BE INTERNATIONAL OR BE INNOVATIVE? BE BOTH?

THE ROLE OF THE ENTREPRENEURIAL PROFILE [1]

Abstract

Be international? Be innovative? Be international *and* innovative? Following the logic of the Upper Echelon perspective (UE) this paper studies the impact of the entrepreneur(s) demography, background and experience on their strategic choices, i.e. innovation, internationalization or a combination of the two strategies.

We employ cluster analysis on a sample of 88 Italian SMEs operating in different industries to classify the firms along their entrepreneur(s)' characteristics. Three significantly different clusters emerge, i.e. the typical Italian family firms, a group of businesses led by solitary self-made men, and the team-founded firms. The three groups are related to differences in internationalization behavior and innovation practice. Family-led firms are mainly domestic and concentrated on product innovation, while team-founded firms combine intensive internationalization with innovative marketing and management practices. A third cluster describes the solitary founder with serial business experience, whose businesses foster product and process innovation combined with moderate levels and scope of internationalization. Furthermore, our findings reveal that internationalization tends to be related to the type of innovation, much more than to R&D intensity or other measures of novelty (ie radical or incremental).

Keywords: entrepreneurship, SME, internationalization, innovation, Upper Echelon, strategy, cluster analysis

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Internationalisierung? Innovation? Internationalisierung *und* Innovation? Der „Upper Echelon"-Theorie folgend untersucht diese Studie Unternehmer-Charakteristika (demographische Merkmale, Erfahrung, Ausbildung etc) als Einflussfaktoren auf strategisches Verhalten, im konkreten Fall auf die Wahl von Internationalisierungs- und/oder Innovationspraxis.
Mittels Cluster-Analyse gruppieren wir 88 italienische KMU aus unterschiedlichen Branchen anhand der Merkmale ihrer Gründer. Es bilden sich drei deutlich unterschiedliche Cluster: das typische italienische Familienunternehmen, eine Gruppe von Unternehmen, die von „Selfmademan" geleitet werden, und jene Unternehmen, die von mehreren Partnern gegründet wurden.
Die drei Firmengruppen unterscheiden sich signifikant in ihrem Internationalisierungs- und Innovationsverhalten. Familiengeführte Unternehmen sind vor allem auf den Heimmarkt und auf Produktinnovation konzentriert, während Team-gegründete Firmen globale und intensive Internationalisierung mit innovativem Marketing und Management kombinieren. Die von „Selfmademen" geleiteten Firmen verbinden Produkt- und Prozessinnovation mit mittlerer Internationalisierungsintensität auf limitierter geografischer Skala.
Die Ergebnisse unserer Studie zeigen auch, dass Internationalisierungserfolg mehr mit der Art der Innovation, als mit F& E Intensität oder Indikatoren wie radikaler oder inkrementeller Neuerung verbunden ist.

Keywords: Unternehmertum, KMU, Internationalisierung, Innovation, Upper-Echelon Theorie, Strategie, Cluster Analyse

SUMMARY HIGHLIGHTS

Contributions: Following the Upper Echelon Perspective, this study is one of the first to uncover entrepreneurial profiles understood as combinations of entrepreneurs' demography and characteristics. It is one of the few studies which uses such profiles as a key factor in explaining small firms' strategic choices in terms of internationalization and/or innovation and to provide a better understanding of the interplay – or the trade-off – between these two growth strategies.

Research Questions/Purpose: Do differentiated entrepreneurial profiles exist in the small firm context? Are these entrepreneurial profiles related to the growth strategy, ie internationalization and innovation, of small firms?

Results/Findings: We outline three entrepreneurial profiles across multiple demographic entrepreneurs' characteristics and relate them to different internationalization and innovation practices: the typical Italian family-led firm, a group of businesses represented by solitary self-made men, and the team-founded firms. The three groups vary in their internationalization and innovation behavior. We also find that the interdependency between innovation and internationalization is more a question of type of innovation (e.g. product vs process) than of degree of novelty (e.g. incremental vs radical).

Theoretical Implications and Recommendations: First, we extend the Upper Echelon perspective which predicts organizational outcomes based on the demographic characteristics and traits of the top management teams to the small, longer established firm and entrepreneurial teams and their internationalization and innovation behavior. Secondly, we add to entrepreneurship studies through shifting attention from the single entrepreneur to entrepreneurial teams. Finally, we add to the discussion on the relationship between innovation and internationalization.

Practical Implications and Recommendations: Entrepreneurs and managers may profit from our findings by identifying and comparing with different entrepreneurs' profiles and associated strategies. This might lead to closing the gap in entrepreneurial competences, and may show routes to improved internationalization and innovations strategies and better performance and growth.

1. Introduction

Be international or be innovative? Be innovative *and* international? Following the logic of the Upper Echelon perspective (UE) this study focuses on the interplay or the potential trade-off between the two strategies and the interrelation of strategy choice with the characteristics of the entrepreneur(s).

Firms develop and grow by launching new products/services (i.e. innovation), by entering new markets (i.e. internationalization) in order to attract new customers or by using a mixed strategy (diversification). Certainly, innovation and internationalization play a vital role in today's competitive business environment and both are considered to be key drivers of firm performance and much extant research points to their mutual interdependency. However, entrepreneurs committed to innovation and internationalization are also subject to considerable risk that can undermine success or even affect the survival of their firms. Innovations, such as new product introductions might fail or yield low profits in the early years and the same holds for international activities, where firms face increased risks associated with the political, social, market, and governmental uncertainty of foreign markets (Acs, Morck, Shaver and Yeung, 1997). Success in innovation and internationalization thus requires both a strong entrepreneurial support and an organization to realize these strategies successfully as Schumpeter (1934) foretold. In a general context of SME resource scarcity (Buckley, 1979), these 'entrepreneurial acts' in the Schumpeterian sense may necessitate a choice - be international, be innovative, be both?

The Upper Echelon perspective (UE) (Hambrick and Mason, 1984) posits that organizations are reflections of their managers. Organizational performance and the choice of strategy therefore depends on the characteristics and profile of the managers. We take this perspective to the small organization context where the high incidence of single or few decision makers makes this influence especially important (Reid, 1981; Reuber and Fischer, 1997). We posit that different types of growth are likely to require different types of entrepreneurs to pursue them (Delmar, Davidsson and Gartner, 2003) and hypothesize that the firm's tendency towards one of the two strategies or a

combination is to a large degree influenced by the entrepreneur(s)' characteristics and their approach towards the two options. Following this line of thought, our framework links the entrepreneur(s)' specific characteristics, such as their background, experience, and the entrepreneurial team composition to the firm's strategy in order to explore why SMEs differ in their strategic approaches, i.e. innovate, internationalize, diversify or remain domestic market centered. Exploring the entrepreneurial profile will add to our understanding of why some entrepreneurs (and ultimately firms), and not others, innovate and/or internationalize. In so doing, we will shed more light on the under explored role of the SME's strategies and on the pivotal role of the entrepreneurs/entrepreneurial team in taking these strategic decisions (Baron and Tang, 2011; Hagen, Zucchella, Cerchiello and De Giovanni, 2012). Our research therefore extends the UE perspective to the small, already established enterprise and unites it with entrepreneurship studies which focus on the central role of the entrepreneur(s). It adds knowledge to extant research through the description of entrepreneurial profiles, archetypal combinations of characteristics, and their potential impact on *alternative* growth strategies.

The remainder of the paper is structured as follows. Section 2 and 3 comprehensively review the literature on entrepreneurship and the existing linkages with innovation and internationalization with a specific focus on small firms. Following this theoretical context, section 4 presents the research methodology and discusses the empirical findings. Section 5 summarizes the findings in the light of extant work and concludes with managerial and research implications and the limitations of the study.

2. Innovation and internationalization in SMEs

Internationalization represents one type of company growth. Another viable option for small firms and new ventures to achieve growth is innovation. These interpretations originate from the work of Ansoff (1965). He suggested four alternative strategies which can be classified along the dimensions of existing and new markets and products. One of these strategies is

internationalization, i.e. a firm actively seeks growth by entering new markets with current products. A second route to growth is innovation, eg. a company actively develops new products/services in order to serve current markets better. These two options are on "intermediate" positioned between domestic market penetration (firms grow with existing products in existing markets) and diversification, which requires a combination of new markets and new products and is the most difficult and complex to implement.

Traditionally, innovation and internationalization tended to be considered as alternative growth options (Ansoff, 1957). In today's competitive landscape, international performance has begun to play an important role for SMEs and innovation has also been identified as a crucial ingredient for small firm success. Innovation and internationalization are increasingly seen as proactive, viable strategies for SME's and viewed as key source of competitive advantage (Onetti and Zucchella, 2008) and characteristics of high-performing SMEs across many countries and industries (OECD, 2002; 2010).

Research documents superior performance characteristics for international firms (size, productivity, technological sophistication, growth etc.) at any given moment and in the same industry (e.g. Bernard and Jensen, 1999; Bernard and Wagner, 1997). Significant differences in levels and growth rates are also reported across a wide range of countries. Accordingly, Wagner (1995) concludes that firm growth and export performance are positively related. Similarly to internationalization, innovation is widely discussed as growth strategy for SMEs (e.g. Hoffman, Parejo, Bessan and Perren, 1998; Wolff and Pett, 2006; O'Regan, Gobadian and Gallear, 2006; Nunes, Serrasqueiro, Leitao, 2012). Scholars consider innovation as a crucial element in achieving competitive advantage. Some surveys indicate that high-growth SMEs are more innovative than non-high-growth SMEs (Hölzl, 2009; Denicolai et al., 2014a). According to Miles and Snow (1978), innovation supports SME's growth by resolving three strategic problems: entrepreneurial, engineering and administrative problems. The solution to the entrepreneurial issue refers to choices about the combination between environmental opportunities and new ideas. The response to the

engineering problem lies in developing appropriate technologies and processes to produce products or services. Thirdly, rationalizing and renewing the organization's structure reduces uncertainty and allows the firm to adapt to turbulent environmental conditions, thus solving the administrative problem.

