects that can facilitates inter-regional internationalization. First, experience in product diversification allows for useful management skills in international diversification (Hitt, Hoskisson and Kim, 1997). Second, the provision of greater sources of funding which is a distinctive aspect of the most internationalized SMEs (Brush, Edelman and Manolova, 2002) and a traditionally scarce resource in SMEs (Liñan et al., 2020). Third, the use of indirect exporting formulas are entry modes especially useful in markets with great uncertainty (Terjesen, O'Gorman and Acs, 2008), as is the case of extra-regional locations (Rugman and Verbeke, 2007). Finally, networks are a key aspect to allow internationalization to other regions (Johanson and Vahlne, 2009). Internationalization across different regions is also positively related to the professional direction of the firm. A professional board of directors in the firm has traditionally been considered as a driver of the internationalization of family businesses; still, even in family-managed firms the business model can improve an initial disadvantageous situation for internationalization according to Hennart, Majocchi and Forlani (2019). International experience also seems to be a relevant asset in inter-regional expansion (Vahlne and Johanson, 2017).

Regarding the effect of the internationalization of upstream activities on the breadth of regions, we do not observe a statistically significant effect. The specific utility of the knowledge acquired through upstream internationalization, together with the design inequalities of the business models appropriate to each aspect of the geographic scope analysed, highlights the differences between intra-regional and inter-regional

internationalization. The literature on IB has asked on numerous occasions which of these two routes is better for firms, with different results (e.g., Rugman and Verbeke, 2004, 2007; Contractor, 2007; Qian, Khoury, Peng and Qian, 2010). In our study, the analysis of both dimensions of geographic breadth together, shows two routes towards globalization of the firm. Figure 4.2. shows both routes and the differences between the steps towards globalization.

Figure 4.2 Routes towards the globalization of the manufacturing SMEs



Source: own elaboration

On the one hand, we find that some companies opt for intra-regional diversification. SMEs that internationalize through a large number of countries within the same region, generally Europe, tend to use a customer-oriented business model and to internationalize upstream activities. These companies are highly dependent on the knowledge acquired through the internationalization of upstream activities and the knowledge derived from contact with the customer. Furthermore, firms that follow the intra-regional route jump to other regions (go global) when they acquire sufficient international experience and when they have a professional board of directors. This pattern of gradual internationalization is consistent with the traditional Uppsala model (Johanson and Vahlne, 1977), where the expansion of the firm depends largely on the development of knowledge (Vahlne and Johanson, 2017). Also, most of the companies

analysed are family businesses, in which having a professional board of directors permits to offset some barriers to advanced internationalization (Gallo and Sveen, 1991).

On the other hand, we find companies that diversify between regions. These SMEs are found in few markets but these markets are located in different regions. These firms differ from those that are not very diversified in that they mainly use a product-oriented business model or a customer-oriented business model. Probably, this could be due to the importance of being present in key markets for these firms, which leads to dismiss distance as a main barrier. In fact, for companies offering a luxury product distance is not only not a limitation, but it can become a valuable asset when it comes to making the value proposition attractive (Guercini and Milanesi, 2017). In our case, product-oriented business model offers a high quality, innovative product aimed at more consumer market, so aspects such as "made in" can make the product attractive in other regions. Finally, in both business models involved in this route, networks are very important, in that partners can help to overcome the “liability of outsidership” in foreign markets (Johanson and Vahlne (2009), or specifically in inter-regional expansion (Qian, Li and Rugman, 2013).

4.6 CONCLUSIONS

Due to the importance of SMEs to the economy and society, many IB researchers have been interested in studying entrepreneurial activities conducted SMEs across borders. In this chapter, we analysed two dimensions of geographic scope from a RBV perspective. We propose that the business model - accompanied by the knowledge derived from the internationalization of upstream activities - can influence the breadth of both countries and regions in traditional manufacturing SMEs. Our results show

differences between internationalization to a large number of countries and intra-regional internationalization. Through this study we contribute to expand academic knowledge about the internationalization of SMEs, but we also show useful indications about the internationalization process for practitioners.

As regards the academic contributions we believe this work offers some novel insights for researchers. The results of this study make an important contribution to the literature on SMEs, showing behavioural patterns associated with different dimensions of geographic scope. Our work also contributes to the RBV by proposing the business model as a source of competitive advantage. Furthermore, our study identifies differences in terms of useful resources in the internationalization patterns of firms, contributing to the literature on firm globalization. This work can also help to develop some foundations for a better use of the terminology and operationalization of business models in quantitative studies, in that business model logic has become a powerful yet unknown lens to analyse firm strategic decisions.

In the light of the recent changes affecting the dispersion of international activities, SMEs will need to reconfigure their value chains and business models to adapt to these changes. Digitalization has introduced significant advantages making upstream activities (e.g., production, design) more flexible, and in this sense, firms will need to make location decisions based on efficiency and flexibility; nevertheless, proximity also becomes essential to access new resources and gain proximity to the customer. This is particularly evident in trends such as personalization of products and co-creation with value chain partners which entail a higher content of services in any manufactured product, and thus are highly related to a customer-oriented business model. In this sense, we believe our results can contribute to nurture the discussion on

the interplay between the business model and the geographic scope and diversification strategy in the SMEs.

However, this study is not without limitations. The lack of previous studies within the business model framework makes it necessary to establish generic hypotheses. Furthermore, the size of the sample makes it difficult to have a greater number of companies associated with each internationalization group. Also, the cross-sectional nature of our data does not allow us to analyse the routes to globalization proposed in this work. Therefore, further qualitative and quantitative study of business models is necessary for future research, replicating the study for other types of more knowledge-intensive industries, for other countries or for other company sizes. It would be very interesting to differentiate between knowledge acquired directly or through partner, contributing to the literature on organizational learning. Finally, we suggest including other aspects in the model, to offer more information about the difference between groups of international SMEs where our study does not find significant differences.

