Strategic Entrepreneurship Journal
Strat. Entrepreneurship J., **11**: 61–89 (2017)
Published online 24 October 2016 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/sej.1228

ENTREPRENEURS' SOCIAL CAPITAL AND THE ECONOMIC PERFORMANCE OF SMALL BUSINESSES: THE MODERATING ROLE OF COMPETITIVE INTENSITY AND ENTREPRENEURS' EXPERIENCE

CARLOS HERNÁNDEZ-CARRIÓN, CARMEN CAMARERO-IZQUIERDO,* and JESÚS GUTIÉRREZ-CILLÁN
Department of Business and Marketing, University of Valladolid, Valladolid, Spain

Research summary: *This article analyzes the personal, professional, associative, and institutional relationship networks in which the entrepreneur is involved and the resources embedded therein, and it proposes that an entrepreneur's social capital resources are determinants of his/her business' economic performance. The effect of social capital resources is moderated by competitive intensity in the industry and the entrepreneur's experience. A questionnaire survey and a sample of 951 small- and medium-sized firms were used to test the proposed hypotheses. Results show that economic performance is influenced more by professional and institutional network resources than by the other network resources. However, competitive intensity reduces the effect of institutional resources and increases the relevance of personal resources, whereas the entrepreneur's experience in the sector reinforces the impact of professional and institutional resources.*

Managerial summary: *Insofar as small business entrepreneurs lack sufficient resources of their own to ensure the growth of their businesses, entrepreneurs' relationship networks can provide them with access to strategic resources. Hence, small business entrepreneurs must place all their own networks at the service of their firms. However, networks are not all equally advantageous, and each network does not prove equally advantageous in all situations. Our results show that professional and institutional networks generally contribute more to improving performance than do associative and personal networks. Moreover, as an entrepreneur's experience in the sector increases, so does the ability to exploit the advantages afforded by professional and institutional networks. In contrast, as industrial competitive intensity increases, so does the relevance of personal networks at the expense of institutional networks.* *Copyright © 2016 Strategic Management Society*

INTRODUCTION

In the current business arena, small firms face difficulties gaining access to resources. The problem of accessing financial resources has always posed a major threat to the development of small firms (Carter and Van Auken, 2006; Jansen *et al.*, 2011), with the lack of technological capabilities also tending to limit their competitive success (Arinaitwe, 2006). Moreover, if the business is new, it will be confronted by a lack of organizational capabilities, such as coordination and communication systems, management skills, etc. (Bamford, Bruton, and Hinson, 2006).

In this context, the entrepreneur's network of relationships becomes a source of strategic resources on which to build competitive advantages (Aldrich and Kim, 2007). This is referred to as social capital, that is, the value embedded in the social relationships of individuals or groups (Gedajlovic *et al.*, 2013).

Keywords: social capital; networks; entrepreneur; competitive intensity; experience
*Correspondence to: Carmen Camarero-Izquierdo, University of Valladolid, Facultad de Ciencias Económicas y Empresariales, Avenida Valle Esgueva, 6, 47011-Valladolid, Spain. E-mail: camarero@eco.uva.es

This notion proves particularly relevant in the case of a small firm in which an entrepreneur both owns and manages the small business. In such instances, entrepreneurs, their traits, resources, relations, and even spirit, are inseparable from the firm itself. Such entrepreneurs could access technological resources (e.g., an online buying platform) through membership of professional and business associations (Teckchandani, 2014). Their business capabilities (e.g., quality management and competitive pricing) will benefit from establishing close relationships with suppliers (Sherry and Stubberud, 2013). A rich social life involving many informal contacts (with relatives, friends, and acquaintances) emerges as a source of innovation if said contacts are with people who have new and different ideas (Komulainen, Mainela, and Tahtinen, 2006). Finally, entrepreneurs' relationships with local institutions (public authorities, banks, or the media) might provide them with access to financial resources (loans, support, or subsidies, as well as access to private investors).

The present work seeks to analyze to what extent the social capital resources (resources accessed through relationship networks) of small firms in which the managers are the owners can become a source of competitive advantage. To achieve this aim, we adopt an integrative approach that simultaneously considers the resource-based view of competitive advantage, social capital theory, and relationship marketing to explain the effect of social capital resources on the performance of these small firms.

Several studies address the repercussions of entrepreneurs' social capital on the performance of small firms (Baron and Markman, 2003; Chen and Wang, 2008; Davidsson and Honig, 2003; Liao and Welsch, 2003). Specifically, these studies explore entrepreneurs' social competence (Baron and Markman, 2003) and to what degree certain network characteristics (e.g., whether they are based on strong or weak ties) impact the performance of nascent entrepreneurs (Batjargal and Liu, 2004; Davidsson and Honig, 2003; Pirolo and Presutti, 2010). Many studies do not directly measure social capital, but analyze its sources (Payne *et al.*, 2011).

Our work's first contribution is to measure social capital as the resources embedded in the network of relationships. The basic definition of social capital states that social capital is defined as 'networks of relationships and assets located in these networks' (Batjargal, 2003: 535). It is precisely these resources that endow such networks with value and make them 'capital' in the sense that they may ultimately lead to future benefits in business. In this line, Lin (1999: 35) defines social capital as 'resources embedded in a social structure which are accessed and/or mobilized in purposive actions.' However, as pointed out by Gedajlovic *et al*. (2013), a common practice is to refer to social capital in terms of the characteristics of the relationships through which resources are expected to be derived, but not the embedded resources. We assume that both the networks of relationships themselves and the resources embedded within them constitute social capital (Batjargal, 2003; Batjargal and Liu, 2004) and that the characteristics of these networks of relationships are the conditions required to access the embedded resources (Casson and Della Giusta, 2007; Davidsson and Honig, 2003; Lin, 1999; Tsai and Ghoshal, 1998). Regardless of how strong, close-knit, and tight the relations within a network are, the social capital of these networks lies in their ability to provide entrepreneurs with resources (Adler and Kwon, 2002). In consequence, the present work attaches greater importance to embedded resources in networks than to the actual features of the networks. In fact, we do not focus on the network features, but on the resources networks provide entrepreneurs with. These resources embedded in the entrepreneur's relationship networks involve financial resources (funds or credits), technology and innovation resources (technologies, patents, etc.), commercial and business capabilities (communication skills, sales, and access to market information), human resources (qualification, motivation, etc.), resources related to quality management, and organizational capabilities (management skills in terms of the ability to coordinate all these resources).

On another front, Payne *et al*. (2011) classify research on social capital (depending on the level of analysis) into individual social capital and collective social capital. In the current study, we focus on the outcomes of individual social capital, that is, the entrepreneur's social capital. In fact, in small firms and small ventures, the concept of individual social capital is particularly pertinent. In these cases, personal and social aspects merge with others of an economic and entrepreneurial nature, and the individual's social capital represents much of the organization's social capital. As entrepreneurs embed

DOI: 10.1002/sej

their business decisions in social structures (Greve and Salaff, 2003), they place their own personal networks at the service of their firms (Pirolo and Presutti, 2010). Social capital, thus, lends itself to the aims of the organization. This particular aspect is what clearly distinguishes social capital in the case of small ventures from that of large firms. In larger firms, there is a major difference between collective social capital (available to the organization) and individual social capital (belonging to each board member). In small firms, by contrast, there is a certain correspondence between the entrepreneur's social capital and the organization's social capital.

The work's second contribution is to conduct a comparison-oriented joint and simultaneous analysis of all the generic types of relationship networks the entrepreneur is involved in: namely, personal, professional, associational, and institutional networks. In our framework, social capital is seen as a resource located in an actor's internal ties (associated with bonding social capital) and external ties (associated with bridging and linking social capital) (Payne *et al*., 2011), such that the type and content of these linkages determine access to other embedded resources (Casson and Della Giusta, 2007; Bourdieu, 1986; Davidsson and Honig, 2003; Lin, 1999; Nahapiet and Ghoshal, 1998). Thus, social capital's sources lie in the social structure within which the actor is located (Adler and Kwon, 2002). The extent to which entrepreneurs maintain frequent links in their personal private circles (family, friends), in their professional circle (current business as well as previous businesses or jobs), with a range of agencies (volunteers, cultural or sports associations, political parties, trade unions, neighbors' associations, religious groups, etc.), or with public or private institutions will determine how much access they will have to financial, technological, commercial, and organizational resources (Davidsson and Honig, 2003; Komulainen *et al*., 2006; Sherry and Stubberud, 2013; Teckchandani, 2014). Although prior research has explored the impact of personal and professional networks on entrepreneurs' success (Baron and Markman, 2003; Bosma *et al.*, 2004; Pirolo and Presutti, 2010), no works have thus far adopted a joint and comparative approach to exploring the influence of these four networks on entrepreneurs' access to resources and business performance.

From a theoretical point of view, this study's third contribution is that it provides insights regarding two boundary conditions of social capital in entrepreneurship research: industry competitive intensity and entrepreneurs' experience. Although the four types of relationship networks allow entrepreneurs to access resources, we maintain that, in general, business performance is more influenced by professional and institutional networks' resources than by resources gleaned from personal and associative networks. However, each type of relationship network is not equally advantageous in all contexts. Since the resources provided by professional and institutional networks are more valuable than the resources provided by personal networks, in highly competitive contexts, all competitors will try to access professional and institutional networks. Therefore, entrepreneurs will seek inimitable networks in order to achieve competitive advantage. Thus, we propose they will be able to derive particular benefit from the resources provided by more personal and private networks (those hardest to imitate) in order to find new ways of improving market positioning and innovation. In contrast, the greater the entrepreneur's experience in the industry, the more relevant the professional and institutional networks will be to the firm's economic performance, since an experienced entrepreneur will be able to access more specific and business-oriented resources provided by professional and institutional networks.

In the following section, we present the theoretical framework on which the proposals are based. We first examine the resource-based view as well as the social capital approach, and we conclude with the importance of social capital as an entrepreneurial strategic resource. From the focus of the relationship marketing, network marketing, and social capital approaches, we go on to analyze those networks that generate social capital and facilitate access to valuable resources. Grounded on these theoretical foundations, and through three different sections, we successively present and argue the hypotheses, which outline the effects of social capital resources on economic performance and the moderating effects of an industry's competitive intensity and entrepreneurial experience. We then set out the methodological aspects and the findings of the empirical study. The work closes with comments on the principal conclusions and implications of interest to business practice.

DOI: 10.1002/sej

THEORETICAL BACKGROUND

The resource-based view

For Grant (1991: 118), resources 'are the inputs of the productive process of a firm' and 'the basic unit of analysis of the theory of resources and capabilities.' The resource-based view theory starts from market imperfection and states that owning valuable, rare, inimitable, and non-substitutable (VRIN) business resources is a source of sustainable competitive advantage and the source of differences in the financial performance of firms competing in a similar industrial environment (Barney, 1991; Black and Boal, 1994; Dierickx and Cool, 1989). Resources are valuable when they enable firms to conceive or implement strategies that improve their efficiency and effectiveness. Rare resources are those not simultaneously possessed by many other firms. Resources are inimitable (or imperfectly imitable) if firms that do not possess them are unable to obtain them. Finally, resources are non-substitutable if there are no strategically equivalent resources (Barney, 1991).

In this way, the role of resources (particularly intangible ones) is vindicated by the generation of value, and the existence of a positive association between managed resources and the firm's economic performance is defended (Hitt *et al.*, 2001). Yet, the firm should not be restricted to merely using said resources, but must also find the best way of combining them so as to create knowledge and capabilities within the company (Helfat *et al.*, 2007; Helfat and Peteraf, 2009). These are the capabilities that will ultimately endow the firm with a sustainable competitive advantage.

Various works have attempted to identify these assets and their link to generating competitive advantage (Ancori, Bureth, and Cohendet, 2000; Lavie, 2006; Zott, 2003). Yet, the ability to innovate and adapt to changes obviously does not depend exclusively on internal factors (such as human capital or technological capabilities within the firm). Indeed, the company will develop this capability only insofar as it manages to connect with the external environment and captures these new tendencies and ideas, which might inspire them to improve their processes and products (Chen and Wang, 2008; Liao and Welsch, 2003). Other organizational capabilities based on intangible assets that have a strong impact on innovation and other economic results must, thus, be identified. Along these lines, certain studies consider the firm's relationships and social capital as strategic resources that, if correctly managed, lead to innovation and success (Auh and Menguc, 2005; Nahapiet and Ghoshal, 1998; Simon and Tellier, 2011).

