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**"STRATEGY AND ORGANIZATION OF BORN-GLOBAL FIRMS:
A CONFIGURATIONAL ANALYSIS"**

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Executive summary

Born-global firm is a relatively recent concept in international business; it emerged in the literature at the beginning of the 90s to indicate young entrepreneurial firms with a distinctive international orientation from early stage in firm's lifecycle.

The presence of young firms carrying out operations abroad close to or immediately after their establishment is a worldwide phenomenon, even though at different extent, and their number has been increasing during the last twenty years.

The increasing diffusion of early internationalizing firms raised the attention of several scholars, since this phenomenon is in contrast to traditional theory on firm's internationalization (e.g. Johanson and Vahlne 1977), which views internationalization as a gradual process, starting when the firm has already overcome the start-up phase and it has gained market share in the domestic market.

Literature on early internationalization shows that these type of firms have some similarities, in terms of organization, strategy and orientation, however, several aspects in born-global firms' literature are still underdeveloped. Therefore, this thesis is aimed at deepening the understanding on the key factors that allow early internationalizing firms to achieve successful international expansion, despite their limited size, experience, financial and tangible resources. The analysis is organized in four sections; the first two chapters include a literature review on early internationalization, then, chapters 3 and 4 illustrate the results of the empirical analysis and the related discussion.

More precisely, chapter 1 provides an overview on the born-global firm phenomenon; first, it introduces the issue of small and medium-sized enterprises internationalization, since born-global firms represent a sub-group of SMEs population. In addition, chapter 1 includes some quantitative information on the diffusion of early internationalizing firms.

To follow, chapter 1 illustrates some key characteristics of born-global firms from a qualitative point of view, based on the most relevant contributions in extant literature on early internationalizing firms. Then, the discussion moves to scholars' debate on born-global firms identification criteria.

Chapter 2 describes the research areas of born-globals' literature at the firm level, thus providing a more focused perspective on the organizational aspects and decision-making processes that characterize this kind of enterprises.

Among the topics discussed in this chapter there are organizational aspects and culture, entrepreneur's distinctive characteristics and born-global firms' key capabilities. Moreover, it provides insight into the decision-making process related to internationalization decisions.

Then, the discussion moves to the role of networks and networking capabilities while pursuing accelerated internationalization. Chapter 2 also describes the most common strategies adopted by early internationalizing firms and the main sources of competitive advantage. In addition, chapter 2 includes several 'open questions' on the topics discussed, highlighting those aspects that are still underdeveloped in extant literature.

The empirical analysis starts from chapter 3 with the sample description and the related descriptive statistics. Chapter 3 is aimed at providing an overview on quantitative and qualitative aspects of born-global firms, moreover, this section includes links to the topics analyzed in the previous literature review.

More precisely, descriptive statistics compare born-globals to all other firms in the sample to highlight the differences among different firm categories, that is, born-global firms, moderate exporters and non-exporting firms.

Findings reported in chapter 3 cover several issues, including firm organizational structure, roles' formalization, decision-making process, as well as firm's orientation and strategy.

In addition, differences in mean between firm categories have been tested for statistical significance through t-tests.

The most relevant findings of this preliminary analysis are listed and discussed in the end of chapter 3. These results suggest that born-global firms have superior revenue growth than other firms in the sample, even if they suffer more at the beginning in terms of profitability. Moreover, they generally adopt an entrepreneurial orientation and they follow a niche strategy to enter foreign markets.

Finally, as regards firm organization, these findings suggest that born-global firms have a more defined organizational structure than other firms in the sample, in addition, born-global firms show higher involvement of firm's collaborators in the decision-making process.

The last chapter includes the configurational analysis resulting from the application of Qualitative Comparative Analysis (QCA) technique. The purpose of this analysis is to deepen the empirical evidence discussed in chapter 3, more precisely, the main objective is to identify configurations of attributes (e.g. organizational structure, hierarchy, competitive environment) leading to the outcome 'born-global'.

Through the application of QCA it is possible to see whether born-global firms share specific characteristics in terms of internal organization, orientation, strategy and competitive

environment, in addition to an international orientation and a relatively high export share. Moreover, results of the configurational analysis illustrate the complementarity of these elements characterizing born-global firms. Finally, born-globals' configurations are considered in relation to those associated to the categories 'moderate exporters' and 'non-exporting' firms for a further comparative analysis.

Resulting configurations suggest that born-global firms are not just young firms with a relatively high export share, but they share other key elements, such as a well-defined organizational structure, innovation focus, and the avoidance of a highly turbulent competitive environment, that we do not find with the same combination in moderate exporters and non-exporting firms.

Chapter 1

Born-global firm: A new species of SME

1.1 Introduction

An increasing number of young firms shows a distinctive international orientation and carries out operations abroad early in firm's lifecycle, that is, from or near company's establishment. This chapter provides an overview on the 'born-global' firm phenomenon; at the beginning, it gives an insight into small and medium-sized enterprises internationalization, since born-global firms represent a sub-group of SMEs population. To follow, it provides some quantitative information on the diffusion of early internationalizing firms. In the next section, it presents some key characteristics of born-global firms from a qualitative point of view, then it illustrates the most relevant contributions in extant literature on early internationalizing firms. Finally, several scholars' definitions of this kind of businesses are listed together with a brief description of the consequent debate on born-globals' identification criteria.

1.2 Early internationalization in small and medium-sized enterprises (SMEs)

The issue of young and rapid internationalizing firms might seem at a glance a niche topic in the field of international business, however, this phenomenon is growing worldwide and the related literature has been increasing rapidly during the last twenty years.

According to Knight and Cavusgil (2015), the term 'born-global firm' appeared for the first time in a study conducted by McKinsey & Company published in 1993 regarding early internationalizing firms in Australia. Soon this terminology appeared also in the academic literature (Knight, Cavusgil 1994) as well as new similar concepts, for example 'international new venture' introduced by Oviatt and McDougall in 1994. A summary on literature's evolution on early internationalization is provided by Knight and Liesh (2016); among the several studies cited in their article, specific attention is given to the contributions on the role of networks and alliances (e.g. Coviello 2006; Weerawardena, Mort et al. 2007), the external factors influencing early internationalization (e.g. Servais et al. 2007), company founders characteristics and firm's resources (e.g. Knight, Cavusgil 2004; Weerawardena et al. 2007), the role of dynamic capabilities (e.g. Weerawardena et al. 2007), the implementation of specific business strategies

(e.g. Efrat, Shoham 2012; Sleuwaegen, Onkelinx 2014), opportunities identification and exploitation (e.g. Mathews, Zander 2007) and the application of effectuation theory on born-global decision-making process (Harms, Schiele 2012)¹.

However, before analyzing the topic in detail, it is useful to provide an overview of small and medium-sized enterprises' internationalization to give a general insight about the characteristics and the entity of the phenomenon.

Small and medium-sized enterprises are generally identified according to their size in terms of employees, annual turnover or the amount of balance sheet total². These firms play a fundamental role in the economy since they represent the overwhelming majority of enterprises worldwide, in the case of EU-27's non-financial businesses, such firms constituted the 99,5% of the overall active enterprises in 2013 (about 22.8 million over a total of about 22.9 million), with a great predominance of micro enterprises (firms with less than 10 people employed) representing the 91,4% of the total number of EU-27's non-financial businesses (Eurostat 2013).

However, small and medium-sized enterprises, on average, show much less involvement in international activities than large businesses. This trend has been shown by the study of the OECD on SMEs participation on global markets. From the study emerges that the main reason of this discrepancy is represented by the fixed costs associated with entry into foreign markets (OECD 2013). Given their small size and limited financial resources, SMEs find it difficult to overcome these expenses, so they are generally less prone to international activities than larger firms. The following table (Table 1.1) ranks the most common barriers to SMEs internationalization according to OECD member economies.

Nevertheless, internationalization represents a great opportunity for growth and there is evidence in the study that *international* SMEs outperform *domestic* SMEs since small and medium businesses which operate only in the domestic market show the lowest performance in terms of employment, innovation and productivity. In addition, SMEs with foreign activities in high-growing economies show better results in all the previous fields than international SMEs operating in developed markets only (OECD 2013).

¹ For a complete list see KNIGHT, G.A. and LIESCH, P.W., 2016. Internationalization: From incremental to born global. *Journal of World Business*, 1, vol. 51, no. 1, paragraph 3, pp. 96-97

² According to the European Commission, SMEs have less than 250 employees, firm's annual turnover does not exceed 50 million, or have a balance sheet total of no more than 43 million.

Table 1.1 Most common barriers to SMEs internationalization

Rank-Weighted Factor	Description of Barrier
1	Inadequate quantity of and/or untrained personnel for internationalization
2	Shortage of working capital to finance exports
3	Limited information to locate/analyze markets
4	Difficulty in identifying foreign business opportunities
5	Lack of managerial time to deal with internationalization
6	Inability to contact potential overseas customers
7	Difficulty in developing new products for foreign markets
8	Unfamiliar foreign business practices
9	Meeting export product quality/standard/specifications
10	Unfamiliar exporting procedures/paperwork

Source: OECD (2013)

Despite these barriers, the number of small young firms that internationalize early has been increasing during the last decades and today this kind of businesses is much more common (Cavusgil, Knight 2015).

1.3 Empirical evidence on born-global firms

Empirical research on born-globals is still fragmented, therefore it is not possible to estimate exactly their number and their growth trend until today. The following tables summarize the most relevant empirical studies cited in the Eurofound report “Born-global: The potential of job creation in new international businesses” (2012). More precisely, these researches are aimed at estimating the share of early internationalizing firms among new businesses (Table 1.2) and the percentage of born-globals among all enterprises (Table 1.3).

Table 1.2 Born-globals among start-ups

Author/Source	Year	Reference country	Findings
Lehmann and Schlange	2004	Finland, Norway, Sweden and Denmark	Almost 50% of high-tech start-ups in Nordic countries (Finland, Norway, Sweden and Denmark) exported within two years after their inception.
Moen	2002	Norway, France	Around 50% of the Norwegian SMEs and 11.6% of French SMEs founded in the 1990s can be considered as born globals .

Author/Source	Year	Reference country	Findings
Statistik Austria	2007	Austria	Around 22% of Austrian start-ups with 3 years of activity and managed by the initial founder (sample size about 1,700) are active internationally within the EU and around 7% beyond the EU .
Sanchez and Rodriguez	2008	Spain	In 2002 more than 15% of Spanish SMEs, younger than seven years had an export share of at least 25%.
Madsen et al.	2000	Denmark	About 17% of 270 Danish SMEs had export shares of 25% within three years of inception and quickly expanded their foreign activities.

Source: Eurofound (2012)

Table 1.3 Born-globals among all enterprises

Author/Source	Year	Country	Findings
UKTI - Harris and Li	2007 a/b	United Kingdom	In the year 2007, 2% of the sample (an unbalanced panel of over 80,000 UK firms) can be classified as born globals . UKTI defines a born global as an enterprise founded a maximum of five years previously, which within its first two years engages in any export activities.
Statistics Sweden	2012	Sweden	Between 10% and 20% of 610 Swedish exporters in manufacturing or knowledge intensive business services can be classified as born globals , depending on the definition adopted.
EIM Business & Policy Research	2010	Europe	17% of the SMEs founded for up to four years export goods or services , with 25% of them importing .
Mascherpa	2012	Italy	51% of a sample of 214 Italian manufacturing and exporting SMEs consists of born globals (defined as companies that internationalize within their first six years, and with exports accounting for at least 25% of their sales within the six years of beginning to do foreign business).

Source: Eurofound (2012)

These findings provide useful insight on the diffusion of born-global firms, however, they are not sufficient to estimate the total share of early internationalizing firms among start-ups and among all enterprises. Reported findings (Table 1.2 and 1.3) resulted applying different criteria and definitions of born-global firms, therefore, they are not comparable and it is difficult to draw an accurate conclusion.

Nevertheless, elaborating data collected by the Global Entrepreneurship Monitor (GEM) regarding the period 2003 – 2015 we can estimate the extent of born-globals on a larger scale. The following figures (Figure 1.1 and 1.2) have been elaborated using the Total early-stage

Entrepreneurial Activity index (TEA), defined as “the percentage of 18 – 64 population who are either a nascent entrepreneur or owner-manager of a new business”³. In particular, for each country included in the GEM database it is reported the percentage of internationally-oriented new businesses, that is, the share of TEA who indicate that at least 25% of the customers come from other countries.

As a consequence, the percentage of TEA with international orientation can be used as proxy for the number of born-globals as a share of all new businesses.

Figure 1.1 and 1.2 have been elaborated using an average value of available data included in the GEM database for the period 2003 – 2015.

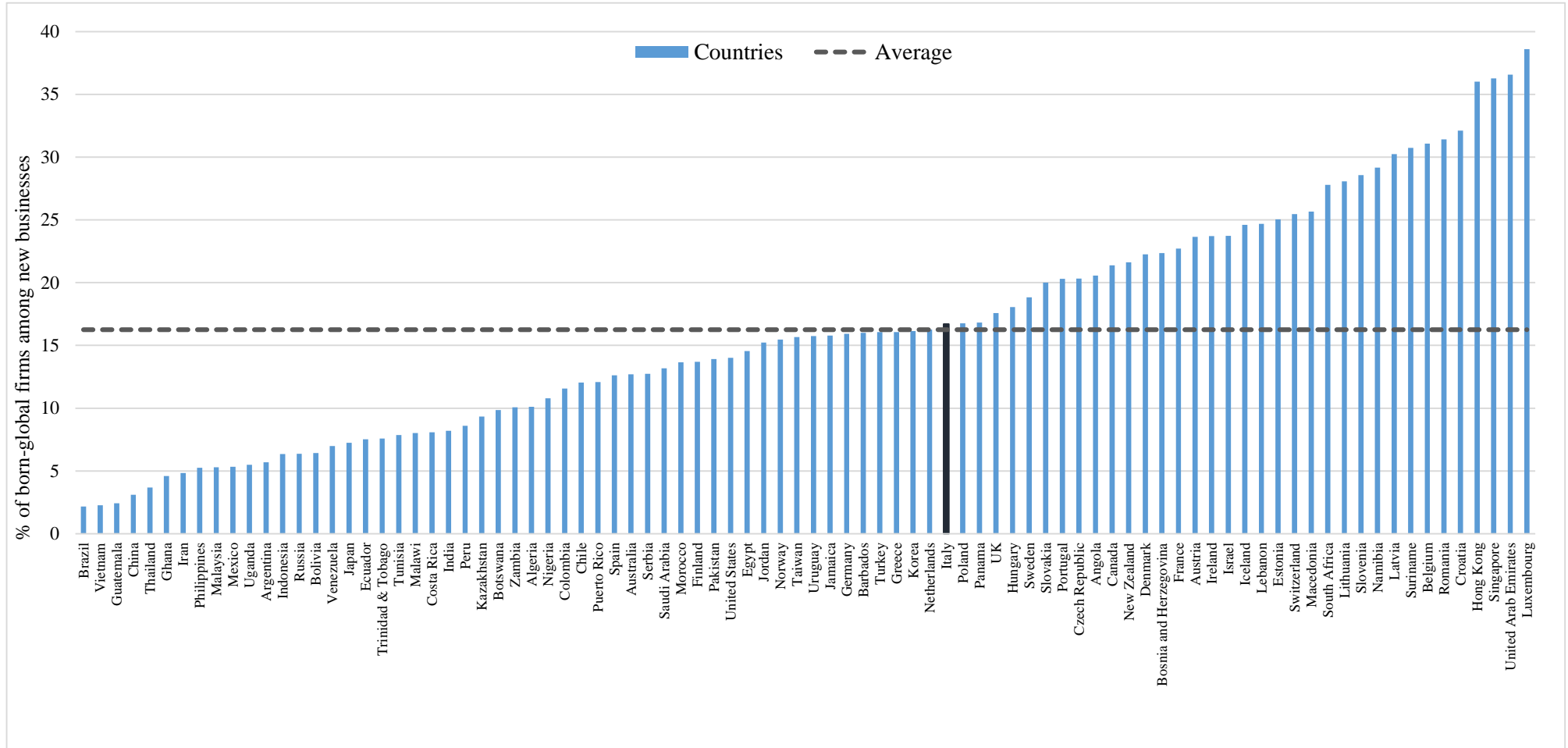
As Figure 1.1 shows, countries with the largest share of born-global firms among start-ups (e.g. born-global share over 20%) are characterized by relatively small domestic markets and most of them are European countries. Moreover, the majority of European countries with percentage values over 20% became EU member states quite recently, that is, during the period of investigation (i.e. Croatia, Romania, Slovenia and Baltic nations).

Interestingly, looking at the extreme left-hand side of Figure 1.1 we find almost an opposite situation since several countries with the lowest presence of born-globals (e.g. born-global share lower than 7%) are characterized by relatively large domestic markets (i.e. Brazil, China, Indonesia and Russia). Differently from the highest-value countries, the group of lowest-value countries includes more developing economies. As a consequence, this result might suggest a possible correlation between the level of economic development and the diffusion of early internationalizing firms.

From the observation of Figure 1.1 we can see that born-global firms are not distributed homogeneously around the world, but at the same time, looking at GEM data there is evidence that the existence of early internationalizing firms is a worldwide phenomenon since all countries included in the sample (87 nations) reported a positive percentage of internationally-oriented new businesses.

³ Global Entrepreneurship Monitor Key Terminology, available at <http://www.gemconsortium.org/wiki/1154>

Figure 1.1 Born-globals' share among new businesses by country (Period 2003 - 2015)



Source: GEM data elaboration

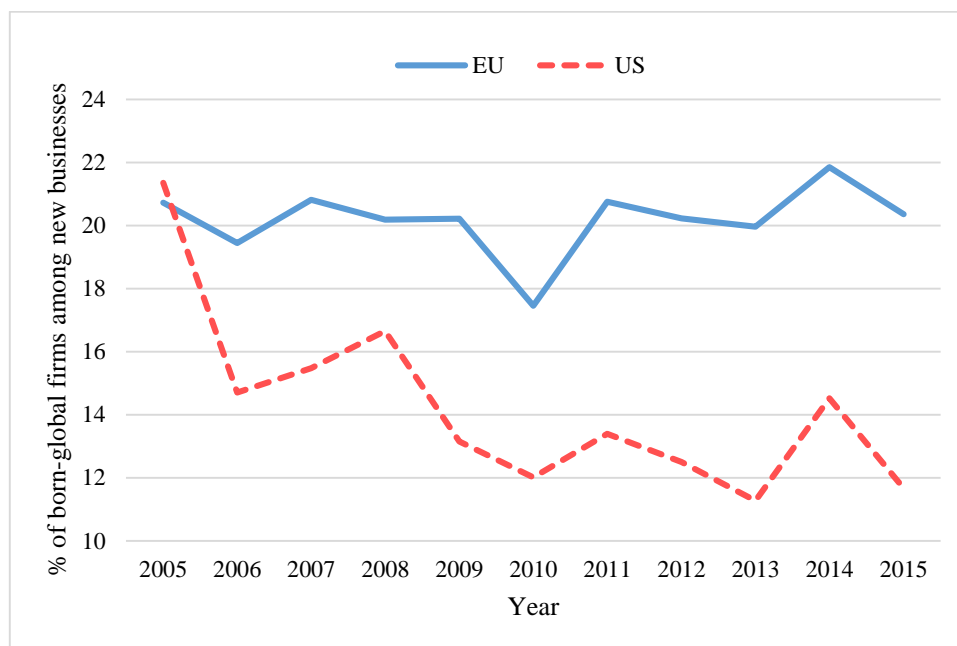
Another interesting information is represented by the growth trend of born-global firms. Although available time series on this issue are quite scarce, elaborating GEM data it is possible to figure out an approximated growth trend of early internationalizing enterprises for Europe and the United States.

Figure 1.2 shows the evolution of the percentage of born-global firms on all new business for Europe and the U.S. respectively based on GEM data. The European trend has been computed on selected 13 European countries with the most complete data availability during the period of investigation, that is, Belgium, Croatia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Slovenia and Spain.

Observing Figure 1.2 we can see that in 2005 the share of born-globals on all new businesses was pretty similar in Europe and in the U.S. but ten years later the U.S. share has decreased by almost ten percentage points, while in Europe it remained around 20%.

Another interesting point is given by their dynamics; between 2008 and 2010, during the financial crisis, both trends are decreasing, then from 2009 to 2015 the two lines follow the same alternation of negative and positive changes.

Figure 1.2. Born-globals' share growth trend (2005 – 2015)⁴



Source: GEM data elaboration

However, after the lowest peak in 2010, the European share of born-global enterprises increased up to the pre-crisis level reaching its highest value in 2014. In contrast, the U.S. share has remained below its pre-crisis level until 2015.

⁴ Missing data: Germany 2007, Ireland 2009, Italy 2011, France 2015

1.4 Early internationalizing firms: distinctive characteristics

The growing presence of early internationalizing firms is a phenomenon that scholars started to investigate in the 80s (Knight, Liesch 2016) as they observed the emergence of this new type of multinational enterprises in the global economy.

Foundational literature on the topic emerged during the 90s and led to the creation of new concepts and terminology, such as ‘born-global firm’ (Rennie, McKinsey 1993), ‘international new ventures’ (Oviatt, McDougall 1994) or ‘micro-multinationals’ (Dimitratos et al. 2003). Although these concepts present some differences, they all recognize as a key feature rapid internationalization.

This characteristic is in contrast to the traditional view about firms’ entry into foreign markets, as the one proposed by Johanson and Vahlne, known also as the ‘Uppsala internationalization model’. More specifically, this model views firm’s internationalization process and commitment as incremental, therefore companies tend to gradually acquire, integrate and exploit knowledge about foreign markets and operations, adopting a step-by-step approach in their international development (Johanson, Vahlne 1977).

As a consequence, rapidly internationalizing firms represent an interesting topic in the field of international business and data show that the phenomenon is also increasing in relevance, for example according to Eurofound, in 2012 about one fifth of European new enterprises could be defined born-globals (Eurofound 2012).

Knight and Cavusgil define born-global firms as “business organizations that, from or near their founding, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries” (Knight, Cavusgil 2004). Therefore, they are in contrast to the traditional approach of gradual evolution into international trade since they “view the world as their marketplace from the outset” (Rennie, McKinsey & Co. 1993, p.9). Knight and Cavusgil’s definition takes into consideration young companies and focuses on the firm as the unit of analysis, moreover, exporting is viewed as the main activity in pursuing internationalization.

Similarly, Oviatt and McDougall developed the concept of ‘international new ventures’ defined as “business organizations that, from inception, seek to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt, McDougall 1994, p.49). This definition considers young, internationalizing firms and it also includes several value chain activities and not only exporting, for example foreign manufacturing. Moreover, it involves different possible entry strategies, including foreign direct investment.

Scholars agree also on the fact that early internationalizing firms share the risks of young enterprises in general, as well as their limits especially in financial, human and tangible resources. However, they generally face more types of liability than young ‘domestic’ SMEs, in fact, they not only fight to survive as young firms but at the same time they manage early internationalization. Scholars refer to this peculiar circumstances with the terms ‘liability of *newness*’ (Stinchcombe, 1965) and ‘liability of *foreignness*’ (Zaheer and Mosakowski 1997) outside the home country.

The concept of liability of newness was developed by Stinchcombe in the 60s investigating the reasons why “a higher proportion of new organizations fail than old” (Stinchcombe 1965, p.148).

According to his study, there are basically four determinants of such liability; first, new roles and tasks have to be learned by new organizations at some costs. Second, capital constraints or limited creativity may prevent from inventing new roles that are necessary for the development of the organization. Third, social interactions among individuals inside the new venture may lack a common normative basis since they are similar to interactions between strangers. Finally, the network of clients, suppliers, supporters and distributors is not well developed and sometimes firms start their operations even without an existing network.

The concept of liability of foreignness, according to Zaheer and Mosakowski (1997), is associated with geographical distance and additional costs due to the firm’s unfamiliarity with the local environment, in addition, foreign firms may be subject to different regulations with respect to local firms, so doing business there can be much more expensive compared to host-country firms.

In the case of newly internationalizing firms, aspects such as lack of personnel with international business experience, limited financial resources to invest abroad, and difficulties in building the network of clients, suppliers and distributors abroad can be related to the concept of liability of newness outside the home country. While communication problems with foreign counterparts, difficulties in understanding foreign customer needs and unfamiliarity with foreign legal and administrative procedures are linked to the concept of liability of foreignness. These possible obstacles and limitations associated with the two kind of liability are confirmed, in a way, by the reported barriers to SMEs internationalization previously listed in Table 1.1. So, on the one hand, young firms pursuing rapid internationalization typically face more risks and difficulties since they are subject to multiple ‘liabilities’ (Sleuwaegen, Onkelinx 2014), but on the other hand data show that, on average, ‘survived’ *international* SMEs outperform *domestic* SMEs in terms of employment, innovation and productivity (OECD 2013).

Therefore, it is particularly interesting to investigate the factors that allow early internationalizing firms to overcome these obstacles and grow internationally, especially how they leverage the typical characteristics of young firms, as well as how they cope with the risks and limits associated with their small size, limited resources and experience.