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CHAPTER 5: GENERAL CONCLUSIONS

5.1 GENERAL CONCLUSIONS

This dissertation tries to advance the knowledge about the international competitiveness of traditional manufacturing SMEs. Despite the great impact that these companies have on the economy and society, SMEs have limitations when it comes to expanding internationally (Liñán, Paul and Fayolle, 2020) and even problems surviving in their domestic markets (Freeman, Carroll and Hannan, 1983). The competitiveness of SMEs has been a recurring issue in the management and business literature, and also in the IB literature, for this reason, in this dissertation we take a new perspective, focusing our attention on their business models. In turn, the business model framework is confusing (Klang, Wallnöfer and Hacklin, 2014). For all this, our objectives are twofold: on the one hand, we try to clarify the business model framework and on the other hand, we intend to find keys to improve the international competitiveness of these SMEs.

Chapter 2 focuses on the theoretical part of the dissertation, ordering the business model framework within the IB literature. For their part, chapter 3 and chapter 4 are quantitative analyses referring to the exporting SME of non-knowledge-intensive industries. Chapter 3 focuses on defining the different business models present in this context and analysing their performance, while Chapter 4 focuses on the geographic scope of these companies.

The main conclusions derived from both the theoretical study and the two empirical studies are presented below.

5.1.1 Conclusions on chapter 2. International business through business models: a literature review and a bibliometric analysis

Through Chapter 2 we try to establish an understandable framework through which to study business models within the IB literature. To carry out this objective, we performed a bibliometric analysis and a literature review, both complementary analysis (Feng, Zhu and Lai, 2017). In this sense, Chapter 2 finds several interesting results.

First, the bibliometric analysis shows the evolution of the number of papers published in this field over the last decade and the main journals interested in publishing papers on business models in IB. In addition, our analysis shows a relationship of the main authors, universities and countries on this literature and the relationships of networks that exist between them. We also identify the main works, both on business models in general, and on international business models in particular.

Second, our work finds three areas of central interest in recent works: (1) typologies of international business models, (2) the study of SMEs and international entrepreneurship, and (3) emerging markets. In addition, we notice two specific aspects that are receiving a great deal of attention from researchers: digitization and social value creation.

Third, the literature review classifies documents based on the business model perspective they take. Most of the works are included under a value-based perspective (Teece, 2010) or an activity-system perspective (Amit and Zott, 2001), but there are other works that take a perspective based solely on building-blocks (Osterwalder, 2004), in the virtuous-cycle perspective (Casadesus-Masanell and Ricart, 2007), in the

business model design (Amit and Zott, 2012), in the innovation of the business model or in business models without a clear perspective. Furthermore, methodologically, most of the works are theoretical or qualitative.

Fourth, Chapter 2 shows recommendations for future research, on future research lines, on methodological aspects and on interesting study populations.

5.1.2 Conclusions on chapter 3. Business model taxonomy: an analysis for international manufacturing SMEs

In Chapter 3 we defined a new level in the taxonomy of firms: the business model. Although many studies focus on analyzing the peculiarities of the business model of a specific firm (e.g., Dunford, Palmer and Benveniste, 2010; Sosna, Trevinyo-Rodríguez and Velamiri, 2010; Landau, Karna and Sailer, 2016) we analyze the business model from a general enough point of view to allow us to capture the essence of the model for many firms (Morris, Schindehutte and Allen, 2005). In this chapter we identify three business models present in international SMEs in traditional manufacturing industries, through an empirical analysis. This analysis allows us to develop the following ideas.

In the first place, our results verify the idea that the different elements that make up the business model form coherent patterns and, therefore, are related to each other and aligned towards a common strategic objective.

Second, in Spanish manufacturing SMEs, we find the following international business models: traditional manufacturer business model, international customer-oriented business model and international product-oriented business model.

Third and after empirically analysing the differences in the level of performance of these business models, our results show that the customer-oriented business model presents a higher level of performance than the rest of the business models, in the context of Spanish exporter SMEs of traditional manufacturing industries.

5.1.3 Conclusions on chapter 4. Geographic scope in manufacturing SMEs: business model and internationalization of activities

Chapter 4 analyses the geographical scope of companies with the aim of promoting the globalization of SMEs. We analyze two dimensions of geographic scope: the breadth of countries (Welch and Luostarinen, 1988; Casillas and Acedo, 2013) and the breadth of regions (Lopez, Kundu and Ciravegna, 2009), and we propose as related factors the business model and the internationalization of the upstream activities of the value chain. From the study of both dimensions we obtain the following conclusions.

First, the partial or total internationalization of the upstream activities of the value chain (e.g., design, supply or production) carried out within the company or by partners, is positively related to exports to a greater number of countries, possibly due to resources, especially the knowledge, which is derived from the internationalization of these activities (Zahra, Ireland and Hitt, 2000; Naldi and Zahra, 2007).

Second, the business model has a great influence on the international diversification of SMEs. Customer-oriented business model is positively related to both dimensions of geographic scope, while the product-oriented business model is related to a greater breadth of regions. Professional direction of the firm and international experience are also positively related to the breadth of regions.

Third, the joint analysis of both dimensions gives us indications of two routes towards globalization of the firm: a gradual route that begins with intra-regional diversification and that becomes global when it acquires sufficient international experience (Vahlne and Johanson, 2017) and has a professional management (Gallo and Sveen, 1991), and a route in which firms export to different regions when their breadth of countries is still moderate.

5.2 CONTRIBUTIONS AND IMPLICATIONS

In this section, we indicate the implications that the results of our studies have for the literature, and for management and business researchers. We also show the implications of this work for managers and policymakers. Finally, we comment on the limitations of our dissertation and propose future research directions.

5.2.1 Contributions to the literature and implications for researchers

First, our findings have implications for our understanding of manufacturing SMEs and their international competitiveness.

Second, this discourse includes a new level in the taxonomy of organizations. Through a configurational approach, our study shows the relationship between the different components of the business model and identifies a more successful combination in line with the study context.

Third, our studies allow expanding the RBV through the business model framework (Tallman, Luo and Buckley, 2018) and contributes by confirming the difference between the combination of valid resources for inter- and intra-regional internationalization.

Finally, this thesis has certain implications for researchers, within the framework of the business model: (1) Our work helps to clarify and organize the, often confusing, business model framework. (2) We show a fairly complete definition of business model components adapted to the context of international manufacturing companies. (3) Our empirical studies are an example of the inclusion of the business model in quantitative analysis, which are very scarce. (4) Our review of the literature identifies new lines of research on business models.