The social capital approach

The social capital approach represents an emerging theoretical trend that recognizes the inherent value of social structures. Nahapiet and Ghoshal (1998) define social capital as networks of relationships that allow their members to exchange and access the different assets available in these networks. In line with Burt (2000: 348), literature on social capital agrees on 'a social capital metaphor in which social structure is a kind of capital that can create a competitive advantage for certain individuals or groups when pursuing their ends,' so that socially better-connected individuals will also be in a better position to achieve the desired results. Adler and Kwon (2002: 23) stress that the effects of the structure and content of the actor's social relations 'flow from the information, influence, and solidarity it makes available to the actor.' Social capital arises, therefore, because sufficiently stable and continuous conditions exist between groups of individuals. In fact, what distinguishes social capital from other types of capital is that it resides in relationship networks and exists only if shared between network members (Narayan and Cassidy, 2001). Since relationships between individuals are framed within networks, social capital is associated with two elements (Batjargal, 2003; Batjargal and Liu, 2004; Nahapiet and Ghoshal, 1998): (1) network characteristics; and (2) network content (embedded resources that may be mobilized through the networks).

With regard to network characteristics, the most common and popular distinction is between 'bonding' and 'bridging' social capital (Gittell and Vidal, 1998; Portes, 1998; Putnam, 1995). Bonding social capital refers to relationships between people in a group who know each other well (i.e., family members and close friends). Such networks are associated with strong ties, cohesiveness, trust, and reciprocity, which allow exchange of resources between members (Davidsson and Honig, 2003). Bonding social capital may facilitate the pursuit of collective goals, and it is available and exclusive to the members of a group (Adler and Kwon, 2002). Bridging social capital refers to horizontal ties shaping more diverse groups

DOI: 10.1002/sej

of people with different backgrounds, like volunteer groups or professional networks (Davidsson and Honig, 2003). As these networks are more diverse, they can provide members with valuable resources and explain the differential success of individuals and firms in their competitive rivalry (Adler and Kwon, 2002). Bridging social capital is closely related to the concepts of weak ties (Granovetter, 1973; Burt, 2000) and structural holes (Burt, 1992, 2000). A third concept is so-called linking social capital, which refers to vertical relationships with powerful groups and institutions (Sabatini, 2009; Woolcock, 2001). Linking social capital is often characterized by weak ties. The scarcity of these types of relationships implies that linking social capital is often a powerful source of distinctive and valuable resources for individuals.

In regard to network content, the embedded resources in a network of relationships are a core concept of social capital (Batjargal, 2003). Lin's (1982) social resources theory proposed that access to resources embedded in social networks can lead to better socioeconomic status. Access to and use of social resources is determined by the position in the hierarchical structure and the strength of the ties. In fact, Nahapiet and Ghoshal (1998) define social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships an individual has. In line with Lin (1982), Nahapiet and Ghoshal (1998), and Tsai and Ghoshal (1998), the information and resources individuals have access to through their relationship networks (social capital resources) are a consequence both of the type of networks and of the individual's position therein (structural social capital), as well as the ease and willingness of members to cooperate and exchange resources (relational social capital).

Several authors (Bourdieu, 1986; Lin, 1999; Lin, Fu, and Hsung, 2001; Nahapiet and Ghoshal, 1998; Van der Gaag and Snijders, 2005) describe a network's social capital as the set of current and potential resources derived from the relationships that make up a network. Early studies addressing networks (e.g., Granovetter, 1973) identified the resources embedded in relationship networks as information-type resources (access to valuable information and new ideas). Social capital has subsequently been related to resources of a very different nature, ranging from the purely economic to those of a social and emotional nature (Van der Gaag and Snijders, 2005). Yet, it is important to underscore that the main aspect of social capital resources is not their mere existence, but the fact that they may be accessed and/or mobilized in purposive actions (Lin *et al*., 2001). Social capital facilitates acquisition of resources by promoting a flow of information and funds from diverse sources, and it drives the creation of intellectual capital by establishing the conditions for exchange or aiding the development of new resources. However, Payne *et al.* (2011) find few studies that measure the effect of network connections with outcomes.

As Gedajlovic *et al.* (2013) state, despite the importance of such an approach (Batjargal, 2003; Batjargal and Liu, 2004; Davidsson and Honig, 2003; Klyver, Hindle, and Meyer, 2008; Lin, 1999), little attention has been paid to measuring the actual resources accrued from social networks. There are, however, certain notable exceptions. Some authors refer to social capital resources as the benefits gained from social capital (relationship networks), mainly knowledge sharing and knowledge acquisition (Belliveau, O'Reilly, and Wade, 1996; Seevers, Skinner, and Dahlstrom, 2010; Wickramasinghe and Weliwitigoda, 2011; Yli-Renko, Autio, and Sapienza, 2001).

Relationships as sources of social capital

Analyzing relationship networks constitutes a nexus between social capital and the relationship marketing approach. As has been observed, social capital derives from an individual's relationship networks (the entrepreneur in our case) and from the assets located therein. For its part, the relationship marketing literature has underlined that strategic outcomes, such as relationships with customers and channel members, often become 'market-based assets' that add to the firm's existing resource stock (Srivastava, Shervani, and Fahey, 1998). Entrepreneurs' relationship networks become a business asset since they afford a competitive advantage by providing access to, processing, and distributing more information and resources (Greve and Salaff, 2003). Entrepreneurs can incorporate the potential resources provided by these relational assets to build core competencies. Moreover, stocks of these assets can be developed, augmented, leveraged, and valued (Srivastava *et al*., 1998). Such relational assets are primarily external to the firm and are largely intangible. Indeed, from a resource-view perspective, a firm's most important

DOI: 10.1002/sej

strategic assets are those based on intangible assets (Grant, 1991; Hall, 1993; Hitt *et al*., 2001).

Greene and Brown (1997) specifically include social resources (i.e., the network of relationships) as strategic resources for innovation and growth, inasmuch as they allow access to other physical, human, financial, and organizational resources. Viedma Marti (2004) indicates that social capital is an intangible resource—a kind of intellectual capital —that is primarily external and of a relational nature. Social capital, thus, becomes a source of sustainable competitive advantage, as it is valuable, rare or scarce, inimitable, and a non-substitutable resource. Although social capital can, in general, be imitated (individuals can have relationships with similar associations or institutions), each individual has access to separate social networks and develops different kinds of relationships within these networks—and this is the inimitable aspect of social capital.

In his analysis of business activity in the contexts of local and regional development, Johannisson (2008) states the importance of business, professional, and friendship ties as well as institutional and associational links with the local community. In our study, we echo the proposals of Stone and Hughes (2002) and Johannisson (2008) and group entrepreneur networks of relationships into four categories depending on the personal (informal), professional, associative, or institutional nature predominant in the relationships:

(1) *Personal networks of relationships* with relatives, friends, and neighbors are normally symmetrical (without hierarchies) and voluntary relationships, seen among individuals sharing common characteristics and interests. Literature on social capital often considers these relationships to be related to bonding social capital (Arregle *et al.*, 2007: Davidsson and Honig, 2003; Sharma, 2008).
(2) *Associative networks of relationships* with other members of the volunteer associations to which the entrepreneur belongs (such as business, professional, civic, labor, political, religious, cultural, social advocacy, or sports associations). They are usually formal in nature, given that on many occasions these groups are governed by explicit rules that regulate membership, commitments, and departure of members as well as how they relate to each other (internal relationships) and with other groups (external relationships) (Putnam, Leonardi, and Nanetti, 1993). These relationships are rather in-between bonding and bridging social capital, as they can involve both weak and strong ties and both vertical and horizontal relationships (Sabatini, 2009; Teorell, 2003) in addition to mixing formal and informal mechanisms of governance (Casson and Della Giusta, 2007).
(3) *Professional networks of relationships* with partners, workers, suppliers, customers, and colleagues. Since they are related to the entrepreneur's past and present professional activities, they occur in more formal contexts than the previous ones and have been considered as a source of bridging social capital (Davidsson and Honig, 2003; Sharma, 2008). This type of business network is usually oriented toward acquiring business-related resources (Casson and Della Giusta, 2007).
(4) *Institutional networks of relationships* with representatives or members of different public and private institutions. In the case of entrepreneurs, these relationships refer to direct contacts with government officials, public authorities, the media, financial bodies, or large companies, among others. These institutional relationships are not usually voluntary in nature and are normally regulated by very specific rules. They are generally asymmetrical (vertical or hierarchical) and their quality depends, to a large extent, on how well the institutional and legal environment in which the business activity is performed is able to function (Woolcock, 2001). These relationships have been related to linking social capital (Sabatini, 2009; Woolcock, 2001).

HYPOTHESES

The effect of entrepreneurs' social capital resources on economic performance

Social network theory (Granovetter, 1973) states that certain characteristics of an individual's network may shape access to new ideas that enhance an individual's ability to innovate. Moreover, as already observed, a resource is more likely to generate competitive advantage if it is accessible to the enterprise, is idiosyncratic, scarce, and difficult to substitute, complements other resources of the firm, is consistent with the firm's strategies and with the characteristics of the industry or sector, and proves difficult to imitate

DOI: 10.1002/sej

and transfer to other companies (Amit and Schoemaker, 1993; Barney, 1991; Dierickx and Cool, 1989). Entrepreneurs' social capital specifically merges all these characteristics and, thus, it can be concluded that the capabilities based on entrepreneurs' social capital may generate competitive advantage and, therefore, enhance performance. In this line, the positive effect of networks on business results has been highlighted in several contexts: industrial districts (Saxenian, 1994), industrial networks (Andersson, Blankenburg-Holm, and Johanson, 2007), the launch of new products (Hsieh and Tsai, 2007), or internationalization strategies (Coviello and Munro, 1997).

In the current work, we contend that social capital resources contribute to improving small firms' economic performance in terms of sales growth, market share, and success in launching new products or services. In the case of entrepreneurs, accessing new ideas and products may not only derive from exchanging information with suppliers, customers, and members of the associations to which the entrepreneur belongs, but also from the fact that entrepreneurs' personal relationships include people from different educational backgrounds, cultures, or nationalities. The resources provided by networks help the entrepreneur achieve business success. Access to advice, funding, technology, human resources, or information may favor innovation (Andersson *et al*., 2007), launch of new products (Hsieh and Tsai, 2007; Simon and Tellier, 2011), or entry into new markets (Coviello and Munro, 1997). Involvement in associations improves a community's level of social capital (Putnam *et al*., 1993; Wollebaek and Selle, 2002), thus benefitting all its members. For example, professional associations often provide entrepreneurs with advice and help when negotiating with banks and suppliers. But, nonprofessional associations are more diverse and allow local entrepreneurs to access new business opportunities (Teckchandani, 2014). This training in negotiation proves key to securing funding and, consequently, sources of future investment. Thanks to their institutional contacts, entrepreneurs may gain access to public aid programs for the technological and commercial modernization of their businesses. Personal and professional networks allow entrepreneurs to recruit reliable workers or harness new ideas for their businesses, which can lead to new products or open up new markets. Therefore, we propose that:

Hypothesis 1 (H1): The social capital resources of personal (H1a), associative (H1b), professional (H1c), and institutional (H1d) networks of small firms have positive effects on their economic performance.

Even if all networks may provide resources that enhance economic performance, their effect will differ depending on the specific characteristics of each. Indeed, from a resource-based view, we can characterize each network in terms of the value of the resources provided and depending on the degree to which these networks are imitable and substitutable (see Table 1). These characteristics will impact business performance in different ways, as we aim to show in our next three hypotheses.

A network's embedded resources value and economic performance

As explained earlier, resources are valuable when they enable firms to conceive or implement strategies that improve their efficiency and effectiveness. Although all kinds of networks can provide valuable resources, certain networks are more likely to offer resources adapted to entrepreneurs' business needs (Casson and Della Giusta, 2007). Characterizing the resources

Table 1. Characteristics of entrepreneurs' networks

	Network characteristics		
	Embedded resources value	**Network inimitability**	**Network substitutability over time**
Personal networks	*Low*	*High*	*High*
Associative networks	*Medium*	*Medium*	*Medium*
Professional networks	*High*	*Low*	*Low*
Institutional networks	*High*	*Low*	*Low*

DOI: 10.1002/sej

provided by social networks is supported by the social capital literature, which links the nature of the networks to various types of social capital, that is, different types of resources. Table 1 (first column) describes networks by their embedded resources value.

As already pointed out, professional and institutional relationships are linked to bridging (or even linking) social capital and weak ties (Davidsson and Honig, 2003; Sabatini, 2009). Bridging social capital is characterized by connecting individuals with a wider range of agents that can provide them with a broader and, therefore, more valuable array of resources (Burt, 2004; Granovetter, 2005). In fact, professional and institutional networks may offer more specific (industry-specific and entrepreneurship-specific) resources and, therefore, more valuable resources since they are directly related to the entrepreneur's business (e.g., technological or commercial resources) or to the institutional and legal environment in which the business operates. In other words, they offer high embedded resource value. For instance, a good relationship with suppliers may offer access to a wide range of markets in geographical terms or to new clients, which would never otherwise be possible through solely personal relationships. Relationships with professional colleagues may provide specific information concerning a particular sector (technologies, tools, prospects, forecasts, and so on) which would be difficult to secure through other means. Institutional relationships with the media, for example, would aid the task of marketing or promoting a product. A further example is the link with universities or technology centres that could supply the human resources or specialized technology a small firm would otherwise find it difficult to access through other personal or associative networks.