1.5 Born-global firms research topics

Research on early internationalizing firms has deepened especially in the 2000s, both due to a more detailed study on previously analyzed topics, and to the development of new research areas.

Until now research has covered several topics both on external factors influencing early internationalization and on born-globals internal dimensions that facilitate international development. According to the description of born-globals' literature evolution provided by Knight and Liesh (2016), important contributions on firm's internationalization drivers analyze external factors like the liberalization of international markets, technological advances in the ICT, production and logistic sectors, the diffusion of the Internet and specific industry characteristics (e.g. Etemad 2004; Loane 2006; Rialp et al. 2005a; Servais et al. 2007).

However, according to Knight and Liesh (2016) few studies have been conducted on the impact of public policy regarding early internationalizing firms (e.g. Bell et al. 2003; Wright, Westhead, and Ucbasaran 2007).

Among the research on external factors influencing young firms' internationalization, Knight and Liesh (2016) also mention studies conducted on the size of firm's domestic market (e.g. Fan, Phan 2007) which sustain that nations characterized by small domestic markets show, on average, a higher incidence of born-global firms, and this is perfectly in line with the results previously reported in Figure 1.

As far as target market is concerned, Knight and Liesh (2016) highlight the contribution of Efrat and Shoham (2012) on the impact of target-country risk level on born-global firms' performance. More precisely, Efrat and Shoham found that target-country risk level has a negative effect on born-globals' strategic performance (Efrat, Shoham 2012), however, in the long-term born-globals which targeted riskier countries show higher survival rates (Efrat, Shoham 2012).

These findings can be useful to answer questions such as: Do born-globals prefer specific business contexts while evaluating their entry into foreign markets? Do born-globals have a higher probability of success in specific business contexts?

An interesting point in this sense, is given by the findings of OECD on SMEs internationalization previously cited, especially on the fact that SMEs with foreign activities in

high-growing economies show better performance in terms of employment, innovation and productivity than international SMEs operating in developed markets only (OECD 2012).

As regards firm's internal dimensions, research at the firm level has covered several aspects. According to Knight and Cavusgil (2015) the most relevant contributions in this area cover the following topics: the process of new opportunities' discovery, resources deployment and engagement with competitors among born global firms (e.g. Mathews, Zander 2007), the role of firm's resources, capabilities and founders in pursuing early internationalization (e.g. Knight, Cavusgil 2004, Weerawardena et al. 2007), entrepreneurial orientation in born-global firms (e.g. Mathews, Zander 2007; Weerawardena et al. 2007), the presence of specialized knowledge to develop high value products (e.g. Efrat, Shoham 2012; Fan, Phan 2007; Rialp et al. 2005a; Weerawardena et al. 2007), the nature of entrepreneurial process in early internationalizing firms (e.g. Harms, Schiele 2012) and the implementation of specific business strategies (e.g. Efrat, Shoham 2012; Weerawardena et al. 2007, Sleuwaegen, Onkelinx 2014). Recently, Sleuwaegen and Onkelinx (2014) studied also the correlation between business strategies and scope of internationalization, that is, the number of foreign markets the company is willing to enter.

Knight and Cavusgil (2015) argue that some of the most notable advancements in the field of early internationalization are represented by the studies on the role of networks and firm's networking capabilities (e.g. Coviello 2006), since young internationalizing firms seem to benefit substantially from network relationships.

However, the existing literature on early internationalizing firms can be further developed in many fields. According to Knight and Liesch (2016), it would be useful to deepen the relationship between accelerated internationalization and firm's performance abroad, moreover they suggest to develop new theories and models to better study the *process* through which born-globals create and capture economic value through their international operations (Knight, Liesch 2016).

The main reason behind this suggestion, according to Knight and Liesch, is that that empirical research in this field is often static since it measures organizational conditions at a certain point in time, therefore, usually applied methodologies (e.g. surveys) are not appropriate to capture the dynamics involved in the internationalization process of the firm (Knight, Liesch 2016).

For example, existing literature highlighted the positive impact of entrepreneurial orientation and learning capabilities on born-globals' international development (e.g. Weerawardena, Mort et al. 2007), as well as the role of networks and firm's networking capabilities (e.g. Coviello 2006), however, it is not clear how entrepreneurs/managers translate these predispositions into

superior performance (Knight, Liesch 2016). As a consequence, Knight and Liesch (2016) recommend alternative methodologies, for example case studies and longitudinal research.

They highlight also the need to integrate and improve existing constructs, definitions and measures, especially the criteria used to identify early internationalizing firms (i.e. the time to entry into foreign markets and a minimum share of total sales abroad) (Knight, Liesch 2016). In fact, existing definitions suggest different time periods between inception and first foreign entry, as well as various minimum percentages of foreign sales to distinguish a ‘domestic’ start-up from a ‘global’ start-up⁵.

More homogeneous and agreed criteria among scholars can be useful to develop comparative analysis on a larger scale and it will prevent possible ambiguities resulting from the use of different terminology to indicate concepts that are very similar or even identical (ie. born-global firm, international new venture, micro-multinational, global start-up, etc.).

Finally, Knight and Liesch (2016) encourage further studies on the evolution of born-globals in the medium and long-term to understand, for example, how they look like in ten years.

1.6 Born-globals’ identification criteria

Early internationalization has been defined by several scholars, considering in most of the cases a timing dimension, that is, time before starting export, and an export dimension, generally measured as percentage of export sales on firm’s total sales. The definition of these dimensions is necessary to answer some key questions, for example: how many years should pass between company foundation and first foreign market entry to define it as *early* internationalizing firm? Which variables should we look at to distinguish a new venture from an *international* new venture?

The following table (Table 1.4) elaborated by Gabrielsson and Kirpalani (2012) summarizes selected definitions of early internationalizing firms (i.e. born-global firms and international new ventures) developed by scholars until 2010 highlighting three main criteria, that is, firm’s vision, time between inception and first foreign market entry (precocity), and export extent (speed). According to Gabrielsson and Kirpalani (2012), the following definitions are among the most important and recognized within the literature on early internationalizing firms.

⁵ Selected examples are provided in the next paragraph (Table 1.4)

Table 1.4. Born-global definitions

No.	Author	Year	Vision	Precocity	Speed
1	<i>McKinsey and Company, Rennie</i>	1993	Management views the world as its marketplace from the outset of firm's founding	Began exporting, on average, only 2 years after foundation	Achieved 76% of their total sales through exports at an average age of 14 years
2	<i>Knight and Cavusgil</i>	1996	Management views the world as its marketplace from the outset of firm's founding	Begin exporting one or several products within 2 years of establishment	Tend to export at least 25% of total production
3	<i>Chetty and Campbell-Hunt</i>	2004	-	Within 2 years of inception	80% of sales outside New Zealand; markets are worldwide
4	<i>Oviatt and McDougall (International new venture)</i>	1994	Business organizations that, from inception , seek to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries	-	-
5	<i>Luostarinen and Gabrielsson</i>	2006	Global vision and/or at a global growth path	At the outset entered global markets	Over 50% of sales outside home continent. Established after 1985
6	<i>Servais et al.</i>	2007	-	Within 3 years of establishment	More than 25% of foreign sales or sourcing outside home continent
7	<i>Zhou, Barnes and Lu (International new venture)</i>	2010	-	An international market entry process that occurs within 3 years of firm's inception	Generating at least 20% of total sales from multiple countries. Founded in 1990 or later

As Table 1.4 shows, the 'global vision' aspect presents more similarities, while proposed timing and export dimensions appear more heterogeneous. Time to export criteria listed in Table 1.4 vary from zero (export starting from the outset) to three years, however, export extent criteria (speed) show much more variety. As regards export shares on total sales, percentages vary from 20% (definition 7) to 80% (definition 3), moreover, some scholars adopt a more restrictive geographical parameter since they refer to sales outside the home *continent* (definitions 5, 6). Most of reported definitions use only export as a measure of 'globalness' (definitions 1, 2, 3, 5,7), while some scholars consider also international sourcing (definitions 4, 6).

This heterogeneity within born-global identification criteria has raised some debate in the literature, for example recently scholars (e.g Kuivalainen et al. 2007; Gabrielsson et al. 2008; Gabrielsson, Kirpalani 2012; Sleuwaegen, Onkelinx 2014) argued that the 2 or 3-year period after inception, proposed by several authors (e.g. definitions 1, 2, 3, 6, 7), is not appropriate to distinguish an early internationalizing firm from a 'traditional' exporter. More precisely, they

affirm that the process of exporting, especially for start-up companies, is not straightforward due to a possible limited international experience (Gabrielsson et al. 2008). As a consequence, they suggest to adopt more flexibility on the time period since it can take longer than three years. Sleuwaegen and Onkelinx (2014), for example, consider a time period of five years between firm's establishment and first foreign market entry, similarly, Loane et al. (2007) choose a time to export period of six years.

Moreover, Hewerdine and Welch (2013) argue that Knight and Cavusgil's definition (definition 2) is relatively arbitrary since it is not clear which is the firm's true founding date (i.e. the date in which founders decide to found it or the official registration date or the date when the firm starts generating revenues).

In addition, Gabrielsson et al. (2008) in their definition of born-global firm specify that "it must also carry the risk of a small start-up company" (Gabrielsson et al. 2008, p.388), meaning that a spin-off of an older, established firm cannot be considered born-global.

As far as export is concerned, recently some scholars began to question the generally used 20 – 25% export-to-total sales ratio to identify born-globals (e.g. definitions 2, 6, 7). This ratio, in fact, depends on the size of the firm's domestic market and also on the one of the neighboring countries (Gabrielsson, Kirpalani 2012). The threshold of 25%, proposed for example by Knight and Cavusgil (1996) analyzing U.S. firms, cannot be applied for example to European firms or to small countries in general since their domestic market is smaller (Kuivalainen et al. 2007).

For example, according to Knight and Cavusgil's definition (definition 2), a young firm set up in a relatively small country (e.g. Switzerland) exporting at least 25% of sales abroad to a single country (e.g. Germany) within two years from establishment can be considered born-global, however, the term 'global' doesn't seem the most appropriate adjective in this case.

As a consequence, scholars (e.g. Kuivalainen et al. 2007; Sleuwaegen, Onkelinx 2014) instead of proposing new export shares, they prefer to measure the degree of firm's 'globalness' looking at export *scope* (i.e. the number of exporting countries) rather than export *scale* (i.e. the percentage of export on total sales). Therefore, Sleuwaegen and Onkelinx define early internationalization as "exporting within five years of inception, and define global scope as exporting to at least five countries in at least two geographical regions" (Sleuwaegen, Onkelinx 2014).

This definition in terms of timing and export scope lead Sleuwaegen and Onkelinx (2014) to the following classification of early internationalizing firms: 'global' start-ups and 'geographically-focused' start-ups, instead of 'born-globals' or 'international new ventures'. More precisely, global start-ups are "international new ventures that from their inception export

on a global scale, penetrating multiple markets simultaneously” (Sleuwaegen, Onkelinx 2014, p.106) and geographically-focused start-ups differ from the previous because they “start exporting to a smaller set of countries, all within the same region” (Sleuwaegen, Onkelinx 2014, p.106).

Moreover, Kuivalainen, Sundqvist et al. (2007) in their discussion on market scope measures highlight the relevance of psychic distance toward a foreign market (e.g. differences in language, culture, consumer behavior, legal systems) as an attribute to take into consideration in evaluating whether a firm is ‘truly’ global (Kuivalainen, Sundqvist et al. 2007). In fact, operating in multiple ‘culturally-distant’ countries require specific organizational capabilities and knowledge that not all young exporting firms possess (Kuivalainen, Sundqvist et al. 2007).

1.7 Conclusion

Despite evidence shows that, on average, small and medium-sized enterprises exhibit less involvement in international business, an increasing number of young firms engages in international activities at a very early stage.

Available data are not sufficient to precisely estimate the number of born-global firms, however, empirical evidence provides an important information: although there is variety in their diffusion, the presence of early internationalizing firms is a worldwide phenomenon.

The raise of born-global firms represents a relatively new phenomenon since they appeared in the globalized economy starting from the 80s. The emergence of this new species of SMEs with a ‘disruptive’ approach to internationalization called into question the traditional view of firm’s internationalization (e.g. the Uppsala internationalization model), which describes firm’s international development as incremental.

One of the distinctive characteristics of born-global firms is their ability to overcome at the same time the so called ‘liability of newness’ and the ‘liability of foreignness’. As a consequence, scholars focused their studies on the factors that allow such businesses to survive and successfully enter foreign markets.

Although literature on this topic has enriched during the last twenty years, there is still an open debate on the correct definition of born-global firm, and many aspects influencing rapid internationalization can be examined more in depth.

Chapter 2

Born-global firms' key aspects

2.1 Introduction

This chapter describes the research areas of born-globals' literature at the firm level, thus providing a more focused perspective on the organizational aspects and decision-making processes that characterize this kind of enterprises.

The discussion starts with organizational aspects, culture and entrepreneur's distinctive characteristics in early internationalizing firms followed by the issue of born-globals' key capabilities. Another issue discussed in this chapter is the decision to internationalize, which constitutes a crucial point in born-global firms' strategy. The following section describes the importance of networks and networking capabilities in pursuing accelerated internationalization, then, the discussion moves to born-globals' business strategies and sources of competitive advantage. Moreover, in this chapter are also highlighted several 'open questions' in born-globals' literature related to the analyzed topics.

Finally, the born-global firms' dynamic capability model by Weerawardena, Mort et al. (2007) summarizes how the combination of this set of capabilities can lead to a rapid and successful international expansion.

2.2 Organizational aspects and orientation

According to Knight and Cavusgil (2004) well-established firms generally apply systematized routines and develop complex administrative procedures; when such routines originate mainly from domestic operations, well-established enterprises need to unlearn many procedures and develop new ones before engaging in international business (Knight, Cavusgil 2004).

In contrast, born-globals seem to lack the administrative complexity and strict organizational routines that are common in long-established firms, in fact, many early internationalizing firms seem to have little or even no existing organizational procedures (Knight, Cavusgil 2004).

The lack of well-developed routines is strictly linked to their nature of newly established SMEs since they are young, small, flexible and less bureaucratic than bigger and older firms,

moreover, these features seem to favor organizational learning and the adoption of a proactive and innovative approach to internationalization (Knight, Cavusgil 2004).

In addition, Knight and Cavusgil (2004) argue that organizational culture and orientation represent another key feature in early internationalizing firms. More precisely, they show an entrepreneurial orientation resulting from characteristics like innovativeness, independence, growth, risk-seeking and owner centrality (Knight, Cavusgil 2004).

According to Weerawardena et al. (2007), the owner/manager profile in born-global firms is characterized by the following distinctive features: international entrepreneurial orientation, global mindset, significant prior international experience and learning orientation (Weerawardena, Mort et al. 2007). They define global mindset as “the propensity of managers to engage in proactive and visionary behaviors in order to achieve strategic objectives in international markets” (Weerawardena, Mort et al. 2007), moreover, they stress the importance of founder/manager’s prior international experience in pursuing opportunities abroad. In fact, in their past international experiences they have collected contacts and, more generally, they have gained a broad international education (Weerawardena, Mort et al. 2007).

In addition, Autio et al. (2000) argue that the earlier the firm enters foreign markets (i.e. during its formation period), the more likely it will develop a strong international identity and the less likely it will view foreign operations as risky or costly (Autio et al. 2000).

Together with an entrepreneurial orientation, these young firms have an international marketing orientation, that is, they have a managerial mindset focused on value creation for foreign customers (Knight, Cavusgil 2004). This translates into a commitment to offer products and services that buyers value more than alternative offerings, for example, through an effective marketing mix, communicating credibility and selecting appropriate distributors (Knight, Cavusgil 2004).

As noted by Knight and Cavusgil (2004), the main challenge for early internationalizing firms, however, is to manage simultaneously diverse international customers adapting offerings to their different needs and preferences.

Likewise, Efrat and Shoham (2012) argue that born-globals’ commitment to continuously improve the marketing mix can lead to a greater effectiveness in their ongoing operations and enhance customer relationships (Efrat, Shoham 2012). Moreover, given their relatively small size and limited resources, a strong customer orientation may help early internationalizing firms to gain market share and limit the negative effects of competition (Efrat, Shoham 2012).

What emerges from this section is that, as suggested by Knight and Cavusgil (2004) and Weerawardena, Mort et al (2007), born-global firms are characterized by a relatively high level

of flexibility that allows them to easily adapt to changing technological and market conditions, moreover, they agree on the role of founders and their distinctive characteristics.

2.2.1 Organizational aspects and orientation: open questions

However, it is still not clear whether such flexibility (e.g. having no pre-defined organizational procedures) is sustainable over time or there is a tendency toward formalization as the firm grows.

In addition, the issue of organization of labor within born-global firms is not well developed in extant literature. It would be interesting, for instance, to investigate which kind of organization do these firms prefer (e.g. by area, specialization, product/service, client), how managers and employees interact and take decisions (e.g. autonomy, teamwork, creation of ad-hoc groups, cross-functional roles) and the types of decision-making process (e.g. upstream or downstream decision-making process).

Another issue about early internationalizing firms that is still unclear is related to entrepreneur centrality; extant literature highlighted the beneficial effects of his/her entrepreneurial, marketing and learning orientation, as well as his/her prior international experience, to successfully pursue accelerated internationalization. However, it could be useful to better understand the specific activities that founders/owners actually conduct within the organization (e.g. coordination, control, strategic orientation, involvement in ongoing operations, support activities or many of them simultaneously) and whether the type of activity changes over time. Moreover, given their centrality within the organization, founders are likely to cover the role of leaders but it is not clear whether born-global entrepreneurs share similar leadership approaches.

2.3 Distinctive capabilities

The role of knowledge and learning capabilities in firms that undertake internationalization at early stage has been highlighted in the literature since the end of the 90s (e.g. Knight and Cavusgil 1996; 2004). Weerawardena et al. (2007), however, tried to deepen this issue analyzing how knowledge acquired prior to firm's establishment leads to the development of new routines and systems aimed at improving effectiveness and accelerating internationalization process. Their study is based on the application of the dynamic capabilities framework developed by Teece, Pisano and Shuen (1997).

According to this framework, firms that succeed in the global marketplace are characterized by timely responsiveness, rapid and flexible product innovation, and a distinctive management

capability to effectively coordinate and redeploy internal and external competences (Teece et al. 1997). Therefore, the term ‘dynamic capabilities’ refers to the ability to adapt and renew internal and external organizational skills, resources and competences to meet the requirements of a changing business environment (Teece et al. 1997).

From the application of the dynamic capabilities framework to born-global firms, Weerawardena et al. (2007) identified three key forms of learning capabilities that favor early internationalization, that is, market-focused learning capability, internally-focused learning capability, and networking capability.

They define *market-focused learning capability* as “the capacity of the firm, relative to its competitors, to acquire, disseminate, unlearn and integrate market information to create value activities” (Weerawardena, Mort et al. 2007), in other words, it is the ability of a firm to integrate market information (resulting, for example, from an individual’s previous experience in international business) and to learn from errors disseminating the lesson learned within the organization. This capability allows the firm to continuously improve its business practices to better achieve its international goals (Weerawardena, Mort et al. 2007).

Similarly, Efrat and Shoham (2012) argue that distinctive marketing capabilities in born-global firms result from market knowledge, that is, the accumulated information collected by the organization about its customers and competitors (Efrat, Shoham 2012).

In addition, Efrat and Shoham (2012) point out the possible advantages associated with such knowledge, for instance, it enables the firm to face the risks connected to the liability of foreignness, thus enhancing performance, moreover, market knowledge helps reducing the risks associated with market diversification allowing born-globals to rapidly approach new markets (Efrat, Shoham 2012).

As regards *internally-focused learning capability*, it refers to the ability of the firm to acquire and disseminate information within the organization, but in this case it involves technological and non-technological information that the firm generated internally (Weerawardena, Mort et al. 2007). Therefore, according to Weerawardena, Mort et al., born-globals are characterized by learning capabilities in relation both to the external and internal environment (Weerawardena, Mort et al. 2007).

The third distinctive capability of early internationalizing firms is defined by Weerawardena, Mort et al. as *networking capability*. It indicates the ability of the firm to build and maintain networks that are instrumental to the internationalization process, especially to acquire complementary resources that young firms may lack (Weerawardena, Mort et al. 2007).

2.3.1 Distinctive capabilities: open questions

However, it is not clear if successfully early internationalizing firms develop and nurture these dynamic capabilities also in the long-run and whether the increased size and complexity of the firm may threaten this ‘flexibility’ that allows born-globals to continuously adapt to a changing environment.

In addition, the studies mentioned before do not consider communication skills among born-globals’ distinctive capabilities. However, it is reasonable to expect superior communication capabilities among the factors that allow born-globals to successfully overcome their liability of newness. For instance, superior communication capabilities can lead to the development of an effective marketing campaign drawing the attention of both potential customers and investors, thus facilitating their settlement in the market.

2.4 The decision to go international

Many decisions have to be made while conducting firm’s activities, however, in born-global firms the decision to internationalize is probably the most relevant one. The decision-making process relative to firm’s internationalization has been subject matter of Perks and Hughes’ research (2008). Although this study was conducted on established mid-sized businesses, it provides some useful insight into the factors influencing managers’ internationalization choices. According to Perks and Hughes, the main factors influencing entrepreneurial managers’ decision to internationalize are the following: product-service complexity, strong customer relationships, tacit knowledge and vision, perception of ‘psychic distance’ between home and foreign markets, resource-based risk tolerance (i.e. the degree of tolerance toward reallocating resources to new and uncertain activities) and the strength of the business case (Perks, Hughes 2008).

The analysis of these factors lead Perks and Hughes to this conclusion: managerial decisions are more probably the result of manager’s individual choices and circumstances (e.g. tacit knowledge and vision, resource-based risk tolerance, strength of the business case) rather than industry or firm conditions (Perks, Hughes 2008).

As soon as the owner/manager has taken the decision to internationalize, he enters another phase of the decision-making process; according to Harms and Schiele (2012), it consists in the adoption of a ‘causation’ or ‘effectuation’ approach, then this choice will impact on the internationalization strategy, especially on entry modes (Harms, Schiele 2012).

The following table (Table 2.1) elaborated by Harms and Schiele (2012) summarizes the key characteristics of a causation and effectuation processes.

Table 2.1 Key characteristics of causation and effectuation

	Causation	Effectuation
Goals are...	Pre-defined	Emerging
Decision parameters include...	Maximization of expected return	Affordable loss
Dealing with uncertain future through...	Business planning and competitive analysis	Pre-commitment and alliances
Exploitation of...	Capabilities and resources	Environmental contingencies

Source: Harms and Schiele (2012)

According to effectuation theory “causation processes take a particular effect as given and focus on selecting between means to create that effect” (Sarasvathy 2001, p.245).

In practice, it means that in causation processes goals are defined *a priori*, the reasoning behind firm’s choices is maximization of expected returns, the main tools to deal with uncertainty are business planning activities and the elaboration of market analyses, and firm’s strategy is based on the exploitation of existing organizational resources and capabilities (Harms, Schiele 2012). Applying these concepts to internationalization choices in born-global firms, Harms and Schiele argue that causation-oriented entrepreneurs prefer planning activities and export as an entry mode (Harms, Schiele 2012).

Conversely, effectuation “takes a set of means as given and focuses on selecting between possible effects that can be created with that set of means” (Sarasvathy 2001, p.245).

As a result, in effectuation processes goals emerge ‘along the way’ meaning that the firm is able to rethink its objectives according to environmental contingencies (Harms, Schiele 2012). In effectuation, the logic behind firm’s decisions follows the ‘affordable loss’ principle, so that in case of failure the loss would not put company’s existence at risk. As regards uncertainty, effectuators try to safeguard themselves through contracts (e.g. pre-commitments from stakeholders and alliances), whereas strategy formulation is based on the exploitation of contingencies arising during company’s activity (Harms, Schiele 2012).

Therefore, according to Harms and Schiele, for effectuation-oriented entrepreneurs the choice of the appropriate entry mode does not necessary occur in advance (Harms, Schiele 2012).

The most relevant findings of the study conducted by Harms and Schiele (2012) are the following: entrepreneurs with significant prior experience prefer effectuation rather than causation in their internationalization choices, moreover, firms applying causation tend to enter foreign markets mainly through export giving up possible business opportunities related to networks, alliances or foreign direct investment (Harms, Schiele 2012).

The act of going international is the result of a series of decisions, for example, according to Mathews and Zander (2007), this process can be divided into three phases: the discovery of

opportunities, resource deployment, and interaction with international competitors (Mathews, Zander 2007).

More precisely, during the discovery phase the manager/entrepreneur connects prior experience and acquired knowledge with conditions and events observed in the current environment, this connection then originates the impulse to pursue a specific business idea (Mathews, Zander 2007). As a consequence, Mathews and Zander (2007) argue that individual ability to combine knowledge, skills and resources acquired in dispersed geographical locations with firm's current international activity is a distinctive aspect in born-global firms (Mathews, Zander 2007).

Resource deployment phase in early internationalizing firms represents an interesting step; while 'traditional' multinationals first gain competitive advantage in their home market and then try to replicate it abroad, born-globals are less concerned with the exploitation of the home-market competitive advantage (Mathews, Zander 2007). In fact, early internationalizing firms seem to leverage especially intangible resources and, above all, they try to gain access to critical skills and resources through agreements and alliances (Mathews, Zander 2007).