5.2.2 Implications for managers and policymakers

This research may have implications for practitioners.

SMEs must be aware that important decisions for internationalization, such as the choice of entry modes, or the adaptation / standardization of the international offer, are not isolated decisions, but must be part of the overall design of the business model. Our study shows that there are business model design patterns and that, consequently, successful firms present an alignment between the components of their business model. The strategy of replicating some decisions previously made by other organizations should be questioned, since the success of these actions is not only marked by factors exogenous to the firm, such as the industry or the environment, nor is it solely a matter of available resources Otherwise, all the business model design choices must be consistent with the value proposition that the firm has strategically defined.

Regarding the particular context of traditional Spanish manufacturing SMEs, our study shows some guidelines that may be useful for the design or redesign of their firms' business models and for their internationalization strategies.

On the one hand, our study shows evidence that a clear customer orientation is a great option when competing internationally.

On the other hand, managers must bear in mind that the business model is related to the type of international expansion of the firm. Compared to a traditional manufacturing business model, product-oriented business model is highly related to inter-regional expansion. For their part, customer-oriented business model has a high relationship with inter-regional and intra-regional growth. In intra-regional expansion, the inclusion of the firm in value chains with internationalised upstream activities also seems to be a related factor. Furthermore, the firm's professional direction also appears to be related to the higher levels of geographic breadth, an aspect that may be relevant in family firms.

Finally, these results can also be useful for politicians, since they can design aid and policies that allow SMEs to improve their business models by expanding their networks, having easier access to financing, fostering innovation or encouraging their inclusion in global value chains.

5.2.3 Limitations of the dissertation

The studies that make up our dissertation, like all studies, are not without limitations. We have to recognize limitations in the data and in the theoretical bases of our studies.

First, we recognize limitations in terms of sample size and data. The size of the sample (N = 120) limits the size of the cases of our qualitative variables, and some of the analysis and results. In addition, the results refer to a single context, made up of a single home country and three non-knowledge-intensive industries. The cross-sectional nature of the data also represents a limitation, restricting the possibility of

establishing causal relationships between the variables and studying the evolution of these companies.

On the other hand, some of our variables are based on perceptual measures, which in some cases can amplify part of the phenomenon.

At a theoretical level, the lack of scales and measures of business model, and the limited number of quantitative antecedents to this dissertation, has forced us to define our own list of items to describe the international business models of manufacturing companies. However, we have based our items on the main works on business models and we have tried to show a business model definition as complete as possible. When proposing our hypotheses, the lack of theoretical and qualitative studies has forced us to take as a reference the propositions and results of works on other strategic aspects or on other types of company. Taking these inconvenience into account, we have tried to be cautious and come up with a greater number of hypotheses.

We think the limitations that we have exposed open interesting opportunities for future research.

5.2.4 Future research directions

To end this speech, we propose some recommendations and topics, which we consider interesting, for future research.

When choosing the study population, future research may place your studies in other contexts: other home countries, more knowledge-intensive industries, and other company sizes. In this way, the results could be compared or even detect other business models, originating from other types of company, useful in the context of traditional manufacturing SMEs.

Regarding the sample and the data, it would be advisable to work with larger samples, which allow defining more granular business models and demonstrating their equifinality property.

Studies with longitudinal data would also be interesting, to be able to study the changes and innovations experienced by the business models, but also to be able to check if the companies follow the evolution routes identified in chapter 4.

On the other hand, we detect the need for more theoretical and qualitative studies on international business models, but quantitative studies must also be carried out that show statistical evidence of the relationship between business models and the internationalization of firms. It is also necessary to define scales and measures of the business model.

Other interesting topics for future research are the digitization of firms, sustainability or the inclusion of SMEs in global value chains, all this from the framework of the business model. It would also be interesting to study the role of the business model in other dimensions of internationalization, to deepen the relationship between business model innovation and internationalization, and to continue analyzing other assets and other sources of resources in the SME, paying special attention to international knowledge.

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RESUMEN

INTRODUCCIÓN

Las pequeñas y medianas empresas (Pymes) son un actor importante en el desarrollo económico de las naciones. Sin embargo, las pymes no se definen igual en todos los países, debido a las particularidades de cada región (Domingez y Mayrhofer, 2018). En China, una PYME se considera una empresa con menos de 1000 empleados, en América del Norte una con menos de 500 empleados y en Europa una empresa con menos de 250 empleados.

En Europa, el 99,8% de las empresas son pymes (Eurostat, 2019). En 2016, estas empresas representaron el 66,7% de las personas ocupadas y el 56,2% del VAB (Eurostat, 2019). Además, las pymes europeas son responsables de la mitad del valor del comercio intracomunitario de mercancías (Eurostat, 2017). En España, los datos son similares: el 99,8% de las empresas españolas son pymes y estas empresas generan el 65,3% del empleo (Ministerio de Industria, Comercio y Turismo del Gobierno de España, 2019).

A pesar de la importancia de las pymes para el desarrollo económico y social de las naciones, estas sufren fuerzas que amenazan su supervivencia. Las pequeñas empresas tienen peores perspectivas de supervivencia que las grandes compañías (Freeman, Carroll y Hannan, 1983), porque las pequeñas empresas cuentan con importantes limitaciones de recursos y mayores dificultades para acceder a nuevos recursos (Lefebvre, 2020). Esta desigualdad se conoce como "*liability of smallness*" (Aldrich y Auster, 1986) y hace referencia a la influencia que tiene el tamaño de la empresa en su conjunto de recursos y capacidades y en su respuesta a los cambios del entorno (Guercini y Milanesi, 2016). Para aumentar las probabilidades de sobrevivir en este contexto desfavorable, las pymes pueden optar por salir al exterior (Lee, Kelly, Lee y

Lee, 2012), como una forma de obtener recursos valiosos, hacer frente a mercados domésticos saturados o minimizar los riesgos asociados con la localización, entre otras consecuencias positivas de la internacionalización (Javalgi, White y Lee, 2000; Fernández-Ortiz y Lombardo, 2009; Lee et al., 2012). Sin embargo, las pymes pueden sufrir importantes barreras a la internacionalización debido a la falta de recursos, especialmente de conocimiento, y competencias (Javalgi et al, 2000; Crick y Barr, 2007). En resumen, las pymes tienen limitaciones de recursos derivadas de su tamaño que ponen en riesgo su supervivencia, pero también limitan sus posibilidades de expandirse más allá de las fronteras y, por tanto, acceder a nuevos recursos.