By contrast, personal relationships tend to be associated with so-called bonding social capital and strong ties. Although bonding social capital provides cohesion within a group (Adler and Kwon, 2002), it leads to homogeneous groups. Therefore, the likelihood of it providing diverse and valuable resources is less than with bridging social capital. Personal networks offer more generic resources (i.e., personal loans, emotional support, daily life resources, etc.) that are less adapted to the particular business in question (Bosma *et al.*, 2004). This is low embedded resource value.

The nature of associative networks places them between personal (civic, religious, social, advocacy associations, etc.) and professional or institutional (professional colleges, labor unions, political parties, etc.) networks. Thus, they can provide both non-business-related as well as business-related resources. As Teckchandani (2014) points out, business and professional associations contribute to entrepreneurial activity more than other association types. Moreover, and regardless of type, associations can be based on strong ties and provide high cohesiveness and scarce access to diverse resources; or they can be based on weak ties, with higher access to diversity. Thus, we place them in the position of low-high (medium) valuable resources.

In sum, we propose that the resources afforded by professional and institutional networks will have greater value than networks based on strong ties and horizontal relationships (Burt, 2004; Granovetter, 1973; Pirolo and Presutti, 2010). Professional and institutional networks should, therefore, be expected to have a greater impact on business performance than personal (and even associative) networks, since the resources the former provide are more valuable (more diverse and less redundant) and are more directly linked to the firm's business activity (Teckchandani, 2014). Thus, we propose that:

> *Hypothesis 2 (H2): The positive effect of social capital resources on economic performance will be greater in professional and institutional networks than in personal and associative networks.*

Network inimitability and the moderating role of competitive intensity

Inimitable resources are those that cannot be obtained by firms that do not possess them. In the context of entrepreneurs' social capital, each network displays varying degrees of inimitability (second column in Table 1). Arregle *et al.* (2007) hold that while family social capital is a resource that is specific to an individual and remains fairly stable over time, organizational social capital may be extended and geared toward the firm's needs.

Professional and institutional networks are of a public and market nature and are equally detected by all competitors. Any firm could identify and contact a network of professional and institutional contacts similar to its competitors. Institutions (government, justice, media, etc.) and professional networks (suppliers, clients, distributors) are both easy to

DOI: 10.1002/sej

identify and to contact (in theory, they are available to everyone). Evidently, the nature and content of an entrepreneur's relationship with a supplier or institution may differ and, as a result, so may the resources they can obtain from professional and institutional networks. However, our point is that all competitors can access these networks. Such networks might be said to be imitable, which we label as low network inimitability.

By contrast, the private nature of an entrepreneur's personal networks makes them difficult to replicate in terms of accessing them (Arregle *et al*., 2007). In other words, they are characterized by high network inimitability. It is virtually impossible to imitate a competitor's relatives, friends, or acquaintances, and it is extremely difficult to belong to the same associations, since some may be highly exclusive. Furthermore, personal networks are characterized by aspects such as mutual trust, long-term cooperation, or group culture (Arregle *et al*., 2007; Davidsson and Honig, 2003), which are particularly difficult for other firms to replicate. Since associative networks swing between private and public, we typify them as having low-high network inimitability. While participation in professional associations is more imitable to entrepreneurs from the same industry, involvement in social or cultural associations is more difficult to detect and imitate.

In line with the resource-based view of competitive advantage, the competitive environment must be taken into account when explaining the economic performance of small firms (Arando-Lasagabaster and Peña-Legazkue, 2006; Lukas, 1999; Miller, 1988; Slater and Olson, 2000). More specifically, we should consider competitive intensity (i.e., degree of rivalry) in the sector in which the entrepreneur operates. The aggressiveness of commercial practice (in pricing, special offers, etc.), swiftness in imitating new products or services, or the ease with which new competitors may enter the fray are factors that reflect strong competitive pressure within a particular industry (Jaworski and Kohli, 1993).

When competitive intensity increases, social capital becomes a more valuable strategic resource. In this respect, Adjei, Griffith, and Noble (2009) indicate that when the sector is characterized by aggressive business practices, price rivalry, or the continual coming and going of competitors, small firms' relationships with their customers and suppliers provide them with a greater ability to adapt to market changes. In general, the greater the competitive intensity within a sector, the bigger the need to achieve competitive advantage and the more relevant inimitable networks and resources prove.

In highly competitive contexts, a network's inimitability plays a vital role when obtaining a competitive resource. In instances of highly competitive markets, all participants are familiar with existing public organizations and can access them. Thus, this information is public, imitable, and shared by all competitors, and it affords no differentiation. By contrast, personal networks are private and inimitable, and they may provide a source for ideas or contacts that are not accessible to others involved in the sector; ultimately they are the source of advantage. In highly competitive contexts, small firms are likely to seek the variety of resources afforded by more personal and accessible networks in order to find new ways of improving market positioning and innovation. A rich and varied personal network yields a truly 'defendable' competitive advantage over the competition and, as a result, its link to economic performance will be greater. Strong ties deriving from personal relationships (bonding social capital) provide entrepreneurs with secure and consistent access to resources (Davidsson and Honig, 2003; Liao and Welsch, 2003) and allow entrepreneurs to reduce uncertainties by gathering information from trustworthy networks (Lee, 2007). In this regard, empirical evidence from transition economies indicates that personal and social networks may replace nonexistent institutional or market structures (Acquaah, 2007; Batjargal, 2003; Batjargal and Liu, 2004; Butler and Purchase, 2008).

Although, as pointed out, professional or institutional networks may offer entrepreneurs more valuable resources, in times of high competitive intensity, all competitors would identify and try to access said resources. Any entrepreneur may gain access to institutional and professional networks and to some of the public resources these afford (such as training courses, premises for starting a business, or local development agency advice). In such instances, the most inimitable networks are those that mark the difference and enable entrepreneurs to obtain a competitive advantage in the market. For instance, if an entrepreneur is looking for new distribution agents or new retailers in a highly competitive context, the advice provided by institutional and professional networks will also be obtained by other competitors. Therefore, it is not surprising that entrepreneurs seek more original, different, and inimitable advice, information, or contacts with distribution agents or

DOI: 10.1002/sej

retailers in their personal sphere (family and friends). Similarly, entrepreneurs could rely on their personal networks to find ideas for new ventures or improvements in business. According to Stam, Arzlanian, and Elfring (2014), in fast-moving environments, small firms perform better when entrepreneurs have personal networks that facilitate alertness to emerging threats and opportunities.

In cases of high competitive intensity, new, different, and sound ideas are also more likely to be found in private associative networks than in professional networks. Previous research has emphasized the economic resources individuals can access as a result of their involvement in associations (Paik and Navarre-Jackson, 2001; Teckchandani, 2014). Specifically, Teckchandani (2014) finds that civic and social associations, the most private and inimitable ones, are more correlated with the presence of new local business than are business, professional, and labor associations.

Therefore:

Hypothesis 3 (H3): The greater the competitive intensity within the sector, the greater the positive influence of social capital resources of personal (H3a) and associative (H3b) networks on economic performance and the lower the positive influence of social capital resources of professional (H3c) and institutional (H3d) networks.

Network substitutability over time and the moderating role of the entrepreneur's experience

We have seen that an entrepreneur's relationship networks offer a competitive advantage if the resources provided are valuable and hard to replicate. A third source of competitive advantage for an asset is that it should be difficult to substitute. Resources are non-substitutable if there are no strategically equivalent resources (Barney, 1991). As shown in Table 1, some networks can be substituted over time, whereas others are hard to substitute. Even if all the relationship networks may provide the entrepreneur with resources, preferential use of one kind of network is related with the firm's age or the entrepreneur's experience in the sector. Batjargal (2007) proposes that entrepreneurs' experience enhances the positive effects of their networks on firm performance. Sasi and Arenius (2008) explain that in the early stages of a new venture, entrepreneurs rely on family and friends to obtain the information, physical and capital resources, and social support needed to turn an idea into a business reality. In other words, the entrepreneur's personal networks usually provide the initial resources needed to successfully launch a business, when it is not yet possible to develop rich enough professional and institutional networks (Bennett and Robson, 1999; Davidsson and Honig, 2003). Entrepreneurs subsequently increase their internal and external networks with business acquaintances (employees, suppliers, partnerships, etc.) that prove more important in key market areas. They, therefore, replace resources accessed through personal networks, which are more generic and less adapted to business, with resources provided by professional and institutional networks, which are more specific and business-oriented and allow firms to grow (Chen and Wang, 2008; Sasi and Arenius, 2008). In sum, personal and associative networks are characterized by a high degree of substitutability, whereas professional and institutional networks are hard to substitute.

Most of the works cited address the firm's age or the business life cycle as a variable engendering greater development of professional and institutional networks. Our contribution to these works is to underpin the entrepreneur's experience in the particular sector in which he/she is involved, rather than his/her overall experience in the business world. Yet, in the case of an entrepreneur, not only should the firm's age be considered, but also the entrepreneur's whole professional career within an industry (including his/her prior experience in other firms). This professional experience will enable an entrepreneur to establish professional and institutional contacts that will prove useful to his/her new venture. In this sense, we feel that over time entrepreneurs will tend to replace resources drawn from personal networks with embedded resources gained from professional and institutional networks as the latter gradually consolidate. Consequently, the longer an entrepreneur has been working in a sector, the more relevant the professional and institutional networks will prove to the firm's economic performance.

Hypothesis 4 (H4): The lower the entrepreneur's experience in the sector, the greater the positive influence of social capital resources of personal networks on economic performance (H4a). The greater the entrepreneur's experience in the sector, the greater the positive influence of social capital

DOI: 10.1002/sej

resources of professional (H4b) and institutional (H4c) networks on economic performance.

The proposed hypotheses are summarized in Figure 1.

METHODOLOGY

Sample selection

The target population of the study is small entrepreneurs in Spain, that is, businesspeople who are at the same time owner and manager of a small business (50 or fewer employees). Since there is no sampling framework available for our target population, the study drew on cooperation with local Spanish development agencies to distribute the questionnaires. The primary aim of these agencies is to promote economic development in the areas where they are located (EURADA, 1996). Thus, they fully understand the reality of each area and can identify its key players, including local entrepreneurs (Corrales-Leal, 2003; Halkier and Danson, 1998). Although not strictly probabilistic in nature, this method is suitable when no sampling framework is available, as in our case. The main risk of non-probability samples is that there is no clear or specific sampling frame that can reliably represent the population. Therefore, the sample might not prove representative. Researchers have no accurate estimates to gauge whether the sample is representative of the population or not. Despite this, in judgment-based sampling, if the experts know the population well enough (in our case, development agencies are very familiar with the entrepreneurs in each area), results may prove more accurate than those obtained from probabilistic sampling (Parasuraman, Grewal, and Krishnan, 2004). Coviello and Jones (2004) indicate that judgment-based or purposive sampling dominates in international entrepreneurship studies.

Data was gathered from January to December 2009, and the development agents themselves were in charge of contacting the entrepreneurs and distributing and collecting the questionnaires. Following the procedure indicated, and after eliminating some incomplete questionnaires and those of firms with more than 50 employees, a useful sample of 958 entrepreneurs was obtained. Of those surveyed, 62.6 percent of the respondents belong to rural areas and 37.4 percent to urban areas. In terms of business size, in 30.1 percent of the cases, only the entrepreneurs themselves work in the firm; in 41.9 percent of the cases, there are two to four people; in 23.5 percent of the cases, there are five to 15 workers; and in 4.5 percent of the cases, there are 16 to 49 workers. Finally, the type of businesses in the sample is quite varied vis-à-vis the main activity: manufacturing (26.3%), retailing (27.6%), tourism, hotels, and restaurants (16.3%), and other services (29.9%).