As a result, Mathews and Zander argue that, in the case of born-global firms, internationalization "may be defined as the entrepreneurial process of the firm's becoming *integrated* in international economic activities" (Mathews, Zander 2007, p.395).

The next phase is represented by competitive interaction; at this stage firms have to decide how to compete in the global marketplace with other players offering similar products or services. According to Mathews and Zander, competitive dynamics of born-global firms differ from those of gradually-internationalizing firms since international new ventures are more likely to compete with firms that do not share the same operational context and historical, institutional or cultural heritage as it often happens for 'domestically-built' multinationals (Mathews, Zander 2007). Therefore, born-global firms seem to draw competitive advantage from network relationships and inter-firm linkages rather than from their own resources, skills and knowledge (Mathews, Zander 2007).

2.5 The role of networks

The importance of networks and networking competences in born-global firms has been highlighted in the study of Coviello (2006) whose findings suggest that early internationalization seem to benefit enormously from network relationships as well as other forms of social capital (Coviello 2006).

More generally, the competitive advantage arising from interfirm relationships is not a completely new topic in the literature. For example, at the end of the 90s Dyer and Singh described the sources of inter-organizational competitive advantage in their article about the 'relational view' (Dyer, Singh 1998).

According to Dyer and Singh, this kind of competitive advantage originates from different partnership categories: investments in relation-specific assets, substantial knowledge exchange, combination of complementary resources or capabilities and agreements that lower transaction costs (Dyer, Singh 1998).

More precisely, these types of relationships may trigger a form of competitive advantage that Dyer and Singh define as 'relational rent', that is, "a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners" (Dyer, Singh 1998, p.662).

As far as international new ventures are concerned, the study of Coviello (2006) covers also network dynamics. In order to analyze network evolution in born-globals, firm life cycle has been divided into three stages: concept generation, commercialization and growth (including internationalization) (Coviello 2006).

From the analysis of network structure emerged that the three international new ventures under investigation had similar patterns of network evolution (Coviello 2006). More precisely, network structure has been analyzed looking at different dimensions (e.g. network range, density and centrality) in each of the three stages.

In all the cases network range (i.e. the number of ties) gradually increased from stage I to stage III and network density (i.e. the proportion of ties that are connected) decreased over time, these dynamics led to a similar network structure in stage III where all the three firms were active internationally; at this point network structure became larger and less dense with respect to the previous stages (Coviello 2006). As noted by Coviello, this pattern may expose born-globals to higher risk since a large and disconnected network can be difficult to manage (Coviello 2006). However, the larger the network, the higher the number of actors interacting with the firm, therefore, the increased size of the network provides also opportunities to access information and resources that are useful in firm's international development (Coviello 2006).

Looking at network centrality, each firm appeared in a relatively central position at stage III where all businesses expanded internationally and had a larger and sparse network (Coviello 2006). The analysis of these network dimensions (network size, density and centrality) supports the idea that social capital in firms under investigation increased in a linear fashion during firm's lifecycle (Coviello 2006).

As regards network interactions, the main findings of Coviello are the following: each firm internationalized through economic rather than social connections, moreover, even if internationalization occurred in stage II and III, it derived from business ties set up before or during firm's establishment (stage I) (Coviello 2006). In addition, it seems that third-parties involved in the internationalization process played the role of 'catalysts', thus facilitating international development (Coviello 2006).

The finding that business ties relevant to internationalization emerge before or close to firm's establishment (Coviello 2006) can be related, to a certain extent, to the importance of managers' prior experience in international business. In fact, as noted by Weerawardena, Mort et al. (2007), born-globals' founders/managers often have collected a set of contacts in their past experience that might become crucial once the new venture decides to go international.

In line with Coviello (2006), Weerawardena, Mort et al. (2007) highlighted the importance of networking including firm's networking capabilities among the distinctive dynamic capabilities of born-global firms (Weerawardena, Mort et al. 2007).

In their article, Weerawardena, Mort et al. argue that the organizational capability to build and maintain networks that are beneficial to the firm is a key factor for a successful internationalization process (Weerawardena, Mort et al. 2007).

Moreover, this capability becomes crucial especially for the acquisition of complementary resources that are necessary to pursue accelerated internationalization (Weerawardena, Mort et al. 2007).

2.5.1 The role of networks: open questions

Less clear, however, are the risks associated to extensively rely on network relationships while doing business, for example, the risk to become too much dependent from third-parties. Moreover, it would be interesting to investigate whether born-global firms internalize over time complementary resources or activities of their partners, thus becoming more independent, or they keep managing complex network structures.

Finally, the study conducted by Coviello (2006) evidenced a tendency toward a larger and less connected network as the firm expands internationally, however, the 'nature' of these additional ties is not clear. For example, it would be interesting to understand whether the gradual increase in network size is due to new ties with global partners (e.g. international suppliers or distributors) or with local partners within the target markets.

2.6 Business strategies

After discussing the distinctive characteristics of born-global firms from an organizational point of view, for instance, organizational capabilities, culture, founder's profile, decision-making process relative to internationalization and the role of networks, it is interesting to investigate how early internationalizing firms actually compete in the global marketplace.

An important contribution on this topic is represented by the study of Knight and Cavusgil (2004) where born-globals' business strategies have been analyzed in a sample of 24 early internationalizing firms selling industrial products or consumer goods.

First of all, Knight and Cavusgil (2004) found that firm's business strategy is closely linked to the distinctive international entrepreneurial orientation and marketing orientation of born-global firms (Knight, Cavusgil 2004). More precisely, international entrepreneurial orientation seems to facilitate the development of distinctive upper-quality products characterized by advanced technology, that appear, in turn, to favor international success (Knight, Cavusgil 2004).

On the other hand, international marketing orientation encourages further knowledge of customers, the development of new products and the search for the appropriate marketing mix (Knight, Cavusgil 2004).

In fact, looking at firms in the sample, the most common business strategies were based on the following elements: global technological competence, unique products development, quality focus and the exploitation of foreign distributor competences (Knight, Cavusgil 2004).

Moreover, according to Knight and Cavusgil (2004), it is especially the combination of such elements and the management of the connected activities (e.g. research and development, leveraging capabilities) that drives the firm to international success (Knight, Cavusgil 2004).

As a matter of fact, offering relative unique products can lead born-globals to gain a kind of 'monopolistic advantage', in addition, the ability to leverage foreign distributors' competences constitutes a key factor in pursuing international expansion, especially for young exporting firms characterized by limited resources (Knight, Cavusgil 2004).

In particular, foreign distributors possess strong market knowledge and specific competences acquired in their downstream international business activities, thus helping born-globals to deepen relations within a foreign target market (Knight, Cavusgil 2004).

These findings of Knight and Cavusgil (2004) on the most common business strategies in born-global firms, are consistent with the study of Mathews and Zander (2007) who argue that early internationalizing firms tend to leverage a set of intangible resources and, above all, they try to

gain access to critical skills and resources through agreements and alliances (Mathews, Zander 2007).

More recently, Sleuwaegen and Onkelinks (2014) analyzed the correlation between business strategies in early internationalizing firms and scope of internationalization, that is, the number of foreign markets the company is willing to enter.

In their article, Sleuwaegen and Onkelinks (2014) distinguish early internationalizing firms in two categories: ‘global’ start-ups and ‘geographically-focused’ start-ups. They define global start-ups as “international new ventures that from their inception export on a global scale, penetrating multiple markets simultaneously” (Sleuwaegen, Onkelinx 2014), differently, geographically-focused start-ups “start exporting to a smaller set of countries, all within the same region” (Sleuwaegen, Onkelinx 2014).

This distinction allowed Sleuwaegen and Onkelinks (2014) to compare business strategies adopted by the two categories of early internationalizing firms and their findings suggest that a broader scope of internationalization is associated to different business strategies as reported in Table 2.2.

Table 2.2 Export scope and business strategies in early internationalizing firms

Definition	Export scope	Strategy
<i>Global start-ups</i>	Enter multiple markets simultaneously	Sprinkler strategy: rapidly entering a wide range of markets to secure a strong market position. More appropriate in highly competitive industries, with short product life cycle and rapid growth.
<i>Geographically-focused start-ups</i>	Start exporting to a smaller set of countries all within the same region	Waterfall strategy: gradually penetrating additional markets over time, allows firms to capitalize on lead and spillover benefits and, at the same time, minimize risk as they expand abroad. More appropriate in slowly growing industries, characterized by lower competition

Table 2.2 summarizes the main findings of Sleuwaegen and Onkelinks (2014) suggesting that global start-ups prefer a ‘sprinkler’ strategy involving multiple foreign market entry and intention to rapidly achieve a strong market position, differently, geographically-focused start-ups tend to adopt a ‘waterfall’ strategy starting with a restricted number of foreign target markets and widening export scope over time (Sleuwaegen, Onkelinx 2014). Moreover, a waterfall strategy allows the firm to better sustain competitive advantage and to benefit from spillover effects (Sleuwaegen, Onkelinx 2014).

As regards the choice of the target market, Efrat and Shoham (2012) analyzed the impact of target-country risk level on born-global firms’ performance and they found that target-country risk level has a negative effect on born-globals’ strategic performance, however, born-globals

which targeted riskier countries show higher survival rates in the long-term (Efrat, Shoham 2012).

According to these results, it appears that as early internationalizing firms become more global over time, they start to consider also riskier countries in their international expansion (Efrat, Shoham 2012). Based on these findings Efrat and Shoham (2012) argue that, although riskier countries may represent a threat at the beginning of firm's internationalization process, they are associated with higher survival rates in the long-run and this can be due to favorable conditions arising from relatively low market saturation (Efrat, Shoham 2012).

Therefore, what emerges from the discussion in this chapter is that the main sources of born-global firms' competitive advantage are technology, innovativeness, upper quality and niche products, and from the organizational point of view they leverage distinctive learning and networking capabilities.

2.6.1 Business strategies: open questions

These aspects are consistent with a differentiation strategy, however, given the limited resources of young firms, born-globals are also supposed to carefully control cost. As a consequence, a more in depth analysis on this issue could help understanding whether early internationalizing firms tend to pursue a 'pure' differentiation strategy or a 'hybrid' approach including also elements of a low-cost strategy.

At this point, however, it would be useful to investigate which are the activities and functions that born-global firms keep inside the organization, that is, those activities where they exert full control, and which are the ones they prefer to outsource. More precisely, the key issue is to understand if born-globals' internalized activities correspond to the highest value-creating activities along the value chain.

In addition, the more born-global firms engage in international business, the more they gain insight about foreign markets. In this sense, it would be interesting to investigate if early internationalizing firms change the geographical organization of their operations over time to create new sources of competitive advantage.

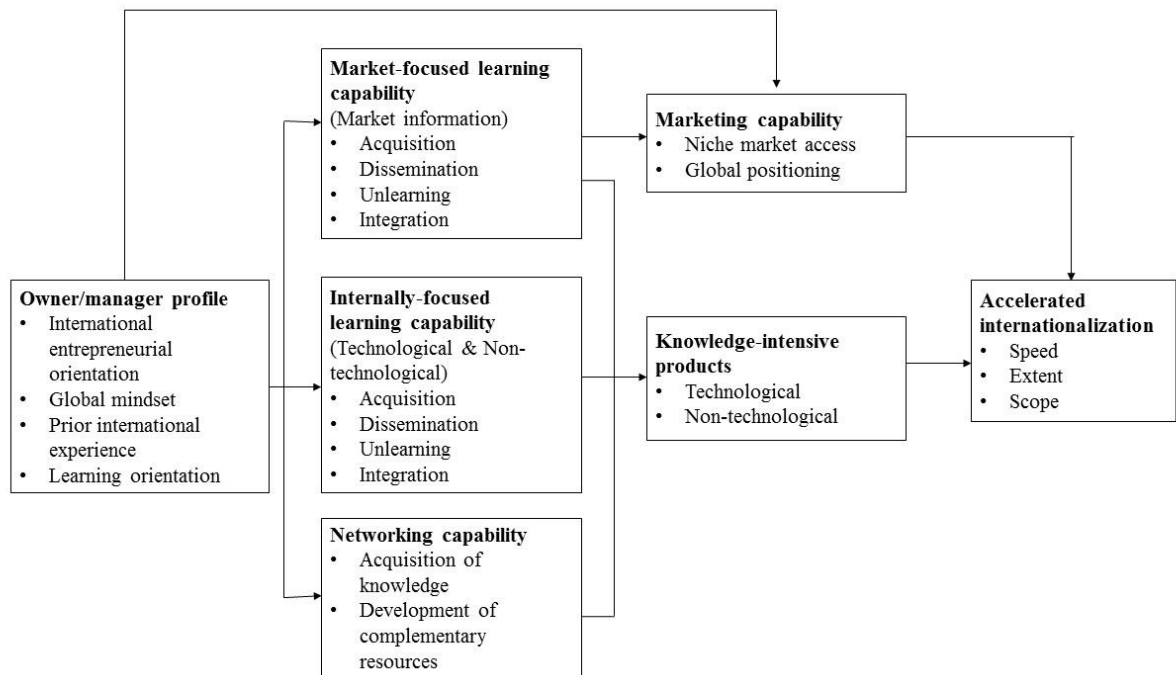
2.7 The dynamic capabilities framework in born-global firms

In the previous sections the discussion covered several distinctive characteristics of early internationalizing firms (e.g. organizational capabilities, culture, owner/manager profile, internationalization process, networks, business strategies), and what emerges is that their combination seems to drive these young firms to rapidly succeed in international markets.

However, it would be interesting to investigate how these peculiarities affect each other generating a sort of virtuous cycle leading the firm to successfully enter foreign markets at early stage.

The following figure (Figure 2.1) elaborated by Weerawardena, Mort et al. (2007) describes how these peculiar characteristics of born-global firms are linked to each other and how their combination can bring to an accelerated and successful internationalization process.

Figure 2.1 Dynamic capability model of born-global firm accelerated internationalization



Source: Weerawardena, Mort et al. (2007)

The model proposed by Weerawardena, Mort et al. (2007) assumes that the process of capability building in a born-global firm is guided by entrepreneurial owner-managers characterized by global mindset, past experience in international business and learning orientation (Weerawardena, Mort et al. 2007). These persons also build and improve specific capabilities (i.e. market-focused learning capability, internally-focused learning capability and networking capability), which help young, small, innovative and internationally-oriented businesses to develop knowledge-intensive products (Weerawardena, Mort et al. 2007). At the same time, born-globals develop a distinctive marketing capability that facilitates firm’s global positioning especially in niche markets (Weerawardena, Mort et al. 2007).

As Figure 2.1 shows, according to Weerawardena, Mort et al. (2007), accelerated internationalization is the result of the combination of these distinctive capabilities.

This framework also highlights how different is the internationalization dynamic in early internationalizing firms with respect to the traditional internationalization approach proposed, for example, by Johanson and Vahlne (1977), the latter, in fact, views internationalization mainly as a result of knowledge accumulation, without considering other organizational capabilities (Weerawardena, Mort et al. 2007).

2.8 Conclusion

The extant literature about born-global firms has been conducted mainly at the firm level, covering topics like organizational capabilities, entrepreneur's vision and previous international experience, the establishment of inter-firm relationships and alliances, as well as the most common business strategies adopted by this kind of enterprises.

What emerges from these studies is that early internationalizing firms seem to operate without pre-defined organizational procedures and their managers or founders are characterized by an international entrepreneurial and marketing orientation. In addition, born-globals' managers generally have significant prior experience in international business.

Distinctive organizational capabilities constitute another key feature in early internationalizing firms, for instance, Weerawardena, Mort et al. (2007) argue that these superior capabilities are basically three: market-focused learning capability, internally-focused learning capability and networking capability. Moreover, born-global firms have also the ability to adapt this distinctive capabilities according to environmental changes.

As regards internationalization, it represents of course a crucial point in born-globals' lifecycle, however, research suggests that early internationalizing firms have different approaches to foreign market entry.

Recent literature also highlighted the importance of networks and networking capabilities in pursuing accelerated internationalization, especially to rapidly access complementary resources and market knowledge. Therefore, network relationships seem to constitute one of the sources of born-global firms' competitive advantage together with unique technology, innovativeness, upper-quality products and customer orientation.

Therefore, the combination of these distinctive organizational capabilities appears as the main driver of accelerated internationalization and superior international performance in born-global firms.

Chapter 3

Sample description and key variables in born-global firms

3.1 Introduction

This chapter provides an overview on quantitative and qualitative variables that will be used for empirical analysis and hypotheses formulation on born-global firms. After a general description of the sample, the focus moves to born-global firms and their selection criteria.

This section provides also descriptive statistics comparing born-globals and all other firms in the sample (i.e. firms of the same age but with an export share lower than 25%), with respect to a set of variables including firm organizational structure, roles' formalization, decision-making process, as well as firm's orientation and strategy. Therefore, the aim of this chapter is to identify those variables that distinguish born-global firms from all other firms in the sample, providing also links with topics already analyzed by the literature.

In this sense, this chapter represents a preliminary step to a more in depth empirical analysis and subsequent discussion.

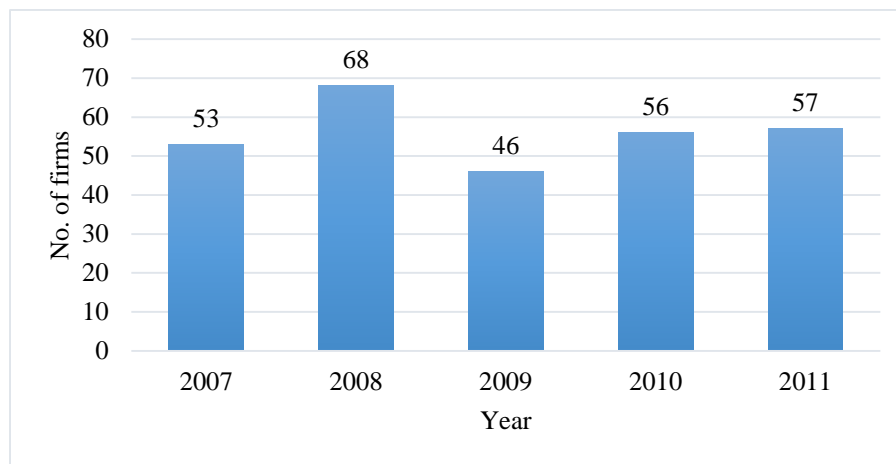
3.2 Sample description

The database used for empirical investigation includes information collected through interviews together with information collected in AIDA database, on 280 young Italian SMEs founded ex-novo between 2007 and 2011.

Information provided by the database are both quantitative and qualitative, since within available data we can find firms' balance-sheet data, as well as information about firm's internal organization and decision-making process.

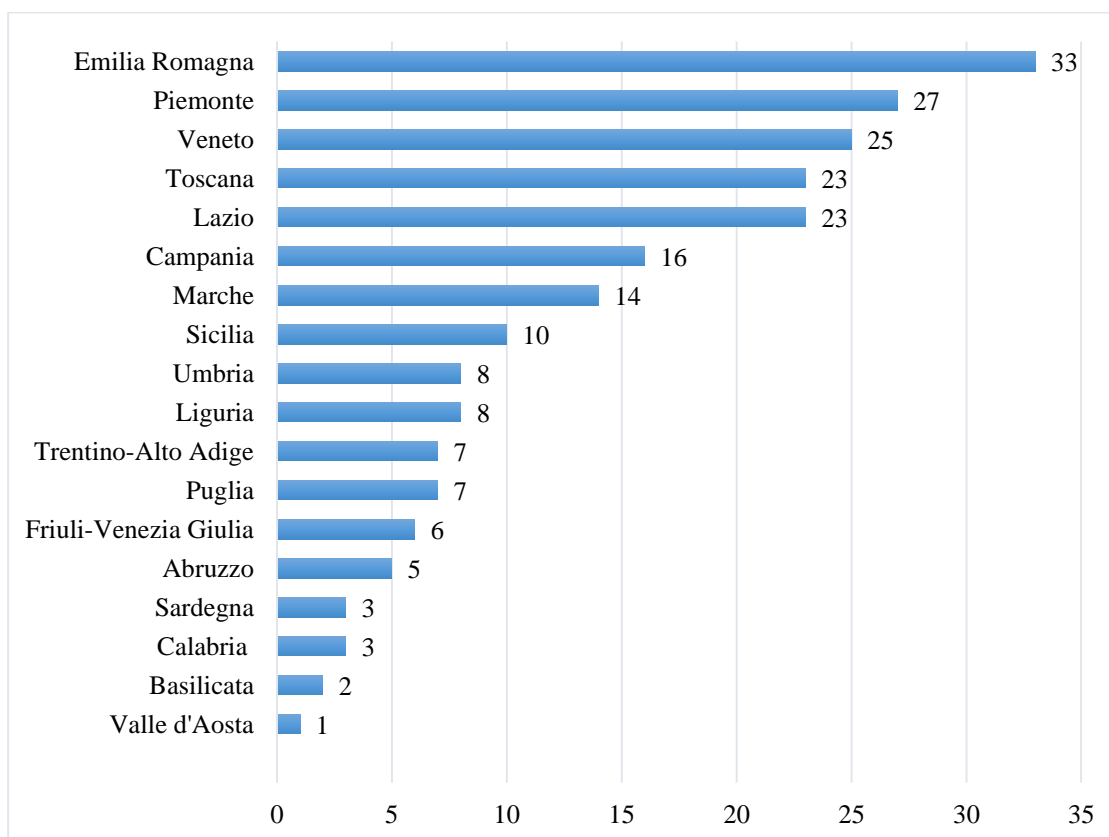
The following figure illustrates the number of firms in the sample according to the year of establishment.

Figure 3.1 Number of firms by year of establishment



Firms in the sample are located in different Italian Regions with a higher concentration in the North of Italy, as illustrated in Figure 3.2.

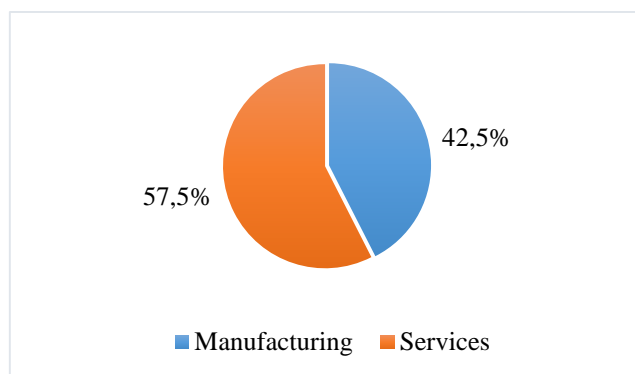
Figure 3.2. Number of firms by Region



3.2.1 Industry

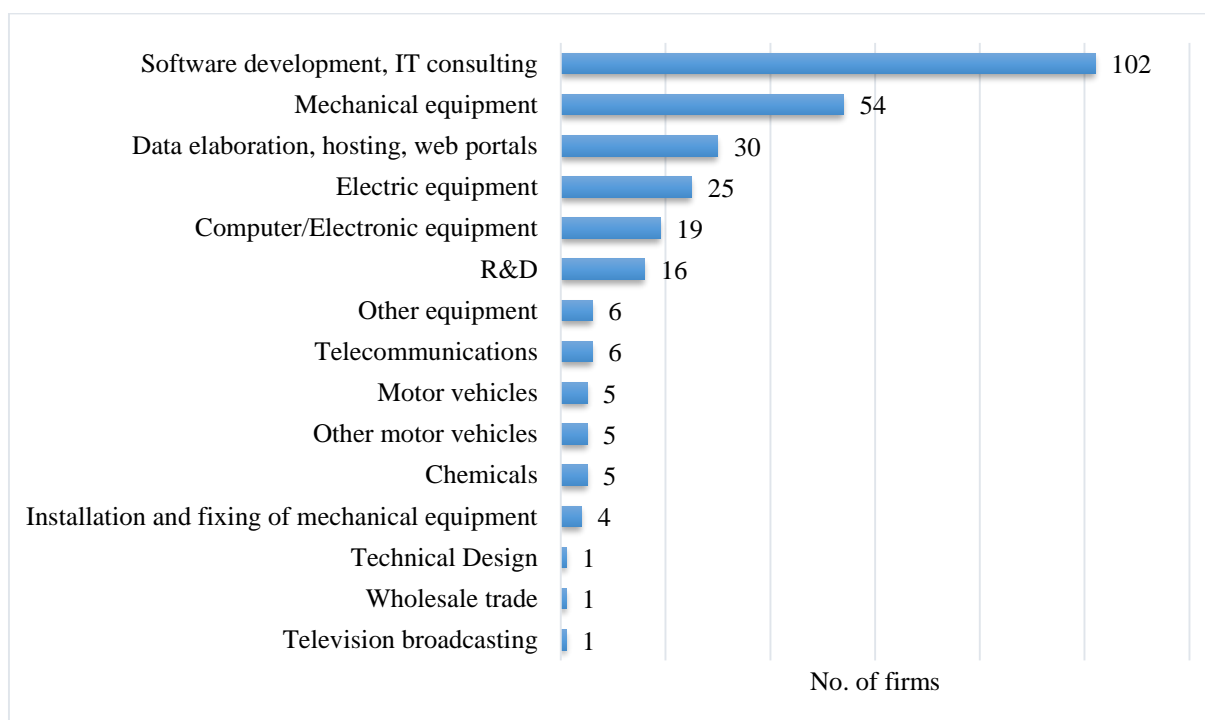
Firms in the sample operate in different sectors; most of them are service providers (57,5%) while manufacturing firms represent the 42,5% of the total sample.