En cuanto al sector industrial en el que las empresas desarrollan sus actividades, las empresas manufactureras tradicionales presentan diferencias en cuanto a sus estrategias de negocio y sus enfoques internacionales con respecto a las de las industrias intensivas en conocimiento (Bell, Crick y Young, 2004). Las empresas de industrias no intensivas en conocimiento se caracterizan generalmente por su pequeño tamaño, ser "*born-local*" y tener un bajo grado de intensidad tecnológica (Masiello e Izzo, 2019). Esta compleja situación lleva a las empresas de industrias manufactureras tradicionales a tener dificultades para mantener su competitividad (Pla-Barber, Villar y Benito-Sarriá, 2020). De hecho, existe un debate científico-social y público acerca de las sociedades modernas, basado en la creencia de que sólo aquellas empresas dedicadas a la I+D o de alta tecnología pueden mantener el empleo y la riqueza en las economías occidentales (Hirsch-Kreinsen, 2008).

En Europa (UE-27), las empresas manufactureras crean 30.368,41 mil puestos de trabajo a tiempo completo, el 14,7% del empleo total a tiempo completo (Eurostat, 2018). En España, las industrias manufactureras representan el 12,3% del VAB y

generan el 10,4% del empleo a tiempo completo (INE, 2019). En consecuencia, la importancia de los sectores industriales, no intensivos en conocimiento, en las economías tradicionales es difícil de ignorar (Hirsch-Kreinsen, 2008).

El principal objetivo de nuestro estudio es avanzar en el conocimiento de la competitividad de las pymes en los sectores manufactureros tradicionales a través del estudio de sus modelos de negocio.

El modelo de negocio está recibiendo un gran interés por parte de los investigadores de empresa (Wirtz, Pistoia, Ullrich y Göttel, 2016; Foss y Saebi, 2018). Pero este interés no es repentino ni inesperado, sino fruto de dos décadas en las que el número de trabajos sobre este tema no ha dejado de crecer (Foss y Saebi 2017; Massa, Tucci y Afuah, 2017; Cosenz y Noto, 2018). El aumento de la popularidad de los modelos de negocio se debe a las grandes oportunidades que ofrece para la investigación académica, en general (Tallman, Luo y Buckley, 2018), y en los negocios internacionales, en particular (Sainio, Saarenketo, Nummela y Eriksson, 2011; Bruneel y De Cock, 2016; Tallman et al., 2018). Pero a pesar de las nuevas oportunidades que abre el estudio de los modelos de negocio para ampliar nuestro conocimiento sobre las empresas, existe una gran confusión en torno a este término (Klang, Wallnöfer y Hacklin, 2014) y un cierto escepticismo en cuanto a su uso. Esta situación se debe principalmente a la falta de una definición única del término (Zott y Amit, 2010; DaSilva y Trkman, 2014; Crick y Crick, 2018), la falta de herramientas para su análisis cuantitativo (Child et al., 2017) y la falta de un marco teórico sólido (DaSilva y Trkman, 2014; Tallman, 2018). Por lo tanto, consideramos que es necesario clarificar y ordenar el marco teórico del modelo de negocio, para fomentar su estudio y

promocionar las posibilidades que ofrece para responder a las preguntas tradicionales de la literatura de empresas desde una nueva perspectiva.

OBJETIVOS DE LA TESIS DOCTORAL

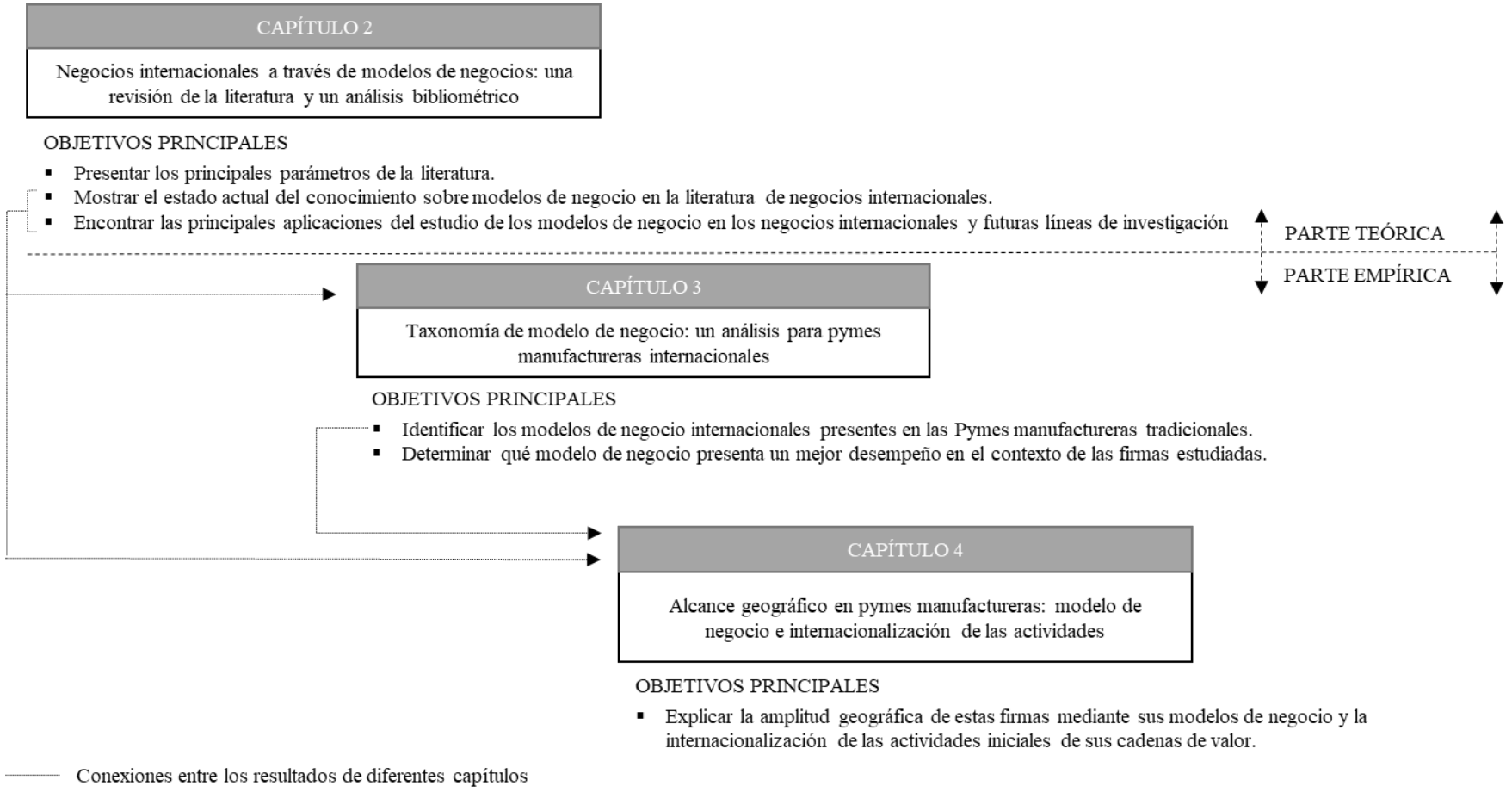
El principal objetivo de esta tesis es avanzar en el conocimiento de la competitividad de las pymes de sectores manufactureros tradicionales a través del estudio de sus modelos de negocio. Este objetivo se divide en metas más pequeñas y concretas.