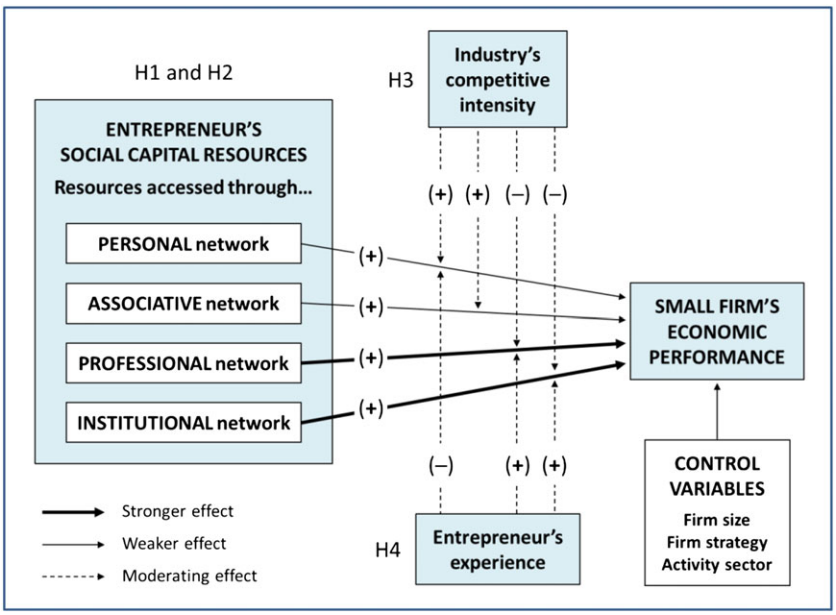

Figure 1. Proposed model

DOI: 10.1002/sej

Measurement of the variables

The most widely embraced methodological proposals for measuring embedded resources in individuals' networks are the so-called Position Generator (Lin and Dumin, 1986) and Resource Generator (Van der Gaag and Snijders, 2005). The Position Generator has been applied successfully in social science studies (Belliveau *et al*., 1996; Lin, 1999; Lin *et al*., 2001). It is based on the idea that social capital can be measured by the occupational or positional characteristics of network members as a proxy variable indicating the social resource collections embedded in an individual's social network. Based on the Position Generator, Van der Gaag and Snijders (2005) developed the Resource Generator. The Resource Generator is also a survey tool for measuring individual social capital. Unlike the Position Generator, however, Resource Generator information directly refers to accessed social resources rather than occupational prestige. This proposal heralds a step forward in the attempt to measure social capital resources since it avoids using a proxy variable (position of network members) to gauge the resources obtained, and it focuses directly on the resources provided by the individuals involved in the network, irrespective of the position they occupy.

The Resource Generator proposed by Van der Gaaj and Snijders (2005) aims to measure, from a sociological perspective, the social capital resources of individuals as a whole, not just of entrepreneurs in particular. Thus, it includes resources that are useful for daily life (i.e., 'personal support' resources). However, since our study aims to measure the impact of social capital on firms' economic performance, we focus on resources of a business nature considered to be strategic in the resource-based view literature. To do so, based on the resources classification proposed by Rubio-Bañón and Aragón-Sánchez (2009), we develop four formative scales to measure the social capital resources of personal, professional, associative, and institutional networks. In all cases, five-point Likert scales were used, referring to the degree to which entrepreneurs consider that each type of network afforded them the chance to acquire financial resources, technology and innovation capabilities, marketing resources, quality management capabilities, human resources, and organizational capabilities. Moreover, we repeated each question addressing access to resources for each of the entrepreneur's relationship networks as suggested by Stone and Hughes (2002). The questionnaire includes a brief description of what we understand to be personal, professional, associative, and institutional networks (see Appendix).

Entrepreneurs' experience was measured as the number of years entrepreneurs had been working in the industry. To measure competitive intensity, we employed a five-item scale developed by Jaworski and Kohli (1993) and later used by Slater and Olson (2000) to study the moderating effect of the environment on the relationship between the relational orientation of the firms and their strategic results. Finally, the four items of the reflective scale of economic performance refer to two dimensions of the strategic results proposed by Walker and Ruekert (1987): market results (market share, positioning, sales) and innovation results (new products and new ventures).

We performed Harman's single-factor test to assess the possible impact of common method variance. Evidence for common method bias exists when a single factor emerges from the factor analysis or when one general factor accounts for the majority of the covariance among the measures. Exploratory factor analysis with all the indicators gave eight factors with an eigenvalue of greater than 1.0 (total variance explained was 83%), with a first factor explaining only 24 percent of the variance. While we are unable to completely rule out the possibility that common method bias affected our findings, results from the mentioned test suggest the possible impact was minimal at most.

Control variables

In order to achieve a strong competitive position in a market, access to suitable resources is not enough. Firms must also adopt the right strategy. Thus, as a first control variable, we introduce entrepreneurs' strategies or strategic profiles into our study. The literature offers a wide range of classifications of a firm's competitive strategies. We consider that the hybrid typology, which results from integrating the proposals of Miles and Snow (1978) and Porter (1980), proves particularly interesting due to its close relationship with the organization's marketing activities (McDaniel and Kolari, 1987; Slater and Olson, 2000). Moreover, the hybrid classification can be used to characterize not only the firm's strategy, but also the entrepreneur's strategic profile. In line with this classification, the entrepreneur's strategic profile can be placed in one of the following categories:

DOI: 10.1002/sej

(1) Prospector strategy. This places the emphasis on the search for new business opportunities starting from the development of new products or entry into a new market. The prospector is usually associated with the pioneering launch of innovations adapted to the changing needs of the market.
(2) Analyzer strategy. As well as working closely with customers, firms that embark on this follower strategy analyze competitors who use prospector strategies to identify their successes and failures and subsequently develop new versions of the product or service that enhance the good qualities and redress the faults.
(3) Low-cost defender strategy. This strategy's principal competitive tool is price. Thus, a considerable effort is required to reduce costs and foster economic efficiency to develop this strategy.
(4) Differentiated defender strategy. Like the previous one, this strategy seeks to defend the firm's target and to retain present customers by offering a product or service that provides a greater added value or any other distinguishing feature.
(5) A fifth strategy, the reactor strategy, should be added to the previous four, although certain authors (Matsuno and Mentzer, 2000; McDaniel and Kolari, 1987; Shortell and Zajac, 1990) omit it since they do not believe it is a strategy in the strict sense, rather a non-strategy, given that reactor organizations do not plan their actions and display no common behavior patterns. In addition, their passive attitude is not normally the result of any deliberate intention on the part of the firm's managers.

Several works have established relationships between strategies and economic results, concluding that each kind of strategy pursues a different type of result (Conant, Mokwa, and Varadarajan, 1990; Hambrick, 1983; McDaniel and Kolari, 1987). Our aim, however, is not to evaluate the differential effect of each type of strategy. We confine ourselves to suggesting that firms who adopt a well-defined strategy (whatever that might be) obtain better results than those who maintain a reactor strategy.

The competitive strategy adopted by the entrepreneur was measured by means of a self-typing scale constructed around the hybrid typology proposed by Slater and Olson (2000). For this, five descriptions of the strategic profile of the business were presented, and participants were asked to situate their enterprise in the one that best described it. This kind of self-typing scale has been used widely in previous studies (Matsuno and Mentzer, 2000; Slater and Olson, 2000). Thus, we obtained five dummy variables: prospector, analyzer, low-cost, differentiated, and reactor. The definitions used in the questionnaire for each strategy are shown in the Appendix.

Although our study focuses on small firms, the size of small firms has been considered a determinant variable of business performance (Orser, Hogarth-Scott, and Riding, 2000). We, therefore, include it as a control variable. A firm's size was measured as the log transformation of the number of employees (logsize) rather than as a raw measure of size, as suggested in previous works (Camisón-Zornoza *et al.*, 2004). We also include the sector of activity as a control variable in order to remove possible effects on business performance. The sector was measured as four dummy variables: manufacturing, commerce-retailing, tourism-restaurant, and other services). Table 2 shows the variables used in the study, their measurement indicators, and the corresponding descriptive statistics (mean and standard deviation).

ANALYSIS AND RESULTS

In order to test the proposed hypotheses, we used moderated hierarchical regression, previously reducing the scales to a single index. As for the formative constructs, we used the partial least squares approach (PLS), an analytical technique that makes it possible to estimate models with formative constructs and can work with nonmetric variables and data that present non-normal distributions. Specifically, *SmartPLS* software (Ringle, Wende, and Will, 2005) was used. PLS estimation comprises estimating both the measurement and the structural models. The measurement model can involve variables measured with formative indicators and variables measured with reflective indicators. Reflective indicators are functions of the latent variable. Therefore, changes in the variable are reflected in changes in the observable indicators. Contrastingly, formative indicators are specific components of the general construct they collectively constitute. In these cases, changes in the indicators determine changes in the value of the variable (Diamantopoulos and Siguaw, 2006).

We estimated the direct effect of resources provided by personal, professional, associative, and

DOI: 10.1002/sej

Table 2. Descriptive statistics: means, standard deviations, weights, and loadings

Variables	Items	Mean	S.T.	VIF	PLS outer weights	PLS outer loadings	Factor loadings[a]
Personal network's social capital resources (personal NR): *Contribution of the personal network to achieving…*	Financial resources	2.61	1.34	1.53	0.155	0.677	
	Technological resources and innovation capabilities	2.43	1.27	1.62	0.536***	0.877	
	Commercial and business capabilities	3.00	1.31	1.55	0.238*	0.701	
	Quality management capabilities	2.66	1.31	2.02	0.118	0.718	
	Human resources	3.02	1.29	1.64	0.064	0.599	
	Organizational capabilities	2.64	1.28	2.07	0.190	0.745	
Professional network's social capital resources (professional NR): *Contribution of the professional network to achieving…*	Financial resources	3.22	1.32	1.45	−0.049	0.476	
	Technological resources and innovation capabilities	3.36	1.25	1.56	0.345***	0.720	
	Commercial and business capabilities	3.69	1.13	1.59	0.323***	0.769	
	Quality management capabilities	3.73	1.14	1.49	0.190*	0.684	
	Human resources	3.64	1.21	1.50	0.232*	0.752	
	Organizational capabilities	3.59	1.19	1.61	0.326***	0.766	
Associative network's social capital resources (associative NR): *Contribution of the associative network to achieving…*	Financial resources	2.21	1.25	1.87	0.176	0.690	
	Technological resources and innovation capabilities	2.33	1.28	2.26	0.093	0.730	
	Commercial and business capabilities	2.72	1.32	2.16	0.614***	0.950	
	Quality management capabilities	2.58	1.31	2.24	0.259*	0.828	
	Human resources	2.53	1.29	2.00	0.004	0.674	
	Organizational capabilities	2.52	1.27	1.11	0.004	0.674	
Institutional network's social capital resources (institutional NR): *Contribution of the institutional network to achieving…*	Financial resources	3.14	1.32	1.47	0.380***	0.754	
	Technological resources and innovation capabilities	2.93	1.30	2.12	−0.062	0.669	
	Commercial and business capabilities	2.95	1.29	2.41	0.318*	0.820	
	Quality management capabilities	2.89	1.31	2.37	0.232	0.785	
	Human resources	2.82	1.33	2.01	0.243*	0.873	
	Organizational capabilities	2.79	1.30	2.21	0.175	0.757	
Competitive intensity *Cronbach's alpha = 0.786% of variance extracted = 54.1%*	In this sector There is a lot of competition among firms	3.97	1.06				0.722

(Continues)

DOI: 10.1002/sej

Table 2. *(Continued)*

Variables	Items	Mean	S.T.	VIF	PLS outer weights	PLS outer loadings	Factor loadings[a]
	Aggressive business practices are normal (price wars, special offers, etc.)	3.46	1.23				0.829
	When a firm introduces an innovation the rest quickly copy the idea	3.41	1.09				0.694
	Price competition is a hallmark of our industry	3.02	1.25				0.687
	There are many competitors who enter and leave the sector or who introduce innovations	3.16	1.20				0.735
Economic performance *Cronbach's alpha = 0.790% of variance extracted = 62.1%*	In recent years our sales have increased	3.28	1.11				0.807
	In recent years our positioning has improved	3.52	0.95				0.825
	We have successfully introduced new products or services in our business	3.39	1.11				0.782
	We have been successful in entering new business areas	3.01	1.19				0.731
Entrepreneur's experience	Number of years of entrepreneur's experience in this industry	11.71	9.47				
Competitive strategy:	Dichotomous scale of self-typing in a profile of…						
Prospector	prospector strategy	0.25	0.43				
Analyzer	analyzer strategy	0.13	0.34				
Low-cost defender	low-cost defender strategy	0.35	0.48				
Differentiated defender	differentiated defender strategy	0.17	0.38				
Reactor	reactor strategy	0.10	0.30				
Size	Number of employees	4.62	6.18				

[a]We performed a confirmatory factor analysis (CFA) for the reflective scales, the goodness of fit indexes being: $X^2(27) = 177.89$ ($p = 0.000$); GFI = 0.961; AGFI = 0.935; RMSEA = 0.076; CFI = 0.940; NFI = 0.931.
* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$ (one-tailed test).

institutional networks on economic performance. The coefficients' level of statistical significance (both of the measurement and the structural model) was calculated by means of a bootstrapping procedure with 500 subsamples randomly extracted from the original sample. Given that the scales employed to measure the social capital resources of the various networks are formative, we previously tested for the nonexistence of multicollinearity between the indicators that make up each scale. In Table 2, presented previously, the values of the variance inflation factor (VIF) are also shown, as are the outer

DOI: 10.1002/sej

weights of each indicator. We observe that collinearity is not at a critical level. As for the significance of the formative indicators, Hair, Hult, Ringle, and Sarstedt (2014) explain that nonsignificant indicator weights should not be interpreted as indicative of poor model quality measurement. When an indicator's outer weight is nonsignificant but its outer loading is high (above 0.50), the indicator should be interpreted as absolutely important but not as relatively important. We have included the outer loadings in Table 2, the lowest being 0.476. The absolute contribution of the indicators can, thus, be interpreted as relevant.