Figure 3.3 Share of firms by sector



Firms under investigation operate in diverse industries including both hi-tech and more ‘traditional’ industries, with a larger presence of firms operating in the software development and IT consulting, followed by mechanical equipment.

Figure 3.4. Number of firms by industry

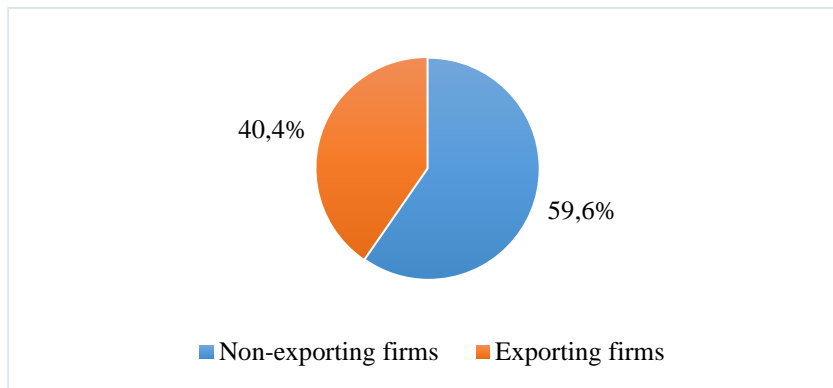


3.2.3 Share of export

The large majority of firms in the sample (167 over 280) are ‘domestic’ firms, meaning that their revenues are entirely generated in Italy. On the contrary, the remaining 113 firms in the sample reported an export share on total firm revenues of at least 1%.

The percentage of exporting and non-exporting firms has been computed on the basis of the share of export on total firm revenues relative to 2014.

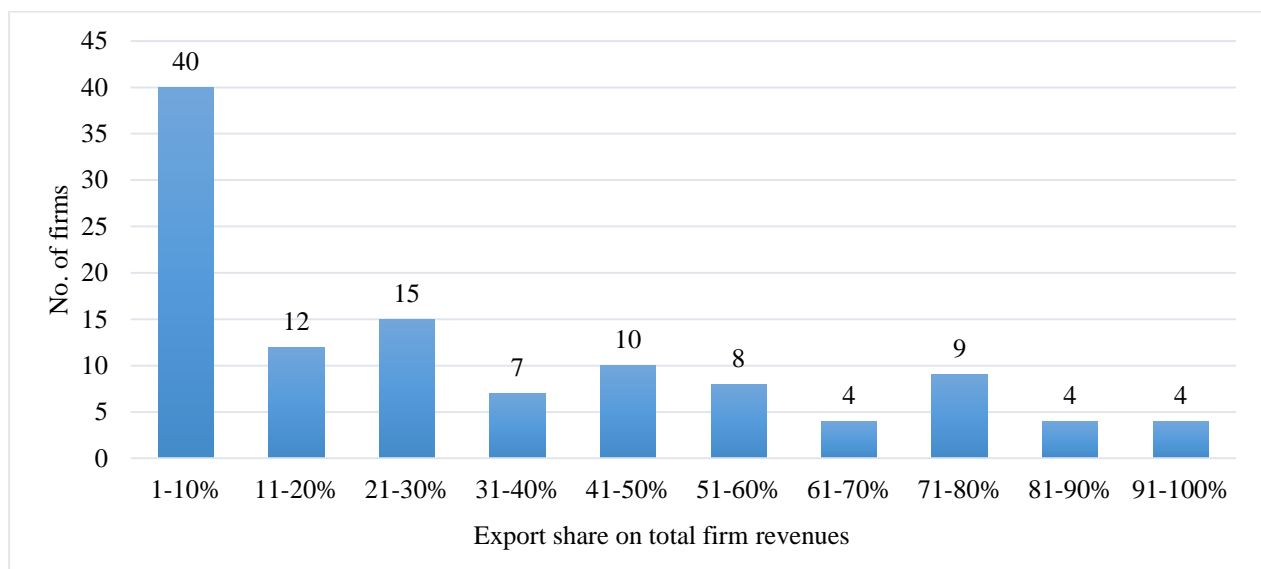
Figure 3.5 Share of exporting and non-exporting firms



However, among firms reporting positive export-to-total sales values, export shares vary significantly from 1% to 99%, with an average export share of 34,4%.

Looking at firms' distribution by export share (Figure 3.6), we can see that the majority of exporting firms in the sample (59,3%) reported an export share between 1% and 30%, and only the 25,7% of exporting firms generate more than 50% of their revenues from foreign sales.

Figure 3.6 Number of exporting firms by export share

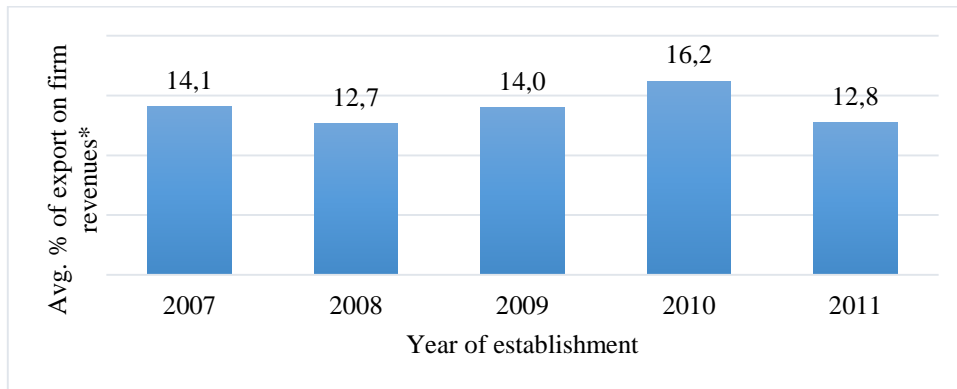


If we analyze average export share according to firm's age (Figure 3.7), we can notice that firms showing the highest average export share are relatively young, suggesting that export extent does not depend on firm's age. In fact, correlation between the two variables, that is, year of establishment and export in 2014, is equal to 0,01.

The following figure illustrates the average export share in 2014, including non-exporting firms, according to the year of establishment.

Figure 3.7 Average export share in 2014 by year of establishment

Correlation (export share, year of establishment) = 0,01



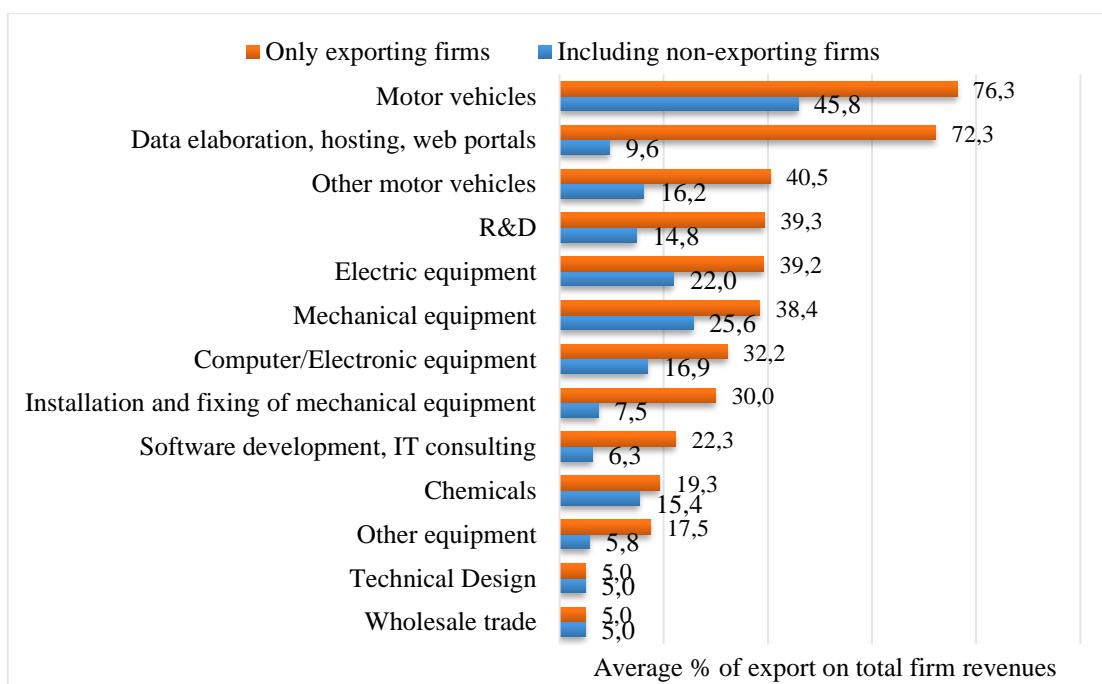
The following figure (Figure 3.8) illustrates firms' average export share by industry, comparing the result of the whole group of firms belonging to the same industry, and the value computed on exporting firms only.

Industries that, on average, show the highest percentage of export in the sample belong to the manufacturing sector, more precisely automobiles manufacturing, machineries, and electrical and non-electrical devices manufacturing.

However, there is high variability within the same industry, for example, within software development and IT consulting industry, firms in the sample reported export shares on total revenues from zero to 90%.

In fact, if we compare average export share among exporting firms and among all firms in the sample, average values differ substantially in several industries, as illustrated in the following figure.

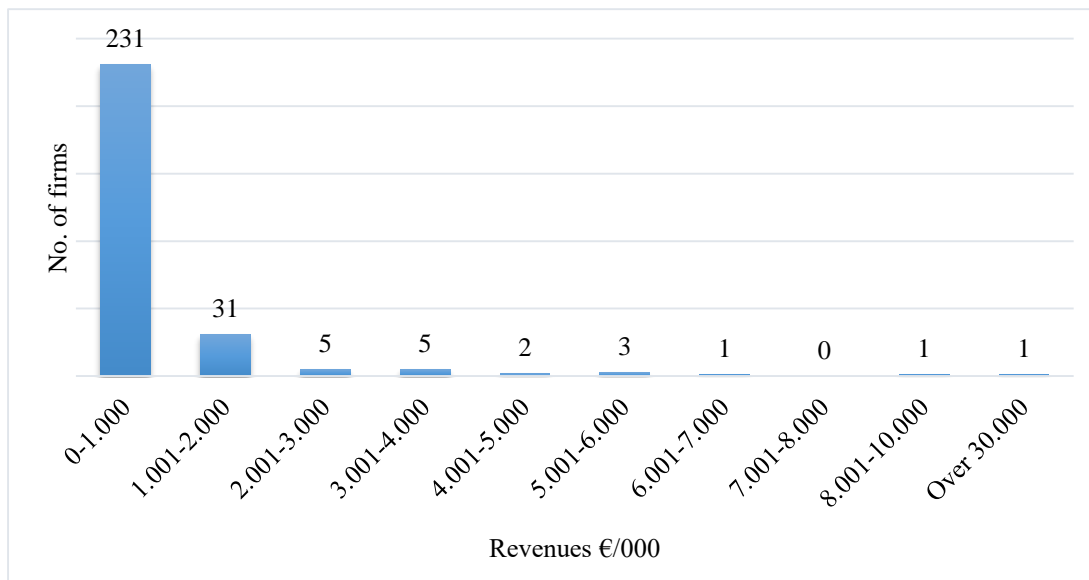
Figure 3.8 Average share of export by industry



3.2.4 Revenues

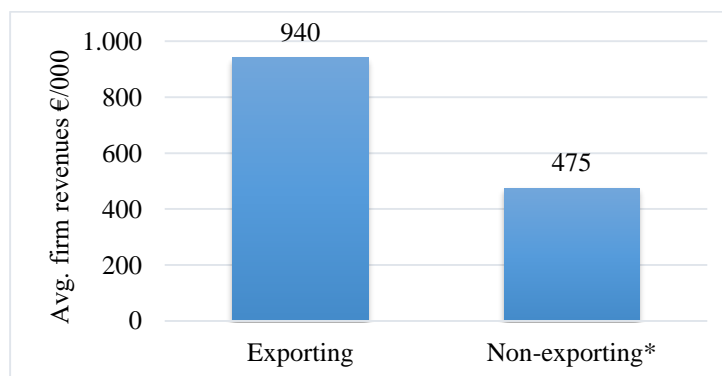
Average firm revenues during the period 2010-2014 go from a minimum of 78.000€ to a maximum of about 39 million €, with an average value of 801.000€. However, excluding the observation with the highest value (39 million €), average firm revenues in the sample go from 78.000€ to 9 million €. Excluding the maximum value from the calculations, average firm revenues are equal to 663.000€. As we can see from Figure 3.9, the overwhelming majority of firms in the sample (82,5%) reported average revenues that do not exceed one million euros.

Figure 3.9 Number of firms by revenues



Dividing the sample into exporting and non-exporting firms (i.e. firms with at least 1% of revenues from foreign sales in 2014 and firms with export equal to zero in the same year), we observe different average revenues, as illustrated in the following figure. Therefore, looking at Figure 3.10, we can notice that exporting firms in the sample show double average revenues with respect to non-exporting firms.

Figure 3.10 Average firm revenues exporting vs. non-exporting



* excluding the maximum observation of 39 million €

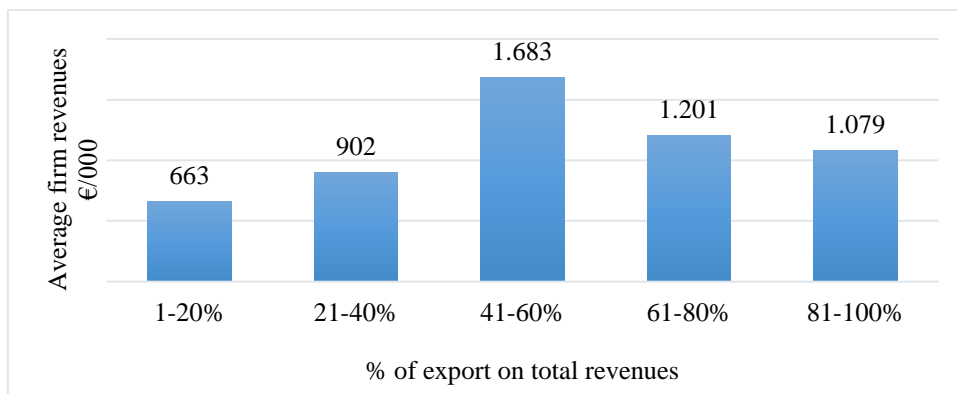
In addition, if we analyze exporting firms' revenues by export share (Figure 3.11), we can observe that firms exporting more than 40% show, on average, higher revenues than other exporting firms.

On the other hand, firms with the smallest export share (between 1% and 20%) show, on average, lower revenues (663.000€), in any case 40% higher than non-exporting firms average revenues (475.000€).

Moreover, looking at Figure 3.11 there is no evidence of a positive correlation between average firm revenues and share of export (correlation=0,08), suggesting that not necessarily the more a firm exports, the higher the revenues.

Figure 3.11 Average firm revenues by export share

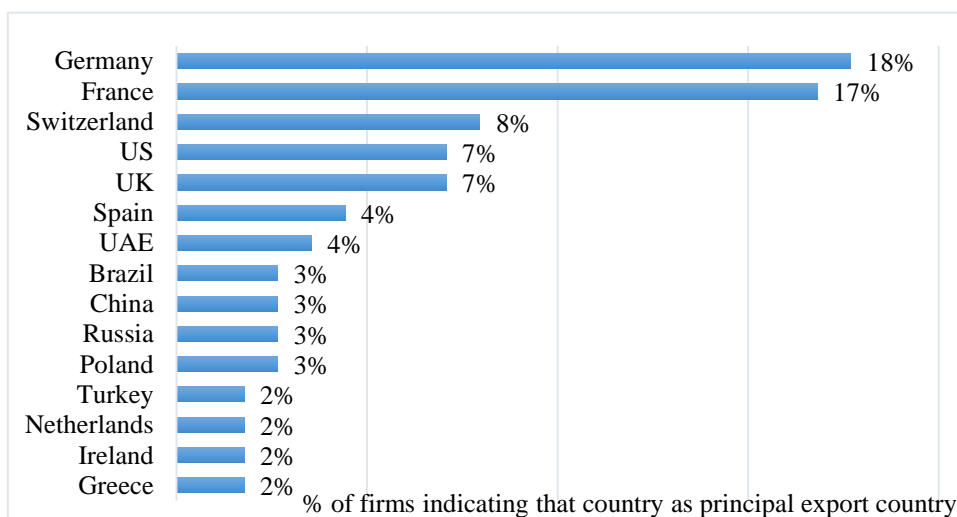
Correlation (revenues, export share) = 0,08



3.2.5 Principal export country

Germany represents the main export country for the 18% of exporting firms in the sample, followed by France and Switzerland, however, among top ten principal export countries there are also extra-European countries (United States, United Arab Emirates, Brazil, China and Russia), as illustrated in the following figure (Figure 3.12).

Figure 3.12 Principal export country

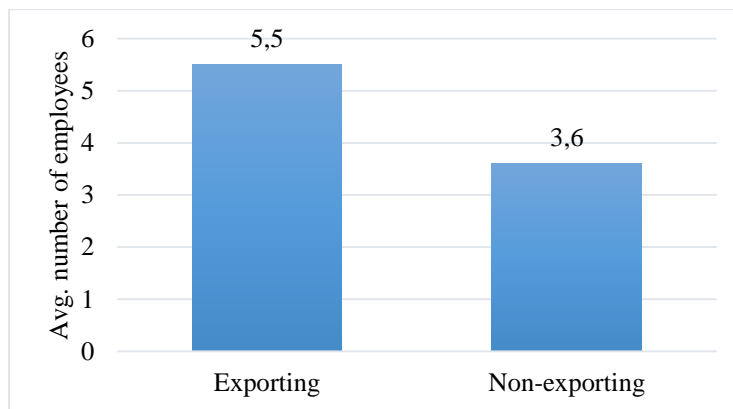


3.2.6 Employees

The average number of employees during the period 2010-2014 goes from a minimum of zero to a maximum of 106 with an average value of 4,7 employees. Excluding the maximum value of 106, the highest average number of employees is 45 and the sample average becomes 4,3 employees per firm.

Excluding the maximum value from the calculations, the values for exporting and non-exporting firms are the following:

Figure 3.13 Average number of employees per firm



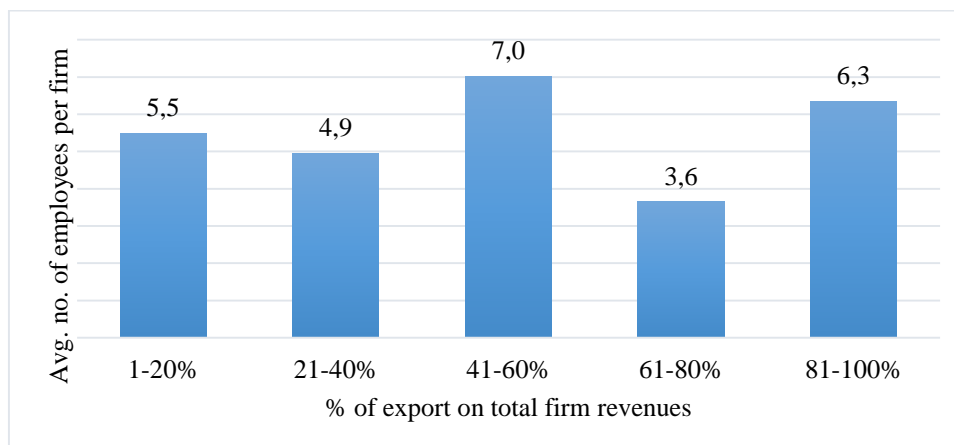
Therefore, exporting firms in the sample seem larger than non-exporting firms in terms of employees.

However, focusing on exporting firms we can analyze firms' average number of employees according to export share (Figure 3.13).

As we can notice from Figure 3.13, there is no evidence of a positive correlation between average number of employees and share of export (correlation=0,01), suggesting that not necessarily the more a company exports, the more it requires additional employees.

Figure 3.13 Average number of employees by export share

Correlation (no. of employees, export share) = 0,01



3.3 Born-global firms in the sample

Following Knight and Cavusgil's definition of born-global firm⁶, early internationalizing firms have been identified within the sample looking at their export extent, that is, an export share on total revenues of at least 25% in 2014.

However, considering recent contributions of Kuivalainen et al. (2007), Gabrielsson et al. (2008), Gabrielsson, Kirpalani (2012), and Sleuwaegen, Onkelinx (2014), the time-to-export criterion applied for the following analysis has been extended to five years.

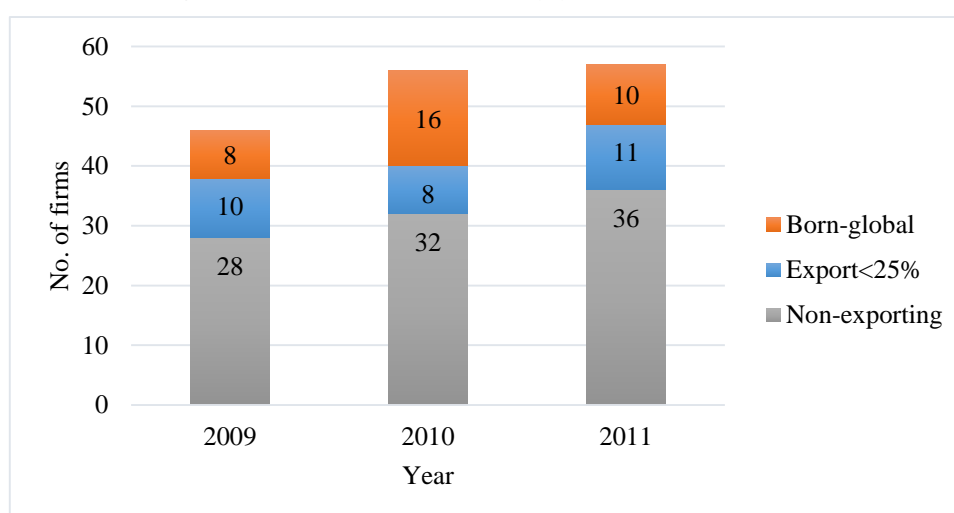
Therefore, for the purpose of empirical investigation, born-global firms are those firms no older than five years in 2014 and reporting at least 25% export on total firm revenues in 2014.

Through the application of these two criteria, 34 born-global firms have been identified within the group of firms established between 2009 and 2011 (respectively 21,38% of firms in the sample established between 2009 and 2011⁷).

For all the following analyses and comparisons between born-global firms and non-born-global firms, only firms established between 2009 and 2011 have been considered, that is, a total of 159 firms.

In the following figure (Figure 3.14) the sample is divided in three categories: non-exporting firms (i.e. firms reporting zero export), born-global firms (i.e. firms with an export share on firm revenues of at least 25%) and 'moderate' exporters, that is, firms with a positive export share on total revenues, but lower than 25%.

Figure 3.14 Number of firms by year of establishment



⁶ See Table 4, paragraph 1.6, chapter 1, p. 16

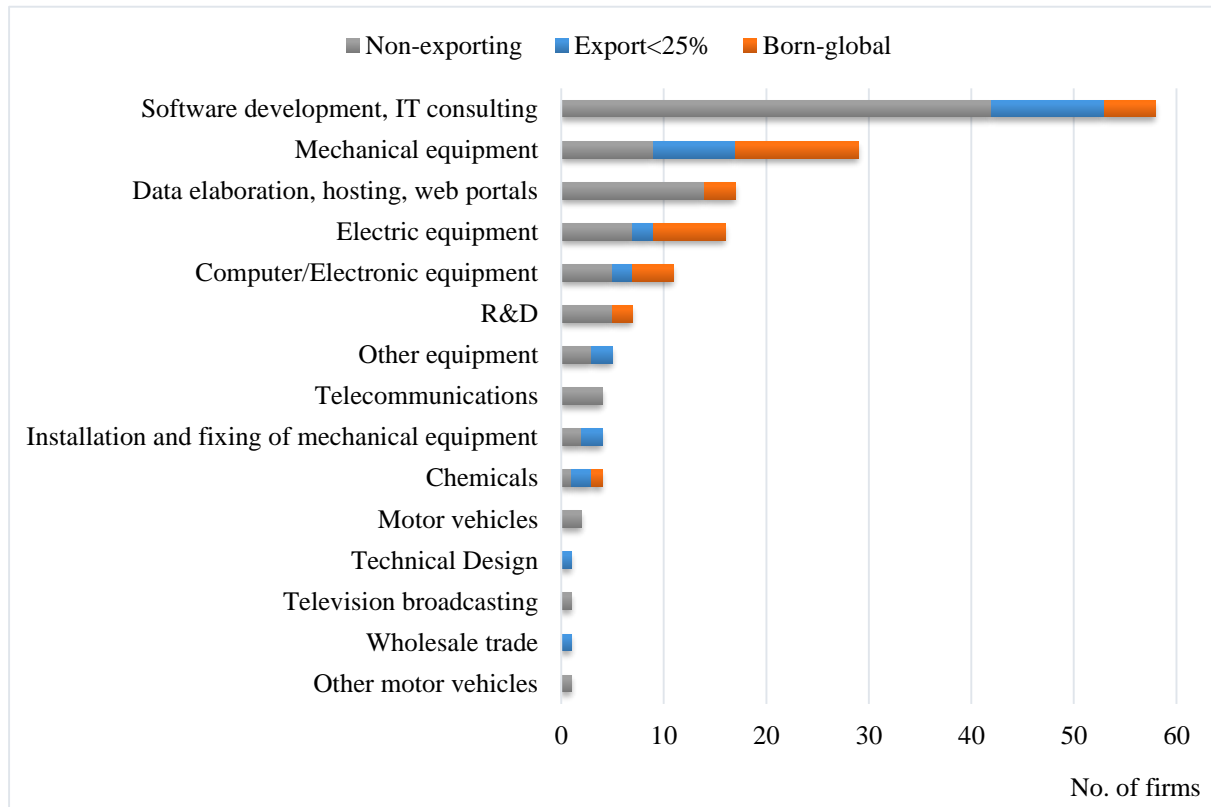
⁷ This percentage is not excessively higher than the average share of born-global firms on new businesses in Italy (16,7%) estimated through GEM data for the period 2003 – 2015. See Figure 1, paragraph 1.3, p. 7

3.3.1 Born-global firms: Industry

The majority of born-globals in the sample belong to the manufacturing sector, especially to the mechanical equipment and electric equipment.