En primer lugar, teniendo en cuenta la confusión que rodea al estudio de modelos de negocio (Klang et al., 2014), esta tesis tiene como objetivo organizar y clarificar el estado actual del conocimiento sobre modelos de negocio en la literatura de negocios internacionales, mostrando una imagen actual de sus principales parámetros, identificando sus principales áreas de aplicación y determinando algunas pautas para futuras investigaciones.

En segundo lugar, siguiendo la propuesta de Baden-Fuller y Morgan (2010), sobre el modelo de negocio como un aspecto de la empresa que puede ser objeto de taxonomía, y la falta de inclusión de la internacionalización en la definición de modelos de negocio identificada por Onetti, Zucchella, Jones y McDougall-Covin (2012), pretendemos mostrar una lista de modelos de negocio internacionales, presentes en las pymes españolas de sectores manufactureros tradicionales.

Por último, debido a las dificultades sufridas por estas empresas y su gran importancia para la economía nacional, otro de los objetivos de esta tesis es mostrar qué rutas de acción permiten a estas empresas obtener un mejor rendimiento y un mayor crecimiento internacional. La Figura 1. resume los objetivos específicos de la tesis y los remite a cada capítulo.

Figura 1 Objetivos de la tesis doctoral



Fuente: elaboración propia

ESTRUCTURA DE LA TESIS DOCTORAL

La tesis está estructurada en 5 capítulos. El primer capítulo corresponde a una introducción a los capítulos posteriores y presenta las motivaciones y características de los estudios que componen esta tesis. La parte principal de esta tesis consta de 3 capítulos que se pueden agrupar en dos bloques temáticos. La primera parte (Capítulo 2) engloba la parte teórica, mientras que la segunda parte (Capítulo 3 y Capítulo 4) muestran la investigación empírica realizada.

El Capítulo 2 muestra el estado actual de la literatura sobre negocios internacionales a través del modelo de negocio. Este capítulo comprende un análisis bibliométrico y una revisión de la literatura.

El Capítulo 3 presenta los primeros resultados empíricos dela tesis. En este capítulo se identifican los diferentes modelos de negocio internacionales presentes en las pymes españolas de sectores manufactureros tradicionales y se analiza cuál de ellos tiene un mejor desempeño.

El Capítulo 4 explora la propensión de las pymes a exportar a un gran número de países y a varias regiones en función de sus modelos de negocio internacionales y el porcentaje de actividades iniciales de las cadenas de valor, en las que están integradas, que se realizan internacionalmente.

Finalmente, el capítulo 5 recoge las principales conclusiones derivadas tanto de la parte teórica como de los estudios empíricos.

METODOLOGÍA

Diseño de la investigación

La población de la muestra fue obtenida de la base de datos ORBIS de Bureau van Dijk. La población está formada por empresas españolas exportadoras, con menos de 250 trabajadores y que pertenecen a los sectores del textil, el mueble y el calzado.

La recolección de datos se realizó en 2019 a través de un cuestionario del que se obtuvieron 120 respuestas válidas. El 25,0% de nuestras empresas pertenecen a la fabricación de muebles, el 35,8% se dedican a la fabricación de productos textiles y el 39,2% centran sus actividades en la producción de calzado. El tamaño de las empresas también varía, ya que tenemos una única microempresa y una proporción similar entre pequeñas (50,8%) y medianas empresas (48,3%). También encontramos diferencias en la antigüedad de las firmas y su experiencia en los mercados internacionales. Además, hay empresas con un bajo nivel de exportaciones (alrededor del 3%) y otras que dedican el 100% de su producción a la exportación. La Tabla 1. muestra una descripción general de la muestra.