The debate about the combination of innovation and internationalization and their mutual interdependency is emerging in literature. Some scholars argue that innovation and internationalization are inter-related (eg Onetti, Zucchella, Jones and McDougall, 2012; Cassiman and Golovko, 2011; Golovko and Valentini, 2011; Monreal et al., 2012; Filipescu et al., 2013; Ganotakis and Love, 2011). They argue that both processes are driven and influenced by the exploration and exploitation of new knowledge (Kuemmerle, 2002), which is embedded in a different context (Gereffi and Korzeniewicz 1994; Doz, Santos and Williamson, 2001; Schweizer, 2005; Powell, White, Koput and Owen-Smith, 2005). Support of the interplay of both strategies also derives from research which studies the role of innovation in SME internationalization (Le Roy and Torres, 2000; Musteen and Datta, 2010; Wolff and Pett, 2006), particularly as a catalyst in 'export initiation' (Rees and Edwards, 2010; Higon and Driffield, 2010; Nguyen, Pham, Nguyen and Nguyen, 2008). Pett and Wolff (2009) and Lisboa, Skarmeas and Lages (2011) suggest that the joint effect of internationalization and innovation has a positive relationship with a firm's overall growth and performance. Kohn and Gomes-Casseres (1997) and Coviello and McAuley (1999) go even further by describing innovation as instrumental to SME internationalization. The reverse effect, internationalization which stimulates innovation, is also described in literature (Golokov and Valentini, 2011; Kafouros et al., 2008). Here it is argued that innovation and international activity reinforce each other in a dynamic virtuous circle: participating in foreign markets promotes the firms' learning, and thus enhances innovation. At the same time, through innovation, firms are able to enter new geographical markets with novel and better products, therefore making international activities more successful.

Finally, much of the International New Venture research supports a mutual interdependency of internationalization and innovation. These firms seek "*to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries*" (Oviatt and McDougall, 1994; pp 49) and are seen to build their early, fast and intense internationalization trajectories typically on an innovation-based competitive advantage (eg McDougall et al., 2003; Oviatt and McDougall, 2005; Knight and Cavusgil, 2004).

Notwithstanding raising evidence of more and more small and medium firms participating in international trade and innovation activities, only a minor percentage of the SME universe actually decides to go abroad, to innovate or to combine the two options. Understanding of the entrepreneur(s) and their role in driving the strategies of their ventures thus is important to industrial systems and economies which largely depend on SMEs and their growth.

3. The entrepreneur(s)' as drivers of internationalization and innovation

Along the lines of the Upper Echelon (UE) perspective (Hambrick and Mason, 1984), this paper suggests that research on innovation and internationalization must pay attention to the individual characteristics of the entrepreneur(s). Essentially, the theory posits that organizations are reflections of their managers and that organizational outcomes – strategic choices and performance levels – are partially predicted by managerial background characteristics (Hambrick and Mason, 1984).

In support of the UE, research has pointed to the decision-maker as a principal force behind the initiation, development, sustenance and success of SME internationalization and organizational innovation because of the responsibility for and involvement in the decisions of the firm (e.g. Carpenter and Fredrickson, 2001; Hambrick, Cho and Chen, 1996; Bantel and Jackson, 1989, Wiersema and Bantel, 1992, Aaby and Slater, 1989; Madsen and Servais, 1997; Zucchella et al., 2007).

In SMEs, decision-making power is generally in the hands of one or very few persons. Hence these decisions are strongly influenced by individual-related characteristics, particularly when the small

firm is investigated (Herrmann and Datta, 2005; Tihanyi et al., 2000; Bloodgood, Sapienza and Almeida, 1996; Westhead, Howorth and Cowling, 2002; Reid, 1981). Considering decision-maker characteristics and attributes which account for differences in the way entrepreneurs identify and exploit strategic opportunities, i.e. innovation and internationalization, therefore is critical to understanding their firms' behavior.

Studies in entrepreneurship which follow the Upper Echelon theory focus on the entrepreneur(s) demography and on team characteristics (e.g. age, gender, prior experience, team heterogeneity and diversity; Roberts, 1991; Bates, 2002; Levesque and Minniti, 2006) as predictors of entrepreneurial propensity and actions. Entrepreneurial actions entail creating new resources and combining existing ones in new ways, such as development of new products or entry in new markets (Ireland et al., 2001; Schumpeter, 1934). Also, some authors (eg. Cavusgil, 1980; Reid, 1981; Lim et al., 1991; Ibeh, 2003) have conceptualized internationalization itself as a form of innovation.

Although many decision-maker characteristics proposed by UE might prove worthwhile to study, our focus here is restricted to level of education, previous experience, age and team characteristics as expressed in the number of active founders, the number of family members involved, and first vs multi-generation management. These characteristics mirror the UE perspective in a SME context and they complement the UE by adding "family" variables to team characteristics. Family firms are dominant in the economic landscape and SMEs especially are mainly governed by entrepreneurs and their family.

Experience (Baron, 2004; Davidsson and Honig, 2003) and high education levels/years of schooling (Bates, 1990; Murphy, Shelifer and Vishny, 1991; Roberts, 1991) are human capital characteristics of individuals and team members that relate to cognitive aspects and are helpful to understanding performance (Pennings, Lee and van Witteloostuijn, 1998) and strategic choice. In particular, **education** provides the knowledge base and skills to process information, to execute more complex decision-making (Papadakis and Barwise, 2002) and to improve problem-solving capacity in general (Watson, Steward and BarNir, 2003; Sapienza and Grimm, 1997). Well educated

entrepreneurs can also discriminate between more alternatives to understand environmental and organizational problems and, therefore devise more appropriate responses to complex situations, such as those involved in internationalization and innovation processes (Wiersema and Bantel, 1992; Herrmann and Datta, 2005). A higher level of education has also been associated with values and lifestyles that encourage open-mindedness towards different cultures (Tihany et al., 2000), greater tolerance for ambiguity and greater openness to change and innovation. The **previous experience** that managers accrued by working in other firms, industries or markets is linked to more innovative ideas and to the breadth and variety of perspective these individuals hold in the firm (Tang and Murphy, 2012). Furthermore, team diversity and dynamics (ie demographic factors, personal background and team entry-exit dynamics) positively impacts team performance (Horwitz and Horwitz, 2007; Chowdhury, 2005; Zimmerman, 2008; Cannella, Park and Lee, 2008). Prior work experience provides tacit knowledge to formulate strategy, refine business ideas, and avoid costly mistakes (Duchesnau and Gartner, 1990; Stuart and Abetti, 1987; Barkema and Skyrkov, 2007). In the same vein, Lee and Park (2006), find that teams which include managers with experience in other firms or market have a wider vision of strategic decisions, make use of more information sources and have more differentiated capabilities. Therefore, they tend to make more changes in structure, procedures and people compared to teams whose members have been promoted within the same firm (Hatum and Pettigrew, 2006). A second aspect of previous experience is the one of prior entrepreneurial experience defined as “serial entrepreneurship” (Hall, 1995; Ronstadt, 1982; Presutti, Odorici and Onetti 2008). Under this perspective, entrepreneurship is not always a one-time action (Westhead and Wright, 1998), but it could also consist of different processes in business creation by an entrepreneur who starts several businesses (a serial entrepreneur) before launching a successful business (Hall, 1995; Ronstadt, 1982). Moreover, empirical evidence supports that entrepreneurial startup experience increases the odds of venture success (Dyke, Fisher and Reuber, 1992; Doutriaux and Simyar, 1987).

Family firms generally dominate the economic landscape, especially in the case of SMEs. Consequently, presence and participation of "family" in decision-making processes and entrepreneurial teams has to be considered. Research has underlined the importance of the **entrepreneur's family (business) background**. Family background variables which seem to affect entrepreneurial behavior include parental relationships, and family business history. Decision makers born into business families are more likely to have positive attitudes toward risks, prepared in part by the family's accumulated business experience, including age-old ties and business networks (Miller and Le Breton-Miller, 2005; Gómez-Mejía et al. 2001). Family (business) background can also be a source of previous work experience – another influential personal life experience (Brockhaus, 1980). In the same vein, Zahra (2005) links family ownership and involvement in risk taking attitudes and finds beneficial effects for businesses, provided that the tenure of the CEOs remains limited. This is in line with research expressing concern that, some family firms become resistant to change over time, and follow conservative strategies that limit their future growth and profitability (e.g. Shepherd and Zahra, 2003). In this context, the "generational" aspect is of importance. According to Westhead, Howorth and Cowling (2002), CEOs of first-generation and multi-generation companies were generally drawn from the family owning the company, but multi-generation companies appeared to be better managed than first generation companies. Kellermanns et al. (2008) found that the number of generations the family has been in business is related to entrepreneurial behavior which in turn is positively related to growth. However, research points also to the fact that the older generation may be reluctant to share decision-making power (Kellermanns and Eddelstone, 2004) and to intergenerational differences as a source of conflicts (Joshi, Dencker, Franz and Martocchio, 2010) with negative implications for venture success (Kellermanns and Eddleston, 2004).

Overall, the results suggest that the decision makers cognitive perspectives, as reflected in individual and team demographic characteristics, are linked to the firm's entrepreneurial propensity and entrepreneurial actions, i.e. innovation and internationalization (please see table 1). Their

decisions will depend on experience, diversity, and cognitive resources as indicated by demographic characteristics.

Table 1: Summary of the relevant contributions on the topic

	Literature on the topic	**Specific literature: innovation related issues**	**Specific literature: internationalization related issues**
Entrepreneur(s) demography Age, gender, prior experience (work/entrepreneurial), education, family (business) background	Pennings, Lee and van Witteloostuijn, 1998; Roberts, 1991; Bates, 2002; Levesque and Minniti, 2006; Baron, 2004; Davidsson and Honig, 2003; Duchesnau and Gartner, 1990; Stuart and Abetti, 1987; Hall, 1995; Ronstadt, 1982; Dyke, Fischer and Reuber, 1992; Doutriaux and Simyar, 1987; Bates, 1990; Murphy, Shelifer and Vishny, 1991; Papadakis and Barwise, 2002; Watson, Steward and BarNir, 2003; Sapienza and Grimm, 1997; Presutti, Onetti and Odorici, 2008; Miller and Le Breton-Miller, 2005; Gómez-Mejía et al. 2001; Brockhaus, 1980; Zahra, 2005; Shepherd and Zahra, 2003; Westhead, Howorth and Cowling, 2002; Kellermanns et al., 2008; Kellermanns and Eddelstone, 2004; Joshi, Dencker, Franz and Martocchio, 2010	Wiersema and Bantel, 1992;- Litz and Kleysen, 2001; Tang and Murphy, 2012	Wiersema and Bantel, 1992; Herrmann and Datta, 2005; Tihany et al., 2000; Nielsen and Nielsen, 2011; Reuber and Fischer, 1997; Wickramasekera and Bamberry, 2003; Madsen and Servais, 1997; Zucchella et al., 2007; Cannone et al., 2014
Entrepreneurial team/top management team Team size, dynamics, heterogeneity and diversity, background	Hatum and Pettigrew, 2006; Ucbasaran et al., 2003; Forbes et al., 2006; Horwitz and Horwitz, 2007; Chowdhury, 2005; Zimmerman, 2008; Cannella et al., 2008	Bantel and Jackson, 1989, Wiersema and Bantel, 1992, Amit, Brigham and Markman, 2000; Pisano, 1996; Verona, 1999; Talke et al., 2010	Aaby and Slater, 1989; Sousa, Martinez-Lopez and Coelho, 2008; Wheeler, Ibeh and Dimitratos, 2008, Madsen and Servais, 1997, Zucchella et al., 2007; Barkema and Shvyrkov, 2007; Lee and Park, 2006; Cannone and Ughetto, 2014

