The role of the organization in the entrepreneur–opportunity nexus

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Abstract

Purpose – Entrepreneurial and strategic actions are crucial for wealth creation, and the business opportunity is a critical factor in this process. The purpose of this paper is to explore the role of the firm's strategic posture in the relationship between individual alertness and opportunity identification within an existing firm. This approach contributes to entrepreneurship theory building through a multilevel study.
Design/methodology/approach – The quantitative research focuses on understanding the mediating role of an organization's strategic posture in the opportunity identification process. Using a sample of 276 firms, this study tests a two-level model to explain opportunity identification.
Findings – The findings provide empirical evidence that a firm's strategic posture mediates the relationship between individual alertness and opportunity identification. Furthermore, this study finds differences in the mediating role of a firm's strategic posture through which entrepreneurs and managers affect opportunity identification. Years after the creation of startup, the entrepreneurs still exhibit entrepreneurial characteristics that affect opportunity identification. The findings provide evidence that entrepreneurs foster an internal culture and set of values that are more favorable to radical innovation, compared to managers who favor incremental and less risky projects.
Practical implications – The findings suggest the possibility for new theory building that can improve the fields of entrepreneurship and management research. Moreover, the proposed model constitutes a new approach to analyze the mediating role of an organization's strategic posture in the opportunity identification process.
Originality/value – This paper provides an original approach to literature in exploring the relationship between entrepreneurial alertness and firm's strategic posture in explaining the opportunity identification process. This work will help expand the theory building that explores differences between managers and entrepreneurs in organizations.

Keywords Entrepreneurship, SMEs, Opportunity recognition, Entrepreneurial orientation

Paper type Research paper

Introduction

Entrepreneurs have the peculiar ability of recognizing and evaluating external circumstances that can potentially combine in a new product or service, enabling the creation of new economic activity (Davidsson, 2015). When the entrepreneur's ability meets an opportunity, future goods and services are brought into existence (Venkataraman, 1997), and a new venture is born. The three factors of this equation, namely the entrepreneur, the opportunity and the new venture, are also the three main perspectives of academic interest in entrepreneurship. The entrepreneur represents the human factor of the equation. Scientific research has focused on several factors, such as distinctive traits, attitudes (Zampetakis *et al.*, 2009) and competencies (Mitchelmore and Rowley, 2010), that can help identify entrepreneurs. However, "to have entrepreneurship, you must first have

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entrepreneurial opportunities" (Shane and Venkataraman, 2000). Thus, the market opportunity represents the second perspective of academic interest. Scholars have proposed theoretical and empirical advances on the definition, nature and source of opportunities (Alvarez and Barney, 2007; Davidsson, 2015; Shane, 2000; Shane and Venkataraman, 2000), and their role in the decision-making process that defines entrepreneurial action (McMullen and Shepherd, 2006). The third perspective, the startup, is the outcome of the entrepreneurial activity. The academic interest focuses on the factors that can influence the survival and growth of the venture, such as management decisions (Davila and Foster, 2005), managerial capability (Zinger *et al.*, 2001), strategic alliances (Neyens *et al.*, 2010) and the level of innovativeness (Hyytinen *et al.*, 2015). Some studies explore the role of entrepreneur's characteristics in firm's performance, such as social network connections, industry experience (Gruber *et al.*, 2013; Lechner *et al.*, 2006) or entrepreneur's creativity (Baron and Tang, 2011). In general, after the creation of the new venture, the attention shifts away from the entrepreneur while his role morphs into a managerial one (Busenitz and Barney, 1997; Stewart *et al.*, 1999). It is easy to understand that the vast majority of past research is based on the undisclosed assumption that entrepreneurship is a linear process. First, when an entrepreneur meets a market opportunity, then a new venture is born. Finally, after creation, the entrepreneur fades away or morphs into the founder/manager of his/her own firm. We argue that entrepreneurship can also follow a cyclic process. The entrepreneur can retain his/her peculiar ability after the creation of a venture. Therefore, it is still possible for him/her to meet another opportunity. In other words, is the entrepreneur still entrepreneurial while managing his own firm? The purpose of this paper is to test this research question.