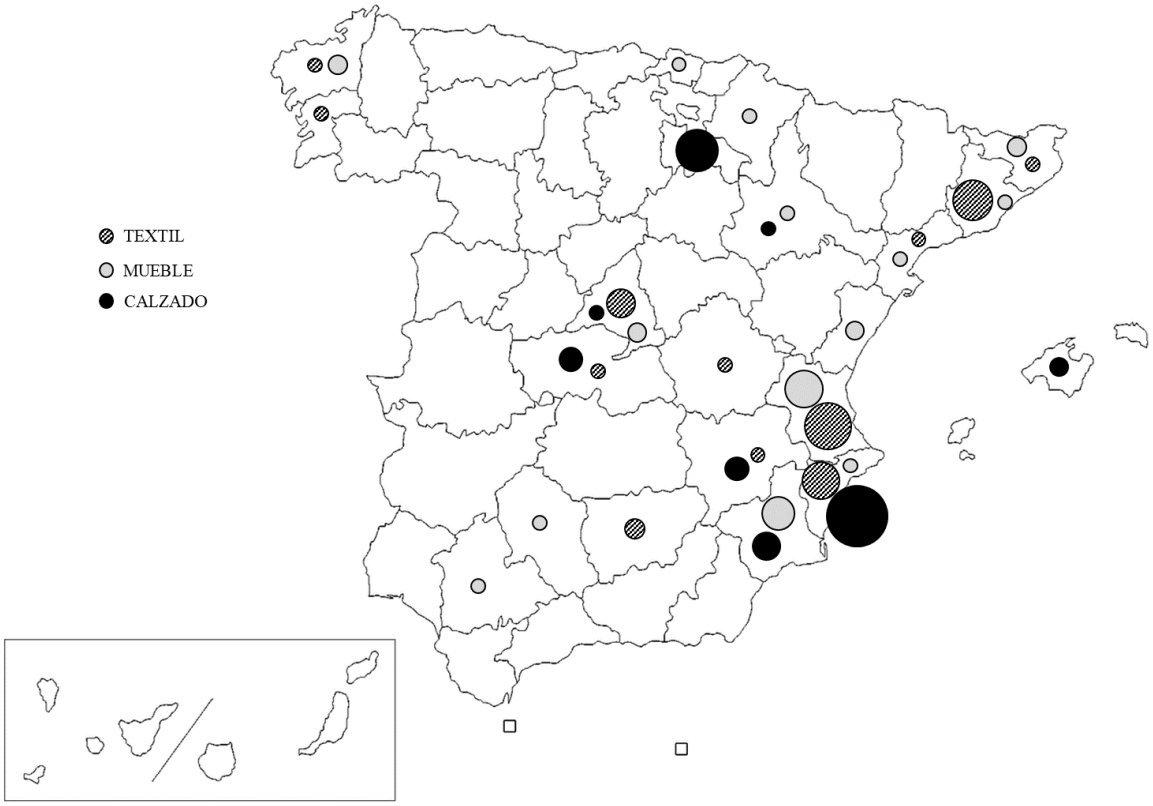
Tabla1 Descripción de la muestra

		SECTOR INDUSTRIAL			
		Textil	Mueble	Calzado	Total
Tamaño de la empresa (nº de trabajadores)	Micro	1	0	0	1
	Pequeñal	23	12	26	61
	Mediana	19	18	21	58
	Total	43	30	47	120
	Ratio	Media textil	Media mueble	Media calzado	Media total
Edad (años)	(6-178)	50,19	38,00	32,87	40,36
Experiencia internacional (años)	(2-126)	31,16	24,73	23,65	26,61
% ventas internacionales	(3% - 100%)	42,17%	25,96%	54,43%	47,39%

Fuente: elaboración propia

Finalmente, estas industrias presentan una alta concentración de empresas en distritos industriales (Marshall, 1890) (Boix y Galletto, 2006). En la Figura 2. se muestra la concentración de empresas por provincias y sectores. En nuestra muestra encontramos, por ejemplo, empresas textiles ubicadas en los distritos industriales de Cataluña, La Comunidad Valenciana o Galicia; empresas de muebles en La Región de Murcia y Valencia, o empresas de calzado situadas en el valle del Vinalopó o en La Rioja.

Figura 2 Concentración de empresas por provincia y sector



Fuente: elaboración propia

Técnicas estadísticas utilizadas

A lo largo de la tesis se utilizan diferentes metodologías y análisis estadísticos adaptados a cada pregunta de investigación y a la naturaleza de los datos disponibles.

El Capítulo 2 constituye el primer bloque, dedicado a los aspectos teóricos. El capítulo muestra un análisis bibliométrico, metodológicamente cuantitativo (Broadus, 1987), y una revisión sistematizada de la literatura, basada en métodos de investigación cualitativa. Ambos análisis complementarios (Feng, Zhu y Lai, 2017).

El segundo bloque recoge los resultados empíricos de la tesis y se compone de los Capítulo 3 y 4.

El Capítulo 3 define nuestra principal variable independiente (el modelo de negocio) utilizando un análisis de conglomerados. Como es tradicional, hemos realizado un análisis de conglomerados en dos etapas (Punj y Stewart, 1983). El Capítulo 3 también muestra un análisis factorial confirmatorio (Gil, Moscoso y Rodríguez, 2000), para comprobar la validez de la escala de desempeño, y una prueba H de Kruskal-Wallis y una prueba U de Mann-Whitney, para comprobar si existen diferencias. en los niveles de desempeño basándonos en los modelos de negocio.

El Capítulo 4 recoge los resultados de dos regresiones logísticas, realizadas para verificar la relación estadística de las variables independientes en dos variables dependientes complementarias (la amplitud de países y la amplitud regional). Finalmente, se realiza una prueba de robustez uniendo ambos modelos en una única regresión logística multinomial.

CONCLUSIONES GENERALES

La tesis intenta avanzar en el conocimiento sobre la competitividad internacional de las pymes manufactureras tradicionales. A pesar del gran impacto que estas empresas tienen en la economía y la sociedad, las pymes tienen limitaciones a la hora de expandirse internacionalmente (Liñán, Paul y Fayolle, 2020) e incluso problemas para sobrevivir en sus mercados internos (Freeman, Carroll y Hannan, 1983). La competitividad de las pymes ha sido un tema recurrente en la literatura de empresas, y también en la literatura de negocios internacionales, por esta razón, en esta tesis adoptamos una nueva perspectiva, centrando nuestra atención en sus modelos de negocio. A su vez, el marco del modelo de negocio es confuso (Klang, Wallnöfer y Hacklin, 2014). Por todo esto, nuestros objetivos son dos: por un lado, tratar de aclarar el marco teórico del modelo de negocio y, por otro lado, encontrar las claves para mejorar la competitividad internacional de estas pymes.

A continuación, se presentan las principales conclusiones derivadas tanto del estudio teórico como de los dos estudios empíricos.

Capítulo 2. Negocios internacionales a través de modelos de negocios: una revisión de la literatura y un análisis bibliométrico

A través del Capítulo 2, intentamos establecer un marco comprensible a través del cual estudiar los modelos de negocios dentro de la literatura de negocios internacionales. Para llevar a cabo este objetivo, se realizó un análisis bibliométrico y una revisión de la literatura, ambos análisis complementarios (Feng et al., 2017). En este sentido, el Capítulo 2 encuentra varios resultados interesantes.