Although there is an impressive body of UE research on Top Management Teams and performance issues in large firms (for a review see Carpenter et al., 2004), the perspective has not been applied extensively to the small firm context and its growth strategies. Although the topic of entrepreneurial teams is gaining research interest, the existing literature on entrepreneurial teams mainly focuses on team formation and composition/dynamics (Grandi and Grimaldi, 2003; Ucbasaran et al., 2003;

Forbes et al., 2006). With regard to SMEs established for a longer period, the extant literature is silent on the role of entrepreneurs' profiles as a key driver in setting priorities related to the internationalization and/or the innovation processes (Huse, 2000). Additionally, and importantly, we aim at identifying idiosyncratic entrepreneurial profiles – understood as a combination of multiple characteristics of the founders/founding teams – which originate differentiated internationalization and/or innovation paths.

4. Empirical analysis

The empirical investigation relies on a survey based on structured questionnaires built on extant literature. Data was gathered in 2009 through Computer-Assisted Personal Interviewing (CATI), which was designed and led by the authors of this study. It addresses the founder/manager or the most knowledgeable person of the firm's strategy. Theoretical framework and focus groups involving practitioners, researchers and entrepreneurs led to the design of the questions. After a description of the empirical model, this section describes the sample and introduces the main findings.

4.1. Empirical framework and variables

Table 2 outlines the variables of our empirical framework. The analytical procedure runs a cluster analysis on variables which depict the entrepreneurial profile as described in section 3. In particular, we explored the composition of entrepreneurial team in terms of number of active founders and family members, the founder(s)' age, the education level (from primary school to PhD), prior experience (first occupation, experience, experience as a manager, entrepreneur etc) and variety of prior experiences (first occupation, prior experiences in other firms, prior experiences as entrepreneur etc.), and the generational turnover.

The study of the link between entrepreneurial profiles on both firm innovation and internationalization is our second research objective and it serves the purpose of cluster validation.

If the emerging entrepreneurial profiles are significantly different, then differentiated characteristics in terms of innovation and/or internationalisation should be observable.

Firm profile, industry and proxies regarding the performance are taken into account as control variables.

Table 2. Variables of the Empirical model: control variables, entrepreneurial profile, validation of clusters (internationalization and innovation).

Control Variables (firm level)	
▪ Firm Size, in terms of employees ▪ Industry ▪ Performance(a): Increase of turnover over year (%) ▪ Performance(b): Performance evaluation (range: 0-3)	
Entrepreneurial Profile (individual/team level)	
▪ N° of Founders ▪ Family members ▪ Entrepreneur(s) age ▪ Education of founder(s): ▪ University / PhD ▪ Graduates ▪ Primary/secondary ▪ Background of founder(s) ▪ Current.1st_occup ▪ Prior occupation as entrepreneur ▪ Prior occupation as employees ▪ Background ▪ Same industry ▪ Diverse industries ▪ 1st generation (dummy variable)	
Strategy variables - Validation of Clusters (firm level)	
(a) Internationalization	**(b) Innovation**
▪ Export Intensity (%) ▪ International activity towards emerging markets (dummy variable) ▪ International activity not only in Europe (dummy variable) ▪ Global firms (dummy variable)	▪ Product innovation: radically new products/services (dummy variable) ▪ Process innovation: significant renewal of internal processes (dummy variable) ▪ Organizational innovation: significant renewal of organizational structure and business model (dummy variable) ▪ Marketing innovation: innovative solutions at sales/marketing level (dummy variable) ▪ R&D intensity (% of revenue)

Measures of Internationalisation

Internationalization is a multidimensional process dealing with a wide range of decisions and much scientific debate has been devoted to the problem of measurement and the operationalisation of international performance (Pangarkar, 2008; Sousa, 2004; Sousa, Martinez-Lopez and Coelho, 2008; Wheeler, Ibeh and Dimitratos, 2008; Denicolai et al., 2014c). Accordingly a range of internationalization variables are considered in order to measure different types of international behavior by: (1) extent; (2) width, or scope. For the purposes of the present research, internationalization has been considered in terms of two distinct variables: 'export intensity' and 'export scope', both reflecting the extent of the firm's internationalization (Sullivan, 1994; Ciravegna et al., 2014). Our sample of firms are mainly exporters, consistent with extant studies in the field (Mittelestaedt, Harben and Ward, 2003; Leonidou, Katsikeas, Palihawadana and Spyropoulou, 2007).

According to Bonaccorsi (1992) and Calof (1994), 'Export Intensity' is measured with the ratio of the firm's foreign to total sales. It is considered a typical measure of the degree of internationalization (Shoham, 1998). Although this measure has been subject to some criticism (Katsikeas, Leonidou, Morgan, 2002), we argue that it remains reliable, especially since this variable is by far the most widely used indicator in IB literature. Moreover, it allows comparison of results with large number of similar studies (Lommelen, Matthyssens and Pauwels, 2001; Madsen and Servais, 1997).

The survey investigates the 'Scope' as a second major dimension of the internationalization behavior. Our measuring scope involves two perspectives: the number of markets and the types of countries a firm may select. Studying the type of markets is relevant since the more different the countries into which the firm is expanding, the more entrepreneurial the nature of international expansion. The construct of the geographical scope - or export diversity - is measured in terms of number of geographical regions served. In our study, the geographical regions considered are: the EU region, Russia, Asia, USA, South America, Africa, and the rest of the world. Several studies

demonstrate a positive relation between geographical diversity, or scope and export profitability and used a similar method (Piercy, 1981; Delios and Beamish, 1999; McDougal and Oviatt, 1996).

Measures of Innovation

First, this study considers the R&D intensity, operationalized as the percentage of the total sales. A number of scholars used this measure for the appraisal of the firm effort towards innovation (McGuinness, 1981; Hirsch and Bijaoui, 1985).

In terms of outcomes, the innovative vein of SMEs may embrace different types, not only the commercial offering of product or services (Oke, Burke and Myers, 2007). The renewing of ways the firm operates along its value chain is also fundamental (Ettlie and Reza, 1992). A significant improvement of internal processes can stretch resources, may help in achieving optimal size, facilitate learning processes, and so on (Wolff and Pett, 2006). Our survey considers four basic types of innovation:

- radically new products/services (Freel, 2005; Dibrell, Davis and Craig, 2008);
- significant renewal of internal processes (Freel, 2005; Dibrell et al., 2008);
- significant renewal of organizational structure and business model (Ettlie and Reza, 1992; Freel, 2005; Onetti et al., 2012; Denicolai et al., 2014b);
- innovative solutions at the sales/marketing level (Lynn, Morone and Paulson, 1996).

Control variables: Firm Size, Industry and Performance

We include some control variables, i.e. industry and firm size in terms of number of employees. We also introduced two measures concerning the firm's performance. Although not a core issue in this study, we argue the importance of gathering this kind of evidence. In such a context, the firm growth in terms of sales is the first proxy for performance. Scholars argue that this is a consistent indicator for entrepreneurship (Jarillo, 1989), innovation (Helfat, 2007) and internationalization (Sapienza, Autio, George and Zahra, 2006). Especially in the case of SMEs, where performance may be volatile due to unforeseen events and periods of crisis, growth as a dynamic variable is

crucial. We also introduce the satisfaction of the entrepreneur regarding firm results. Both indicators are subjective measures. In this way we account for the difficulty of obtaining objective financial data (i.e. ROI, ROE) and for the heterogeneity of small firms and their industries. Subjective measures introduce some kind of normalization of the considered variables so that comparisons become meaningful (Bernardino and Jones, 2008). Additionally, the usefulness of subjective measures is underlined by the fact that the objective and subjective measures are found to be closely related (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986).

4.2. Sample

The sample consists of small firms - less than 50 employees - operating in different industries in Lombardy. This region is well known as the strongest economic area in Italy - and still one of the strongest in Europe - especially due to the fact that it shows, simultaneously, significant activities in terms of entrepreneurship, innovation, and internationalization (OECD, 2012).

First, began the gathering of data from the official database called 'Infocamere', developed by the Union of Italian Chambers of Commerce ('UnionCamere'). At this stage, we considered *all* the 573,558 companies operating in Lombardy at the date of 1.1.2009. As a second step we retained only small firms [2] and we excluded some idiosyncratic industries, such as mining, utilities, public administration. This selection left a sample of 555,804 firms (see table 3). We investigated only small firms consistent with the structure of the initial sample (96.9% of companies in Lombardy are small firms) in order to focus on organizational contexts where the role of the entrepreneurial characteristics is particularly impacting, as a fundamental feature in order to appraise the association between the latter and the growth strategy of the firm.

[2] Definition of SME acknowledged by the EU Commission Recommendation 2003/361/EC (6 May 2003). It defines micro, small and medium company on the respective bases of headcount, turnover or balance sheet total.