Although much of the literature on firm performance deals with management, only few studiers focus on how the characteristics of the founder can affect firm performance and growth in the post-startup phase. These studies acknowledge the importance of the research on how the entrepreneur can affect long-term firm performance, but the role of the interaction between the entrepreneur and the organization has not yet been considered. In particular, the body of literature fails to explore the individual–opportunity nexus in a post-creation scenario. In other words, we do not know if an entrepreneur is still entrepreneurial while he/she is operating within the new economic activity. With the purpose of advancing the understanding of the interaction between the entrepreneur and the organization, this research sets out to investigate two related research questions:

RQ1. What is the role of the organization in the entrepreneur–opportunity nexus in post-creation economic activity?

The entrepreneur "morphs" into the owner/manager after the creation of startup. Therefore, to increase the validity of this study, this research needs to include the test for differences between "professional" managers (hereafter managers) and entrepreneurs (founders) regarding the effect of the firm:

RQ2. Are there differences between managers and entrepreneurs regarding the role of the organization in the individual–opportunity nexus?

To address these questions, this study combines individual cognitive and firm-level entrepreneurial theories. To expand theory on this topic, scholars suggest the need for a more integrative approach, which combines individual factors, such as psychological traits, attitudes and demographics, with external factors, such as sociological, institutional, economic and organizational factors (Gedajlovic *et al.*, 2013; McMullen and Shepherd, 2006; Zahra and Wright, 2011). This research addresses the entrepreneur's impact on firm-level entrepreneurial orientation (EO) and uses opportunity identification as the outcome variable. In doing so, this study makes novel contributions to literature. First, it proposes a model of the individual–opportunity nexus in a post-creation scenario. The findings suggest that outcomes of the entrepreneurial process, and in this specific case, the opportunity nexus, are derived from the contribution and interaction of both the entrepreneur and the organization (Shane and Venkataraman, 2000; Venkataraman, 1997; Wiklund and Shepherd, 2008).

Second, this perspective contributes to the understanding of habitual entrepreneurship, which is fundamental to learning about entrepreneurship (Macmillan, 1986) and to understand the process of wealth creation (Wright *et al.*, 1998). Habitual entrepreneurs are defined as individuals who have started more than one business, either sequentially (serial entrepreneurs) or concurrently (portfolio entrepreneurs) (Ucbasaran *et al.*, 2008). The results provide empirical evidence that, years after the creation of startup, the firm's EO facilitates entrepreneurs to be alert to opportunities. Entrepreneurs directly influence the identification of opportunities and foster the firm's innovative posture, whereas managers are more concerned with the firm's financial performance. Here, the founder is a factor in the selection of the mode to exploit new opportunities, either from within the current organization or through the creation of another independent firm (Madhok and Tallman, 1998). In studying habitual entrepreneurship, scholars have pointed out the need to consider the distinction between the entrepreneurial activity (i.e. opportunity identification) and its organizational form (i.e. new company or within the firm) as a way to include the category of entrepreneurs who decide to exploit new opportunities within their existing organizations (Wiklund and Shepherd, 2008).

Third, this research finds a difference in the paths through which entrepreneurs and managers affect innovation. In this study, entrepreneurs are those who have founded their own firms and are currently involved in managing the company, with the average time since founding being 15 years (successful entrepreneurs). In contrast, "professional managers" (hereafter managers) are those who have been hired to manage the company, with an average tenure smaller than 10 years. In addition, all the managers in our sample did not have any entrepreneurial experience. For entrepreneurs, the impact of individual factors on post-startup opportunity creation/recognition has been investigated in the literature with different approaches, such as the social capital theory (Lechner *et al.*, 2006; Li *et al.*, 2014), the resource allocation theory (Gruber *et al.*, 2013), habitual entrepreneurship (Wiklund and Shepherd, 2008) and the cognitive theory (De Jong, 2013). Many of these studies do not explicitly focus on entrepreneurs, but rather on owners and top managers/executives. Furthermore, some studies fail to investigate the difference between entrepreneurs and managers due to studying very small firms (e.g. Wiklund and Shepherd (2008) analyzed firms with an average of 1.9 full-time employees (FTE) including the entrepreneur). This study draws a sample of data from 276 firms, with an average age of 26 years and more than 10 FTE, differentiating between entrepreneurs (founders) and (professional) managers.