Figure 3.15 illustrates the share of firms belonging to the three categories (moderate exporters, born-globals and non-exporting firms) for each industry in the sample.

Figure 3.15 Number of firms by industry



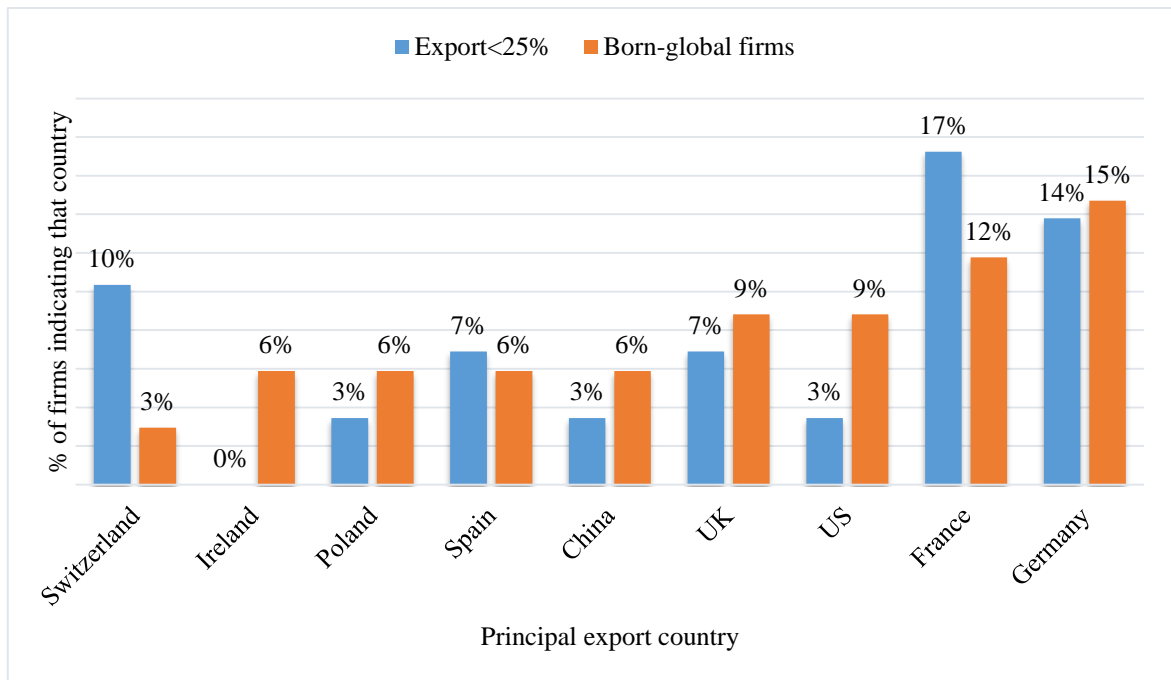
3.3.2 Born-global firms: Principal export countries

Similar to the total sample results, Germany and France represent the most common principal export countries among born-global firms in the sample. However, comparing born-global firms and moderate exporters (i.e. firms with an export share on total revenues lower than 25%), we can observe some differences, as illustrated in Figure 3.16.

For example, if we look at the three countries with the highest percentage for the two categories, we can notice that for moderate exporters they are all European countries with relatively high geographical proximity (France, Germany and Switzerland), while for born-globals the third-highest value is represented by United States.

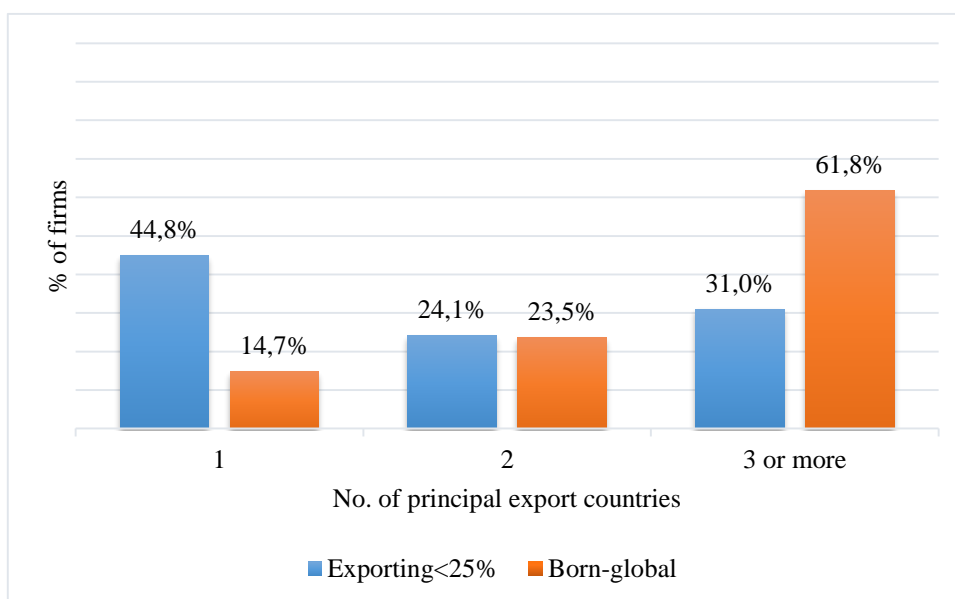
Moreover, as we can see from Figure 3.16, there is more ‘variety’ in the first export country reported by born-global firms, while moderate exporters are more similar as regards first export country.

Figure 3.16 First export country



Another key dimension in born-global firms is export *scope* (i.e. the number of exporting countries). From a theoretical point of view, several scholars have recently suggested to include this aspect among born-global identification criteria (e.g. Kuivalainen et al. 2007; Sleuwaegen, Onkelinx 2014)⁸, since it seems more appropriate to measure firm’s degree of ‘globalness’. Although for this empirical analysis export scope has not been considered among born-global firm selection criteria, the following figure (Figure 3.17) shows that born-globals in the sample tend to export in more countries with respect to firms exporting less than 25%.

Figure 3.17 Number of principal export countries



⁸ See Chapter 1, paragraph 1.6, p. 16

3.3.3. Born-global firms: Revenues and profitability

Born-global firms in the sample show better performance in terms of revenues with respect to all other firms. This difference, as showed in Figure 22, increases over time, suggesting that, during the first three years, early internationalizing firms have a higher revenue growth than non-exporting firms and moderate exporters.

Figure 3.18 is followed by Table 3.18, which summarizes the results illustrated in in Figure 3.18 and indicates whether the difference in mean between firm categories (non-exporting, exporting<25% and born-global) are statistically significant.

Figure 3.18 Total firm revenues after 1/2/3 years of establishment

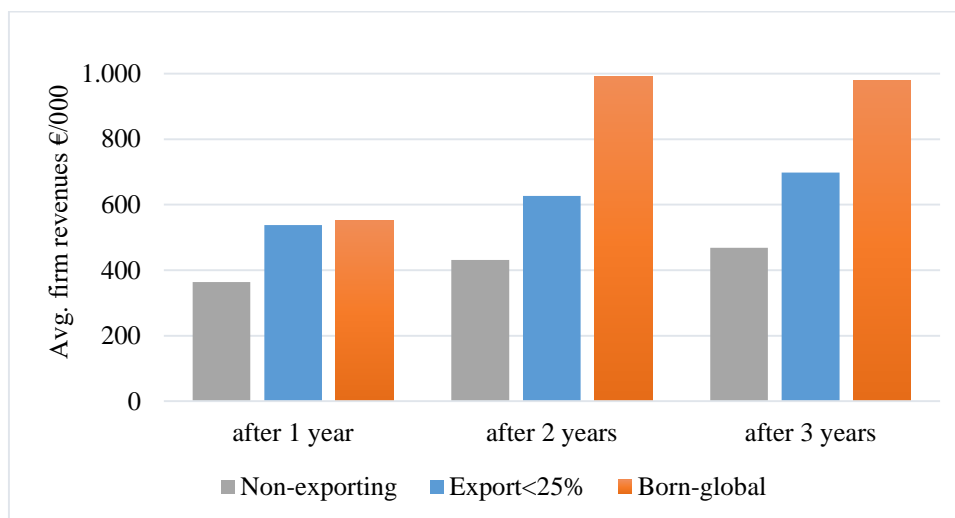


Table 3.18 t-test on total firm revenues

		The difference in mean is statistically significant? (95% significance level)		
Time variable	Result	EXP25 – NE	NE – BG	EXP25 – BG
After 1 year	NE < EXP25 < BG	No	No	No
After 2 years	NE < EXP25 < BG	No	Yes	No
After 3 years	NE < EXP25 < BG	No	Yes	No

As regards profitability of the three groups, we observe a different dynamic with respect to firm revenues, as illustrated in Figure 3.19.

Although the ratio EBITDA on revenues might be not appropriate to measure young firms' profitability, it provides some useful information about the three firm categories.

However, before comparing the results, it is necessary to take into considerations at least two aspects. First, the large majority of non-exporting firms in the sample (70,8%) belong to the service sector, while moderate exporters are mainly manufacturing firms (55,2%) and most of

born-globals are manufacturing firms (70,6%), therefore, firms in the sample operate in industries characterized by different profitability levels.

Second, while ‘domestic’ start-ups (i.e. firms with zero export or no foreign customers) are subject to liability of newness, young exporting firms, especially born-globals, are subject to multiple ‘liabilities’, since they also face a liability of *foreignness* outside the home country (Zaheer and Mosakowski 1997)⁹. As a consequence, these circumstances expose young exporting firms to higher risks and additional costs while conducting daily operations.

Looking at Figure 3.19, we can see that, even if born-globals report the lowest performance after one year of establishment, this group shows the highest growth in EBITDA margin from the first year to the third year of firm activity.

Moreover, in Table 3.19 we can notice that some differences in mean regarding EBITDA/revenues are also statistically significant.

Figure 3.19 EBITDA/revenues after 1/2/3 years of establishment

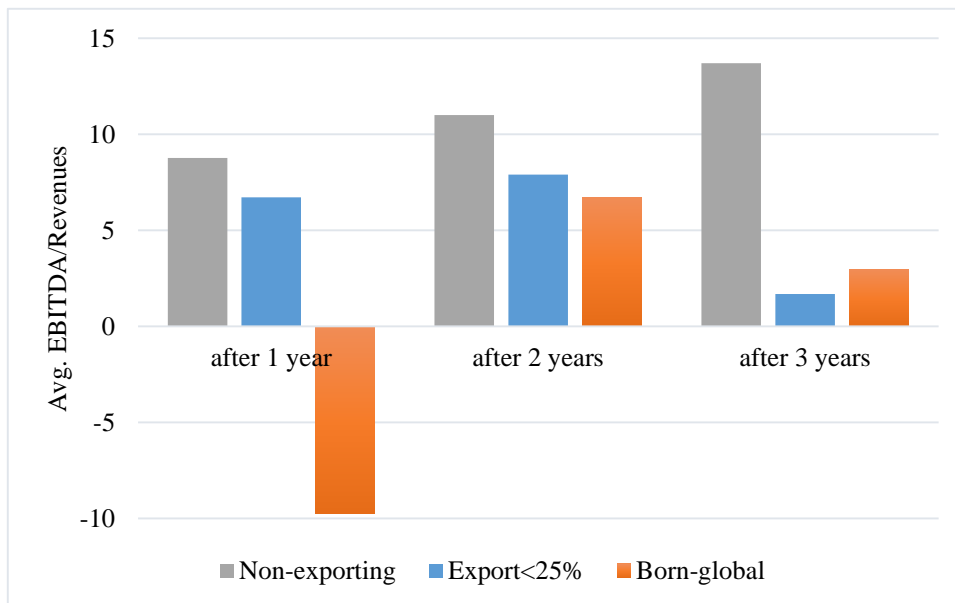


Table 3.19 t-test on EBITDA/revenues

NE = Non-exporting firms

EXP25 = Firms exporting<25%

BG = Born-global firms

Time variable	Result	The difference in mean is statistically significant? (95% significance level)		
		EXP25 – NE	NE – BG	EXP25 – BG
After 1 year	BG < EXP25 < NE	No	Yes	No
After 2 years	BG < EXP25 < NE	No	No	No
After 3 years	EXP25 < BG < NE	Yes	Yes	No

⁹ See paragraph 1.4, chapter 1, p. 12

3.3.4 Born-global firms: Employees

As regards the average number of firm employees, we saw in paragraph 3.2.6 that exporting firms have, on average, more employees than non-exporting firms. However, Figure 24 provides more detailed information because exporting firms are divided in ‘moderate exporters’ (i.e. firms with an export share lower than 25%) and born-global firms, and they are compared also according to a time dimension.

As we can notice from Figure 3.20, young exporting firms show a higher number of employees than ‘domestic’ new ventures, and this is more evident after three years of establishment.

Actually, comparing the average number of firm employees after one year and after three years, non-exporting firms have, on average, 1,4 additional employees, moderate exporters 2,3 additional employees and born-global firms 2,2 additional employees.

Figure 3.20 Firm employees after 1/2/3 years of establishment

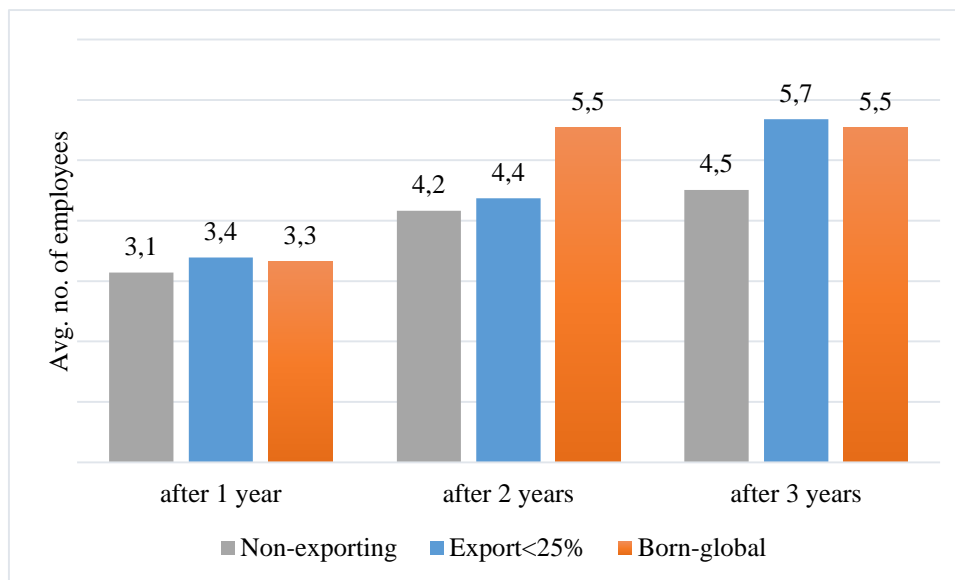


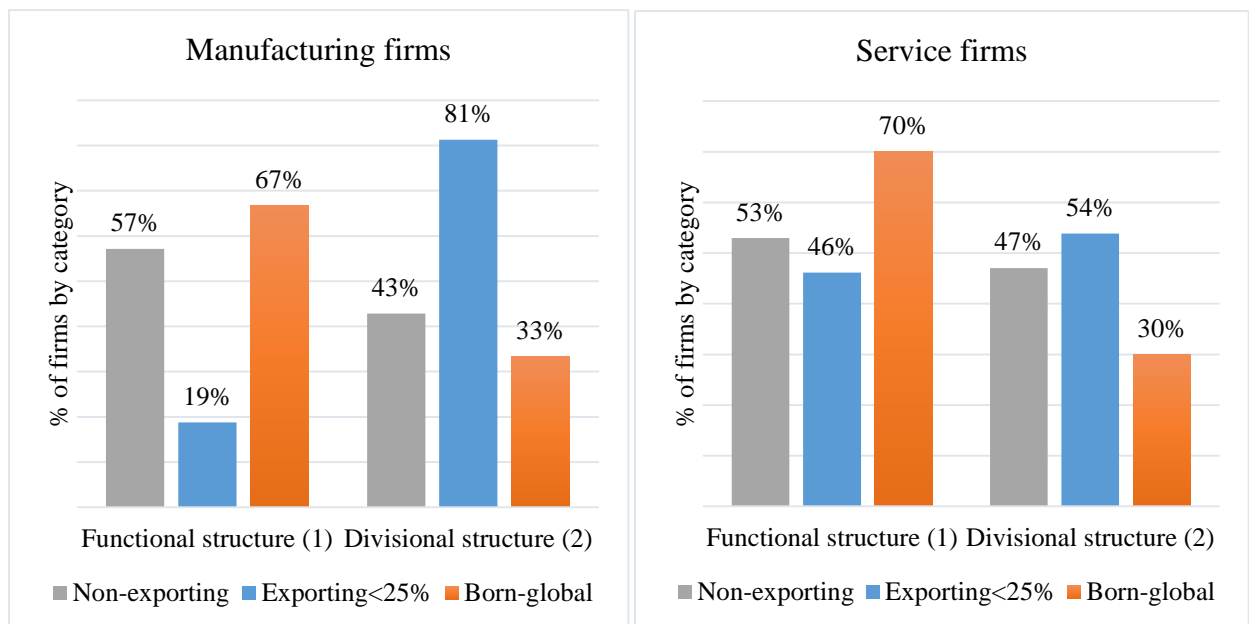
Table 3.20 t-test on average number of firm employees

NE = <i>Non-exporting firms</i> EXP25 = <i>Firms exporting<25%</i> BG = <i>Born-global firms</i>		The difference in mean is statistically significant? (95% significance level)		
Time variable	Result	EXP25 – NE	NE – BG	EXP25 – BG
After 1 year	NE < BG < EXP25	No	No	No
After 2 years	NE < EXP25 < BG	No	No	No
After 3 years	NE < BG < EXP25	No	No	No

3.4 Organizational structure

In this section the analysis is focused on firms' organizational structure, more precisely, the variables under investigation deal with the type of organizational structure, that is, whether firm's structure is closer to a functional or a divisional structure, then the analysis moves to the presence of formally established organizational functions (e.g. production, marketing and sales, R&D) and finally the number of intermediate positions within the firm (i.e. first-line managers) provides useful information on how 'structured' is the organization at management level.

Figure 3.21 Organizational structure Manufacturing vs. Services



3.4.1 Functional vs. divisional structure

Dividing the sample in two groups, that is, manufacturing firms and service providers, we observe that, on average, born-global firms operating in the manufacturing sector prefer a functional organizational structure based on specialization, with respect to a divisional structure based on product or client, as illustrated in Figure 3.21.

The preference toward a functional organizational structure based on specialization in born-global firms is more evident among service firms, as illustrated on the right-hand side of Figure 3.21.

Following Figure 3.21, the associated table summarizes the results of the t-tests conducted to assess whether mean differences between firm categories are statistically significant.

Table 3.21 t-test on firm's organizational structure

1 = Functional structure 2 = Divisional structure		The difference in mean is statistically significant? (95% significance level)		
Sector	Result	EXP25 – NE	NE – BG	EXP25 – BG
Manufacturing	BG(1,3) < NE(1,4) < EXP25(1,8)	Yes	No	Yes
Services	BG(1,3) < NE(1,47) < EXP25(1,53)	No	No	No

NE = Non-exporting firms, EXP25 = Firms exporting <25%, BG = Born-global firms

3.4.2 Organizational functions

As regards formally established organizational functions/areas, the following figures compare born-global firms to all other firms, first within the manufacturing sector and then among service firms.

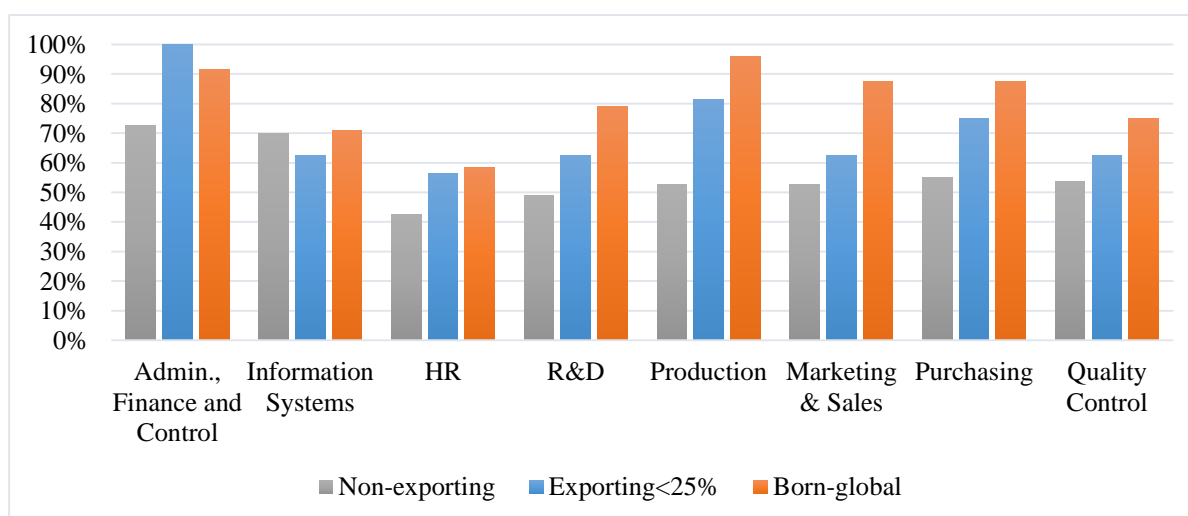
As far as manufacturing firms are concerned, born-global firms operate with more formally established functions with respect to all other manufacturing firms, except for Administration, Finance and Control, as showed in Figure 3.22.

This tendency is particularly evident in the following functions: R&D, Marketing & Sales, and Production.

Interestingly, these organizational functions are those associated to technology, product development, market knowledge and customer focus, which represent born-global firms' distinctive characteristics, as shown by the literature on early internationalizing firms¹⁰.

Born-globals' higher levels of formalization in the definition of organizational functions are also statistically significant in several functions as reported in Table 3.22.

Figure 3.22 Formally established functions – Manufacturing firms



¹⁰ See paragraphs 2.3 and 2.6, Chapter 2, pp. 23, 30

Table 3.22 t-test on formally established functions – Manufacturing firms

NE = *Non-exporting firms*

EXP25 = *Firms exporting <25%*

BG = *Born-global firms*

The difference in mean is statistically significant?
(95% significance level)

Function	Result	EXP25 – NE	NE – BG	EXP25 – BG
Admin., Finance & Control	NE < BG < EXP25	Yes	Yes	No
Information Systems	EXP25 < NE < BG	No	No	No
HR	NE < EXP25 < BG	No	No	No
R&D	NE < EXP25 < BG	No	Yes	No
Production	NE < EXP25 < BG	No	Yes	No
Marketing & Sales	NE < EXP25 < BG	No	Yes	No
Purchases	NE < EXP25 < BG	No	Yes	No
Quality Control	NE < EXP25 < BG	No	No	No

As regards firms belonging to the service sector, again born-global firms indicate more formally established organizational functions with respect to all other firms, except for Administration, Finance and Control, and Information Systems. More precisely, this difference is larger especially with respect to non-exporting firms.

Moreover, as reported in Table 3.23, the mean difference between non-exporting firms and born-global firms in R&D is statistically significant. Therefore, this result on R&D is common both in the manufacturing sector and in the service sector.