In order to evaluate convergent validity in formative measurement models, testing whether the formatively measured construct is highly correlated with a reflective measure of the same construct is recommended (Hair *et al*., 2014). In our research, in order to limit the length of the questionnaire, we did not include reflective scales for network resources, so we were unable to test convergent validity. Finally, discriminant validity was established since the item-to-construct correlations were higher with each other than with other construct measures.

At this stage of the analysis, structural model estimation is not relevant, as the purpose was to estimate factorial weights. This estimation allowed us to reduce items to the latent variable scores provided by PLS for each construct and, thus, maintain the formative weighting scheme. In the case of competitive intensity and performance, measurement indicators were grouped using principal component factor analysis (Table 2). Reliability is shown to be acceptable (Cronbach alpha above 0.7). We then multiplied the factors measuring the networks' social capital resources by competitive intensity and by the entrepreneur's experience so as to calculate the interaction variables. Independent variables were previously mean centered in order to reduce multicollinearity between the interaction terms and their constituent variables (Aiken and West, 1993). A correlation analysis was carried out prior to the regression analysis (Table 3). The highest correlation between the independent variables and the interaction terms was 0.61. Past studies suggest that correlations at this level might not pose a serious multicollinearity issue for the interaction results generated (Erramilli and Rao, 1993).

Our four hypotheses were tested using hierarchical moderated regression. This method allows us to sequentially introduce different blocks of variables and to check their respective explanatory capacities. Four steps of regression analysis were conducted in this analysis. First, we introduced the control variables (prospector, analyzer, low-cost, differentiated, manufacturing, commerce, tourism, and logsize). Second, in order to verify H1 and H2, we included the block corresponding to the main and direct effects of the various network resources (NR): resources provided by personal, associative, professional, and institutional networks. Third, the direct effects of industry competitive intensity and entrepreneur experience were added. Finally, to estimate the moderating effects suggested in H3 and H4, we incorporated a block with all the interaction terms among the variables in the last two blocks (of personal, associative, professional, and institutional

Table 3. Correlation matrix

	Personal NR	Professional NR	Associative NR	Institutional NR	Competitive intensity	Entrepreneur's experience	Size (log)	Economic performance
Personal NR	1							
Professional NR	0.392**	1						
Associative NR	0.579**	0.383**	1					
Institutional NR	0.469**	0.400**	0.571**	1				
Competitive intensity	0.117**	0.134**	0.118**	0.114**	1			
Entrepreneur's experience	−0.038	0.040	0.042	0.004	0.060	1		
Size (log)	−0.079*	0.146**	0.069*	0.123**	0.102**	0.362**	1	
Economic performance	0.199**	0.277**	0.202**	0.242**	0.185**	-0.073*	0.079*	1

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$ (two tailed).

DOI: 10.1002/sej

Table 4. Moderated hierarchical regression

	Step 1			*Step 2*			*Step 3*			*Step 4*[1]		
	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.
Constant	−0.513	0.122	***	−0.463	0.117	***	−0.334	0.119	**	−0.340	0.120	**
Prospector (strategy)	0.759	0.125	***	0.694	0.120	***	0.651	0.119	***	0.655	0.119	***
Analyzer (strategy)	0.598	0.140	***	0.515	0.134	***	0.467	0.133	***	0.473	0.133	***
Low-cost (strategy)	0.414	0.120	***	0.370	0.114	***	0.340	0.113	**	0.354	0.114	**
Differentiated (strategy)	0.382	0.132	**	0.354	0.126	**	0.331	0.124	**	0.335	0.125	**
Manufacturing (industry)	−0.186	0.093	*	−0.212	0.089	*	−0.194	0.089	*	−0.195	0.089	*
Commerce (industry)	−0.052	0.089	n.s.	0.033	0.086	n.s.	0.006	0.085	n.s.	0.011	0.085	n.s.
Tourism (industry)	−0.037	0.102	n.s.	−0.004	0.098	n.s.	0.006	0.097	n.s.	−0.012	0.096	n.s.
LogSize	0.096	0.039	*	0.072	0.038	*	0.091	0.039	*	0.091	0.039	*
Personal network's resources (personal NR)				0.061	0.042	n.s.	0.051	0.041	n.s.	0.051	0.041	n.s.
Associative network's resources (associative NR)				0.015	0.044	n.s.	0.017	0.044	n.s.	0.022	0.043	n.s.
Professional network's resources (professional NR)				0.174	0.037	***	0.165	0.036	***	0.169	0.036	***
Institutional network's resources (institutional NR)				0.134	0.041	***	0.123	0.040	**	0.106	0.041	**
Competitive intensity							0.127	0.032	**	0.121	0.032	***
Entrepreneur's experience							−0.010	0.004	***	−0.010	0.004	**
Personal NR*Competitive intensity										0.063	0.038	(+)
Associative NR*Competitive intensity										0.012	0.042	n.s.
Professional NR*Competitive intensity										0.004	0.034	n.s.
Institutional NR*Competitive intensity										−0.094	0.039	*
Personal NR*Entrepreneur's experience										−0.006	0.004	n.s.
Associative NR*Entrepreneur's experience										0.001	0.004	n.s.
Professional NR*Entrepreneur's experience										0.008	0.003	*

(Continues)

Table 4. *(Continued)*

	Step 1			*Step 2*			*Step 3*			*Step 4*[1]		
	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.	β no standard.	S.E.	Sig.
Institutional NR*Entrepreneur's experience										0.010	0.004	*
R^2 / R^2 adjusted		0.061 / 0.053			0.150 / 0.138		0.172 / 0.159				0.193 / 0.172	
F (sig.)		7.10 ***			12.75 ***		12.83***				9.30 ***	
Change statistics	**R^2 change**	0.061			0.089		0.022				0.021	
	F change (sig.)	7.10***			22.64***		11.49***				2.76**	

+ $p < 0.10$
* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$
(n.s.) nonsignificant.
[1] With regard to step 3, including the moderating effects of competitive intensity individually yields the following changes: R^2 change = 0.006; F change = 1.68 (0.152).
[1] With regard to step 3, including the moderating effects of entrepreneur's experience individually yields the following changes: R^2 change = 0.013; F change = 3.51 (0.007).

NR with competitive intensity and entrepreneur experience). Results are shown in Table 4.

As can be observed, the explanatory capacity of the model is limited (low R^2 values), which should not concern us since our goal was not to explain entrepreneurs' economic performance, but to test the existence of the foreseen effect of social capital resources on performance. Nevertheless, Table 4 (step 2) shows the positive and significant effects of the social capital resources of the professional ($\beta = 0.174$; $p < 0.001$) and institutional ($\beta = 0.134$; $p < 0.001$) networks and the nonsignificant effects corresponding to personal and associative networks. As a result, we can accept H1c and H1d, but must reject H1a and H1b.

Resources obtained through entrepreneurs' professional and institutional networks significantly contribute to improving their results, while resources derived from associative and personal networks do not appear to be relevant, which seems to point in the direction indicated by H2. In order to test that the standardized beta coefficients of professional and institutional NR were significantly higher than the coefficients of personal and associative NR, we performed a t-test for mean differences (Table 5). Moreover, we estimated 95 percent confidence intervals (Figure 2). According to Cumming and Finch's (2005) rule, two estimates can be considered as statistically significantly different from each other when the corresponding 95 percent confidence intervals overlap by no more than 50 percent. As can be seen in Table 5 and Figure 2, the coefficient of professional NR can be considered significantly higher than the coefficients of personal ($p = 0.06$) and associative ($p = 0.005$) NR. Put differently, the effect of social capital resources on economic performance is greater in the case of professional networks than in the case of personal and associative networks. Similarly, the effect of institutional NR can be considered significantly higher than the effect of associative NR ($p = 0.03$). However, the effect of institutional NR is not significantly higher than the effect of personal NR. Hence, with this sole exception, we can (at least partly) accept H2.

In regard to the moderating effects of the competitive environment (H3) and the entrepreneur's experience (H4), we observe that the change in the F-statistic caused by adding the interaction effects is significant. Therefore, the interaction effects improve the explanation of economic performance. Step 4 confirms there are some significant interactions between competitive intensity and social capital

DOI: 10.1002/sej

Table 5. Comparison of estimates: t-test for mean differences (95%)

	Estimate	S.E.	Difference	t-statistic	p-value
Personal NR → Performance	0.061	0.041	−0.113	1.879	0.060
Professional NR → Performance	0.174	0.044			
Personal NR → Performance	0.061	0.041	−0.073	1.259	0.208
Institutional NR → Performance	0.134	0.041			
Associative NR → Performance	0.015	0.036	−0.159	2.797	0.005
Professional NR → Performance	0.174	0.044			
Associative NR → Performance	0.015	0.036	−0.119	2.181	0.029
Institutional NR → Performance	0.134	0.041			

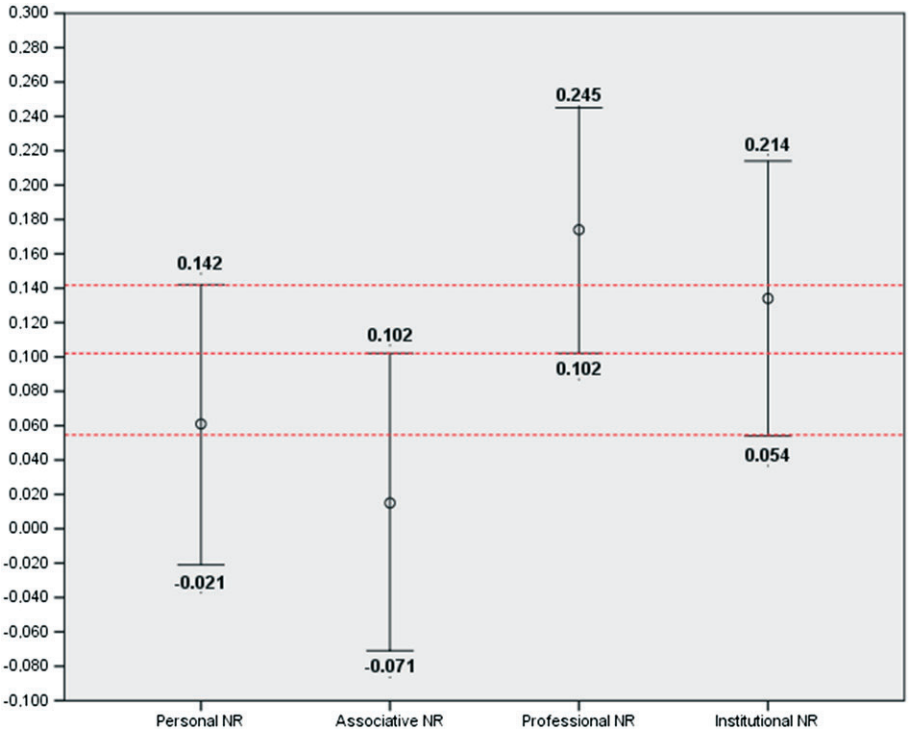

Figure 2. Confidence intervals to test H2*

(*) The dashed horizontal lines indicate confidence interval overlap.

Overlap of confidence intervals of personal NR and professional NR à (0.142−0.102)/(0.142+0.021) = 24.5%

Overlap or confidence intervals of personal NR and institutional NR à (0.142−0.054)/(0.142+0.021) = 54%

Overlap of confidence intervals of associative NR and professional NR à 0%

Overlap of confidence intervals of associative NR and institutional NR à (0.102−0.054)/(0.102+0.071) = 27.7%

resources in small firms. In the case of personal NR, the interaction effect is not very significant, but is positive ($\beta = 0.063$; $p < 0.10$). In the case of institutional NR, the interaction is significant and negative ($\beta = -0.094$; $p < 0.05$). The interaction effects of associative and professional NR with competitive intensity are nonsignificant. This leads us to accept H3a and H3d and reject H3b and H3c. Moreover, interactions between the entrepreneur's experience and professional ($\beta = 0.08$; $p < 0.05$) and institutional ($\beta = 0.010$; $p < 0.05$) NR are significant and positive, but nonsignificant in the case of personal NR. We, therefore, find support for H4b and H4c (not for H4a).