This paper reviews entrepreneurial opportunity literature at both the individual and firm level. Adding to the literature in the field, a harmonized model is proposed to explore the entrepreneur–opportunity nexus in post-creation economic activity. Next, this paper presents hypotheses on how the proposed model may differ between entrepreneurs and managers. Although these individuals share some traits and characteristics, there are significant differences when it comes to personality, knowledge management, problem solving and processing new information (Baron, 1998; Buttner and Gryskiewicz, 1993; Stewart and Roth, 2007). The paper then describes the methodology and research design, and provides a detailed review of results. The findings reveal several important differences in how entrepreneurs and managers influence innovation, and the paper discusses the significant impact this can have on the field of research. Finally, research limitations are assessed, and the paper proposes future research to build on these theoretical advancements.

The individual–opportunity nexus

The attempt to define the theoretical construct of entrepreneurship as an academic discipline and to distinguish it from other fields of study has sparked debate (Shane and Venkataraman, 2001). The late 1990s marked a turning point in the definition of entrepreneurship, and an important separation from other disciplines began. Venkataraman (1997) proposed entrepreneurship as a field of study with a domain, separate from research in business management and organizational strategy. In total, four major themes of research were proposed: opportunities, individuals and work teams, the business organization and the general context (Busenitz *et al.*, 2003). In particular, the concept of opportunities is closely linked to the definition of entrepreneurship as a process to discover, evaluate and exploit opportunities to create new products and services (Shane and Venkataraman, 2000). However, a growing appreciation of the role of opportunity discovery in the entrepreneurial process (Venkataraman, 1997) does not mean that there is consensus on what opportunity is or how to study it (Buenstorf, 2007; Klein, 2008; Sarasvathy *et al.*, 2003). Research surrounding the opportunity concept includes a rich multitude of theories, such as creation theory, discovery theory, social cognitive theory, structuration theory, coherence and affect theories and organizational learning theory (Short *et al.*, 2010). These theories cluster around three main philosophical schools of thought about entrepreneurial opportunity. The allocative school of thought proposes opportunity recognition as part of an economic process that re-allocates resources with the aim of improving market efficiency. In this case, an opportunity recognized by an agent (entrepreneur) is an objective possibility of putting existing resources to a better use and reaching a market equilibrium (Sarasvathy *et al.*, 2003). Viewing the opportunity as part of an allocative process implies that, *ex ante*, all economic agents are equally equipped to detect such opportunity. The discovery school of thought proposes that opportunities arise from knowledge asymmetries caused by human activity, such as market shocks, scientific and technologic discoveries, and shifts in policies and regulations (Holcombe, 2003; Shane and Eckhardt, 2003). Endogenous sources of information create agent-specific and time-specific opportunities whose discovery depends upon prior knowledge and other assets (Shane, 2000). Finally, the creative process school of thought proposes that opportunities are the endogenous product of non-rational economic actors (Buchanan and Vanberg, 1991). In this view, opportunities do not pre-exist, but they get created by the interaction of economic agents seeking to operationalize their beliefs and values into products (Alvarez and Barney, 2007; Sarasvathy, 2001). In sum, entrepreneurial opportunity introduces an elegant concept to explain entrepreneurial activity, but, at the same time, it triggers a debate about its definition and nature.