Figure 3.23 Formally established functions – Service firms

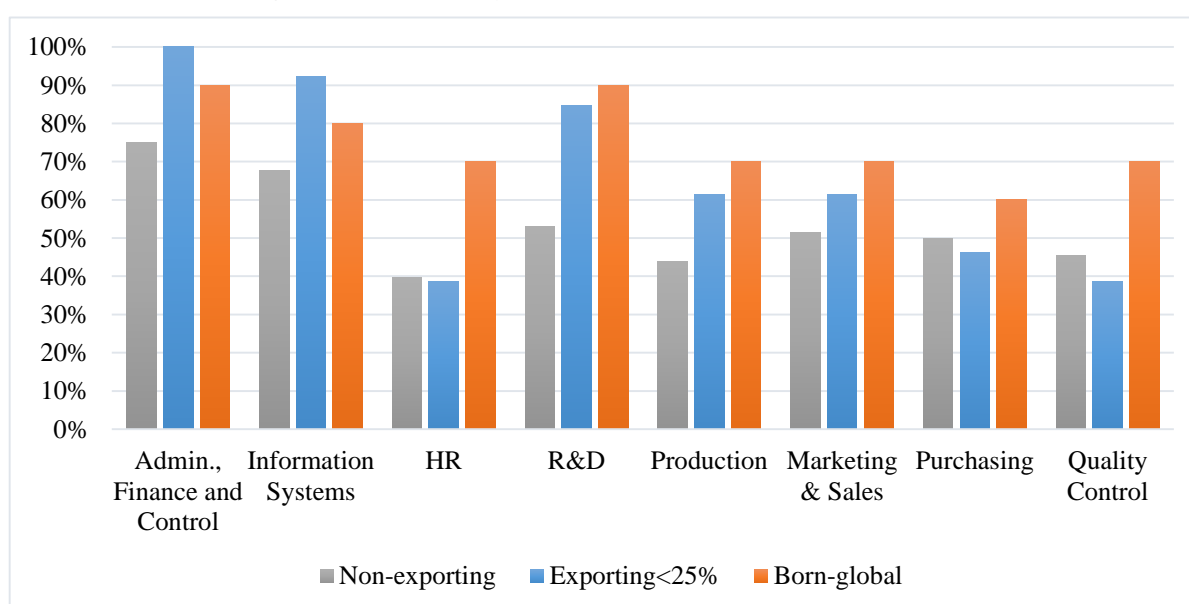


Table 3.23 t-test on formally established functions – Service Firms

		The difference in mean is statistically significant? (95% significance level)		
Function	Result	EXP25 – NE	NE – BG	EXP25 – BG
Admin., Finance & Control	NE < BG < EXP25	Yes	No	No
Information Systems	NE < BG < EXP25	No	No	No
HR	EXP25 < NE < BG	No	No	No
R&D	NE < EXP25 < BG	Yes	Yes	No
Production	NE < EXP25 < BG	No	No	No
Marketing & Sales	NE < EXP25 < BG	No	No	No
Purchasing	EXP25 < NE < BG	No	No	No
Quality Control	EXP25 < NE < BG	No	No	No

3.4.3 Intermediate positions within the organization

In order to evaluate how ‘structured’ is the organization at management level, we can look at the number of intermediate positions indicated by the firms in the sample, that is, the average number of first-line managers (excluding CEO and General Manager), for example, technical manager, sales manager, etc.

As Figure 3.24 shows, the number of intermediate positions reported by firms in the sample is relatively low, however, it is consistent with the small size of firms in the sample (as we saw in paragraph 3.3.4, the average number firm employees is included between 3,1 and 5,7).

Focusing on born-global firms, we can notice that, on average, this group indicates a higher number of intermediate positions with respect to the other groups and this tendency seems persistent over time. Moreover, as Table 3.24 shows, in some cases this difference with respect to the other firm categories is statistically significant.

This result is also consistent with the analysis conducted in paragraph 3.4.2 on formally established functions. In fact, born-global firms generally have more formally established functions with respect to all other firms in the sample, as a consequence, we expect that a higher number of functions is associated to a higher number of first-line managers.

Figure 3.24 Number of intermediate positions

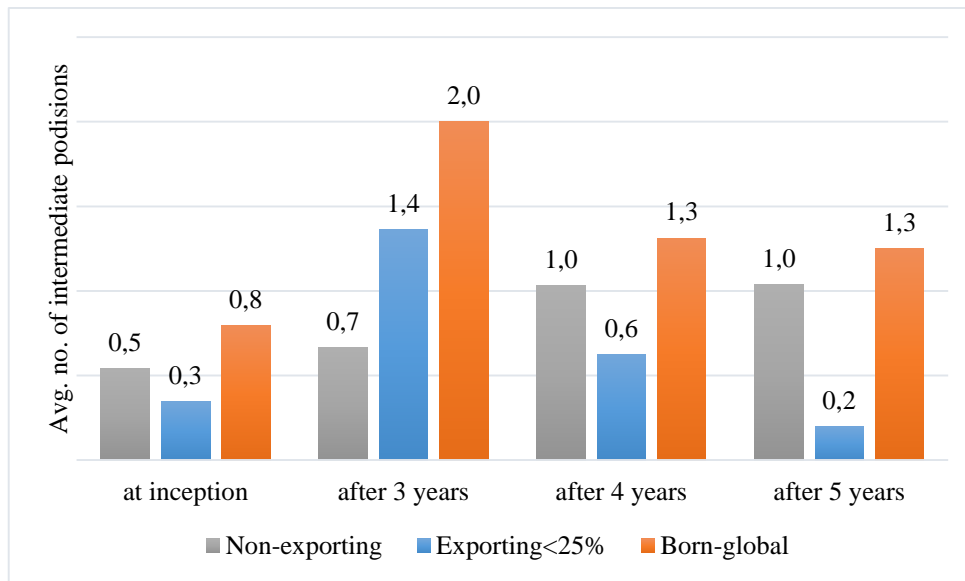


Table 3.24 t-test on average number of intermediate positions

		The difference in mean is statistically significant? (95% significance level)		
Time variable	Result	EXP25 – NE	NE – BG	EXP25 – BG
At inception	EXP25 < NE < BG	No	No	No
After 3 years	NE < EXP25 < BG	No	Yes	No
After 4 years	EXP25 < NE < BG	No	No	No
After 5 years	EXP25 < NE < BG	No	No	Yes

3.5 Organizational roles

Another key aspect of firm’s internal organization is the definition of roles. In this section the analysis covers the degree of roles’ formalization (e.g. the introduction of job descriptions or the drafting of a job description record), the role of the entrepreneur within the firm, more precisely, the type of activities in which he/she is involved, and finally the formalization of one or more stable committees entirely dedicated to a specific area (e.g. strategic committee, product committee, etc.).

In order to analyze these aspects, firms were asked to express their degree of agreement between 1= “strongly disagree” and 7= “strongly agree”.

3.5.1 Roles' formalization

As regards the degree of roles' formalization among the three groups, we can observe from Figure 3.25 that the level of agreement expressed by born-global firms in the sample is relatively low, moreover it remains rather low over time.

These results are in line with the literature sustaining that born-global firms are more flexible and less bureaucratic (Knight, Cavusgil 2004)¹¹. Moreover, as we can see in Table 3.25, some differences in the degree of formalization are statistically significant.

Figure 3.25 Degree of roles' formalization

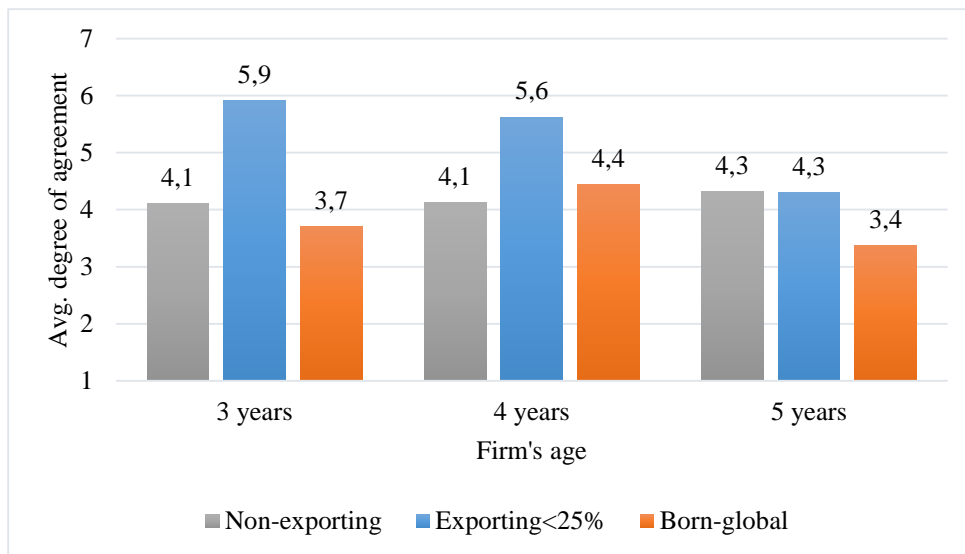


Table 3.25 t-test on roles' formalization

		The difference in mean is statistically significant? (95% significance level)		
Firm's age	Result	EXP25 – NE	NE – BG	EXP25 – BG
3 years	BG < NE < EXP25	Yes	No	No
4 years	NE < BG < EXP25	Yes	No	Yes
5 years	BG < EXP25 < NE	No	No	No

3.5.2 Entrepreneur's activity

In the overwhelming majority of firms belonging to all the three groups, the entrepreneur is involved in both coordination activities and daily support to operational activities.

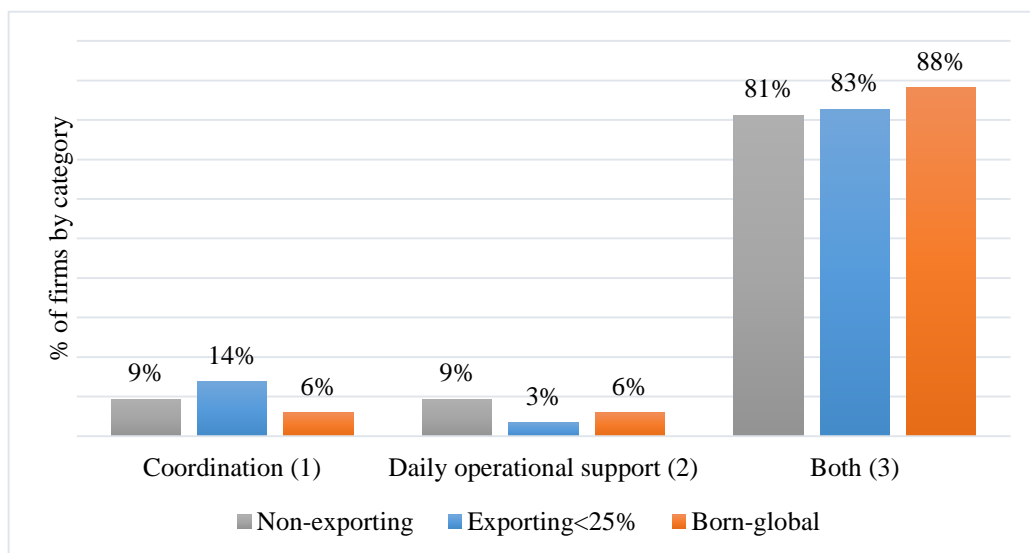
This is not surprising since firms under investigation are young (between one year and five years of activity) and small in size (average number of employees between 3,1 and 5,7).

¹¹ See paragraph 2.2, chapter 2, p. 21

However, it is interesting to notice that, although born-globals are generally more ‘structured’ (e.g. they have a higher number of formally established functions and a higher number of first-line managers, as discussed in paragraphs 3.4.2 and 3.4.3), in the 88% of born-global firms the entrepreneur is involved in both coordination activity and daily operational support.

In order to interpret this result, we can refer to the literature on born-global firms, especially as regards entrepreneur’s centrality. According to Knight and Cavusgil (2004) owner centrality is a distinctive feature of born-global firms, and other scholars (e.g Weerawardena et al. 2007) highlighted that entrepreneur’s profile in born-global firms is often characterized by significant prior international experience. As a consequence, he/she might be so involved in daily operational activities in order to transfer his/her knowledge and competences to managers or employees.

Figure 3.26 Prevalent entrepreneur’s activity within the firm



3.5.3 Stable committees

The results on the formalization of one or more stable committees show that, on average, born-global firms rely more on this type of organizational body than non-exporting firms, as illustrated in Figure 3.27. Moreover, the difference between born-globals and non-exporting firms with three years of activity is statistically significant, as reported in Table 3.27.

The fact that born-global firms or moderate exporters rely more on stable committees than non-exporting firms, could reflect the need to constantly discuss and check the development of the business in the different foreign markets. For example, if we consider firm’s choice to sell a certain product, it represents a more complex issue for an exporting firm, in terms of entry modes, product adaptation, distribution channels, etc. So the creation of a product committee can be useful to manage and discuss these issues.

Figure 3.27 Presence of stable committees

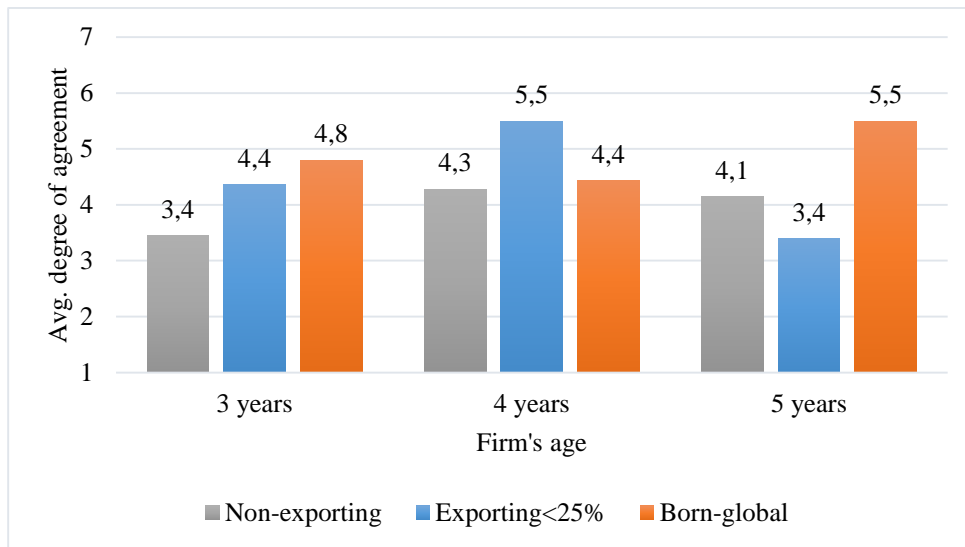


Table 3.27 t-test on stable committees

		The difference in mean is statistically significant? (95% significance level)		
Firm's age	Result	EXP25 – NE	NE – BG	EXP25 – BG
3 years	NE < EXP25 < BG	Yes	Yes	No
4 years	NE < BG < EXP25	No	No	Yes
5 years	EXP25 < NE < BG	No	No	No

3.6 Decision-making

Decision-making process constitutes another important variable to analyze the firm from an organizational point of view. This section provides useful information about firms' decision-making; first, looking at the centralization of decisional power in the hands of the CEO/entrepreneur, then comparing the average number of individuals responsible of key decisions, and finally analyzing the degree of involvement of firm's collaborators in strategic decisions (e.g. new products, alliances, new foreign market entry).

3.6.1 Centralization of decision-making

As Figure 3.28 illustrates, all the three groups of firms express a high level of agreement on this dimension, moreover, the level of agreement does not change significantly across firms with different ages. These results suggest that, regardless of firm's degree of internationalization and years of activity, in young and small businesses decisional power principally lies in the hands of the entrepreneur.

Figure 3.28 Centralization of decision-making

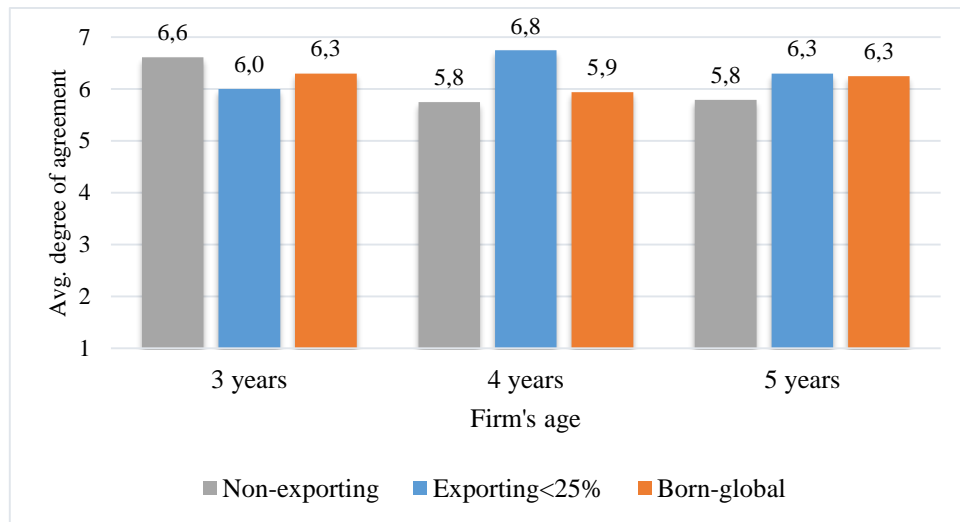


Table 3.28 t-test on centralization of decision-making

NE = <i>Non-exporting firms</i> EXP25 = <i>Firms exporting < 25%</i> BG = <i>Born-global firms</i>		The difference in mean is statistically significant? (95% significance level)		
Firm's age	Result	EXP25 – NE	NE – BG	EXP25 – BG
3 years	EXP25 < BG < NE	No	No	No
4 years	NE < BG < EXP25	No	No	No
5 years	NE < BG < EXP25	No	No	No

3.6.2 Individuals involved in key decisions

In the previous paragraph we saw that, on average, firms in the sample agree on the centralization of decisional power, however, looking at the average number of individuals involved in key decisions (e.g. new market entry, alliances, new products) we can notice that the average values are included between 1,8 and 2,8.

Although many firms agree on the centralization of decisional power in the hands of the entrepreneur/CEO, results reported in Figure 3.29 indicate that the entrepreneur/CEO is not the only individual taking key decisions since, on average, individuals responsible of important decisions are at least two. As a consequence, it is better to say that, on average, the decisional power is centralized in the hands of few people.

Moreover, looking at the associated t-test table (Table 3.29) we can see that, even if the average value does not change a lot across groups, some differences are statistically significant.

Figure 3.29 Number of individuals involved in key decisions

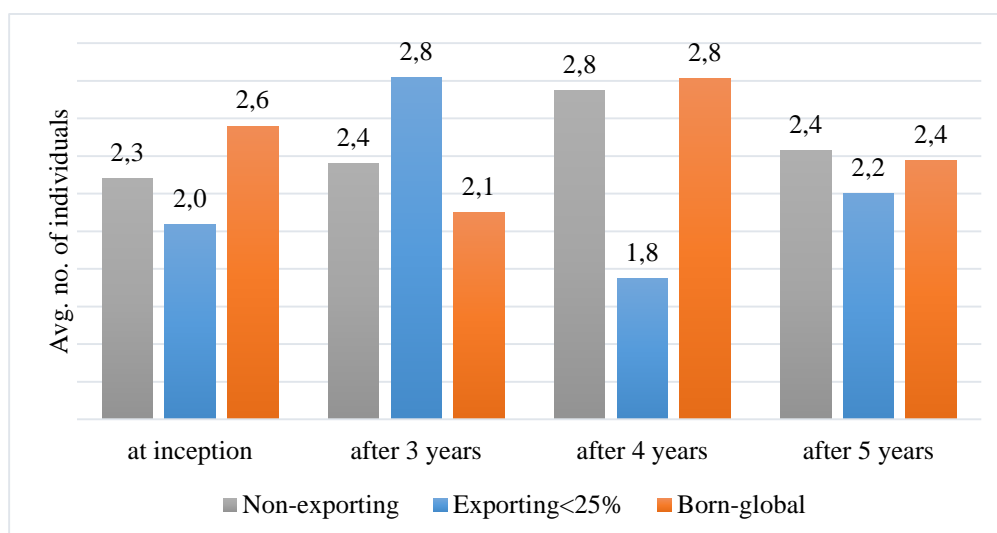


Table 3.29 t-test on individuals involved in key decisions

NE = *Non-exporting firms*
 EXP25 = *Firms exporting < 25%*
 BG = *Born-global firms*

		The difference in mean is statistically significant? (95% significance level)		
Time variable	Result	EXP25 – NE	NE – BG	EXP25 – BG
At inception	EXP25 < NE < BG	No	No	No
After 3 years	NE < EXP25 < BG	No	Yes	No
After 4 years	EXP25 < NE < BG	No	No	No
After 5 years	EXP25 < NE < BG	No	No	Yes

3.6.3 Collaborators' involvement in decision-making

Firms in the sample were asked to express their degree of agreement (1= “strongly disagree”, 7= “strongly agree”) to the following sentence: “currently, firm’s collaborators are actively involved in key decisions (e.g. new market entry, alliances, new products)”.

As illustrated in Figure 3.30 and in the following t-test table, born-global firms reported a higher level of involvement with respect to non-exporting firms.

If we take into consideration the results discussed in the previous paragraph on the number of individuals involved in key decisions, we observe that born-global firms and non-exporting firms reported relatively close values, however, here seems that in born-globals collaborators are more involved.

One possible interpretation of these results could be that in born-global firms, the entrepreneur/CEO tends to involve more his/her collaborators during the decision-making process, but the power of taking the final decision still remains principally in his/her hands.

Figure 3.30 Involvement of firm’s collaborators in key decisions

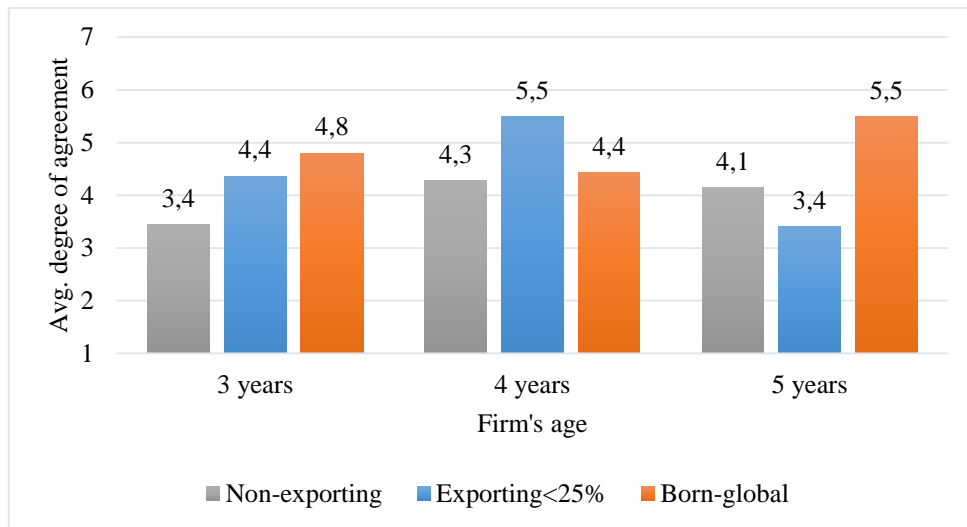


Table 3.30 t-test on collaborators’ involvement

NE = *Non-exporting firms*

EXP25 = *Firms exporting < 25%*

BG = *Born-global firms*

The difference in mean is statistically significant?
(95% significance level)

Firm’s age	Result	EXP25 – NE	NE – BG	EXP25 – BG
3 years	NE < EXP25 < BG	Yes	Yes	No
4 years	NE < BG < EXP25	Yes	No	Yes
5 years	EXP25 < NE < BG	No	No	No

3.7 Firm’s orientation and strategy

After analyzing organizational variables, in this section the focus moves to firm’s orientation and strategy. As regards firm’s orientation, the database provides information on the attitude toward new foreign market entry, risk-seeking, pro-active orientation and openness to new business opportunities.

As far as strategy is concerned, variables under investigation cover several aspects, for example innovation, market leadership, focus on niche segments and the implementation of a growth-driven strategy.

3.7.1 Entrepreneurial orientation

In order to analyze firm orientation, it has been considered firms’ degree of agreement on the following aspects: risk-seeking orientation and its change over time, pro-active orientation and openness to new business opportunities.

As regards firm’s attitude toward new foreign market entry, firms were asked to express their degree of agreement (1= “strongly disagree, 7= “strongly agree”) on the following question:

“In your opinion, is it useful to enter foreign markets without conducting detailed forecasts and analyses in advance?”.