En primer lugar, el análisis bibliométrico muestra la evolución del número de artículos publicados en este campo durante la última década y las principales revistas interesadas en publicar artículos sobre modelos de negocio en negocios internacionales. Además, nuestro análisis muestra una relación de los principales autores, universidades y países sobre esta literatura y las relaciones de redes que existen entre ellos. También identificamos los principales trabajos, tanto sobre modelos de negocio en general, como sobre modelos de negocio internacionales en particular.

En segundo lugar, nuestro estudio encuentra tres áreas de interés en trabajos recientes: (1) tipologías de modelos de negocio internacionales, (2) el estudio de las pymes y el emprendimiento internacional, y (3) los mercados emergentes. Además, identificamos dos aspectos específicos que están recibiendo mucha atención por parte de los investigadores: la digitalización y la creación de valor social.

En tercer lugar, la revisión de la literatura clasifica los documentos según la perspectiva del modelo de negocio que adoptan. La mayoría de las obras están incluidas bajo una perspectiva basada en el valor (Teece, 2010) o una perspectiva de sistema de actividades (Amit y Zott, 2001), pero hay otros trabajos que tienen una perspectiva basada únicamente en bloques (Osterwalder, 2004), en la perspectiva del ciclo virtuoso (Casadesus-Masanell y Ricart, 2007), en el diseño del modelo de negocio (Amit y Zott, 2012), en la innovación del modelo de negocio o en modelos de negocio sin una perspectiva clara. Además, metodológicamente, la mayoría de los trabajos son teóricos o cualitativos.

En cuarto lugar, el Capítulo 2 muestra recomendaciones para futuras investigaciones, sobre futuras líneas de investigación, sobre aspectos metodológicos y sobre poblaciones de estudio de interés.

Capítulo 3. Taxonomía de modelo de negocio: un análisis para pymes manufactureras internacionales

En el Capítulo 3 definimos un nuevo nivel en la taxonomía de empresas: el modelo de negocio. Aunque muchos estudios se centran en analizar las peculiaridades del modelo de negocio de una determinada firma (ej. Dunford, Palmer y Benveniste, 2010; Sosna, Trevinyo-Rodríguez y Velamiri, 2010; Landau, Karna y Sailer, 2016), nosotros analizamos el modelo de negocio desde un punto de vista lo suficientemente general como para permitirnos captar la esencia de un modelo para muchas empresas (Morris, Schindehutte y Allen, 2005). En este capítulo identificamos tres modelos de negocio presentes en las pymes internacionales de las industrias manufactureras tradicionales, a través de un análisis empírico. Este análisis nos permite desarrollar las siguientes ideas.

En primer lugar, nuestros resultados verifican la idea de que los diferentes elementos que componen el modelo de negocio forman patrones coherentes y, por tanto, están relacionados entre sí y alineados hacia un objetivo estratégico común.

En segundo lugar, en las pymes manufactureras tradicionales, nos encontramos con los siguientes modelos de negocio internacionales: modelo de negocio manufacturero tradicional, modelo de negocio orientado al cliente y modelo de negocio orientado al producto.

En tercer lugar y tras analizar empíricamente las diferencias en el nivel de desempeño de estos modelos, nuestros resultados muestran que el modelo de negocio orientado al cliente presenta un nivel de rendimiento superior al resto de modelos de negocio.

Capítulo 4. Alcance geográfico en pymes manufactureras: modelo de negocio e internacionalización de las actividades

Capítulo 4 analiza el alcance geográfico de las empresas con el objetivo de promover la globalización de las pymes. Analizamos dos dimensiones de la amplitud geográfica: la amplitud de países (Welch y Luostarinen, 1988; Casillas y Acedo, 2013) y la amplitud de regiones (López, Kundu y Ciravegna, 2009), y proponemos como factores relacionados el modelo de negocio y la internacionalización de las actividades iniciales de la cadena de valor. Del estudio de ambas dimensiones obtenemos las siguientes conclusiones.

En primer lugar, la internacionalización parcial o total de las actividades iniciales de la cadena de valor (ej. diseño, suministro o producción), realizadas dentro de la empresa o por socios, se relaciona positivamente con las exportaciones a un mayor número de países, posiblemente gracias a los recursos, especialmente el conocimiento, que se deriva de la internacionalización de estas actividades (Zahra, Irlanda y Hitt, 2000; Naldi y Zahra, 2007).

En segundo lugar, el modelo de negocio tiene una gran influencia en la diversidad internacional de las pymes. El modelo de negocio orientado al cliente se relaciona positivamente con ambas dimensiones del alcance geográfico, mientras que el modelo de negocio orientado al producto está relacionado con una mayor amplitud de regiones. Tener un consejo de administración profesional también se relaciona positivamente con la amplitud de regiones.

En tercer lugar, el análisis conjunto de ambas dimensiones nos da indicios de dos rutas hacia la globalización de la empresa: una ruta gradual que comienza con la diversificación intrarregional y que se globaliza cuando adquiere suficiente experiencia internacional (Vahlne y Johanson, 2017) y cuenta con una gestión profesional (Gallo y Sveen, 1991), y una ruta en la que las empresas exportan a diferentes regiones cuando su amplitud de países aún es moderada.

CONTRIBUCIONES E IMPLICACIONES

En este apartado, indicamos las implicaciones que los resultados de nuestros estudios tienen para la literatura y para los investigadores. También mostramos las implicaciones de este trabajo para gerentes y políticos. Finalmente, comentamos las limitaciones de nuestro trabajo y proponemos futuras líneas de investigación.

Contribuciones a la literatura

Primero, nuestros hallazgos tienen implicaciones para nuestro conocimiento sobre de las pymes manufactureras y su competitividad internacional.

En segundo lugar, este discurso incluye un nuevo nivel en la taxonomía de las organizaciones. A través de un enfoque configuracional, nuestro estudio muestra la relación entre los diferentes componentes del modelo de negocio e identifica una combinación más exitosa en línea con el contexto del estudio.

En tercer lugar, nuestros estudios permiten expandir la Teoría de Recursos y Capacidades a través del modelo de negocio (Tallman, Luo y Buckley, 2018) y contribuye confirmando la diferencia entre la combinación de recursos válidos para la internacionalización inter e intrarregional.