"The notion of opportunity, as currently discussed in entrepreneurship research, is theoretically exciting but empirically elusive" (Dimov, 2011). Building upon the ideas of Austrian economists, the formalist point of view explains the individual–opportunity nexus as a utility-maximizing process in which the opportunity has an auxiliary role that is manifested through economic action (Kirzner, 1997; Shane and Eckhardt, 2003; Venkataraman, 1997). A formalist position does not concern itself with the formation of entrepreneurial beliefs and, in general, with the process of discovery/recognition/creation of the entrepreneurial opportunity. In contrast, the substantive point of view focuses on understanding entrepreneurial action as the outcome of venture ideas, perceptions and beliefs that constitute the entrepreneurial opportunity (Davidsson, 2015). These philosophical views of opportunity reflect two complementary conceptions of entrepreneurial behavior (Dimov, 2011; Korsgaard, 2013; Sarasvathy *et al.*, 2003). Each view is useful in a particular context and under different circumstances. In particular, a formalist approach does not include the entrepreneur's organizing vision or imagination as part of the economic analysis, thus sidestepping the issue of defining the nature of opportunity (Klein, 2008). In contrast, the substantive conception of entrepreneurial behavior focuses on the actual experiences of real entrepreneurs. In this regard, opportunities reflect business ideas (Davidsson, 2003), entrepreneur's vision for the venture (Lichtenstein *et al.*, 2006), a cyclic process of development of raw ideas (Dimov, 2007) or creations from the entrepreneur's actions (Alvarez and Barney, 2007). Since the focus of this study is to explore the role of the firm's strategic posture in the conception of entrepreneurial ideas, this paper follows a substantive point of view. The focal point of entrepreneurial activity refers to venture ideas that inspire entrepreneurial action, which, in turn, generate more ideas (McMullen and Shepherd, 2006). Under this point of view, creativity and imagination are crucial processes that contribute to the emergence of new entrepreneurial ideas. As such, entrepreneurial action is endogenous, intrinsically tied to the actor, and social, originated through interaction with others (Joas, 1996). Social interaction helps the entrepreneur to gather fragments of pre-existing knowledge from diverse sources that, in turn, influence the interpretation and creation of new information. Under this lens, the inception of a new entrepreneurial vision integrates the recognition, discovery and creation processes (Sarasvathy *et al.*, 2003). As such, the question of ontology can be safely laid aside, as it has no bearing on our analyses (Powell, 2003). Hereafter, the term opportunity identification will be used instead of detection, recognition and creation to refer to a wider definition that does not conform to a particular philosophical approach. The next sections will introduce the role of one type of firm's strategic posture, namely, the EO, in the relationship between the entrepreneur and the opportunity.

Opportunity and entrepreneurial alertness

The debate on entrepreneurial opportunity has been instrumental in the shift of the traditional view of entrepreneurship research from the lone entrepreneur equipped with extraordinary vision to the processes used to recognize and exploit opportunities (Alvarez and Barney, 2007). Shane and Venkataraman (2000) proposed that the study of entrepreneurship should focus on solving three fundamental questions, namely "Why," "How," and "When" entrepreneurship opportunities form. Seeking to resolve these questions, a growing number of scholars project that the central theme defining the study of entrepreneurship is the analysis of the nexus of individuals and opportunities (De Carolis and Saparito, 2006; Dimov, 2002; Eckhardt and Shane, 2010; Eckhardt and Shane, 2003; Renko *et al.*, 2012; Sarason *et al.*, 2006; Singh, Hills, Lumpkin and Hybels, 1999). The past literature considers opportunity detection as an innate ability or an individual capacity to acquire, organize and process information, with the goal to sense opportunities (Jarvis, 2016; McCline *et al.*, 2000; Ozgen and Baron, 2007). Thus, entrepreneurial alertness is the differential ability to be aware of opportunities yet to be observed and to exploit those that hold the greatest economic potential (Casson, 1982; Gaglio and Katz, 2001; Kaish and Gilad, 1991; Kirzner, 1997, 2009; Shane and Eckhardt, 2003). This ability is driven by the entrepreneurial mental model, which directs the entrepreneur's attention to any kind of anomaly or information that can be interpreted in atypical ways (Fiet, 1996; Kaish and Gilad, 1991; Shane, 2000; Valliere, 2013).