Tab. 3. Small Firms operating in Lombardy: provinces and industries (2009). [3]

	BG	BS	CO	CR	LC	LO	MB	MI	MN	PV	SO	VA	Total
A: Agriculture, Forestry And Fishing	5560	12163	2901	4873	798	563	2110	4170	9333	8087	3169	2231	55958
D: Manufacturing	13273	17660	9704	3841	3324	1192	17647	31914	5499	5939	1730	12377	124100
F: Construction	20407	18999	10012	5494	3712	2463	18706	33043	7452	8964	2791	13688	145731
G: Wholesale & Retail	2493	3305	1684	797	522	238	2709	5662	1191	1211	509	1935	22256
I: Trasportation, Storage & Communication	2746	3649	1787	1011	594	381	4282	14001	1208	1531	576	2141	33907
K: Financial And Insurance Activities	12316	14959	7663	2912	2976	1597	16706	61685	3431	4442	1275	10573	140535
O: Public Administration &Defence;	3603	4369	2022	1180	750	408	3884	9982	1517	1872	589	3141	33317
Total	60398	75104	35773	20108	12676	6842	66044	160457	29631	32046	10639	46086	555804

Tab. 4. Number of Questionnaires by provinces and industries (percentage distributions in brackets)

	BG	BS	CO	CR	LC	LO	MB	MI	MN	PV	SO	VA	Total
A: Agriculture, Forestry And Fishing	4 (1.32%)	6 (1.97%)	2 (0.66%)	2 (0.66%)	0 (0%)	0 (0%)	2 (0.66%)	2 (0.66%)	6 (1.97%)	4 (1.32%)	2 (0.66%)	2 (0.66%)	*32 (10.53%)*
D: Manufacturing	8 (2.63%)	10 (3.29%)	6 (1.97%)	2 (0.66%)	2 (0.66%)	0 (0%)	10 (3.29%)	18 (5.92%)	2 (0.66%)	4 (1.32%)	0 (0%)	6 (1.97%)	*68 (22.37%)*
F: Construction	12 (3.95%)	11 (3.62%)	6 (1.97%)	2 (0.66%)	2 (0.66%)	2 (0.66%)	10 (3.29%)	18 (5.92%)	5 (1.64%)	4 (1.32%)	2 (0.66%)	8 (2.63%)	*82 (26.97%)*
G: Wholesale & Retail	2 (0.66%)	2 (0.66%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0.66%)	4 (1.32%)	0 (0%)	0 (0%)	0 (0%)	2 (0.66%)	*12 (3.95%)*
I: Trasportation, Storage & Communication	2 (0.66%)	2 (0.66%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0.66%)	8 (2.63%)	0 (0%)	0 (0%)	0 (0%)	2 (0.66%)	*16 (5.26%)*
K: Financial And Insurance Activities	6 (1.97%)	8 (2.63%)	4 (1.32%)	2 (0.66%)	2 (0.66%)	0 (0%)	10 (3.29%)	34 (11.2%)	2 (0.66%)	2 (0.66%)	0 (0%)	6 (1.97%)	*76 (25.00%)*
O: Public Administration &Defence;	2 (0.66%)	2 (0.66%)	2 (0.66%)	0 (0%)	0 (0%)	0 (0%)	2 (0.66%)	6 (1.97%)	0 (0%)	2 (0.66%)	0 0%)	2 (0.66%)	*18 (5.92%)*
Total	*36 (11.8%)*	*41 (13.5%)*	*20 (6.6%)*	*8 (2.6%)*	*6 (2.0%)*	*2 (0.7%)*	*38 (12.5%)*	*90 (29.6%)*	*15 (4.9%)*	*16 (5.3%)*	*4 (1.3%)*	*28 (9.2%)*	304 (100%)

[3] Columns refer to the nine districts of the Lombardy region, meaning: BG-Bergamo; BS-Brescia; CO-Como; CR-Cremona; LC-Lecco; LO-Lodi; MB-Monza Brianza; MI-Milano; MN-Mantova; PV-Pavia; SO-Sondrio; VA-Varese.

In the third step we started the CATI survey, working on a balanced sample of 1,000 companies operating in Lombardy. At the end of this stage we report 304 questionnaires as shown in Table 4. Finally we excluded 2 outliers, so the final sample consists of 302 questionnaires.

Unfortunately, but in line with statistical data on SME internationalization, only 14.5% of these 302 firms show some international activities. On a positive note, usually the percentage of small firms - less than 50 employees - with some international activities tends to be lower than 14.5%, thus supporting that Lombardy is a very good field of research for this kind of study.

However, with such a structure the preliminary cluster analysis isolated the international firms (44 in total) as a dominant cluster. This condition hid the variety of entrepreneurial profiles since it splits the sample in only two groups: domestic vs internationally oriented entrepreneurs. Literature suggests that though the solution based on two clusters is statistically acceptable and plausible, researchers have to find out how to outline an higher number of groups, to exploit the potential of the cluster analysis procedure (Kettenring, 2006; Girish and Stewart, 1983). Therefore we created a sub-sample composed by 88 SMES: the 44 international companies plus other 44 domestic firms randomly chosen among the other 214, by implementing a procedure which takes care of maintaining a representative unbiased sample. In doing so, now the final sample consists of international and domestic organizations in the same portion. The goal is to avoid driving the cluster algorithm with a single variable. The selection procedure takes into consideration the main variables of the firm profile, meaning: size, and industry. Moreover, the sample is also balanced in terms of types of innovation. 88 is the number that maximizes the size of the sample according to the above mentioned criteria. The random selection was repeated many times until we obtained a new sample showing a very similar structure compared to the initial one (see table 5).

Table 5. Initial Sample and balanced sample.

	Overall sample (302)	Sub-sample (88)
International firms	44	44
Domestic firms	258	44
Firm Age (average – years)	26,0	27,3
Employees (average)	13,4	12,9
Industry 1 Agriculture, forestry and fishing	2,3%	2,3%
Industry 2 Manufacturing	45,5%	45,5%
Industry 3 Construction	6,8%	6,8%
Industry 4 Wholesale and retail trade;	2,3%	2,3%
Industry 5 Transportation, storage and communication	11,4%	11,4%
Industry 6 Financial and insurance activities	22,7%	22,7%
Industry 7 Public administration and defence	9,1%	9,1%

An Anova analysis has been used to stop the selection procedure when the similarity among initial and final sample became statistically acceptable. Other surveys concerning similar topics adopted this procedure (Barringer et al., 2005).

4.3. Findings: Analytical procedure and cluster specification

The analytical procedure consisted of three main stages: identify the number of clusters through a hierarchical model, identify cluster features and assign observations (firms) to each one, assess the stability of the cluster solution (Stock and Zacharias, 2011). The statistic algorithm adopted in the cluster analysis is the Schwarz Bayesian Criterion. It was chosen on the basis of a series of tests and in accordance to the type of variables used in the survey. The entrepreneurial variables feed this procedure. Parameters in tables 6 and 7 highlight that the solution based on three clusters is statistically significant. After the identification of the number of clusters, the k-means procedure grouped the 88 firms of the sample into three groups.

Table 6. Clustering procedure and significance levels.

Number of Clusters	Schwarz's Bayesian Criterion	BIC Change	Ratio of BIC Changes	Ratio of Distance Measures
1	2395.154			
2	2264.024	-131.131	1.000	1.491
3	2251.015	-13.009	0.099	1.303
4	2294.049	43.034	-0.328	1.567
5	2404.910	109.862	-0.838	1.022
6	2516.320	112.410	-1.030	1.245

Table 7. Distances between Cluster Centers.

	1	2	3
1		17.133	26.465
2	17.133		25.904
3	26.465	25.904	

Table 8 shows descriptive statistics - distribution and control variables - for each cluster, namely: distribution of clusters, firm size, industry, and performance. The composition of each group is quite similar to the sample as a whole, except for cluster 3 which reports a significantly higher density of IT ventures, relatively larger organizations, and - above all - better performance. This is consistent with findings of our study (see below).

Tables 9, 10 and 11 show the features of the three clusters in terms of entrepreneurial profile, international and innovative activities. In particular, in tables 9 and 10, the matrix cells report the mean values (descriptive statistics) corresponding to all variables of the research model (lines) and by distinguishing among the three cluster (columns). Table 9 reports the outcomes in terms of entrepreneurial profiles (backbone of the cluster analysis), whilst the table 10 highlights the characteristics of each cluster in terms of internationalization, innovation activities. Differences among clusters are remarkable, not only in terms of entrepreneurial characteristics – as already shown by statistical indicators in – but also in terms of innovation and internationalization, thus confirming the reliability of findings. Finally, Table 11 sums up the main evidences taken together.

Table 8. Clusters: distribution and control variables.

	C1	C2	C3	*Whole Sample*
Cluster distribution (excluding cases = 1,2%)	*53.4%*	*31.8%*	*13.6%*	*100.0%*
Firm Size (Number of Employees)	8.9	11.0	34.6	*12.9*
Industries:				
Manufacturing	44.7%	50.0%	33.3%	*45.5%*
IT	21.3%	14.3%	50.0%	*22.7%*
Firm services (e.g. trasportation, logistics)	10.6%	14.3%	8.3%	*11.4%*
Social and Personal Services	10.6%	7.1%	8.3%	*9.1%*
Others	12.8%	14.3%	0.0%	*11.4%*
Performance:				
Increase of turnover over year (% of firms which experienced a growth in the previous year)	65.9%	64.3%	78.8%	*69.3%*
Performance evaluation (range: 0-3)	2.22	2.00	2.25	*2.14*

Table 9. Entrepreneurial Profiles within the three clusters

	C1: Freshmen	C2: Self-Made Man	C3: Smart Entrepreneur(s)
N° of Founders	2.28	1.82	3.42
Family members	0.94	0.68	0.58
Entrepreneur(s) age	47.4	64.4	53.6
Education of founder(s)			
University / PhD	25.0%	13.6%	44.7%
Graduates	61.1%	47.7%	34.6%
Primary/secondary	13.9%	38.6%	20.7%
Background of founder(s)			
Current.1st_occup (%)	41.5%	15.2%	12.1%
Prior occupation as entrepreneur	10.6%	15.2%	3.0%
Prior occupation as employees	47.9%	69.6%	84.8%
Background			
Same industry	0.05	0.06	0.11
Diverse industries	0.10	0.13	0.00
1st generation (% of firms)	46.8%	71.4%	58.3%

Table 10. Internationalization and Innovation - Validation of Clusters:

		C1: Freshmen	C2: Self-Made Man	C3: Smart Entrepreneur(s)
Internationalization	International firms (% of total)	40.4%	64.3%	58.3%
	Export Intensity (average %)	18.0%	26.8%	33.3%
	Export Intensity (% of firms with some international activities)	44.6%	41.7%	57.1%
	Firms operating in emerging /trans. countries (% of firms)	6.4%	7.1%	33.3%
	Firms operating beyond Europe (% of firms)	14.9%	17.9%	41.7%
	Global firms (% of firms)	8.5%	7.1%	25.0%
Innovation	Product innovation (% of firms)	25.53%	21.43%	0.00%
	Process innovation (% of firms)	27.66%	35.71%	25.00%
	Organizational innovation (% of firms)	8.51%	7.14%	25.00%
	Marketing innovation (% of firms)	31.91%	17.86%	58.33%
	R&D (% of firm with some activity)	19.15%	14.29%	25.00%
	R&D intensity (% of revenue)	1.96%	1.29%	0.92%