Finalmente, esta tesis tiene ciertas implicaciones para los investigadores, en el marco del modelo de negocio: (1) Nuestro trabajo ayuda a aclarar y organizar el marco teórico del modelo de negocio, a menudo confuso. (2) Mostramos una definición bastante completa de los componentes del modelo de negocio adaptada al contexto de las empresas manufactureras internacionales. (3) Nuestros estudios empíricos son un ejemplo de la inclusión del modelo de negocio en análisis cuantitativos, que son muy escasos. (4) Nuestra revisión de la literatura identifica nuevas líneas de investigación sobre modelos de negocio.

Implicaciones para gerentes y políticos

Esta investigación puede tener implicaciones para los profesionales.

Las pymes deben ser conscientes de que decisiones importantes para la internacionalización, como la elección de modos de entrada, o la adecuación/estandarización de la oferta internacional, no son decisiones aisladas, sino que deben formar parte del diseño global del modelo de negocio. Nuestro estudio muestra que existen patrones de diseño de modelos de negocio y que, en consecuencia, las empresas exitosas presentan una alineación entre los componentes de su modelo de negocio. Se debe cuestionar la estrategia de replicar algunas decisiones tomadas previamente por otras organizaciones, ya que el éxito de estas acciones no solo está marcado por factores exógenos a la empresa, como la industria o el mercado, ni se trata únicamente de una cuestión de recursos disponibles. Todas las opciones de diseño del modelo de negocio deben ser coherentes con la propuesta de valor que la empresa ha definido estratégicamente.

En cuanto al contexto particular de las pymes manufactureras tradicionales españolas, nuestro estudio muestra algunas pautas que pueden resultar de utilidad para el diseño o rediseño de los modelos de negocio de sus empresas y para sus estrategias de internacionalización.

Por un lado, nuestro estudio muestra evidencia de que una clara orientación al cliente es una gran opción a la hora de competir internacionalmente.

Por otro lado, los directivos deben tener en cuenta que el modelo de negocio está relacionado con el tipo de expansión internacional de la empresa. En comparación con un modelo tradicional, el orientado al producto está relacionada con la expansión interregional. Por su parte, el modelo orientado al cliente muestra relación positiva con la expansión inter e intrarregional. En la expansión intrarregional, la integración de la firma en cadenas de valor con las actividades iniciales internacionalizadas también es un factor relacionado positivamente. Además, contar con un consejo de administración profesional está relacionado con mayores niveles de amplitud geográfica, aspecto que puede ser relevante en las empresas familiares.

Finalmente, estos resultados también pueden ser de utilidad para los políticos, ya que pueden diseñar ayudas y políticas que permitan a las pymes mejorar sus modelos de negocio ampliando sus redes, teniendo más fácil acceso a la financiación, fomentando la innovación o incentivando su inclusión en cadenas de valor globales.

Limitaciones del trabajo

Los estudios que componen nuestra tesis, como todos los estudios, no están exentos de limitaciones. Tenemos que reconocer limitaciones en los datos y en las bases teóricas de nuestros estudios.

En primer lugar, reconocemos limitaciones en términos de tamaño de la muestra y los datos. El tamaño de la muestra (N = 120) limita el tamaño de los casos de nuestras variables categóricas, limitando algunos análisis y resultados. Además, los resultados se refieren a un solo contexto, compuesto por un solo país de origen y tres industrias no intensivas en conocimiento. La naturaleza transversal de los datos también representa una limitación, restringiendo la posibilidad de establecer relaciones causales entre las variables y el estudio de la evolución de estas empresas.

Por otro lado, algunas de nuestras variables se basan en medidas de percepción, que en algunos casos pueden amplificar parte del fenómeno.

A nivel teórico, la falta de escalas y medidas de modelo de negocio, y el número limitado de antecedentes cuantitativos, nos han obligado a definir nuestra propia lista de ítems para describir los modelos de negocio internacionales de las empresas manufactureras. Sin embargo, Nosotros hemos basado nuestra descripción de componentes en los principales trabajos sobre modelos de negocio y hemos tratado de mostrar una definición lo más completa posible. Al proponer nuestras hipótesis, la falta de estudios teóricos y cualitativos nos ha obligado a tomar como referencia las propuestas y resultados de trabajos en otros aspectos estratégicos o en otros tipos de empresa. Teniendo en cuenta estos inconvenientes, hemos tratado de ser cautos y plantear un mayor número de hipótesis.

Creemos que las limitaciones que hemos expuesto abren interesantes oportunidades para futuras investigaciones.

Futuras líneas de investigación

Para finalizar este discurso, proponemos algunas recomendaciones y temas, que consideramos interesantes, para futuras investigaciones.

Al elegir la población de estudio, las investigaciones futuras pueden colocar sus estudios en otros contextos: otros países de origen, industrias más intensivas en conocimiento y otros tamaños de empresas. De esta forma, los resultados podrían ser comparados o incluso detectar otros modelos de negocio, provenientes de otro tipo de empresas, útiles en el contexto de las pymes manufactureras tradicionales.

En cuanto a la muestra y los datos, sería recomendable trabajar con muestras más amplias, que permitan definir modelos de negocio más granulares y demostrar su propiedad de equifinalidad.

También serían interesantes los estudios con datos longitudinales, para poder estudiar los cambios e innovaciones experimentados por los modelos de negocio, pero también para poder comprobar si las empresas siguen las rutas de evolución identificadas en el Capítulo 4.

Por otro lado, detectamos la necesidad de estudios más teóricos y cualitativos sobre modelos de negocio internacionales, pero también se deben realizar estudios cuantitativos que muestren evidencia estadística de la relación entre los modelos de negocio y la internacionalización de las empresas. También es necesario definir escalas y medidas del modelo de negocio.

Otros temas de interés para futuras investigaciones son la digitalización de empresas, la sostenibilidad o la inclusión de las pymes en las cadenas de valor globales, todo ello desde el marco del modelo de negocio. También sería interesante estudiar el papel del

modelo de negocio en otras dimensiones de la internacionalización, profundizar en la relación entre la innovación del modelo de negocio y la internacionalización, y seguir analizando otros activos y otras fuentes de recursos en la Pyme, prestando especial atención al conocimiento internacional.

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