Thus, the entrepreneurial alertness requires both specific knowledge and a mental model that represents such knowledge in atypical ways. The information can be embodied in sources such as human capital (Klepper and Sleeper, 2005), social artifacts, technologies, routines, processes and data (Cohen and Bacdayan, 1994). There is evidence that an entrepreneur scans the environment for such information with either a deliberate or an unconscious (or habitual) search (Berglund, 2007; Fiet *et al.*, 2004). In addition, empirical literature provides evidence of the crucial role of mental models regarding the opportunity to start a new venture (Baron and Ensley, 2006; Bishop and Nixon, 2006). Schema or mental models are representations of knowledge that influence the interpretation and creation of new information (Shane, 2000) and, in turn, enable entrepreneurs to be aware of opportunities (Gaglio and Katz, 2001; Hsieh *et al.*, 2007; Minniti, 2004). Baron and Ensley (2006) and Ko and Butler (2007) provided evidence that entrepreneurs perceive themselves as having the ability to connect diverse pieces of information to recognize patterns for new economic activity. In sum, entrepreneurial alertness is a distinctive trait that explains how new ideas get initiated and pursued. For example, Tang *et al.* (2012) provided evidence that entrepreneurial alertness positively relates with a firm's innovation, whereas Gielnik *et al.* (2014) confirmed the mediating role of active information search, a component of alertness, in the relationships of entrepreneurial experience and divergent thinking with opportunity identification. There is a general agreement that entrepreneurial alertness enables entrepreneurs to be aware of opportunities and, in turn, to start a new venture. However, the literature does not answer the question of whether this process is still in place after the start of a new economic activity. For example, Kaish and Gilad (1991) found that successful entrepreneurs spend less time scanning for information, as they undertake the management of their enterprises. This fact may negatively affect their entrepreneurial alertness, thus suggesting that entrepreneurs are too busy in managing the company to be alert to new opportunities. In contrast, the literature provides evidence of differences in attitudes between managers and entrepreneurs (Holm *et al.*, 2013; Stewart and Roth, 2001). In particular, Busenitz and Barney (1997) found that entrepreneurs in large organizations use biases and heuristics as simplifying mechanisms for dealing with multiple problems. The use of heuristics has been found to be associated with innovativeness, enabling entrepreneurs to make decisions that exploit brief windows of opportunity (Hambrick and Crozier, 1985; Stevenson and Gumpert, 1985; Tversky and Kahneman, 1974). Consequently, it is proposed that entrepreneurs who have successfully founded their own firms and are involved in managing the company are still alert to entrepreneurial opportunities, thereby leading to the following hypothesis:

H1. Entrepreneurial alertness is positively related to opportunity identification for entrepreneurs.

Entrepreneurial alertness and the organization

As proposed above, mental models, cognitive biases and heuristics have a crucial role in enabling entrepreneurs to identify new business opportunities. After the opportunity has become a successful venture, entrepreneurs-turned managers with busy schedules are still alert to new business opportunities. In addition, the organization can have a positive role in the identification of new opportunities. For example, the literature provides evidence that business founding and ownership experiences provide entrepreneurs of the necessary legitimacy to acquire resources for a new venture through, for example, the network of contacts they have developed as businessmen (Kaish and Gilad, 1991; Shane and Khurana, 2003). With experience in their businesses, entrepreneurs can collect information and knowledge that would not be accessible in other ways, and this, in turn, helps entrepreneurs to be aware of more business opportunities (Shane, 2000). Further, experience provides a new cognitive framework for processing information that improves the entrepreneurs' ability to be aware of business opportunities (Venkataraman, 1997). In addition to the potential advantages that can be derived from novel ways of collecting and processing information, entrepreneurs can also leverage their influence on the organization behavior to improve the identification of business opportunities.