Table 11. Entrepreneurial profiles: summary

	C1: The Freshmen (53,4%)	C2: Self-Made Man (31,8%)	C3: Smart Entrepreneur(s) (13,6%)
Firm profile	Young and small	Old	Medium-sized
Entrepreneurial profile	Family business; First occupation; Younger	One-man-business; Limited education (primary or secondary school); Some prior experiences as entrepreneur in diverse industries	Entrepreneurial team; high education; Prior experiences in other firms, same industry
Internationalization	Low degrees of internationalization	Medium degrees of internationalization; Narrow scope	Relatively high intensity and broad scope; Focus on emerging market
Innovation activity	Focus on new products	Focus on both new products and new processes	Focus on innovative business models (marketing, revenue model, organization)

The remaining part of this section discusses the features of the clusters. The first one – named "Freshmen" – largely outlines the stereotype of the traditional Italian firm. Firms led by this kind of entrepreneur are small, or even micro, enterprises, where family members are the main players. Frequently the venture is driven by young, inexperienced people who seem to be supported by older family members. It is their first occupation and this is coherent with a lack of previous experience that is characterizing this cluster. Nevertheless, he/she is not the founder. Unsurprisingly this group shows the highest number of family members. Typical features of the so-called 'young entrepreneur' (Lewis and Massey, 2003; Schoof, 2006) are not noticed. By contrast, it is likely that 'Freshman' is affected by organizational constraints and path dependence due to the strong family board and the long history of the firm (Shepherd and Zahra, 2003). In terms of innovation, the focus is on development and exploitation of new products, mainly in the domestic market. Apparently, the growth strategy is weak or at least fairly ambiguous.

The second entrepreneurial profile delineates an older, solitary, 'Self-made man'. Their professional background embraces prior experiences in diverse industries and entrepreneurs in this cluster frequently are serial in founding businesses. They seem to use a trial and error strategy, learning from their prior experience in previous businesses and in many industries. He/she has a more advanced culture of innovation, where the discovery of a new product leads also to the renewal of processes. This is consistent with prior research, which argues the relation between experience, serial entrepreneurs and innovation (Pennings, Lee and van Witteloostuijn, 1998; Bantel and Jackson, 1989). Usually this cluster is a well-established company with a medium to high export intensity. Firms led by the 'Self-Made-Man' are relatively intensive internationalizers which could be interpreted as the result of leveraging their new processes/products on foreign markets. Put together, these characteristics suggest a strong leadership with a clear vision of the future. This configuration supports the mainstream literature showing that individual antecedents such as age, education, background, and prior experience are related with export performance (Simpson and Kujawa, 1974; Langston and Teas, 1976; Mayer and Flynn, 1973).

Finally, the third cluster – "Smart Entrepreneur(s) (SE)" – suggests the emergence of a new type of entrepreneurs in the contemporary scenario. This new venture is a joint initiative led by a entrepreneurial team composed by 3 or 4 founders (on average) with high education. They share prior experiences as employees in other firms, often in the same industry. The organizations managed by SEs are global and bigger compared to the other two clusters. They show a significant export intensity, focused above all on emerging markets. Innovation is more oriented towards the discovery of market opportunities, alternative marketing strategies, novel organizational patterns, indicative of innovative business models. The businesses in this cluster simultaneously implement innovation and internationalization to achieve growth, therefore it is unsurprising that the SE frequently operates in the IT sector. This third cluster shows relatively new features, only poorly discussed - in their combination - by the extant literature. We also provide evidence that a founding team with diversified experience supports a more diversified growth strategy, which embeds both innovation and internationalization thanks to the combination of differing types of knowledge and differing intra-team perspectives of many founders (Colombo and Grilli, 2005; Lipparini and Sobrero, 1994).

According to these profiles, some general considerations in relation to internationalization innovation, and performance emerge.

Internationalization. The degree of internationalization is significantly different among the three groups: the first cluster (led by Freshmen) is mainly domestic. The second group (led by the self-made man) shows a medium export intensity with limited geographic scope. The last cluster (led by SEs) is a truly international one, showing high export intensity and being broad in scope. These findings strongly support the upper echelon perspective: strategic decisions regarding internationalization processes are made by individuals, hence these are strongly influenced by individual- or team-related characteristics (Bloodgood, Sapienza and Almeida, 1996; Westhead, Howorth and Cowling, 2002; Eckhardt and Shane, 2003).

Innovation. This area shows an intriguing finding. The intensity of innovation is fairly similar across the three clusters, while the innovation type varies. Data in table 8 supports that this is not a industry-specific factor: it is the entrepreneurial profile which has a relevant merit in explaining this outcome. As mentioned above, the Freshmen group shows a higher number of firms with some R&D activities and tends to concentrate on the development of new products. In the second Self-made man group both the product and process innovations are coupled. Prior studies argue that such strategy leads to better market outcomes (Tatikonda and Montoya-Weiss, 2001). Our findings support this statement in terms of medium/high export intensity. The Smart Entrepreneur(s) cluster focuses on 'doing things differently' in terms of marketing, doing business and organizational practices.

Growth and Satisfaction with Firm Performance. The third group – international firms based on innovative business models and led by an entrepreneurial team – seems to show the strongest growth and the highest satisfaction with performance, but these findings need further investigation in order to be confirmed. Previous studies also support that firms founded by teams are more successful than those founded by individuals (Mayer, Heinzel and Raymund Müller, 1989; Timmons, 1990; Kamm, Shuman, Seeger and Nurick, 1990).

4.4. Robustness check

We ran an exploratory regression analysis as robustness check, in order to validate our clusters. The goal is to verify if the configurations of features grouped together by the three clusters have indeed a higher explanatory power than the individual variables taken alone. So we created three dummy variables related to the three clusters. The software SPSS defined the cluster membership for each observation. Similar procedures have been already used and accepted in management studies (e.g. Flynn et al., 2010; Cantwell and Janne, 1999; Davis and Schul, 1993).

First, we investigated the influence of individual variables on the internationalization of the firm. Here we chose the export intensity as dependent variable: since it is continuous, this solution allows

the preservation of variance and richness of data. We used a Tobit Regression at this stage since 44 observations are domestic firms (Export Intensity=0%). Table 12 reports the findings.

Table 12. Explorative Regressions

	INTERNATIONALIZATION		INNOVATION		
	Model 1A	Model 1B	Model 2A	Model 2B	Model 2C
Dependent Variabale	Export Intensity	Export Intensity	Product innovation (dummy)	Both Process & Product Innovation (dummy)	Business Model Innovation (Dummy)
_cons	59.862 (41.4)	154.864 (49.203)***	-0.424 (3.072)	5.431 (3.151) *	-8.363 (4.843) *
N° of founders	2.091 (8.474)	0.063 (8.01)	-0.173 (0.501)	0.261 (0.414)	0.536 (0.452)
Family Business	-7.428 (5.666)	-5.16 (5.366)	-0.345 (0.285)	0.64 (0.303) **	-0.851 (0.657)
First Generation	5.009 (14.284)	2.526 (13.384)	-1.061 (0.677)	-2.509 (0.751) ***	-0.119 (0.977)
Founder's Age	-0.574 (0.657)	-2.843 (0.956)	0.004 (0.048)	-0.11 (0.054) **	0.092 (0.069)
Education: University	-1.322 (5.836)	-1.408 (5.876)	-1.305 (0.847)	-0.26 (0.255)	-0.294 (0.528)
Education: Graduate	-2.943 (6.768)	1.893 (6.619)	0.287 (0.334)	0.676 (0.39) *	0.257 (0.498)
Background: First Job	-11.847 (10.201)	-11.47 (9.516)	-0.289 (0.574)	-0.588 (0.507)	-0.508 (0.617)
Background: Serial Entrepreneur	-9.337 (12.946)	-12.761 (12.215)	0.022 (0.658)	-0.03 (0.6)	-0.007 (0.703)
Background: Employee in other companies	-12.732 (9.5)	-14.335 (8.928)	-0.077 (0.535)	-0.605 (0.525)	-0.776 (0.533)
CL1: The FreshMan		(omitted)	0.59 (1.259)	0.16 (1.07)	1.652 (1.615)
CL2: SelfMadeMan		65.343 (20.43) ***	0.128 (1.349)	3.011 (1.409) **	(omitted)
CL3: Smart SME		52.136 (19.67) **	(omitted)	(omitted)	2.69 (1.46) *
N. Observ	87	87	87	87	87
LR chi2	8.78	21.52	11.19	41.84	10.68
Prob > chi2	0.4576	0.0284	0.4277	0.0000	0.4705
Pseudo R2	0.0164	0.0401	0.1225	0.3485	0.1845

** denotes that the regression coefficient is significant at the 10% level; ** at the 5% level; and *** at the 1% level.*

The models '1a' and '1b' compare what happens when removing (1A), and including (1B) the cluster dummies. The result shows that none of the individual variables is significant in affecting export intensity (see Model 1A). Nevertheless, the coefficients of both Cluster 2 and 3 are strongly

significant in the Model 1B, supporting that the idiosyncratic combination of many features - which outlines a particular entrepreneurial profile (cluster) - has a higher explanatory power than just one attribute in affecting the international performance.

Second, we replicated a similar analysis by using the three types of innovation activity as dependent variable (Models 2A, 2B and 2C):

- Product Innovation (2A): this variable is already defined and studied above;
- Process & Product Innovation (2B): this variable is equal to 1 if both "Product innovation" and "Process innovation" (in the innovation section) are = 1, and set 0 otherwise;
- Business Model Innovation (2C): this variable is equal to 1 if both "Organizational Innovation" and "Marketing innovation" (in the innovation orientation section) are = 1, and set to 0 otherwise.

These three innovation focuses are the ones that characterize the clusters above mentioned, thus we can validate their reliability. Here we ran Logit regressions according to the nature of these three dependent variables (dummies). Once again, the relevance of individual variables is poor, whilst the coefficients of the cluster dummies are strongly significant. Findings outlined by models 2B and 2C are consistent with the outcome of the cluster analysis (section 4.3). Indeed, the entrepreneurial profile 2 called ' Self Made Man' affects the innovation activity by simultaneously supporting both product- and process-based kinds of renewal (Model 2B). Moreover, the combination of features called SE is significant to the business model innovation (Model 2C). Model 2A shows uncertain results: none of the variables - not individual ones, neither the cluster dummies - influence the product-based innovation activity. In other words, the innovation activity of the "Freshman" (cluster 1) needs further analysis to be validated. However, we already discussed that this cluster is associated to a sort of 'non-strategy', pursed by young and mainly domestic ventures, likely based on a weak managerial culture which ignores more sophisticated forms of innovation, over the product one. This consideration may explain the uncertain outcome for Model 2A.