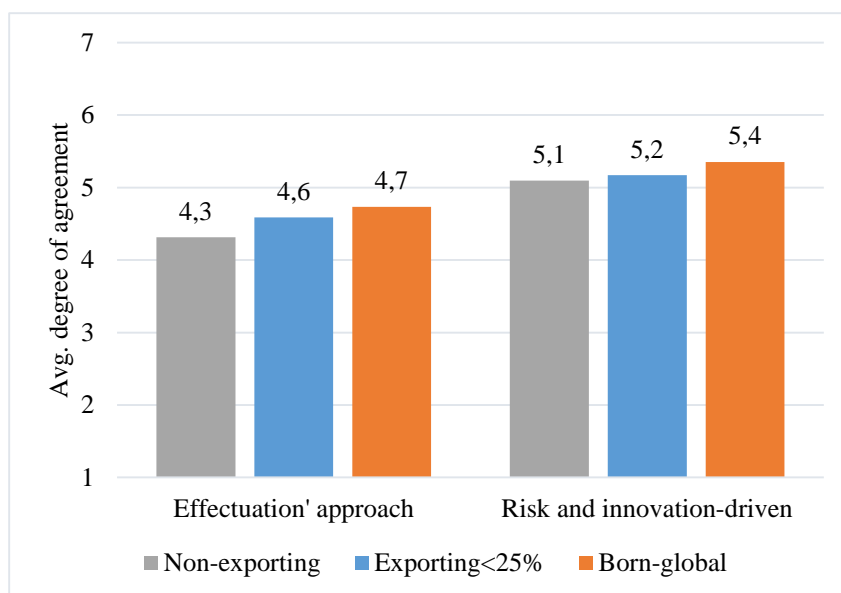
The type of approach proposed in this question is similar to an ‘effectuation’ approach¹², where firm goals are ‘emerging’, instead of pre-defined, and the firm deals with uncertainty through pre-commitments and alliances rather than detailed market analyses (Harms, Schiele 2012). For this reasons this variable is indicated as the degree of agreement on an ‘effectuation’ approach in the following analysis.

Although there is no big difference among the three categories, as illustrated in Figure 3.31, born-global firms seem to agree more on this kind of approach, that, according to Harms and Schiele (2012), is more common among experienced entrepreneurs.

The other aspects of firm’s orientation, illustrated in Figure 3.32, are risk and innovation orientation (e.g. entry new businesses, new foreign markets), pro-active orientation (e.g. taking initiatives towards competitors, alliance partners or collaborators) and openness to new opportunities (e.g. new products, processes, new markets served, new collaborations).

For these three variables, firms were asked to indicate whether these aspects of firm’s orientation have changed over time (1= “decreased a lot”, 5= “increased a lot”).

Figure 3.31 Aspects of firm’s orientation



¹² See chapter 2, paragraph 2.4, p. 25

Table 3.31 t-test on firm orientation

NE = *Non-exporting firms*

EXP25 = *Firms exporting <25%*

BG = *Born-global firms*

Orientation	Result	The difference in mean is statistically significant? (95% significance level)		
		EXP25 – NE	NE – BG	EXP25 – BG
'Effectuation' approach	NE < EXP25 < BG	No	No	No
Risk and innovation-driven	NE < EXP25 < BG	No	No	No

Figure 3.32 Change in firm's orientation

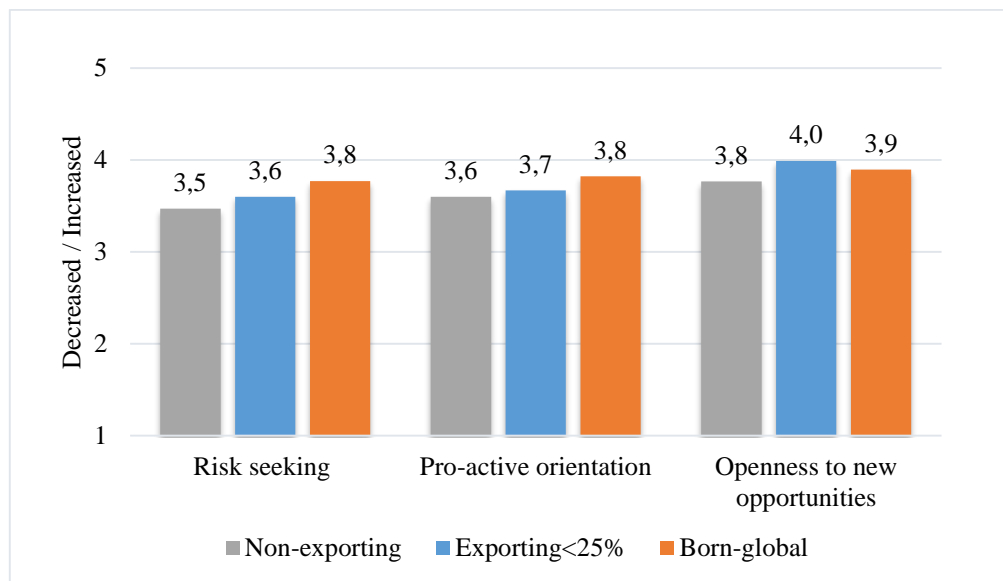


Table 3.32 t-test on firm orientation

NE = *Non-exporting firms*

EXP25 = *Firms exporting <25%*

BG = *Born-global firms*

Orientation	Result	The difference in mean is statistically significant? (95% significance level)		
		EXP25 – NE	NE – BG	EXP25 – BG
Risk seeking	NE < EXP25 < BG	No	No	No
Pro-active orientation	EXP25 < NE < BG	No	No	No
Openness to new opportunities	NE < BG < EXP25	No	No	No

Although the differences in mean across group are not statistically significant, it is interesting to notice that in all aspects born-global firms reported higher values than non-exporting firms. Moreover, the aspects of firm orientation analyzed in this paragraph are related to the concept of entrepreneurial orientation. According to Knight and Cavusgil (2004), this type of orientation is associated to innovativeness, independence, growth, risk-seeking and owner centrality. Therefore, these results appear in line with the literature, which identifies

entrepreneurial orientation as a distinctive characteristic of born-global firms (e.g. Knight, Cavusgil 2004, Weerawardena, Mort et al. 2007).

3.7.2 Firm's strategy

The aspects of firm's strategy analyzed in this paragraph are innovativeness, market leadership, focus on niche segments and the implementation of a growth-driven strategy.

More precisely, firms were asked to express their degree of agreement (1= "strongly disagree, 7= "strongly agree") on the following sentences:

1. "In our product/service category, the firm is highly innovative"
2. "Our firm is market leader, or among the principal market leaders, within the market/segment in which the company operates"
3. "In our product/service category, the firm follows a niche strategy, focused on precise segments"
4. "Currently, our firm is pursuing explicit growth objectives".

Looking at Figure 3.33 we can notice that born-global firms reported a higher degree of agreement especially in two aspects: niche strategy and growth-orientation. In addition, the difference with respect to non-exporting firms regarding niche strategy is statistically significant, as reported in Table 3.33.

This is exactly what the literature suggests, for example, Knight and Cavusgil (2004) argue that among the distinctive elements of born-globals' strategy we find global technological competence, unique products development, quality focus and exploitation of foreign distributor competences. According to Knight and Cavusgil (2004) this combination allows early internationalizing firms to develop offerings that are particularly attractive to niche markets in several countries (Knight, Cavusgil 2004).

Figure 3.33 Aspects of firm's strategy

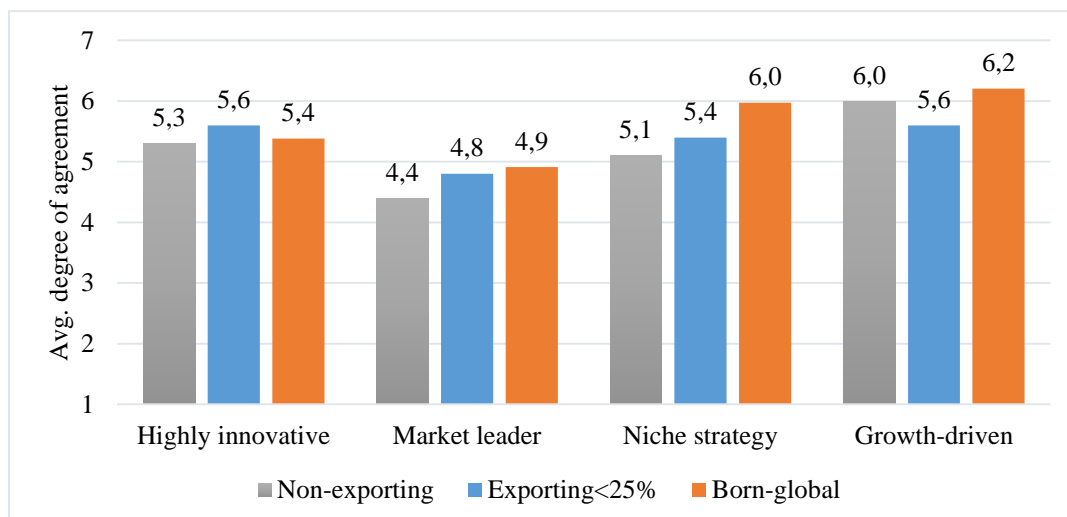


Table 3.33 t-test on firm's strategy

NE = <i>Non-exporting firms</i>	The difference in mean is statistically significant? (95% significance level)			
EXP25 = <i>Firms exporting <25%</i>				
BG = <i>Born-global firms</i>				
Aspects of firm strategy	Result	EXP25 – NE	NE – BG	EXP25 – BG
Highly innovative	NE < BG < EXP25	No	No	No
Market leader	NE < EXP25 < BG	No	No	No
Niche strategy	NE < EXP25 < BG	No	Yes	No
Growth-driven	EXP25 < NE < BG	No	No	No

3.8 Conclusion

The empirical analysis conducted in this chapter has provided useful insight into early internationalizing firms; just dividing the sample in exporting and non-exporting firms, results show that, on average, exporting firms have superior performance in terms of revenue growth than ‘domestic’ new ventures. However, the further distinction of exporting firms into ‘born-global’ and ‘moderate’ exporters (i.e. firms with a positive export share but lower than 25%) lead to more detailed information.

As regards firm performance and strategy, results illustrated in this section are consistent with the literature discussed in the first two chapters, as summarized below.

Results on born-global firms' performance:

1. *Born-global firms in the sample reported superior performance in terms of revenue growth with respect to both non-exporting firms and moderate exporters.*

This result is in line with the findings of Kuivalainen et al. (2007), who found significant differences in export performance between ‘true’ born-global and born-international firms¹³. More precisely, ‘truly’ born-globals performed better on all three measures (sales, profit and sales efficiency).

2. *Born-global firms in the sample generally export to more countries than other exporting firms.*

¹³ In this study ‘born-international’ are those firms exporting only to markets with geographical proximity with an export share close to the threshold of 25%, while ‘true born-global’ firms operate in distant markets and multiple regions

Several scholars (e.g. Kuivalainen et al. 2007, Sleuwaegen and Onkelinx 2014) argue that among born-global firms' key aspects there is also a larger export scope (i.e. the number of export countries).

3. *As regards profitability, born-globals suffer more during the first year of activity but they reported a **higher EBITDA growth rate** over time with respect to the other groups.*

Sleuwaegen and Onkelinx (2014) argue that young firms pursuing rapid internationalization typically face more risks and difficulties since they are subject to multiple 'liabilities' (e.g. liability of newness and liability of foreignness).

In addition, Efrat and Shoham (2012) found that born-global firms entering riskier countries are negatively affected in terms of strategic performance in the short-term. However, they have more survival chances in the long-run, due to lower market saturation in these countries.

Results on born-global firms' strategy:

1. *Born-global firms show an entrepreneurial orientation characterized by higher **risk-seeking** and **pro-activeness***

According to Knight and Cavusgil (2004) born-global firms are characterized by an entrepreneurial orientation resulting from characteristics like innovativeness, growth, risk-seeking, owner centrality and a proactive approach to internationalization.

2. *As regards firm's strategy, born-global firms generally adopt a **niche strategy** and pursue **high-growth** objectives.*

From the study of Knight and Cavusgil (2004) emerges that born-globals that aggressively pursue international expansion develop unique products and target them at niche markets outside the home country.

Results on born-global firms' organization:

Finally, as far as firm's internal organization is concerned, this section provides evidence on several aspects that are still underdeveloped in born-globals' extant literature. The most relevant ones are the following:

1. *born-global firms show a relatively **low level of roles' formalization** within the organization*

Knight and Cavusgil (2004), as well as Sleuwaegen and Onkelinx (2014), argue that born-global firms are characterized by a relatively high degree of flexibility and adaptation that allows them to pursue rapid internationalization and accelerated learning. The result obtained

on roles' formalization is in line with this concept of flexibility, however, it provides more detailed information about firm's internal organization.

2. *born-global firms prefer, on average, a **functional organizational structure**, based on specialization in both sectors (manufacturing and services)*
3. *From an organizational point of view, **born-global firms are more 'structured'**, e.g. there are more formally established functions, a higher number of first-line managers and they rely more on stable committees.*
4. *Born-global firms, similarly to all other firms in the sample, are characterized by a **centralized decision-making**, however, they show a **higher involvement** of firm's collaborators in key decisions.*

Chapter 4

Born-global Firms: A configurational Analysis

4.1 Introduction

Results of the empirical analysis discussed in the previous chapter are in line with findings of the literature. However, they consider key variables separately, that is, first looking at organizational structure, then organizational roles, decision-making and finally firm's orientation and strategy.

In contrast, a configurational analysis considers set-relationships, thus providing information on possible configurations of elements associated to a certain outcome. Therefore, the purpose of the following analysis is to identify configurations of attributes (e.g. organizational structure, hierarchy, competitive environment) leading to the outcome 'born-global'.

The underlying logic is to understand whether born-global firms share other aspects in addition to an international orientation and a relatively high export share, in terms of internal organization, orientation, strategy and competitive environment.

Finally, results are illustrated applying the framework by Ragin and Fiss (2008), comparing configurations associated to three different outcomes: born-global firms, moderate exporters and non-exporting firms.

4.2 The configurational approach

The review of the literature on early internationalizing firms and the empirical analysis discussed in the previous chapters suggest that born-global firms' growth is the result of a combination of factors, including lower roles' formalization, niche strategy, entrepreneurial orientation, a more formalized organizational structure, and higher involvement of collaborators in decision-making process.

Therefore, once key elements of born-global firms have been detected, the main issue is to understand whether they are interrelated. More precisely, the key point is to discover how a certain outcome can be affected by the combination of these factors, in other words, the main issue is the identification of causal relationships.

For this purpose, case studies may be useful to understand *how* to combine different ‘ingredients’ in a causal process, however, configurational methods allow to detect which factors *must* be combined and which are the possible configurations (Fiss 2013).

Interdependencies among elements within types are the heart of configurations; as noted by Miller (1996), firm competitive advantage does not originate from the presence of certain organizational resources and capabilities, which can be imitated or acquired by competitors. Rather, firm competitive advantage results from the complementarity among several aspects, for example, market leadership, know-how, routines and procedures, technology, and decision-making process (Miller 1996).

As a consequence, a configuration is more likely to be a source of competitive advantage than any single element of firm’s strategy (Miller 1996).

Therefore, typologies constitute a powerful tool to analyze “the complex and interdependent nature of organizations” (Fiss 2011, p.393), since they explain multiple causal relationships relating organizational structure, strategy and environmental aspects.

As noted by Fiss (2011), typologies are generally based on the notion of “fit” among different components of an ideal type or configuration. However, if not all elements of a configuration are equally important, or some elements are even irrelevant, the challenge of typologies becomes the identification of fundamental elements and nonessential elements in a configuration’s causal structure (Fiss 2011).

According to Fiss (2011), in order to test typological and configurational theory, set-theoretic methods, for example fuzzy set QCA (Qualitative Comparative Analysis), represent the most appropriate methods, since they view cases as different combinations of attributes (Fiss 2011). In addition, QCA allows to study causal complexity, more precisely, it is possible to analyze “INUS” conditions. This acronym indicates causal conditions that are Insufficient but Necessary elements of causal configurations, which are themselves Unnecessary but Sufficient (Fiss).

As a consequence, QCA is able to assess very complex causation relationships, which involve different combinations of causal conditions leading to the same outcome.

From the application of QCA it is possible to detect important causal relations, that is, *necessity* and *sufficiency*. This two conditions can be explained in the following way (Table 4.1):

Table 4.1 Necessity versus sufficiency

Necessity	Sufficiency																
The outcome is a subset of the causal condition	The causal condition is a subset of the outcome																
<table border="1" style="margin: auto;"> <thead> <tr> <th style="text-align: center;">Cause</th> <th style="text-align: center;">Outcome</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p style="text-align: center;">(value of the outcome) ≤ (value of the cause)</p>	Cause	Outcome	1	1	1	0	0	0	<table border="1" style="margin: auto;"> <thead> <tr> <th style="text-align: center;">Cause</th> <th style="text-align: center;">Outcome</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p style="text-align: center;">(value of the cause) ≤ (value of the outcome)</p>	Cause	Outcome	1	1	0	1	0	0
Cause	Outcome																
1	1																
1	0																
0	0																
Cause	Outcome																
1	1																
0	1																
0	0																

As noted by Fiss (2011), the analysis of necessary and sufficient conditions in a given configuration differs from a correlational analysis of causality, since they are based on different assumptions, that is, *causal symmetry* and *causal asymmetry*. For example, in a correlational analysis studying factors leading to high performance, it is possible to build the inverse model where the outcome is the opposite of high performance. In this case the model is causally symmetric since the results would be unchanged, except for coefficients' signs (Fiss 2011).

In contrast, the analysis of causality based on necessary and sufficient conditions is causally asymmetric, since the combination of factors leading to the presence of the outcome can be different from the causal conditions leading to the absence of that outcome (Fiss 2011).

4.3 Crisp sets versus fuzzy sets

QCA is a research technique developed by Charles C. Ragin in the 80s and 90s. This comparative case-oriented approach is based on Boolean algebra and its aim is to combine aspects of both qualitative and quantitative research techniques. As noted by Marx (2010), from the application of QCA it is possible to build descriptive or even explanatory models, comparing a relatively small number of cases, with respect to 'traditional' techniques.

QCA can be conducted using *crisp* or *fuzzy* sets. In the first case (csQCA), the set is dichotomous, that is, an object is either included or excluded from the set. Therefore, the object under investigation can be represented as a binary variable assuming value 1 if it is included, or 0 otherwise.

From the application of csQCA, it is possible to "compare configurations of explanatory conditions with the presence or absence of an outcome" (Marx 2010, p.139). Therefore, csQCA is aimed at clarifying how different conditions' configurations are related to different outcomes (Marx 2010). By contrast, in fuzzy set QCA (fsQCA) membership is expressed using values included in the interval 0-1, thus allowing for different 'degrees' of membership. As a

consequence, in a fsQCA the values 0 and 1 indicate the *full* membership or absence of an object.

The following table by Ragin (2005) summarizes the fundamental difference in membership criteria between a crisp set and fuzzy set.

Table 4.2 Crisp vs. fuzzy set

Crisp set	Three-value fuzzy set	Four-value fuzzy set	Six-value fuzzy set	“Continuous” fuzzy set
1 = fully in	1 = fully in	1 = fully in	1 = fully in	1 = fully in
			.9 = mostly but not fully in	Degree of membership is more “in” than “out”: $.5 < x_i < 1$
	.5 = neither fully in nor fully out	.75 = more in than out	.7 = more or less in	.5 = cross-over, neither in nor out
			.3 = more or less out	Degree of membership is more “out” than “in”: $0 < x_i < .5$
		.25 = more out than in	.1 = mostly but not fully out	
0 = fully out	0 = fully out	0 = fully out	0 = fully out	0 = fully out

Source: Ragin (2005)

The procedure for establishing membership scores to different cases is up to the researcher, therefore, while discussing a fsQCA this procedure must be clearly explained.

As noted by Ragin (2000), fuzzy set might seem the simple transformation of a binary variable into a continuous variable, however, fuzzy set is more ‘powerful’ than a ‘continuous’ variable. In fact, a fuzzy set is “much more heavily infused with theoretical and substantive knowledge” (Ragin 2000, p.6). As a result, a fuzzy set is more precise and empirically grounded than a conventional variable.

4.4 Causal *core* and causal *periphery*

In 2011, Peer C. Fiss introduced the concepts of causal core and causal periphery in QCA applied to organizational research. The core-periphery distinction is based on the strength of a causal relationship between specific elements and the outcome of interest.

More precisely, *core* elements are those causal conditions displaying a strong causal relationship with the outcome under investigation (Fiss 2011). Differently, configuration’s elements showing weaker causal relationship with the outcome of interest are defined *peripheral* elements (Fiss 2011).

This distinction also helps clarifying the concept of *equifinality* among configurations, that is, different causal paths can lead to the same outcome. In order to deepen this concept, Fiss introduced the notion of *neutral permutations*. According to Fiss (2011), in any given configuration, more than one combination of peripheral elements might surround a core causal condition, so that the permutation among different peripheral elements does not affect the final outcome of the configuration (Fiss 2011).

The notion of neutral permutations leads also to a more detailed understanding of causal relationships associated to a certain outcome. More precisely, according to Fiss (2011), it is possible to distinguish first-order from second-order equifinality.

First-order equifinality involves equifinal configurations (i.e. leading to the same outcome), characterized by different core elements (e.g. configuration A vs. configuration B). Second-order equifinality is associated to the concept of neutral permutations because it involves equifinal configurations resulting from neutral permutations within a given first-order equifinal configuration (e.g. configuration A₁ vs. configuration A₂) (Fiss 2011).

Finally, as noted by Fiss (2011), neutral permutations may be equifinal with respect to a certain outcome, however, they are not equifinal with respect to the future developments of an outcome. Therefore, the nature of a configuration might have important implications on the future trajectories of organizational change (Fiss 2011).

4.5 Qualitative Comparative Analysis technique

The application of QCA to identify a causal process follows different steps. The first step consists in the selection of a dependent variable (i.e. the outcome of interest), that in our case is represented by a binary variable with value 1 if the firm is born-global¹⁴ or zero otherwise, as well as the definition of independent variables that we expect to affect the final outcome (e.g. variables related to firm's strategy, orientation, decision-making, competitive environment).

The second step consists in the drafting of a 'truth table', that is, a data matrix with 2^k rows, with k indicating the number of causal conditions considered in the analysis. Each row of the truth table represents a different combination of attributes, so the full table reports all possible combinations.

In the next step the number of rows is reduced according to two criteria. The first deals with the minimum number of cases required for a solution to be considered, that in this analysis is fixed at 2 cases. The other selection measure is called 'consistency', that is, the proportion of cases consistent with the outcome of interest.

¹⁴ Born-global selection criteria are discussed in paragraph 3.3, chapter 3, p. 43

Later, truth table rows are reduced through the application of an algorithm based on Boolean algebra resulting in a list of simplified combinations. The resulting combinations are named in the following way: complex solution, parsimonious solution and intermediate solution.

This distinction allows to detect core and peripheral conditions, since core conditions are included in the parsimonious solution, as well as in the intermediate solution, while peripheral conditions are eliminated from the parsimonious solution, therefore they are present only in the intermediate solution (Fiss 2011).

The final results of this analysis can be summarized in a single table, as illustrated in the following example by Fiss (2011).

Table 4.3 Example of final results' illustration

Configuration	1a	1b	2	3a	3b	4
<i>Structure</i>						
Large size	⊗	⊗	⊗	⊗	⊗	●
Formalization	●	●	⊗	⊗	⊗	●
Centralization	●	●	●	⊗	⊗	⊗
Complexity		●	⊗	●	⊗	●
<i>Strategy</i>						
Differentiation	●	●	●	●	●	●
Low cost	●	●	●	⊗	⊗	
<i>Environment</i>						
Rate of change	⊗		⊗	●	⊗	⊗
Uncertainty	⊗	⊗	⊗	⊗	⊗	⊗
Consistency	0.82	0.82	0.86	0.83	0.83	0.82
Raw coverage	0.22	0.22	0.17	0.14	0.19	0.19
Unique coverage	0.01	0.01	0.02	0.01	0.02	0.04
Overall solution consistency				0.80		
Overall solution coverage				0.36		

Source: Fiss (2011)

Table 4.3 reports the results of a fuzzy set analysis, which investigates configurations leading to the outcome 'high performance'. Symbols applied in this framework correspond to the following meanings:

Table 4.4 Legend

Symbol	Meaning
●	presence of a condition
⊗	absence of a condition
(blank space)	the configuration leads to the outcome regardless of the presence/absence of the condition
Large circles	core conditions
Small circles	peripheral conditions

4.6 Dependent and independent variables

4.6.1 Outcome measures

The outcome of this analysis is represented by the binary variable *Born-global*, therefore, the applied technique is csQCA since the outcome is either 1 (the firm is born-global) or 0 (the firm is not a born-global).

Moreover, the same analysis has been applied with the outcome *Exporting<25%* (i.e. firms indicating a positive export share but lower than 25%) and *Non-exporting* (i.e. firms reporting an export share equal to zero) in order to compare configurations leading to the three different outcomes *Born-global*, *Exporting<25%* and *Non-exporting*.

The distinction between born-global, moderate exporters and non-exporting firms is the same applied in the previous chapter.

The object of this analysis is to detect possible configurations of elements (e.g. organizational structure, orientation, decision-making, competitive environment) associated to the outcome *Born-global*. In other words, the main issue is understanding whether born-global firms share specific configurations of attributes, regardless of their export share.

As a consequence, the final solution does not display which configurations of elements are best for each category of firms. On the contrary, resulting configurations provide a representation of how these firms 'look like' in terms of organization, decision-making process, orientation, strategy and competitive environment.

Therefore, the identification of one or more configurations leading to the outcome *Born-global* supports the idea that born-global firms are not just young businesses having an export share of at least 25% during the first years of activity. Rather, the term born-global firm can be used to describe a specific category of young firms sharing many other characteristics in addition to foreign sales.