To better understand the significant interactions, we used simple slope analysis as recommended by Aiken and West (1993). Each interaction effect was analyzed considering three conditional values of the moderator variable: the mean, one standard deviation below, and one standard deviation above the mean.

DOI: 10.1002/sej

This generates three alternative β values in each case, which appear in Table 6. The interaction effects are represented in Figure 3.

H3 posits the moderating effect of competitive intensity. The model estimation (Table 6) reveals that when competitive intensity is high, the impact of personal NR on economic performance is significant ($\beta = 0.104$; $p < 0.05$), although they have no effect in low rivalry situations. In parallel, Figure 3a shows that the slope of the relationship between personal NR and performance is greater in situations of high competitive intensity. Confirming H3a, as competitive intensity increases, the resources the entrepreneur obtains from this personal network acquire more value (i.e., prove more effective). Contrastingly, in highly competitive intensity situations, institutional NR have no effect on performance, whereas the effect is significant and positive ($\beta = 0.144$; $p < 0.01$) when competitive intensity is low. In addition, as shown in Figure 3b,

Table 6. Simple slope analysis: β values conditioned by moderator variable values

Moderator variable	Predictor variable	Moderator variable value		
		One standard deviation below	**Mean**	**One standard deviation above**
Competitive intensity	Personal NR	−0.015	0.051	0.104*
	Institutional NR	0.144**	0.106**	0.006
Entrepreneur's experience	Professional NR	0.104*	0.169***	0.238***
	Institutional NR	0.012	0.106**	0.185***

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$ (two tailed).

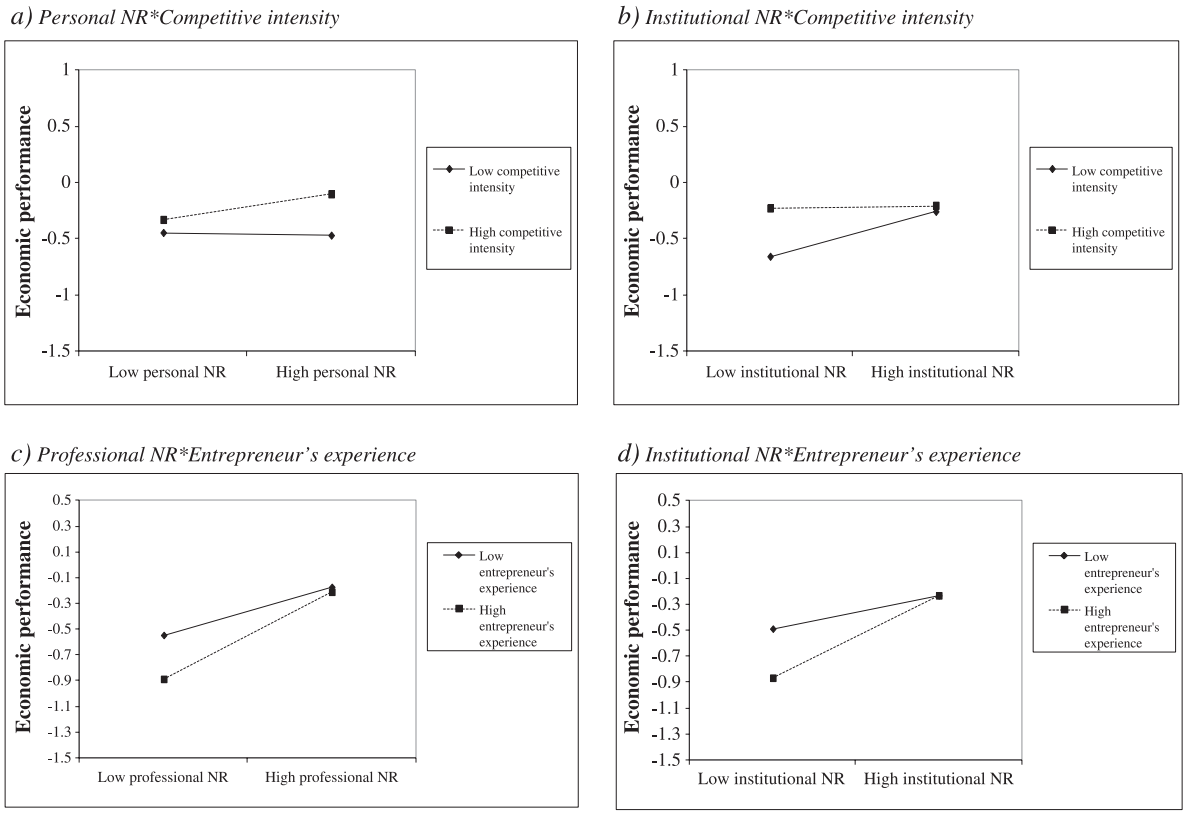

Figure 3. Interaction plots

DOI: 10.1002/sej

the slope corresponding to institutional NR is higher in situations of low competitive intensity. Supporting H3d, it can be concluded that the influence of resources accessed through the institutional network on economic performance decreases as competitive intensity increases. In the remaining cases, the interactions are not statistically significant. Thus, we reject H3b and H3c.

As for H4 (the moderating effect of entrepreneur experience), the influence of professional NR on economic performance is higher when entrepreneurs have more years of experience in the industry ($\beta = 0.238$; $p < 0.001$) than when their experience is limited ($\beta = 0.104$; $p < 0.05$). Similarly, the influence of institutional NR on economic performance is significant when the entrepreneur has more years of experience in the industry ($\beta = 0.185$; $p < 0.001$), yet is nonsignificant when experience is limited. Furthermore, Figsure 3c,d show that the positive slopes corresponding to professional and institutional NR are steeper when entrepreneurs' experience is greater, thus leading us to accept H4b and H4c. The impact of personal NR does not vary for the different degrees of business experience, thereby leading us to reject H4a.

With regard to the control variables, some interesting results emerge. First, small firms' strategies impact economic performance. Although any strategy the firm actively embarks upon should be better than the reactor strategy, it seems that their impacts on performance differ. We conducted an ANOVA and a Tukey test to evaluate the different effects of strategies, with the relation between strategy and economic performance proving to be significant ($F = 12.478$; $p < 0.001$). These analyzes indicate that the prospector and analyzer strategies contribute most to improving the firm's results. Compared to the reactor strategy (or non-strategy), the analyzer, low-cost defender, and differentiated defender strategies also improve firms' performance, although we found no differences among the effects of these three strategies.

Second, the effect of size is significant and positive, indicating that larger firms obtain better economic performance than smaller firms. As we measure firms' size as the logarithm of the number of employees, this means that performance increases with size at a declining rate. Finally, only in the case of the manufacturing sector do we find a negative and significant effect, showing that economic performance in the manufacturing sector is lower than in the 'other services' sector.

DISCUSSION

Increasingly, small firms need to discover how to forge a competitive opening in a market dominated by large firms. This is why the current work merges both the business-based and the sociological-based views of relationship networks in an attempt to consider all the relationships open to entrepreneurs as true strategic resources and as one of their potential sources of competitive advantage.

The main theoretical implication of this study is that it furthers the role of small entrepreneurs' social capital resources in a firm's performance. In a small business context, certain resources must be sought in entrepreneurs' relationship networks themselves. The present study bears out the relevance of so-called social capital resources vis-à-vis obtaining enhanced economic performance in terms of market and innovation results. Moreover, not all networks allow entrepreneurs to access relevant resources, with only some of the resources provided by each network actually proving valid from the business standpoint.

Results from the analysis show that entrepreneurs' various relationship networks are not all equally advantageous. We find that economic performance is boosted by the resources entrepreneurs obtain via their professional and institutional networks (traditionally associated to bridging and linking social capital, respectively). However, personal and associative networks do not appear to be so relevant. Yet, even though the resources afforded by personal and associative relations do not seem to impact entrepreneurial performance, this might be qualified if the industry's competitive intensity and entrepreneurs' experience are taken into account.

When competitive intensity in the sector is high, the resources entrepreneurs acquire through personal networks gain in relevance as an element for improving their economic performance, while resources obtained via institutional networks become less relevant. One explanation for this may be the private and highly idiosyncratic nature of personal network resources compared to other networks. In high competitive intensity, entrepreneurs' personal relationships (personal networks) will offer secure support, which is more difficult to find in other networks. This result is similar to that reported by Lahiri *et al.*, (2009), who find that the internal resources (human and organizational) of firms who face high levels of rivalry had a greater impact on performance than those anticipating low rivalry. They

DOI: 10.1002/sej

indicate that executives probably feel they need to deploy internal resources better to counter the moves of rival firms. However, external or relational resources, specifically business relationships with clients, enhance performance levels when anticipated rivalry is low.

According to our results, although institutional networks provide more valuable resources and even though entrepreneurs will try to improve these relationships, in high competitive intensity situations, personal networks could spell the difference between one competitor and another, since these are private and accessible networks. Two businesspeople may draw on extremely differing personal networks and, thus, be able to access very different resources through them. Consequently, the resources accessed via these personal networks could account for the difference in the results of small firms. Strangely enough, competitive rivalry does not moderate the effect of resources provided by associative and professional networks on performance. The former will continue to have little relevance vis-à-vis performance compared to the latter, i.e., the high value of professional network resources remains unchanged with the level of competitive intensity.

Entrepreneurs' business experience also helps explain the effect of the different networks' social capital on performance. As experience in the sector increases, so does the influence of professional and institutional network social capital resources on economic performance. Experience contributes to developing wider and more diverse professional and institutional networks whose influence on economic performance proves more relevant.

Prior literature on social capital (Putnam, 1995; Sabatini, 2009) has tended to link the nature of relations (personal, associative, professional, and institutional) to various types of social capital in terms of the value of embedded resources (bonding, bridging, and linking). Our study shows that when there are no external determining factors, such a link proves to be true. As assumed, professional networks (bridging social capital) and institutional networks (linking social capital) offer entrepreneurs valuable resources. By contrast, in personal networks (bonding social capital), entrepreneurs have greater difficulty finding valuable resources. It is difficult to ascertain what kind of social capital associative networks are able to provide in terms of accessing resources. Surprisingly, in no instances do the resources afforded by such networks provide any competitive advantage. Our research shows that this link between the kind of network and the nature of the social capital can be either broken or strengthened depending on certain external factors. Specifically, entrepreneurs' experience in the sector enhances the social capital bridging of professional networks and the social capital linking of institutional networks.

Contrastingly, in high competitive intensity contexts, the relationship posited in the literature does not hold: institutional networks lose their role of social capital linking (the resources they provide cease to be a source of competitive advantage), professional networks maintain their role of social capital bridging (they continue to be the main source of resources shaping business success and performance), and the role of personal networks changes from one of social capital bonding to that of social capital bridging. Put differently, entrepreneurs' personal relations are able to 'free themselves' from perfect competition and provide access to ideas and resources that differ from those of others who are involved in their particular area of business.

Whatever the case, we must clearly bear in mind that only certain resources are significant in each type of network. Resources to which entrepreneurs have access through their personal networks (relationships with family relatives and friends) and contribute to economic performance (in the case of major competitive rivalry) are those related to technology, innovation, and marketing capabilities. In professional networks (relationships with partners, workers, suppliers, and customers), relevant resources for economic performance are technological, commercial (marketing), quality management, human, and organizational. Finally, the resources obtained via entrepreneurs' institutional networks (relationships with institutions or public authorities) that contribute to boosting the results of the small firm are financial, commercial (marketing), and human resources. These results are aligned with the propositions of Shipilov and Danis (2006), who suggest that a good fit between the managerial team's type of social capital, the company's strategic profile, and environmental stability, enhances organizational performance.

Managerial implications

In terms of the implications for small business management, integrating entrepreneurs in the relationship networks that afford them access to

DOI: 10.1002/sej

certain resources is clearly a key factor in their business's future. It is, therefore, important that entrepreneurs evaluate what type of relationships they should maintain, consolidate, or invest in to obtain the required resources and capabilities. Entrepreneurs can obtain financial resources through their personal networks—especially if these are wide ranging and interrelated—and the associations to which they belong. They may find their technological and commercial capabilities extended if they strengthen their relationships with market agents (particularly, suppliers and customers) and may obtain organizational resources if they join associations and professional networks. Together with this, adopting a clearly defined competitive strategy (but not a reactive one) is a relevant factor for the success of small entrepreneurs.