In summary, these exploratory regressions overall confirm the key findings of the core analysis proposed in section 4.3 (cluster analysis) and support the conclusion that it is the combination of multiple factors that enhance the role of entrepreneurial variables in affecting the growth strategy in small firms.

5. Discussion and conclusion

This study sheds new light on the debate regarding the influence of the entrepreneurs' profile on growth strategies, i.e. internationalization and innovation, in small firms. We depart from the hypothesis that the entrepreneurs' background and team characteristics combine to differentiated entrepreneurial profiles and originate correspondingly differentiated strategic entrepreneurial behaviors.

While extant research in various streams has pointed to the importance of such characteristics to managerial cognition and decision-making, *combinations* of entrepreneurs' characteristics, i.e. entrepreneurial profiles, are missing. Following our hypothesis that different entrepreneurial profiles are associated with different strategic choices we have considered *alternative* growth strategies, ie innovation and/or internationalization in our study, needed to deepen understanding of small firm strategy. We used a cluster analysis to preserve the richness of this entrepreneurial profile and to reveal 'hidden' structures consisting of combinations and interactions among the many variables, remitting the study of causal relations among them to further study.

Findings are intriguing: first, we uncover three idiosyncratic entrepreneurial profiles as expressed in combinations of demographic entrepreneurs' characteristics (e.g. number of founders, prior experience, education). We portray the typical Italian family-led firm, a group of businesses represented by solitary self-made men, and the team-founded firms.

Second, the different profiles give rise to different innovation and/or internationalization practice. Small firms, and their entrepreneurs', are far from being all the same. This finding is important to SME research which might start to study firms under a holistic view (Rialp et al., 2010, Hagen et

al., 2012; Hagen and Zucchella, 2014) and seek archetypal patterns in the display of profiles and strategies more than assuming that relations hold across all firms. With our study we also validate the UE in a small firm universe. The UE lens adds to the findings on the importance of the entrepreneurs in extant international entrepreneurship and small firm studies which, however, predominantly use subjective scales to measure orientations and attitude or single indicators of demography. Of particular interest to international entrepreneurship research is the fact that our entrepreneurial profiles impact differently on internationalization behavior, a fact which might explain the mixed evidence regarding the influence of experience, education etc. on fast and early internationalization found in previous research.

Third, we find that the interdependency between innovation and internationalization - complementary or alternative growth strategies? - should be investigated under a different perspective as compared to the mainstream literature. Our findings reveal that this association is more than a question of 'intensity': the start and the magnitude of international activity seems to be related to the *type* of innovation, much more that to R&D intensity or other measures of novelty (e.g. incremental vs radical). When looking at our clusters, the focus on 'new products' is predominantly related to domestic firms, the combination of 'product and process innovation' is associated with a medium export intensity and narrow geographic scope, while the firms based on 'business model innovation' are the most intensive and the most global internationalizers.

These patterns therefore support the idea that differentiated entrepreneurial profiles are associated with diverse entrepreneurial orientation and are critical to entrepreneurial activity: in our sample, firms based on 'family' characteristics are the most limited in terms of innovation and internationalization, serial and industry experience of solitary founders leads to an intermediate level of internationalization and innovation (process-and product-innovation) while the team founded firms combine intensive and global internationalizers with the widest set of innovation (i.e. marketing, process and business model innovation).

Our results thus add to extant knowledge in three ways: firstly, we extend the UE perspective which predicts organizational outcomes based on the demographic characteristics and traits of the top management teams (Hambrick and Mason, 1984) to the small, longer established firm and entrepreneurial teams. Although the perspective has been used extensively in large organizations, this does not automatically validate it for the small firm context. We go beyond the discussion of single entrepreneurs' characteristics to idiosyncratic combinations and entrepreneurial profiles and study their relation with *alternative* growth strategies, where previous evidence is extremely scarce (Carpenter et al., 2004; Nielsen and Nielsen, 2011). Based on our empirical evidence, we posit that these profiles determine differentiated strategic choices and growth paths. Secondly, byshifting attention from the single entrepreneur to entrepreneurial teams we add to entrepreneurship studies, where extant knowledge is limited and mainly focused on team dynamics and composition. Thirdly, we add to the discussion on the relationship between innovation and internationalization. Generally, we agree with scholars who argue that these are the two sides of the same coin. However, based on our empirical evidence we conjecture that consideration on the type of innovation would enrich the discussion regarding the mutual relationships between firm internationalization and innovation and clarify much of the conflicting findings.

The results have important implications for policy makers and entrepreneurs alike. Policies supporting innovation and internationalization should be linked. It is also advisable to design policy support measures that consider the idiosyncratic entrepreneurial profiles in order to stimulate the 'right type' of support measures. For instance, if the aim is to increase the international expansion of the 'Freshmen' type of SMEs, whose focus is domestic, then policy makers should point to external management advice and develop initiatives aimed at explaining different types of innovation.

Entrepreneurs and managers may profit from our findings by identifying and comparing entrepreneurs' profiles and associated strategies. This might lead to closing the gap in entrepreneurial competences, but also may illustrate alternative strategies which lead to better

performance and growth. Our findings clearly show that the entrepreneurial profile is critical to the choice and implementation of complex strategies such as innovation and internationalization.

This research also has some limitations which offer opportunities for future research. First of all, further studies might confirm our findings on larger samples and cross-country data. Second, the same analysis could be repeated with a sample of strongly internationalized/innovative firms in order to validate the findings. Third, moving from the above discussed assumptions, the investigation of causal relations between entrepreneurial profiles - as combinations of multiple indicators which tend to outline few recurrent configurations - and internationalization and innovation would be fruitful. In particular, it would be interesting to study whether the types of innovation vary with the different degrees of internationalization, and *viceversa*.

References

Aaby N, Slater SF (1989) Management Influences of Export Performance: A Review of the Empirical Literature 1978-1988. Int Market Rev 6 (4):7-26

Acs ZJ, Morck R, Shaver JM, Yeung B (1997) The Internationalization of Small and Medium-Sized Enterprises: A Policy Perspective. Small Bus Econ 9: 7–20

Amit RH, Brigham K, Markman GD (2000) Entrepreneurial management as strategy. In Meyer GD, Heppard KA (Eds.) Entrepreneurship as strategy. Sage Publications, Thousands Oaks, CA, pp. 83–99

Ansoff HI (1957) Strategies for diversification. Harvard Bus Rev 35(2): 113-124

Ansoff HI (1965) Corporate strategy. McGraw-Hill, New York

Bantel KA, Jackson SE (1989) Top management and innovations in banking: Does the composition of the top team make a difference?. Strategic Manage J 10: 107–124

Barkema HG, Shvyrkov O (2007) Does top management team diversity promote or hamper foreign expansion?. Strat Mgmt J 28: 663–680

Baron RA (2004) The cognitive perspective: A valuable tool for analysing entrepreneurship's basic «Why» Questions. J Bus Venturing 19(2): 221-239

Baron RA, Tang J (2011) The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamics. J Bus Venturing 26(1): 49–60

Barringer BR, Jones FF, Neubaum DO (2005) A quantitative content analysis of the characteristics of rapid-growth firms and their founders. J Bus Venturing 20: 663–687

Bates T (1990) Entrepreneur human capital inputs and small business longevity. Rev Econ Stat 72: 551-559

Bates T (2002) Restricted access to markets characterizes women-owned businesses. J Bus Venturing 17(4): 313-324

Bernard AB, Jensen JB (1999) Exceptional exporter performance: cause, effect, or both?. J Int Econ 47: 1–25

Bernard AB, Wagner J (1997) Exports and Success in German Manufacturing. Weltwirtschaftliches Archiv 133(1): 134–157

Bernardino L, Jones M (2008) Internationalization and performance: an empirical study of high-tech SMEs in Portugal. Bookonomics Lda, Portugal
Bloodgood JM, Sapienza HJ, Almeida JG (1996) The internationalization of new high-potential US ventures: antecedents and outcomes. Entrep Theory Pract 20: 61-76
Bonaccorsi A (1992) On the relationship between firm size and export intensity. J Int Bus Stud 23(4): 605–635
Brockhaus RH (1980) Risk-taking propensity of entrepreneurs. Acad Manage J 23(3): 509–520
Buckley PJ (1979) Foreign Investment Success for Smaller Firms. Multinational Business 3: 12–19
Calof JL (1994) The relationship between firm size and export behavior revisited. J Int Bus Stud 25: 367–387
Cannella AA, Park JH, Lee HU (2008) Top Management Team Functional Background Diversity and Firm Performance: Examining The Roles of Team Member Colocation and Environmental Uncertainty. Acad Manage J 51(4): 768-784
Cannone G, Ughetto E (2014) Born globals: a cross-country survey on high-tech start-ups. Int Bus Rev 23(1): 272-283
Cannone G, Pisoni A, Onetti A (2014) Born global companies founded by young entrepreneurs. A multiple case study. Int. J. of Entrepreneurship and Innovation Management 18(2/3): 210-232
Cantwell J, Janne O (1999) Technological globalisation and innovative centres: the role of corporate technological leadership and locational hierarchy. Res Policy 28: 119-144
Carpenter MA, Fredrickson JW (2001) Top Management Teams, global strategic posture, and the moderating role of uncertainty. Acad Manage J 44: 533-545
Carpenter MA, Geletkanycz M, Sanders WG (2004) Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. J Manage 30(2): 749–78
Cassiman B, Golovko E (2011) Innovation and internationalization through exports. J Int Bus Stud 42: 56 - 75
Cavusgil ST (1980) On the internationalization process of firms. European Research 8(6): 273-281
Chowdhury S (2005) Demographic diversity for building an effective entrepreneurial team: is it important?. J Bus Venturing 20(6): 727-746
Ciravegna L, Majano SB, Zhan G (2014) The inception of internationalization of small and medium enterprises: The role of activeness and networks. J Bus Res 67: 1081-1089
Colombo MG, Grilli L (2005) Founders' human capital and the growth of new technology-based firms: A competence-based view. Res Policy 34(6): 795–818
Coviello NE, McAuley A (1999) Internationalization and the Small Firm: A Review of Contemporary Empirical Research. Manage Int Rev 39(3): 223-237
Davidsson P, Honig BL (2003) The role of social and human capital among nascent entrepreneurs. J Bus Venturing 18(3): 301-331
Davis PS, Schul PL (1993) Addressing the contingent effects of business unit strategic orientation on relationships between organizational context and business unit performance. J Bus Res 27: 183-200
Delios A, Beamish PW (1999) Geographic Scope, Product Diversification, and the Corporate Performance of Japanese Firms. Strategic Manage J 20(8): 711–727
Delmar F, Davidsson P, Gartner W (2003) Arriving at the high-growth firm. J Bus Venturing 18: 189–216
Denicolai S, Cotta Ramusino E, Sotti F (2014a) The impact of intangibles on firm growth. Technology Analysis & Strategic Management 1-18
Denicolai S, Ramirez M, Tidd J (2014b) Creating and capturing value from external knowledge: the moderating role of knowledge intensity. R&D Manage 44: 248-264
Denicolai S, Zucchella A, Strange R (2014c) Knowledge assets and firm international performance. Int Bus Rev 23, 55-62