So, this configurational analysis is aimed at answering the following question: *Do born-global firms share specific configurations of elements in terms of organization, strategy, industry and decision-making process?*

The following sections describe the causal conditions included in the configurational analysis, explaining the reasoning behind their choice and the method applied to compute their values.

4.6.2 Organizational structure

The empirical analysis conducted in chapter 3 showed that the majority of born-global firms in the sample have a functional organizational structure based on specialization, both in the manufacturing and in the service sector.

Moreover, born-global firms have, on average, a higher number of formally established functions within the organization, especially R&D, Marketing and Sales, and Quality control, which in turn, are associated to born-global key capabilities. In fact, scholars (e.g. Knight and Cavusgil 2004, Weerawardena, Mort et al. 2007) argue that born-globals show distinctive technological competence, superior marketing capabilities and quality focus.

These aspects have been included in this analysis through the following causal conditions: *Functional*, *R&D*, *Marketing* and *Quality*. Thus, values assigned to these variables are the following:

Functional = 1, the firm adopts a functional organizational structure, 0 otherwise

R&D = 1, the firm has a formally established function for R&D, 0 otherwise

Marketing = 1, the firm has a formally established function for Marketing and Sales, 0 otherwise

Quality = 1, the firm has a formally established function for Quality control, 0 otherwise

4.6.3 Hierarchy

As showed in chapter 3, born-global firms in the sample reported a higher number of intermediate positions (i.e. first-line managers, excluding CEO and General Manager) with respect to non-exporting firms and firms and moderate exporters.

The presence of one or more intermediate positions within the organization indicates that there is at least one intermediate hierarchical level between the CEO/General Manager and firm's employees. This aspect has been included in the configurational analysis through the causal condition *Intermediate*. Therefore, *Intermediate* with value 1 indicates that the firm has at least one intermediate position within the organization, while *Intermediate* with value 0 indicates the absence of intermediate positions.

4.6.4 Decision-making

The analysis conducted in chapter 3 showed that born-global firms, as well as all other firms in the sample, are characterized by a centralized decision-making, even though they show higher involvement of firm's collaborators in key decisions. In order to identify highly centralized firms in the sample, it has been considered the number of individuals taking key decisions¹⁵.

Therefore, the variable *Centralization* indicates whether the firm is strongly centralized, that is, only one person is in charge of taking important decisions. In contrast, the absence of *Centralization* indicates that important decisions are taken by at least two individuals. This distinction between strongly centralized firms from 'less centralized' ones might seem too

¹⁵ See paragraph 3.6.2, chapter 3, p. 57

simplified since firms indicating that most important decisions are taken by only two individuals are not considered highly centralized.

However, as showed in chapter 3, the average number of firm's employees in the sample is included between 3,6 and 5,5 employees¹⁶.

Therefore, considering average firm size in terms of employees, it is reasonable to consider 'highly centralized' those firms with a single individual taking key decisions and 'less centralized' those firms indicating at least two individuals responsible of important decisions.

4.6.5 Entrepreneurial orientation

Findings reported in chapter 3 showed that, on average, born-global firms agree with several aspects associated to an entrepreneurial orientation like innovativeness, independence, growth and risk-seeking.

In order to distinguish firms adopting a 'true' entrepreneurial orientation from those indicating an orientation 'close to' an entrepreneurial orientation, the causal condition *Entrepreneurial* has been created based on the degree of agreement reported by firms in the sample on the following sentence: "The firm carries its own risks and costs and adopts an entrepreneurial orientation based on continuous innovation"¹⁷. The degree of agreement is expressed in a 1-7 scale where 1= "strongly disagree" and 7= "strongly agree".

Therefore, the creation of the binary variable *Entrepreneurial* indicates whether a firm identifies itself entirely in the previous description (i.e. the firm answered "strongly agree") or not, in other words, *Entrepreneurial* with value 1 indicates the adoption of a 'true' entrepreneurial orientation based on risk-seeking and continuous innovation.

4.6.6 Industrial sector

The majority of born-global firms in the sample belong to the manufacturing sector, therefore, we expect that young exporting firms operating in the manufacturing sector are more likely to be 'potentially' born-globals than their counterparts operating in the service sector.

For this reason, the configurational analysis includes the causal condition *Manufacturing* with value 1 if the firm belongs to the manufacturing sector. In contrast, *Manufacturing* with value 0 indicates that the firm operates in the service sector.

¹⁶ See paragraph 3.2.6, chapter 3, p. 42

¹⁷ See paragraph 3.7.1, chapter 3, p. 59

4.6.7 Competitive environment

Born-global firms in the sample operate in diverse industries, characterized by different degrees of competition. For this reason, it is useful to include a measure of competitiveness in this analysis. The selected measures are the competitiveness index, known as “ISCO” (Indicatore sintetico di competitività) and firms’ mortality rate, both provided by Istat¹⁸ (Italian National Institute of Statistics). Variables used to compute ISCO deal with cost competitiveness, profitability, innovation and export performance (the latter only for manufacturing firms). Moreover, the index is computed considering both a static and a dynamic component.

In order to identify highly competitive industries, each firm in the sample has been assigned the associated average ISCO for the period 2008-2010¹⁹, according to the specific industry. Then, in order to select highly competitive industries, the minimum threshold was fixed at the 75th percentile of the sample ISCO distribution, as reported in Table 4.5.

Similarly, to identify industries characterized by high mortality rate, the same procedure has been applied to the average mortality rate, available for the period 2011-2012.

Table 4.5 Industry competitiveness

ATECO 2007	No. Of firms	Avg. ISCO	Avg. mortality rate	Highly turbulent environment
20 Chemicals	4	124,6	4,0	No
26 Computer/electronic equipment	11	107,5	5,1	No
27 Electric equipment	16	121,3	4,5	No
28 Mechanical equipment	29	125,6	3,6	No
29 Motor vehicles	2	108,6	6,7	No
30 Other motor vehicles	1	118,8	6,7	No
32 Other equipment	5	106,8	5,8	No
33 Installation and fixing of mechanical equipment	2	49,9	5,8	No
46 Wholesale trade	1	120,0	7,7	No
60 Television broadcasting	1	290,0	8,4	Yes
61 Telecommunications	4	290,0	17,1	Yes
62 Software development, IT consulting	58	140,0	8,3	Yes
63 Data elaboration, hosting, web portals	17	100,0	8,3	No
72 Research and Development	7	80,0	13,4	No
74 Technical Design	1	80,0	11,3	No
	Sample average	127,4	7,0	
	Minimum value	49,9	3,6	
	75 th percentile	140,0	8,3	

¹⁸ Istat, 2015. Rapporto sulla competitività dei settori produttivi. Available at: <http://www.istat.it/it/files/2015/02/Rapporto-competitivita%20C3%A0-2015.pdf> ; Istat, 2015. Report sulla demografia d’impresa. Available at: <http://www.istat.it/it/archivio/164487>

¹⁹ As regards firms belonging to the service sector, ISCO is computed only relative to year 2012.

Therefore, in this analysis only industries displaying an average ISCO ≥ 140 are considered highly competitive, and industries reporting an average mortality rate of at least 8,3 are considered industries with a high mortality rate.

This procedure allowed to create a single variable *Turbulent* indicating a competitive environment characterized by both high competitiveness and high mortality rate, as reported in the fifth column of Table 4.5.

4.7 Results

4.7.1 Born-global firms' configurations

The application of crisp set QCA lead to two equifinal configurations associated to the outcome *Born-global*, that is, configuration A₁ and configuration A₂.

As explained in Table 4.4, black circles indicate the presence of a causal condition while 'crossed' circles indicate the absence of the causal condition with larger circles representing core conditions.

Table 4.6 Configurations of born-global firms

		<i>Born-global firms</i>	
Dimension	Causal condition	A ₁	A ₂
<i>Structure</i>	Functional	●	●
	Intermediate positions	●●	●●
	R&D	●●	●●
	Marketing	●	●
	Quality	●	●
<i>Decision-making</i>	High centralization	⊗	●
<i>Orientation</i>	Entrepreneurial orientation	●	⊗
<i>Industry</i>	Manufacturing	●●	●●
	Turbulent environment	⊗	⊗
Consistency		1.00	1.00
Raw coverage		0.06	0.06
Unique coverage		0.06	0.06

Overall solution consistency: 1.00

Overall solution coverage: 0.12

Looking at Table 4.6, we can see that configuration A₁ is characterized by the presence of all causal conditions related to organizational structure, therefore, the firm adopts a functional

organizational structure and has a formally established function for R&D, Marketing and Sales, and Quality control.

The presence of the causal condition *Intermediate* indicates that there is at least one intermediate hierarchical level between the CEO/General Manager and firms' employees (e.g. a first-line manager).

As regards decision-making, configuration A_1 is characterized by the absence of strong centralization, meaning that important decisions are taken by more than one individual.

The presence of the causal condition *Entrepreneurial* indicates that the firm adopts an entrepreneurial orientation based on risk-seeking and continuous innovation.

Finally, as far as industry is concerned, configuration A_1 indicates that the firm belongs to the manufacturing sector, in addition, the competitive environment is characterized by the absence of strong turbulence.

Moving to configuration A_2 , we can see that there are two points of difference with respect to configuration A_1 , that is, high centralization and entrepreneurial orientation. Thus, these two aspects are 'substitutes' in the two configurations.

Consistency levels are very high since the analysis is based on a crisp set and raw coverage indicates the percentage of cases in the sample displaying that configuration. Overall solution coverage corresponds to the number of cases displaying configuration A_1 or A_2 on the total number of born-global firms in the sample, in our case there are two cases with configuration A_1 and two cases with configuration A_2 and the total number of born-global firms in the sample is 34. Therefore, 4 cases over 34 display configuration A_1 or A_2 (overall solution coverage $4:34 = 0.12$).

4.7.2 Moderate exporters' configuration

The same analysis has been applied to identify configurations of firms with an export share lower than 25%. In this case the outcome measure is represented by a binary variable with value 1 if the firm is a moderate exporter (i.e. export share between 1% and 25%) and with value 0 otherwise. Independent variables are the same applied in the previous analysis, as a consequence, it is possible to compare configurations leading to the outcome born-global and those associated to exporting firms with export share lower than 25%.

The configurational analysis lead to a single configuration (configuration B) associated to the outcome of interest, as illustrated in Table 4.7.

Table 4.7 Configuration of firms with export share lower than 25%

		<i>Exporting<25%</i>
Dimension	Causal condition	B
<i>Structure</i>	Functional	⊗
	Intermediate positions	●
	R&D	●
	Marketing	●
	Quality	⊗
<i>Decision-making</i>	High centralization	⊗
<i>Orientation</i>	Entrepreneurial orientation	⊗
<i>Industry</i>	Manufacturing	⊗
	Turbulent environment	●
Consistency		1.00
Raw coverage		0.07
Unique coverage		0.07

Overall solution consistency: 1.00

Overall solution coverage: 0.07

As regards organizational structure, configuration B is characterized by the absence of a functional organizational structure, meaning that the firm has a divisional organizational structure (since *Functional*=1 indicates functional structure and *Functional*=0 indicates divisional structure) and the presence of intermediate positions shows that there is at least one intermediate hierarchical level. However, the divisional structure includes formally established organizational functions associated to Research and Development and Marketing and Sales, in this case there is no formally established function for Quality control.

Configuration B is characterized by the absence of strong centralization in decision-making, as well as by the absence of an entrepreneurial orientation.

Finally, as regards industry, the absence of *Manufacturing* indicates that the firm belongs to the service sector. In addition, the firm operates in industries characterized by strong turbulence.

Similar to configurations A₁ and A₂, this configuration has the maximum consistency level, however, in this case solution coverage is lower since the number of cases associated to the outcome displaying this configuration are 2 over 29 (overall consistency 2:29 = 0.07).

4.7.3 Non-exporting firms' configurations

The third category included in the analysis is represented by non-exporting firms, that is, firms indicating an export share on total revenues equal to zero. Again, the same independent variables have been applied with a different outcome measure with value 1 if the firm is non-exporting or 0 otherwise.

Differently from the previous configurational analyses, in this case the frequency cutoff is fixed at three cases, considering the larger size of the sample (96 non-exporting firms).

The solution is made by three equifinal configurations (configuration C₁, C₂ and C₃) leading to the outcome 'non-exporting' firm, as illustrated in Table 4.8.

Table 4.8 Configurations of non-exporting firms

		<i>Non-exporting firms</i>		
Dimension	Causal condition	C ₁	C ₂	C ₃
<i>Structure</i>	Functional	●	●	●
	Intermediate positions	⊗	⊗	●
	R&D	⊗	⊗	●
	Marketing	⊗	⊗	●
	Quality	⊗	●	●
<i>Decision-making</i>	High centralization	⊗	⊗	⊗
<i>Orientation</i>	Entrepreneurial orientation	⊗	⊗	⊗
<i>Industry</i>	Manufacturing	⊗	●	⊗
	Turbulent environment	⊗	⊗	●
Consistency		1.00	1.00	1.00
Raw coverage		0.05	0.05	0.05
Unique coverage		0.05	0.05	0.05

Overall solution consistency: 1.00

Overall solution coverage: 0.12

Configuration C₁ is characterized by the presence of a functional organizational structure and by the absence of all other causal conditions. Therefore, the firm has a functional organizational structure but there are no intermediate hierarchical levels between the CEO/General Manager and firm's employees. Although the firm adopts a functional organizational structure there are no formally established functions for Research and Development, Marketing and Sales, and Quality control, so the firm might have a 'less formal' distinction among functions or it has formally established functions different from R&D, Marketing and Sales and Quality control (e.g. Administration, Finance and Control, Production, Purchases). In configuration C₁ there is

not a strong centralization in decision-making and the absence of entrepreneurial orientation means that either the firm has a different orientation, or firm's orientation is 'close to' an entrepreneurial orientation based on risk-seeking and continuous innovation.

The absence of manufacturing indicates that the firm operates in the service sector, in addition, industry is not characterized by a turbulent competitive environment.

Configuration C₂ has only two points of difference with respect to C₁, that is, the presence of a formally established function for Quality control and the presence of Manufacturing. Therefore, firms displaying configurations C₁ and C₂ are very similar, even though they operate in different sectors.

Configuration C₃ is much more different from C₁ and C₂ since it has more points of difference than points in common with the other two configurations. Actually, in C₃ there is at least one intermediate hierarchical level and there are formally established functions for R&D, Marketing and Sales, as well as for Quality control. Moreover, the firm belongs to the service sector and the competitive environment is characterized by strong turbulence.

Anyway, there are three common aspects in configurations C₁, C₂ and C₃, that is, functional organizational structure and the absence of both high centralization and entrepreneurial orientation.

As regards solution coverage, non-exporting firms in the sample displaying one of these three configurations are 11 over 96, as a consequence, overall solution consistency is $11:96 = 0.12$.

4.8 Discussion

Qualitative comparative analysis' results provide several information, since they not only identify configurations of elements associated to a certain outcome, but it is possible to distinguish between necessary and sufficient conditions, in addition, the core-periphery distinction indicates how strong is the causal relationship with the outcome.

In our case, necessary and sufficient causal conditions associated to the outcome *Born-global* are the following:

Table 4.9 Born-globals' necessary vs. sufficient conditions

Necessary conditions		Sufficient conditions
- <i>Functional</i>	- <i>Intermediate positions</i>	- <i>High centralization</i>
- <i>R&D</i>	- <i>Manufacturing</i>	- <i>Entrepreneurial orientation</i>
- <i>Marketing</i>	- <i>Absence of Turbulent</i>	
- <i>Quality</i>		

Among necessary conditions associated to *Born-global*, there are core conditions represented by larger circles. In the case of born-global firms, core conditions are the presence of intermediate positions and of a formally established function for R&D, as well as the presence of *Manufacturing* and the absence of *Turbulent*. Therefore, these variables display a stronger causal relationship with the outcome than other variables included in the configurations.

In the following table (Table 4.10), solutions of the configurational analysis are illustrated in a single table to facilitate the comparison between configurations.

Table 4.10 Overall results

Dimension	Causal condition	<i>Born-global firms</i>		<i>Exporting<25%</i>	<i>Non-exporting firms</i>		
		A ₁	A ₂	B	C ₁	C ₂	C ₃
<i>Structure</i>	Functional	●	●	⊗	●	●	●
	Intermediate positions	●	●	●	⊗	⊗	●
	R&D	●	●	●	⊗	⊗	●
	Marketing	●	●	●	⊗	⊗	●
	Quality	●	●	⊗	⊗	●	●
<i>Decision-making</i>	High centralization	⊗	●	⊗	⊗	⊗	⊗
<i>Orientation</i>	Entrepreneurial orientation	●	⊗	⊗	⊗	⊗	⊗
<i>Industry</i>	Manufacturing	●	●	⊗	⊗	●	⊗
	Turbulent environment	⊗	⊗	●	⊗	⊗	●
Solution consistency		1.00		1.00	1.00		
Solution coverage		0.12		0.07	0.12		

At first sight we can see that born-globals, moderate exporters and non-exporting firms are characterized by different configurations, meaning that they differ not only in terms of export share, but also in their attributes.

Starting from born-global firms, we can see that they are organized in functions and there is at least one intermediate hierarchical level (e.g. first-line managers) between the CEO/General Manager and firm's employees. Therefore, despite they are young and small in size, they have already established an organizational structure together with a vertical development in terms of hierarchy.

The presence of the three formal functions R&D, Marketing and Sales, and Quality control are consistent with the presence of a functional organizational structure. However, the presence of

these three specific functions indicate that the firm established an organizational function to manage the complexity of that specific area of firm's activities.

In our case, these results are consistent with the findings of the literature about born-global superior capabilities in terms of technological competence, marketing, and quality focus (e.g. Knight and Cavusgil 2004, Weerawardena et al. 2007). In fact, the presence of an R&D, Marketing and Sales, and Quality control functions indicates that the firm assigns to each function individuals with specialized competences, and the complexity of these activities requires the establishment of a dedicated function to manage them properly.

Comparing configurations A_1 and A_2 , we observe the same characteristics within the industry dimension. More precisely, born-global firms belong to the manufacturing sector and this is not surprising, since it is easier to generate revenues from international sales of products than providing a service abroad.

As regards the competitive environment, both configurations indicate the absence of a highly turbulent environment (i.e. an industry characterized by both high competitiveness and high mortality rate). Considering that born-global firms generally adopt a niche strategy, targeting narrow segments in the market (Knight and Cavusgil 2004, Weerawardena et al. 2007), the absence of a turbulent competitive environment is reasonable. Actually, within a market niche, the level of competition is lower because there are few competitors, as a consequence, given the limited resources of a small and young firm, a niche strategy can facilitate foreign expansion.

Therefore, the absence of *Turbulent* is reasonable, considering that for a small and young firm it could be much more difficult to overcome both liability of newness and liability of foreignness in a highly competitive environment.

Focusing on the points of difference between configuration A_1 and A_2 , we can see that the two causal conditions *High centralization* and *Entrepreneurial orientation* are substitutes.

One possible interpretation might be that a highly centralized decision-making is in contrast with entrepreneurial orientation. In this analysis we defined entrepreneurial orientation in terms of risk-propensity and continuous innovation.

Therefore, a too centralized decision-making process might be an obstacle for an entrepreneurial firm that continually seeks to create new products and better operating methods. Rather, elements of an entrepreneurial orientation (e.g. innovativeness, growth, risk-seeking) are better associated to a less centralized decision-making, with a higher involvement of firm's collaborators, for example through teamwork or the creation of committees (e.g. product committee, strategic committee).

As regards configuration B, although it shares two core conditions of born-globals (i.e. the presence of intermediate positions and a formally established function for R&D), there are several points of difference with respect to born-globals' configurations. Therefore, the distinction between born-global firms and moderate exporters is not only a matter of export share.

Actually, looking at their configurations, these two firm categories are different also in their 'nature'; moderate exporters operate in a completely different industry, since they operate in the service sector and the competitive environment is highly turbulent. Moreover, firms with an export share lower than 25% are organized with a divisional structure based on product, service or client. Anyway, they are characterized by the presence of a formally established function for R&D and Marketing and Sales, so probably it is not a 'pure' divisional structure because it shares elements of both a divisional and a functional organizational structure.

Differently from born-global firms, in configuration B the presence of a marketing function is a core condition, meaning that the causal relationship with the outcome is stronger.

The absence of a strongly centralized decision-making process is consistent with the adoption of a divisional organizational structure, since we expect that many decisions are taken at division level.

As regards entrepreneurial orientation, configuration B is characterized by the absence of this causal condition, in addition it is a core aspect. The absence of an entrepreneurial orientation based on risk-seeking, pro-activeness and continuous innovation can be consistent with the environment in which moderate exporters operate. Considering the high degree of turbulence of moderate exporters' competitive environment, these firms might prefer a more 'cautious' approach, since they have to deal with high levels of uncertainty in their competitive environment.

Moreover, moderate exporters with configuration B are service providers (e.g. firms providing B2B services), so they have higher dependence on their clients and this can be a reason for the absence of an entrepreneurial orientation based on risk-seeking.

Comparing configurations A₁, A₂ and B, we can see that firms with positive export share (no matter if it is higher or lower than 25%) have a formally established function for both R&D and Marketing and Sales within the organization. Having a dedicated function for these activities might be important for firms pursuing foreign expansion, since the development of new products and services and the choice of the appropriate marketing mix for international clients is more complex. Therefore, the creation of an organizational function entirely dedicated to these activities is more appropriate to manage such complexity.

As regards non-exporting firms, the solution includes three equifinal configurations (C_1 , C_2 and C_3). Configurations C_1 and C_2 differ in the sector of activity, since, in the first case, the firm operates in the service sector, and in the second the firm operates in the manufacturing sector. However, the other elements of the configuration are very similar in C_1 and C_2 .

In both C_1 and C_2 there is no intermediate hierarchical level between CEO/General Manager and firm's employees. Moreover, although non-exporting firms adopt a functional organizational structure, configurations C_1 and C_2 have no formally established functions for R&D and Marketing and Sales, that is, the areas where born-globals generally have superior capabilities.

Moving to configuration C_3 , we can see that it is much more similar to configurations A_1 , A_2 and B, than configurations C_1 and C_2 . Comparing C_3 to born-global firms' configurations, we can see that the main differences deal with competitive environment, since born-globals operate within the manufacturing sector with the absence of a highly turbulent environment, and firms with configuration C_3 operate within the service sector in a highly turbulent competitive environment.

Therefore, one possible interpretation is that non-exporting firms with configuration C_3 are 'potential' exporters, but given the high uncertainty of their competitive environment they are likely to view internationalization as a too risky choice. Actually, in C_3 entrepreneurial orientation is absent, meaning that firm's orientation is more risk-averse.

Finally, comparing configurations C_3 and B, we can see that they share the same characteristics in terms of industry, competitive environment, orientation and decision-making. However, they differ in the organizational structure. The absence of functional in configuration B indicates that the firm adopts a divisional organizational structure based on product, service or client and the absence of manufacturing indicates that the firm operates in the service sector.

The difference in organizational structure between moderate exporters and non-exporting firms with configuration C_3 , can be due to the fact that, for service firms, the divisional structure can be more appropriate to provide a service internationally than a functional structure.

With a divisional structure, a service provider can organize its divisions based on the kind of service, client or geographical area to better meet the specific requirements of foreign clients. In contrast, a functional organizational structure does not facilitate local adaptation and flexibility that constitute important aspects in international expansion for a service provider.

At the same time, a divisional organizational structure, for example based on client, might increase firm's dependence on a single client, thus becoming a limit to international expansion.

4.9 Conclusion

Results of this configurational analysis represent a further step beyond those obtained from descriptive statistics of chapter 3, because they provide useful insight into set-relationships of elements associated to born-global firms. Nevertheless, these results have also some limits; solutions coverage is not high enough to generalize findings to the whole population.

However, despite the small size of the sample and the higher degree of simplification of a crisp set with respect to a fuzzy set, these results are in line with the literature on born-global firms, in terms of key capabilities, business strategies and orientation.

The most interesting aspect of this analysis is given by the comparison between born-global and non-born-global firms. Actually, observing configurations leading to different outcomes (i.e. born-global, exporting<25% and non-exporting), we see that configurations of the three categories differ in several aspects, meaning that the difference between born-globals, moderate exporters and non-exporting firms is not only a matter of export share.

These findings indicate as born-globals' necessary conditions the presence of a functional organizational structure with specific functions for R&D, Marketing and Sales, as well as for Quality control. Observing configurations of non-born-global firms, we can see that they all lack more than one born-globals' necessary condition, especially core conditions.

Therefore, these results suggest that born-global firms' international expansion is not only the result of superior capabilities in terms of market knowledge, technological competence, quality focus and networking capabilities, as the literature suggests. Rather, they also develop a functional organizational structure based on specialization, where there are defined hierarchical levels, and this aspect is quite unusual for a very young firm. Moreover, these analysis provides useful insight into the industry environment in which born-global firms operate, suggesting that they are usually manufacturing firms operating in industries without strong turbulence, thus supporting literature's findings about the preferences of born-globals toward a niche strategy to avoid strong competition and enter foreign markets rapidly.

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