The influence of managerial attention on strategic behavior of firms has long been theoretically recognized and empirically documented (D'aveni and Macmillan, 1990). The experiences, skills and mindset associated with the entrepreneur are widely regarded as crucial factors in organization development (Chandler and Hanks, 1994; Gimeno *et al.*, 1997; Mosakowski, 1993; Storey, 1994). For example, entrepreneurs can shape the organization and its future by hiring people to build the business according to their vision and by creating the organizational culture as an extension of their style, personality and preferences (Eddleston, 2008; Schein, 1995). Indeed, employees, customers and business partners often identify the organizations with their founders (Bacq *et al.*, 2017). Past research provides evidence that the entrepreneur's attention patterns promote the development of an organization's strategic posture focused on achieving the entrepreneur's goals (Brettel *et al.*, 2015). This, in turn, creates and fosters an organizational culture that is a source of competitive advantage (Barney, 1986; Hogan and Coote, 2014). For example, the focus of management teams on the global environment promotes globalization strategies, and it is related to organizational outcomes (Levy, 2005). The attention of decision makers is focused on the organization's procedural and communication channels that, in turn, generate a set of values that order the importance and relevance of issues and answers. In this way, senior management shapes the "cultural products and artifacts used to construct the firm's activities and communications" that influence decisions and the firm's behavior (Ocasio, 1997). Because the strategic decisions evolve from a set of organizational processes encompassing culture, vision and values internal to the firm (Hart, 1992), it is expected that firm's EO and behavior are influenced by the entrepreneurial alertness, thus supporting the process of opportunity identification. In summary, it is proposed that the entrepreneur's awareness influences the organization's EO with the aim of facilitating the identification of new business opportunities (see Figure 1).

Entrepreneurial behavior of a firm is associated with the search for opportunities (Burglemann, 1983), which often leads to the creation of startup companies or "internal corporate ventures" (Burglemann, 1983; Wiklund and Shepherd, 2003). EO corresponds to the firm's policies and practices that offer a foundation for entrepreneurial decisions and actions; thus, it is considered to be the entrepreneurial strategy-making process within organizations (Child, 1972; Dess *et al.*, 1997; Naldi *et al.*, 2007). EO is often linked to business performance and growth (Li *et al.*, 2008; Lumpkin and Dess, 1996). According to Miller's definition (Miller and Friesen, 1978), the construct of EO includes three dimensions, namely risk-taking, innovativeness and proactiveness. These dimensions reflect the entrepreneurial firm behaviors, such as undertaking risky ventures, engaging in product–market innovation and proactively proposing improved products or services. The literature provides evidence that the dimensions of EO may vary independently (Lumpkin and Dess, 1996); therefore, the theoretical model proposed in this paper includes two dimensions, innovativeness and proactiveness, as separate constructs. Our model does not include the third dimension, risk propensity, because we are interested in the other two factors, proactiveness and innovativeness. The first dimension of EO, proactiveness, refers to "acting in anticipation of future problems, needs or changes" (Lumpkin and Dess, 1996), and it suggests an emphasis on initiating activities that may impact and alter the environment (Bateman and Crant, 1993; Buss and Finn, 1987). At the firm level, proactiveness is linked to a firm's competitive posture in its operations, with the aim of

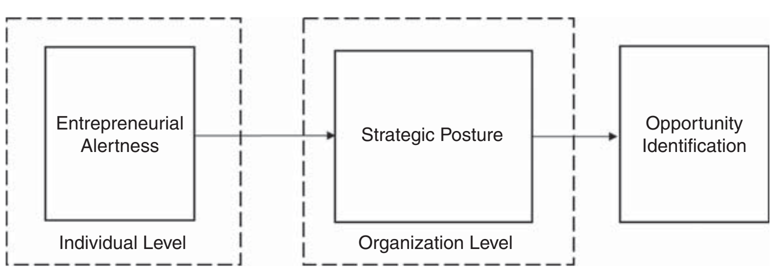


Figure 1.
Proposed model

capturing competitive advantage and delivering superior value (Lieberman and Montgomery, 1988; Weerawardena and Sullivan-Mort, 2001). Unlike the dimension of innovativeness, a proactive strategic posture engenders incremental changes in order to avoid the risks related to disruptive innovation, especially in highly competitive markets (Özsomer *et al.*, 1997). We expect that entrepreneurial alertness fosters an organizational culture that promotes employees' participation in activities that, in turn, facilitate the identification of opportunities to improve products and services (Hitt *et al.*, 2001). Therefore, the entrepreneurial alertness indirectly promotes opportunity identification through the firm's proactiveness. Thus, the following hypothesis is proposed:

H2. Firm's proactiveness mediates the relationship between entrepreneur's alertness and opportunity identification.