Another implication of our study is that entrepreneurs must do their utmost to maintain and strengthen their own relationship networks and to connect with and integrate into other existing ones. As Partanen *et al.* (2008) conclude, the importance of social capital is fundamental in the different phases of a business (innovation, marketing, and sales growth). Managing and using said social capital must, therefore, remain ongoing. Yet, creating networks needs not be confined to the initiative of the entrepreneur. While large companies can create and manage their relationship networks internally, such a task is not always feasible for entrepreneurs whose networks of contacts may initially be small. In this aspect, public authorities and, more specifically, local and regional development agencies, must play an important role when it comes to facilitating entrepreneur access to or contact with the various agents. Organizing events in which businesspeople from varying sectors participate, creating specific associations at the local level in order to bring together individuals with different capabilities, or developing activities that promote relational links among neighbors or citizens in a given area are some of the possibilities for increasing local entrepreneurs' relationship networks.

Limitations and future research

This study is not without its limitations and possibilities for future research. The first limitation concerns the subjective measurement of performance. Future studies should analyze the impact of networks on performance, collecting objective data on growth, sales, and benefits. In addition, the present work defines, in broad terms, the extent to which networks offer valuable resources, which are inimitable in the case of high competitive rivalry or are substitutable over time. However, research should strive to gauge entrepreneurs' perceptions of the features of the resources afforded by each network, exploring whether contextual or idiosyncratic factors in a given sector may alter the value, imitability, and substitutability of the resources embedded in personal, associative, professional, and institutional networks.

In addition, the study was carried out on a varied sample of small entrepreneurs. A differential analysis by sectors would allow us to specify the degree to which social capital affects each type of business. A more detailed description of the strategies is also needed, bearing in mind the peculiarities of each business sector, as is an analysis of the relationship between entrepreneurs' strategies and their access to resources through relationship networks. Future research should also explore the implications of firm ownership for the type of resources accessed through networks, in particular for venture capitalists.

Our study of entrepreneurs' social capital resources was conducted in Spain, a developed economy with good market infrastructure and a stable social, political, economic, and institutional environment. It would seem feasible to replicate the study in other similar economies, such as other Euro zone countries. In a different vein, one future direction of the current research is to extend the study to other quite distinct contexts (including emerging economies), different cultural environments depending on the role of social institutions (families, social groups, associations, etc.), or countries with different transparency and efficacy in public institutions. Only then will it be possible to evaluate the generalizability of our findings. As a first step, with our sample and the available data, we would be able to carry out a comparative analysis between the subsample belonging to rural areas and the subsample belonging to urban areas.

Finally, the study could be complemented by analyzing the various dimensions of social capital (structural, relational, and cognitive social capital) in order to shed light on which features of entrepreneurs' relationship networks (size, diversity, cohesion, relational orientation, etc.) facilitate access to useful resources. The resource-based view of competitive advantage indicates that, thanks to learning effects,

DOI: 10.1002/sej

many resources and most capabilities are enhanced by use. It would, therefore, prove enlightening to analyze the formation and maintenance of networks over time, in other words, the life cycle of entrepreneurs' relationship networks.

Despite these limitations, the present study shows that entrepreneurs' economic performance is mainly influenced by professional and institutional network resources. However, the industry's competitive intensity reduces the effect of resources provided by institutional networks and increases the relevance of resources provided by personal relationships, whereas entrepreneurs' experience in the sector reinforces the impact of professional and institutional network resources.

REFERENCES

Acquaah M. 2007. Managerial capital strategic orientation and organizational performance in an emerging economy. *Strategic Management Journal* **28**(12): 1235–1255.

Adjei MT, Griffith DA, Noble SM. 2009. When do relationships pay off for small retailers? Exploring targets and contexts to understand the value of relationship marketing. *Journal of Retailing* **85**(4): 493–501.

Adler PS, Kwon SW. 2002. Social capital: prospects for a new concept. *Academy of Management Review* **27**(1): 17–40.

Aiken LS, West SG. 1993. *Multiple Regression: Testing and Interpreting Interactions*. SAGE Publications: Newbury Park, CA.

Aldrich HE, Kim PH. 2007. Small worlds, infinite possibilities? How social networks affect entrepreneurial team formation and search. *Strategic Entrepreneurship Journal* **1**(1/2): 147–165.

Amit R, Schoemaker PJ. 1993. Strategic assets and organizational rent. *Strategic Management Journal* **14**(1): 33–46.

Ancori B, Bureth A, Cohendet P. 2000. The economics of knowledge: the debate about codification and tacit knowledge. *Industrial and Corporate Change* **9**(2): 255–287.

Andersson U, Blankenburg-Holm D, Johanson M. 2007. Moving or doing? Knowledge flow, problem solving, and change in industrial networks. *Journal of Business Research* **60**(1): 32–40.

Arando-Lasagabaster S, Peña-Legazkue I. 2006. Las cooperativas vascas ante un futuro incierto. *Ekonomiaz* **62**(2): 100–123.

Arinaitwe SK. 2006. Factors constraining the growth and survival of small scale businesses: a developing countries analysis. *Journal of the American Academy of Business* **8**(2): 167–178.

Arregle JL, Hitt MA, Sirmon DG, Very P. 2007. The development of organizational social capital: attributes of family firm. *Journal of Management Studies* **44**(1): 73–95.

Auh S, Menguc B. 2005. Top management team diversity and innovativeness: the moderating role of interfunctional coordination. *Industrial Marketing Management* **34**(3): 249–261.

Bamford CE, Bruton GD, Hinson YL. 2006. Founder/chief executive officer exit: a social capital perspective of new ventures. *Journal of Small Business Management* **44**(2): 207–220.

Barney JB. 1991. Firm resources and sustained competitive advantage. *Journal of Management* **17**(1): 99–120.

Baron RA, Markman GD. 2003. Beyond social capital: the role of entrepreneurs' social competence in their financial success. *Journal of Business Venturing* **18**(1): 41–60.

Batjargal B. 2003. Social capital and entrepreneurial performance in Russia: a longitudinal study. *Organization Studies* **24**(4): 535–556.

Batjargal B. 2007. Internet entrepreneurship: social capital, human capital, and performance of internet ventures in China. *Research Policy* **36**(5): 605–618.

Batjargal B, Liu M. 2004. Entrepreneur's access to private equity in China: the role of social capital. *Organization Science* **15**(2): 159–172.

Belliveau M, O'Reilly C, Wade J. 1996. Social capital at the top: effects of social similarity and status on CEO compensation. *Academy of Management Journal* **39**(6): 1568–1593.

Bennett RJ, Robson PJA. 1999. The use of external business advice by SMEs in Britain. *Entrepreneurship and Regional Development* **11**(2): 155–180.

Black JA, Boal KB. 1994. Strategic resources: traits configurations and paths to sustainable competitive advantage. *Strategic Management Journal*, Summer Special Issue **15**: 131–148.

Bosma N, Van Praag M, Thurik R, de Wit G. 2004. The value of human and social capital investments for the business performance of start-ups. *Small Business Economics* **23**(3): 227–236.

Bourdieu P. 1986. The forms of capital. In *Handbook of Theory and Research for the Sociology of Education*, Richardson JG (ed). Greenwood Press: New York; 241–258.

Burt RS. 1992. *Structural Holes: The Social Structure of Competition*. Harvard University Press: Cambridge, MA.

Burt RS. 2000. The network structure of social capital. *Research in Organizational Behavior* **22**: 345–423.

Burt RS. 2004. Structural holes and good ideas. *American Journal of Sociology* **110**(2): 349–399.

Butler B, Purchase S. 2008. Use of social capital among Russian managers of a new generation. *Industrial Marketing Management* **37**(5): 531–538.

Camisón-Zornoza C, Lapiedra-Alcamí R, Segarra-Ciprés M, Boronat-Navarro M. 2004. A meta-analysis of innovation

and organizational size. *Organization Studies* **25**(3): 331–361.

Carter R, Van Auken H. 2006. Small firm bankruptcy. *Journal of Small Business Management* **44**(4): 493–512.

Casson M, Della Giusta M. 2007. Entrepreneurship and social capital: analysing the impact of social networks on entrepreneurial activity from a rational action perspective. *International Small Business Journal* **25**(3): 220–244.

Chen MH, Wang MC. 2008. Social networks and a new venture's innovative capability: the role of trust within entrepreneurial teams. *R&D Management* **38**(3): 253–264.

Conant JS, Mokwa MP, Varadarajan PR. 1990. Strategic types distinctive marketing competencies and organizational performance: a multiple measures-based study. *Strategic Management Journal* **11**(5): 365–383.

Corrales-Leal W. 2003. Competitiveness revisited: a policy approach for achieving development objectives in the economic social and environmental spheres. Proceedings of XI United Nations Conference on Trade and Development, Geneva, Switzerland.

Coviello NE, Jones MV. 2004. Methodological issues in international entrepreneurship research. *Journal of Business Venturing* **19**(4): 485–508.

Coviello NE, Munro HJ. 1997. Network relationships and the internationalisation process of small software firms. *International Business Review* **6**(4): 361–386.

Cumming G, Finch S. 2005. Inference by eye: confidence intervals and how to read pictures of data. *American Psychologist* **60**(2): 170–180.

Davidsson P, Honig B. 2003. The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing* **18**(3): 301–331.

Diamantopoulos A, Siguaw JA. 2006. Formative versus reflective indicators in organizational measure development: a comparison and empirical illustration. *British Journal of Management* **17**: 263–282.

Dierickx I, Cool K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science* **35**(12): 1504–1514.

Erramilli MK, Rao CP. 1993. Service firms' international entry mode choice: a modified transaction-cost analysis approach. *Journal of Marketing* **57**: 19–38.

EURADA. 1996. *Creation, Development, and Management of RDAs: Does it have to be so Difficult?* European Association of Development Agencies: Brussels, Belgium. Available at: http://www.eurada.org (accessed 15 June 2006).

Gedajlovic E, Honig B, Moore CB, Payne GT, Wright M. 2013. Social capital and entrepreneurship: a schema and research agenda. *Entrepreneurship Theory and Practice* **37**(3): 455–478.

Gittell R, Vidal A. 1998. *Community Organizing: Building Social Capital as a Development Strategy*. SAGE Publications: Thousand Oaks, CA.

Granovetter MS. 1973. The strength of weak ties. *American Journal of Sociology* **78**(6): 1360–1380.

Granovetter MS. 2005. The impact of social structure on economic outcomes. *Journal of Economic Perspectives* **19**(1): 33–50.

Grant RM. 1991. The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review* **33**(3): 114–135.

Greene PG, Brown TE. 1997. Resource needs and the dynamics capitalism typology. *Journal of Business Venturing* **12**(3): 161–174.

Greve A, Salaff JW. 2003. Social networks and entrepreneurship. *Entrepreneurship Theory and Practice* **28**(1): 1–22.

Hair JF, Hult GTM, Ringle CM, Sarstedt M. 2014. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications: Thousand Oaks, CA.

Halkier H, Danson M. 1998. Regional development agencies in Western Europe: a survey of key characteristics and trends. In *Regional Development Agencies in Europe*, Halkier H, Damborg C, Danson M (eds). Jessica Kingsley: London, U.K.; 26–44.

Hall R. 1993. A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal* **14**(8): 607–618.

Hambrick DC. 1983. Some tests of the effectiveness and functional attributes of Miles and Snow's strategic types. *Academy of Management Journal* **26**(1): 5–25.

Helfat CE, Finkelstein S, Mitchell W, Peteraf M, Singh H, Teece D, Winter S. 2007. *Dynamic Capabilities: Understanding Strategic Change in Organizations*. Blackwell: London, U.K.

Helfat CE, Peteraf MA. 2009. Understanding dynamic capabilities: progress along a developmental path. *Strategic Organization* **7**(1): 91–102.

Hitt MA, Bierman L, Shimizu K, Kochlar R. 2001. Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource-based perspective. *Academy of Management Journal* **44**(1): 13–28.

Hsieh MH, Tsai KH. 2007. Technological capability social capital and the launch strategy for innovative products. *Industrial Marketing Management* **36**(4): 493–502.

Jansen RJG, Curseu PL, Vermeulen PAM, Gibcus P. 2011. Social capital as a decision aid in strategic decision making in service organizations. *Management Decision* **49**(5): 734–747.

Jaworski BJ, Kohli AK. 1993. Market orientation: antecedents and consequences. *Journal of Marketing* **57**(3): 53–70.

Johannisson B. 2008. Regional development as entrepreneurial networking: from rational choice to self-organizing. In *Networks Governance and Economic Development: Bridging Disciplinary Frontiers*, Aranguren-Querejeta MJ, Iturrioz-Landart C, Wilson JR (eds). Edward Elgar Publishing: Cheltenham, U.K.; 57–77.