Dess GG, Robinson RB Jr. (1984) Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. Strategic Manage J 5: 265-273
Dibrell C, Davis PS, Craig J (2008) Fueling innovation through information technology in SMEs. J Small Bus Manage 46(2): 203-218
Doutriaux J, Simyar F (1987) Duration of Comparative Advantage Accruing from some Start-up Factors in High-Tech Entrepreneurial Firms. In Churchill NA, Hornaday JA, Kirchhoff BA, Krasner OJ, Vesper KH (Eds) Frontiers of Entrepreneurship Research. Babson College, Wellesley, MA, pp. 436-450
Doz Y, Santos JFP, Williamson PJ (2001) From global to metanational. Harvard Business School Press, Boston
Duchesneau DA, Gartner W (1990) A Profile of New Venture Success and Failure in an Emerging Industry. J Bus Venturing 5: 297-312
Dyke LS, Fisher EM, Reuber AR (1992) An Inter-industry Examination of the Impact of Owner Experience on Firm Performance. J Small Bus Manage 30(4): 73–86
Eckhardt J, Shane S (2003) Opportunities and entrepreneurship. J Manage 29(3): 333-349
Ettlie JE, Reza EM (1992), Organizational Integration and Process Innovation. Acad Manage J 35(4): 795-827
Filipescu DA, Prashantham S, Rialp A, Rialp J (2013) Technological Innovation and Exports: Unpacking Their Reciprocal Causality. J Int Marketing 21(1): 23-38
Flynn BB, Huo BF, Zhao XD (2010) The impact of supply chain integration on performance: A contingency and configuration approach. J Oper Manag 28: 58-71
Forbes D, Borchert P, Zellmer-Bruhn M, Sapienza H (2006) Entrepreneurial team formation: An exploration of new member addition. Entrep Theory Pract 30: 225-248
Freel MS (2005) Patterns of innovation and skills in small firms. Technovation 25(2): 123-134
Ganotakis P, Love JH (2011) R&D, product innovation, and exporting: evidence from UK new technology based firms. Oxf Econ Pap 63 (2): 279-306
Gereffi G, Korzeniewicz M (Eds) (1994) Commodity Chains and Global Capitalism. Praeger, Westport, CT
Girish P, Stewart DW (1983) Cluster Analysis in Marketing Research: Review and Suggestions for Applications. J Marketing Res 20: 134-38
Golovko E, Valentini G (2011) Exploring the complementarity between innovation and export for SMEs' growth. J Int Bus Stud 42: 362–380
Gomez-Mejia LR, Nunez-Nickel M, Gutierrez I (2001) The role of family ties in agency contracts. Acad Manage J 44: 81-95
Grandi A, Grimaldi R (2003) Exploring the Networking Characteristics of New Venture Founding Team. Small Bus Econ 21: 329-341
Hagen B, Zucchella A, Cerchiello P, De Giovanni N (2012) International strategy and performance - Clustering strategic types of SMEs. Int Bus Rev 21: 369-382
Hagen B, Zucchella A (2014) Born Global or Born to Run? The Long-Term Growth of Born Global Firms. Manage Int Rev 54(4):497-525
Hall P (1995) Habitual owners of small businesses. In Crittenden F, Robertson Marshall M (Eds), Small firms: Partnership for growth. Paul Chapman, London, pp 217-230
Hambrick DC, Cho TS, Chen MJ (1996) The influence of top management team heterogeneity on firms' competitive moves. Admin Sci Quart 41(4): 659-684
Hambrick DC, Mason PA (1984) Upper echelons: The organization as a reflection of its top managers. Acad Manage Rev 9(2): 193-206
Hatum A, Pettigrew A (2006) Determinants of Organizational Flexibility: A Study in an Emerging Economy. Brit J Manage 17(2): 115-137
Helfat CE (2007) Dynamic capabilities: understanding strategic change in organizations. Blackwell Publishing, Oxford, UK

Herrmann P, Datta DK (2005) Relationships between Top Management Team Characteristics and International Diversification: an Empirical Investigation. Brit J Manage 16(1): 69–78
Higón DA, Driffield N (2010) Exporting and Innovation Performance: Analysis of the Annual Small Business Survey in the UK. Int Small Bus J 29(1): 4-24
Hirsch S, Bijaoui I (1985) R&D intensity and export performance - a micro view. Weltwirtschaftliches Archiv-Review of World Economics 121(2): 238-251
Hoffman K, Parejo M, Bessant J, Perren L (1998) Small firms, R & D, technology and innovation in the UK: a literature review. Technovation 18(1): 39-55
Hölzl W (2009) Is the R&D behaviour of fast-growing SMEs different? Evidence from CIS III data for 16 countries. Small Bus Econ 33(1): 59-75
Horwitz SK, Horwitz IB (2007) The Effects of Team Diversity on Team Outcomes: A Meta-Analytic Review of Team Demography. J Manage 33(6): 987-1015
Huse M (2000) Boards of directors in SMEs: a review and research agenda. Entrep Region Dev 12(4): 271-290
Ibeh KIN (2003) Toward a contingency framework of export entrepreneurship: conceptualisations and empirical evidence. Small Bus Econ 20(1): 49-68
Ireland RD, Hitt MA, Camp SM, Sexton DL (2001) Integrating entrepreneurship and strategic management action to create firm wealth. Acad Manage Exec 15(1): 49–63.
Bantel KA, Jackson SE (1989) Top management and innovations in banking: Does the composition of the top team make a difference?. Strategic Manage J 10: 107–124
Jarillo JC (1989) Entrepreneurship And Growth - The Strategic Use Of External Resources. J Bus Venturing 4(2): 133-147
Joshi A, Dencker JC, Franz G, Martocchio JJ (2010) Unpacking generational identities in organizations. Acad Manage Rev 35(3): 392–414
Kafouros MI, Buckley PJ, Sharp JA, Wang C (2008) The role of internationalization in explaining innovation performance. Technovation 28: 63–74
Kamm JB, Shuman JC, Seeger JA, Nurick AJ (1990) Entrepreneurial Teams in New Venture Creation: A Research Agenda. Entrep Theory Pract 14(4): 7–17
Katsikeas C, Leonidou L, Morgan N (2000) Firm-level export performance assessment: review, evaluation, and development. J Acad Market Sci 28(4): 493-511
Kellermanns FW, Eddleston KA (2004) Feuding families: When conflict does a family firm good. Entrep Theory Pract 28(3): 209–229
Kettenring JR (2006) The practice of cluster analysis. J Classif 23: 3-30
Knight G, Cavusgil S (2004) Innovation, organizational capabilities, and the born-global firm. J Int Bus Stud 35(2): 124-141
Kohn TO, Gomes-Cassares B(1997) Small firms in international competition: a challenge to traditional theory?. In Buckley PJ et al. (Eds.) International technology transfer by small and medium sized enterprise. Country studies. MacMillan, London
Kuemmerle W (2002) Home base and knowledge management in international new ventures. J Bus Venturing 17(2): 99-122
Langston CM, Teas RK (1976) Export commitment and the characteristics of management. Paper presented at the Annual Meeting of the Midwest Business Association. St Louis, Missouri
Le Roy F, Torrès O (2000) La place de l'innovation dans les stratégies concurrentielles des P.M.E. internationals. Innovations 13(1): 43-60
Lee HU, Park JH (2006) Top Team Diversity, Internationalization and the Mediating Effect of International Alliances. Brit J Manage 17(3): 195-213
Leonidou LC, Katsikeas CS, Palihawadan D, Spyropoulou S (2007) An analytical review of the factors stimulating smaller firms to export: Implications for policy makers. Int Market Rev 24(6): 735-770
Levesque M, Minniti M (2006) The effect of aging on entrepreneurial behavior. J Bus Venturing 21(2): 177-194

Lewis K, Massey C (2003) Youth entrepreneurship and government policy. Paper to the ICSB Conference 2003. Belfast, Northern Ireland

Lim JS, Sharkey TW, Kim KI (1991) An empirical test of an export adoption model. Manage Int Rev 31(1): 51-62

Lipparini A, Sobrero M (1994) The Glue and the Pieces: Entrepreneurship and Innovation in Small Firm Networks. J Bus Venturing 9(2): 125-140

Lisboa A, Skarmeas D, Lages C (2011) Entrepreneurial orientation, exploitative and explorative capabilities, and performance outcomes in export markets: A resource-based approach. Ind Market Manag 40(8): 1274-1284

Litz RA, Kleysen RF (2001) Your old men shall dream dreams, your young men shall see visions: Toward a theory of family firm innovation with help from the Brubeck family. Fam Bus Rev 14(4): 335-352

Lommelen T, Matthyssens P, Pauwels P (2001) The Internationalization of Services: Riding on the Waves. Competitive Paper presented at the 27th Annual Meeting of the European International Business Academy (EIBA). Paris, France

Lynn GS, Morone JG, Paulson AS (1996) Marketing and discontinuous innovation: The probe and learn process. Calif Manage Rev 38(3): 8-37

Madsen TK, Servais P (1997) The Internationalization of born globals: an evolutionary process?. Int Bus Rev 6(6): 561–583

Mayer C, Flynn J (1973) Canadian Small Business Abroad: Opportunities, Aids and Experience. The Business Quarterly 37: 33-47