The second dimension of EO, innovativeness, represents the tendency to depart from existing technologies or practices and venture beyond the current state of the art (Kimberly, 1981). It reflects the firm's attitude to support experimentation and creative processes, with the aim to deliver new products and services to the market (Lumpkin and Dess, 1996). Although the presence of innovation *per se* is insufficient to label a firm entrepreneurial, the literature suggests that such creativity is a firm's mechanism to pursue and maintain a competitive advantage within both markets and industries (Covin and Miles, 1999). In effect, the capacity for innovation exerts a direct effect on a firm's value and financial performance (Rust *et al.*, 2004; Sorescu *et al.*, 2003; Srinivasan *et al.*, 2009). For example, the level of expenditure in research and development, a greater presence of trained professionals and specialists, aggressive technological posture and the budget dedicated to introduce new products or services may all provide evidence of a firm's innovativeness (Hage, 1980; Miller, 1987; Miller and Friesen, 1982; Zahra and Covin, 1993). By placing an emphasis on change and innovation, entrepreneurs create an organizational culture that favors technological and/or product–market innovation as individual or team achievements (Miner, 1990). This, in turn, facilitates an autonomous, entrepreneurial behavior that fosters new ideas and creativity, and promotes learning as well as product and process innovations. The outcome of this entrepreneurial spiral is continuous innovation through the identification of new opportunities (Shepherd *et al.*, 2010). Therefore, the entrepreneurial alertness indirectly promotes opportunity identification through the firm's innovativeness, leading to the following hypothesis:

H3. Firm's innovativeness mediates the relationship between entrepreneur's alertness and opportunity identification.

The first three hypotheses help to answer the main research question. The next set of hypotheses proposes theoretical differences between entrepreneurs and managers, thus increasing the validity of this study. We define "professional managers" (managers) as those who have been hired to manage the company. In our sample, the managers' average tenure is 10 years. Also, we would like to point out that all the managers in our sample do not have any past entrepreneurial experience.

Managers and entrepreneurs

Busenitz and Barney (1997) provided evidence that there are substantial differences between the extent to which managers and entrepreneurs manifest biases and heuristics in their strategic decision making. The use of biases and heuristics enables entrepreneurs to proceed with an idea; however, great uncertainties exist in the decision-making context (Payne *et al.*, 1992). Conversely, managers tend to rely less on the use of heuristics and biases, and more on systematic data collection and reliable metrics, such as estimated customer demand, production costs or other key pieces of information. Thus, on average, managers will be able to more closely approximate purely rational decision making (Busenitz and Barney, 1997). This reflects the fact that a managers' education is specific to their management role and is more concerned with short-run financial performance. From a professional manager's perspective, a business opportunity is a means to reach or improve business growth (Gielnik *et al.*, 2017), whereas entrepreneurs focus on the opportunity itself. Indeed, entrepreneurs tend to largely ignore the competition (Moore and Cain, 2007) and introduce riskier products with lower success rates (Simon *et al.*, 2000). However, a manager's focus on financial performance relies heavily on the control of an organization's internal processes, with the aim to bring improved products or services to the market ahead of the competition (Rauch *et al.*, 2009). Managers facilitate this firm's forward-looking perspective through pushing the organization to build capabilities that help identify market opportunities, such as market intelligence and responsiveness activities (Droge *et al.*, 2008). The focus on a firm's external capabilities to seize opportunities is central to drive the firm's ability to act proactively in a dynamic context (Brettel *et al.*, 2015). Since managers focus mainly on organization's performance and capabilities, we expect that the managers' alertness is not directly related to opportunity identification. Instead, managers foster an organizational culture that proactively seeks market opportunities to introduce improved products or services. Therefore, the following hypothesis can be proposed:

H4. Firm's proactiveness mediates the relationship between professional manager's alertness and opportunity identification.