Klyver K, Hindle K, Meyer D. 2008. Influence of social network structure on entrepreneurship participation: a study

of 20 national cultures. *International Entrepreneurship and Management Journal* **4**(3): 331–347.

Komulainen H, Mainela T, Tahtinen J. 2006. Social networks in the initiation of a high-tech firm's internationalisation. *International Journal of Entrepreneurship and Innovation Management* **6**(6): 526–541.

Lahiri S, Kedia BL, Raghunath S, Agrawal NM. 2009. Anticipated rivalry as a moderator of the relationship between the firm resources and performance. *International Journal of Management* **26**(1): 149–158.

Lavie D. 2006. The competitive advantage of interconnected firms: an extension of the resource-based view. *Academy of Management Review* **31**(3): 638–658.

Lee GK. 2007. The significance of network resources in the race to enter emerging product markets: the convergence of telephony communications and computer networking, 1989–2001. *Strategic Management Journal* **28**(1): 17–37.

Liao J, Welsch H. 2003. Social capital and entrepreneurial growth aspiration: a comparison of technology- and non-technology-based nascent entrepreneurs. *Journal of High Technology Management Research* **14**(1): 149–170.

Lin N. 1982. Social resources and instrumental action. In *Social Structure and Network Analysis*, Marsden PV, Lin N (eds). SAGE Publications: Beverly Hills, CA; 131–145.

Lin N. 1999. Building a network theory of social capital. *Connections* **22**(1): 28–51.

Lin N, Dumin M. 1986. Access to occupations through social ties. *Social Networks* **8**(4): 365–385.

Lin N, Fu YC, Hsung RM. 2001. The Position Generator: measurement techniques for investigations of social capital. In *Social Capital: Theory and Research*, Lin N, Cook K, Burt RS (eds). Aldine de Gruyter: New York; 57–83.

Lukas BA. 1999. Strategy-type market orientation and the balance between adaptability and adaptation. *Journal of Business Research* **45**(2): 147–156.

Matsuno K, Mentzer JT. 2000. The effects of strategy type on the market orientation-performance relationship. *Journal of Marketing* **64**(4): 1–16.

McDaniel S, Kolari JW. 1987. Marketing strategy implications of the Miles and Snow strategy typology. *Journal of Marketing* **51**(4): 19–30.

Miles RE, Snow CC. 1978. *Organizational Strategy: Structure and Processes*. McGraw-Hill: New York.

Miller D. 1988. Relating Porter's business strategies to environment and structure: analysis and performance implications. *Academy of Management Journal* **31**(2): 280–308.

Nahapiet J, Ghoshal S. 1998. Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review* **23**(2): 242–266.

Narayan D, Cassidy MF. 2001. A dimensional approach to measuring social capital: development and validation of a social capital inventory. *Current Sociology* **49**(2): 59–102.

Orser BJ, Hogarth-Scott S, Riding AL. 2000. Performance, firm size, and management problem solving. *Journal of Small Business Management* **38**(4): 42–58.

Paik A, Navarre-Jackson L. 2001. Social networks, recruitment, and volunteering: are social capital effects conditional on recruitment? *Nonprofit and Voluntary Sector Quarterly* **40**(3): 476–496.

Parasuraman A, Grewal D, Krishnan K. 2004. *Marketing Research*. Houghton Mifflin: Boston, MA.

Partanen J, Möller K, Westerlund M, Rajala R, Rajala A. 2008. Social capital in the growth of science-and-technology-based SMEs. *Industrial Marketing Management* **37**(5): 513–522.

Payne GT, Moore CB, Griffis SE, Autry CW. 2011. Multilevel challenges and opportunities in social capital research. *Journal of Management* **37**(2): 491–520.

Pirolo L, Presutti M. 2010. The impact of social capital on the start-ups' performance growth. *Journal of Small Business Management* **48**(2): 197–227.

Porter ME. 1980. *Competitive Strategy*. Free Press: New York.

Portes A. 1998. Social capital: its origins and applications in modern sociology. *Annual Review of Sociology* **24**: 1–24.

Putnam RD. 1995. Bowling alone: America's declining social capital. *Journal of Democracy* **6**(1): 65–78.

Putnam RD, Leonardi R, Nanetti RY. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton University Press: Princeton, NJ.

Ringle CM, Wende S, Will A. 2005. *SmartPLS 2.0 (M3 Beta)*. University of Hamburg: Hamburg, Germany. Available at: http://www.smartpls.de (accessed 15 June 2011).

Rubio-Bañón A, Aragón-Sánchez A. 2009. Recursos críticos y estrategia en la pyme industrial. *Información Comercial Española: Tribuna de Economía* **846**: 193–211.

Sabatini F. 2009. Social capital as social networks: a new framework for measurement and an empirical analysis of its determinants and consequences. *Journal of Socio-Economics* **38**(3): 429–442.

Sasi V, Arenius P. 2008. International new ventures and social networks: advantage or liability? *European Management Journal* **26**(6): 400–411.

Saxenian A. 1994. *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press: Cambridge, MA.

Seevers MT, Skinner SJ, Dahlstrom R. 2010. Performance implications of a retail purchasing network: the role of social capital. *Journal of Retailing* **86**(4): 310–321.

Sharma P. 2008. Commentary: familiness, capital stocks and flows between family and business. *Entrepreneurship Theory and Practice* **32**(6): 971–977.

Sherry R, Stubberud HA. 2013. Partnerships for innovation among European small businesses. *Journal of International Business Research* **12**(2): 97–108.

Shipilov A, Danis W. 2006. TMG social capital, strategic choice and firm performance. *European Management Journal* **24**(1): 16–27.

Shortell SM, Zajac EJ. 1990. Perceptual and archival measures of Miles and Snow's strategic types: a comprehensive assessment on reliability and validity. *Academy of Management Journal* **33**(4): 817–832.

Simon F, Tellier A. 2011. How do actors shape social networks during the process of new product development? *European Management Journal* **29**(5): 414–430.

Slater SF, Olson EM. 2000. Strategy type and performance: the influence of sales force management. *Strategic Management Journal* **21**(8): 813–829.

Srivastava RK, Shervani TA, Fahey L. 1998. Marketing business processes and shareholder value: an organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing* **63**(4): 168–180.

Stam W, Arzlanian S, Elfring T. 2014. Social capital of entrepreneurs and small firm performance: a meta-analysis of contextual and methodological moderators. *Journal of Business Venturing* **29**(1): 152–173.

Stone W, Hughes J. 2002. Social capital: empirical meaning and measurement validity. Working Paper 27, Australian Institute of Family Studies Research, Melbourne, Australia.

Teckchandani A. 2014. Do membership associations affect entrepreneurship? The effect of type, composition, and engagement. *Nonprofit and Voluntary Sector Quarterly* **43**: 84S–104S.

Teorell J. 2003. Linking social capital to political participation: voluntary associations and networks of recruitment in Sweden. *Scandinavian Political Studies* **26**(1): 49–66.

Tsai W, Ghoshal S. 1998. Social capital and value creation: the role of intrafirm networks. *Academy of Management Journal* **41**(4): 464–476.

Van der Gaag M, Snijders TAB. 2005. The Resource Generator: social capital quantification with concrete items. *Social Networks* **27**(1): 1–29.

Viedma Marti JM. 2004. Social capital benchmarking system: profiting from social capital when building network organizations. *Journal of Intellectual Capital* **5**(3): 426–442.

Walker OC Jr, Ruekert RW. 1987. Marketing's role in the implementation of business strategies: a critical review and conceptual framework. *Journal of Marketing* **51**(3): 15–33.

Wickramasinghe V, Weliwitigoda P. 2011. Benefits gained from dimensions of social capital: a study of software developers in Sri Lanka. *Information Technology & People* **24**(4): 393–413.

Wollebaek D, Selle P. 2002. Does participation in voluntary associations contribute to social capital? The impact of intensity, scope, and type. *Nonprofit and Voluntary Sector Quarterly* **31**(1): 32–61.

Woolcock M. 2001. The place of social capital in understanding social and economic outcomes. *Canadian Journal of Policy Research* **2**(1): 11–17.

Yli-Renko H, Autio E, Sapienza HJ. 2001. Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic Management Journal* **22**(6/7): 587–613.

Zott C. 2003. Dynamic capabilities and the emergence of intraindustry differential firm performance: insights from a simulation study. *Strategic Management Journal* **24**(2): 97–125.

APPENDIX

Measurement of social capital resources

The following questions are related to your relationship networks and to those resources and abilities that are useful for running your business. We specifically refer to the following relationship networks:

Personal relationships: a group of people with whom you maintain frequent contact in your private circle, such as relatives, friends, neighbors, or acquaintances with whom you share informal social activities.

Professional relationships: a group of people with whom you are in frequent contact in your professional circle (both in your current business as well as in previous businesses or jobs), such as professional colleagues, workers in your company, partners, suppliers, distributors, clients, or workmates.

Associative relationships: a group of people who belong to the same associations as you and with whom you are in frequent contact. These may be any kind of associations such as civil rights groups, volunteer associations, cultural associations, sports associations, political parties, trade unions, women's associations, neighbors' associations, professional associations, religious groups, etc.

Institutional relationships: people with whom you maintain direct contact and who belong to public institutions (such as justice, public services, the police, politicians, public sector workers, or local, regional, national, or European Union government representatives, etc.) or to private institutions (such as large firms and banks, the church, the media, etc.).

Please indicate to what extent each of your relationship networks contributes to your obtaining each of these resources (1: the network has made no contribution whatsoever; 5: the network has made a major contribution to obtaining the resource).

DOI: 10.1002/sej

Financial resources: Funds you obtain to finance your business. These include both loans (whether personal or from a bank) as well as credit or subsidies and public aid. (*).

Contribution of each relationship network to providing access to financial resources

Personal relationships					Professional relationships					Associative relationships					Institutional relationships				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

(*) This item is repeated for each type of resources: technology and innovation, commercial and marketing resources, quality management capabilities, human resources, and organizational capabilities.

Technology and innovation. Technologies your business uses (for example, IT tools, machinery, exploitation of patents, etc.), experience your business has in the use of these technologies, and human resources (workers in your business and external experts), skills to develop new technologies and innovations.

Commercial and marketing resources. Your firm's ability to obtain information from your environment (customers, suppliers, and competitors) and to use it to better satisfy your customers and also to attract new customers. These resources include access to information (for example, databases), sales and communication skills (for example, advertising or sales work), etc.

Quality management capabilities. Your firm's ability to design products and services, to access suppliers providing high-quality raw materials, to train employees, or to introduce quality management systems (ISO norms, etc.).

Human resources. Your team's professional quality and qualifications as well as your firm's ability to manage these human resources (attract, retain, and motivate workers).

Organizational capabilities. Your firm's ability to coordinate all the above resources (human, quality, sales, technological, and financial resources) so your business is successful and generates value. Organizational capabilities include your management skills, the ability to adapt your business to change, and the management of information and communication systems whether they are managed directly or externally (consultancy, advice).

Description of small firms' competitive strategies

Prospector strategy:

We are usually the first to enter into new ventures or to offer new ways of providing our services or new products.

We do not hesitate to enter new segments of the market if we consider they represent a business opportunity.

We like to be more innovative than our competitors, to be the 'first' to explore new opportunities, even though this sometimes means having to take on greater investment or smaller margins.

Analyzer strategy:

We are rarely the first to offer new products or services or enter new market segments. However, we are always very aware of what our competitors are doing and of how customers react to what competitors do.

As we devote part of our efforts to keeping our businesses more stable, we usually enter into new ventures in second place, but in a more efficient way (with less investment and costs) than those who entered first.

Low-cost defender strategy:

Our market (products and customers) is quite stable and we are capable of defending it with great strength compared to our competitors.

We like to focus on what we know how to do well. Thus, although we are not normally at the forefront of innovation, we manage to control our costs and offer better prices than those of our competitors.

Our business aims are focused on increasing our market share in our traditional business by offering better value for money than the competition.

(Continues)

DOI: 10.1002/sej

Appendix *(Continued)*

Differentiated defender strategy:
Our market (products and customers) is quite stable and we are capable of defending it with great strength compared to our competitors.
We like to focus on what we know how to do well. Thus, although we are not normally at the forefront of innovation, we can, therefore, manage to offer a product or service of greater quality than that of the competition, even though our prices may be somewhat higher.
Reactor strategy:
Our company does not have a clear strategy with regard to innovating in our products or services, entering new markets or especially emphasizing price or quality.
We do not anticipate the actions of the competitors nor the changes in our environment. Rather, we prefer to wait for changes to happen and for competitors 'to make their move' in order to define our actions (to innovate, enter a new market, reduce costs and prices, or enhance quality).

DOI: 10.1002/sej