Mayer M, Heinzel W, Müller R (1989) Performance of New Technology-Based Firms in the Federal Republic of Germany at the Stage of Market Entry. In Brockhaus RH, Churchill NC, Katz JA, Kirchhoff BA, Vesper KH, Wetzel WE (Eds.) Frontiers of Entrepreneurship Research 1989 – Proceedings of the 1989 Babson College Entrepreneurship Research Conference. Babson College, Wellesley MA pp 200–215

McDougall P, Oviatt B, Shane S (2003) A comparison of international and domestic new ventures. Journal of International Entrepreneurship 1:59-82

McDougall P, Oviatt B (1996) New Venture Internationalization, Strategic Change, and Performance: A Follow-Up Study. J Bus Venturing 11(1): 23–40

McGuinness NW, Little B (1981) The impact of R&D spending on the foreign sales of new Canadian industrial products. Res Policy 10(1):78–98

Miller D, Le Breton-Miller I (2005) Managing for the Long Run: Lessons in Competitive Advantage from Great Family Businesses. Harvard Business School Press, Boston, MA

Mittelstaedt JD, Harben GN, Ward AW (2003) How Small is Too Small? Firm Size as a Barrier to Exporting from the United States. J Small Bus Manage 41(1): 68-84

Monreal-Perez J, Aragon-Sanchez A, Sanchez-Marin G (2012) A longitudinal study of the relationship between export activity and innovation in the Spanish firm: The moderating role of productivity. Int Bus Rev 21(5): 862-877

Murphy KM, Shelifer A, Vishny RW (1991) The social construction of organizational knowledge: A study of the use of coercive, mimetic and normative isomorphism. Admin Sci Quart 44(4): 653-683

Musteen M, Datta DK (2011) Learning about foreign markets: A study of Czech SMEs. Journal of International Entrepreneurship 9(2): 91-109

Nguyen AN, Pham NQ, Nguyen CD, Nguyen ND (2008) Innovation and Export of Vietnam's SME Sector. Eur J Dev Res 20(2): 262–280

Nielsen BB, Nielsen S (2011) The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode. J World Bus 46: 185-193

Nunes PM, Serrasqueiro Z, Leitao J (2012) Is there a linear relationship between R&D intensity and growth? Empirical evidence of non-high-tech vs. high-tech SMEs. Res Policy 41(1): 36-53

O'Regan N, Ghobadian A, Gallear D (2006) In search of the drivers of high growth in manufacturing SMEs. Technovation 26(1):30 -41
OECD (2002) SME Outlook, Organization for Economic Co-Operation and Development. Paris
OECD (2010) Innovative SMEs and Entrepreneurship for Job Creation and Growth, Organization for Economic Co-Operation and Development Issues Paper 1
OECD (2012) Review of Higher Education in Regional and City Development
Oke A, Burke G, Myers A (2007) Innovation types and performance in growing UK SMEs. Int J Oper Prod Man 27(7): 735-753
Onetti A, Zucchella A (2008) Imprenditorialità, internazionalizzazione e innovazione. Carocci Editore, Roma
Onetti A, Zucchella A, Jones MV, McDougall PP (2012) Internationalization, Innovation and Entrepreneurship: Business Models for New Technology-based Firms. Journal of Management and Governance, Special Issue: Entrepreneurship and strategic management in Life sciences. Business Models for High-Tech Companies 16(3): 337-368
Oviatt B, McDougall P (2005) Defining international entrepreneurship and modeling the speed of internationalization. Entrep Theory Pract 29(5): 537-553
Oviatt B, McDougall P (1994) Toward a theory of international new ventures. J Int Bus Stud 25(1): 45-64
Pangarkar N (2008) Internationalization and performance of small- and medium-sized enterprises. J World Bus 43(4): 475-485
Papadakis VM, Barwise P (2002) How Much do CEOs and Top Managers Matter in Strategic Decision-Making?. Brit J Manage 13(1): 83–95
Pennings J, Lee K, van Witteloostuijn A (1998) Human capital, social capital and firm dissolution. Acad Manage J 41(4): 425-440
Pett TL, Wolff JA (2009) SME Opportunity for growth or profit: What is the role of product and process improvement?. International Journal of Entrepreneurial Venturing 1(1): 5-21
Piercy N (1981) Export Strategy: Concentration on Key Markets versus Market Spreading. J Int Marketing 1(1): 56–67
Pisano G (1996) The Development Factory. Unlocking the Potential of Process Innovation: Lessons from Pharmaceuticals and Biotechnology. Harvard Business School Press, Boston, MA
Powell WW, White DR, Koput KW, Owen-Smith J (2005) Network dynamics and field evolution: The growth of interorganizational collaboration in the life sciences. American Journal of Sociology 110(4): 1132-1205
Presutti M, Odorici V, Onetti A (2008) Serial Entrepreneurship and Born-Global New Ventures. A Case Study. International Journal of Entrepreneurship Education 6(4): 255-278
Rees M, Edwards R (2010) Innovation Roles in SME Internationalization. Proceedings of the 17th International Conference on Management Science and Engineering (ICMSE 2010), Melbourne, Victoria, Australia, 24-26 November 2010
Reid SD (1981) The decision-maker and export entry and expansion. J Int Bus Stud 12(2): 101-112.
Reuber AR, Fischer E (1997) The Influence of the Management Team's International Experience on the International Behaviors of SMEs. J Int Bus Stud 28(4): 807-825
Rialp A, Galván I, Suárez S (2010) A configuration-holistic approach to born-global firms' strategy formation process. Eur Managt J 28(2): 108–123
Roberts EB (1991) Entrepreneurs in High Technology: Lessons from MIT and Beyond. Oxford University Press, New York
Ronstadt R (1982) Does Entrepreneurial Career Path Really Matter? Frontiers of entrepreneurship research. Center for Entrepreneurial Studies, Babson College, Wellesley, MA
Sapienza H, Grimm C (1997) Founder characteristics, start-up process and strategy/structure variables as predictors of shortline railroad performance. Entrep Theory Pract 22(1): 5 – 24
Sapienza HJ, Autio E, George G, Zahra SA (2006) A capabilities perspective on the effects of early internationalization on firm survival and growth. Acad Manage Rev 31(4): 914-933

Schoof U (2006) Stimulating Youth Entrepreneurship: Barriers and Incentives to Enterprise Start-ups by Young People. Series on Youth and Entrepreneurship, International Labour Organization 76: 1-12
Schumpeter J (1934) The Theory of Economic Development. Harvard University Press, Cambridge, MA
Schweizer L (2005) Concept and evolution of business models. Journal of General Management 31(2): 37-56
Shepherd D, Zahra S (2003) From conservatism to entrepreneurialism: The case of Swedish family firms. Unpublished paper. Boulder, CO: University of Colorado
Shoham A (1998) Export performance: a conceptualisation and empirical assessment. J Int Marketing 6(3): 59-81
Simpson C, Kujawa D (1974) The Export Decision Process: An Empirical Inquiry. J Int Bus Stud 5(1):107-117
Sousa C (2004) Export performance measurement: An evaluation of the empirical research in the literature. Academy of Marketing Science Review 4(9):1-22
Sousa CMP, Martinez-Lopez FJ, Coelho F (2008) The determinants of export performance: A review of the research in the literature between 1998 and 2005. Int J Manag Rev 10(4): 343–374
Stock RM, Zacharias NA (2011) Patterns and performance outcomes of innovation orientation. J Acad Market Sci 39: 870–888
Stuart R, Abetti PA (1987) Start-up ventures: Towards the prediction of initial success. J Bus Venturing 2(3): 215-230
Sullivan D (1994) Measuring the degree of internationalization of a firm. J Int Bus Stud 25(2): 325–342
Talke K, Salomo S, Rost K (2010) How top management team diversity affects innovativeness and performance via the strategic choice to focus on innovation fields. Res Policy 39(7): 907-918
Tang J, Murphy PJ (2012) Prior Knowledge and New Product and Service Introductions by Entrepreneurial Firms: The Mediating Role of Technological Innovation. J Small Bus Manage 50, 41–62
Tatikonda MV, Montoya-Weiss MM (2001) Integrating operations and marketing perspectives of product innovation: The influence of organizational process factors and capabilities on development performance. Manage Sci 47(1): 151-172
Tihanyi L, Ellstrand AE, Daily CM, Dalton DR (2000) Composition of the top management team and firm international diversification. J Manage 26: 1157-1167
Timmons JA (1990) New Venture Creation: Entrepreneurship in the 1990s, 3rd ed.. Irwin, Homewood
Ucbasaran D, Lockett A, Wright M, Westhead P (2003) Entrepreneurial Founder Teams: Factors Associated with Member Entry and Exit. Entrep Theory Pract 28: 107–128
Venkatraman N, Ramanujam V (1986) Measurement of business performance in strategy research: A comparison of approaches. Acad Manage Rev 11: 801-814
Verona G (1999) A resource-based view of product development. Acad Manage Rev 24: 132 – 142
Wagner J (1995) Exports, Firm Size, and Firm Dynamics. Small Bus Econ 7(1): 29-39
Watson W, Steward W, BarNir A (2003) The effects of human capital, organizational demography, and interpersonal processes on venture partner perceptions of firm profit and growth. J Bus Venturing 18(2): 145-164
Westhead P, Howorth C, Cowling M (2002) Ownership And Management Issues In First And Multi-Generation Family Firms. Entrep Region Dev 14(3): 247-269
Westhead P, Wright M (1998) Novice, Portfolio, and Serial Founders: Are They Different?. J Bus Venturing 13(3): 173-204
Wheeler CN, Ibeh KIN, Dimitratos P (2008) UK export performance research - review and implications. Int Small Bus J 26(2): 207-239

Wickramasekera R, Bamberry G (2003) Exploration of bornglobals/international new ventures: some evidence from the Australian wine industry. Australasian Journal of Regional Studies 9(2): 207

Wiersema M, Bantel K (l992) Top management team demography and corporate strategic change. Acad Manage J 35:91-121

Wolff JA, Pett TL (2006) Small-firm performance: Modeling the role of product and process improvements. J Small Bus Manage 44(2):268 -284

Zahra SA (2005) Entrepreneurial Risk Taking in Family Firms. Fam Bus Rev 18(1):23-40

Zimmerman MA (2008) The Influence of Top Management Team Heterogeneity on the Capital Raised through an Initial Public Offering. Entrep Theory Pract 32(3): 391-414

Zucchella A, Palamara G, Denicolai S (2007) The drivers of the early internationalization of the firm. J World Bus 42(3): 268-280.