The literature provides evidence that managers are more likely to be motivated by a desire to assert themselves, to perform duties in a responsible manner and to exercise power over others (Schein, 1995). For example, managers are more likely to implement a hierarchical system that requires performance of various routine decision-making and communications tasks, and therefore appropriate motivation and sense of responsibility for such matters. Goals and values help sustaining the current situation, and the threat of business failure and bankruptcy shapes the effort exerted (Miner, 1990). Such values and goals favor variations in products and services that offer refinement and modification of earlier products with intrinsically small financial risk (Normann, 1971). Indeed, managers are concerned with economic issues of profit and market, which include optimizing processes, products and services that may affect the company's bottom line and, in turn, exclude activities that are financially too risky. While promoting proactive activities to seek market opportunities, managers foster an organizational culture that enacts precautions to reduce risk (Harris and Middleton, 1994). In other terms, managers favor a firm's proactive orientation to a firm's innovative behavior. Therefore, we do not expect the corresponding mediating role of firm's innovativeness.

Figure 2 presents the tested model linking individual's alertness, firm's strategic posture and opportunity identification. The research hypotheses of this exploratory study are tested against a sample composed of founders and managers of small- and medium-size businesses.

Research method and analysis

Sampling

The research was designed to test the proposed theoretical model. The instrument was a survey administered to managers and founders of small and medium enterprises (SMEs) located in four different state capital cities in Mexico, characterized by high rates of economic growth and the presence of many SMEs in various industries. In the initial stage of the study, a group of managers completed the survey as a pre-test, in order to validate the accuracy and effectiveness of the writing, structure, comprehension and options available for each question. This data collection were carried out between April 2013 and February 2014. In the study, 627 participants were selected through the college of business databases of universities located in the four states included in this research. All the selected participants received a personalized invitation to participate in the study, with a request to

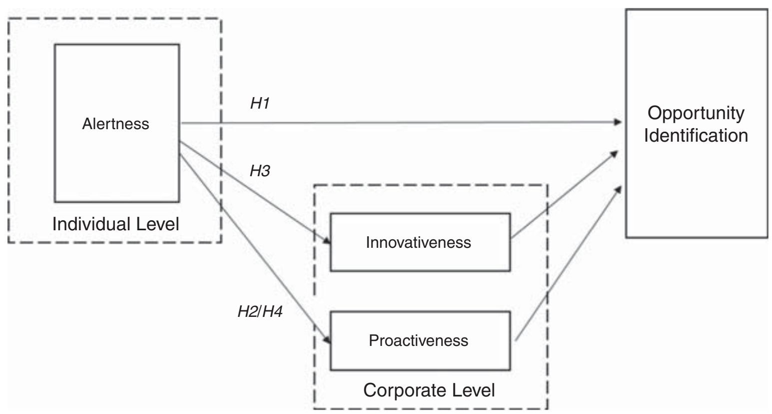


Figure 2.
Tested model

schedule a face-to-face interview with the researchers. After few weeks, the initial invitation was followed by a mail that included a reminder letter, the paper version of the instrument, and a link to the online version. The participants did not receive any compensation for their voluntary cooperation to carry out the surveys. The research team received a total of 350 responses, of which 276 were complete surveys (44 percent). More than 70 percent of the responses were collected through face-to-face interviews. The resulting sample includes SME companies (see Table I) operating in the industrial (42 percent), commercial (26 percent) and service sector (32 percent). Table I reports the description of the sample.

Measures

The operationalization of EO is derived from that first proposed by Miller (1983) and then refined by Covin and Slevin (1989). The three dimensions of EO may occur in different combinations, each reflecting a different and independent aspect of EO. Each element within the multidimensional construct of the EO represents a different variable (George, 2011) and can be operated individually relative to the phenomenon it seeks to explain (Covin and Miles, 1999; Lumpkin and Dess, 2001). Thus, the instrument includes the measures of proactiveness and innovativeness as operationalized in past research. The seven-item measure of alertness has been derived from the study of Tang *et al.* (2012), which tested the instrument through samples of CEOs and entrepreneurs. The scale has been successfully applied on samples of students (Obschonka *et al.*, 2017; Uy *et al.*, 2015), managers and

Table I.
Sample description

Description	
Number of observations	276
Large firms (> 250 FTE)	45
Medium firms (51–250 FTE)	62
Small firms (11–250 FTE)	81
Micro firms (less than 10 FTE)	88
Firm age – median (years)	18
Firm age – mean (years)	25
"Professional" managers	100
Entrepreneurs	176
Tenure (mean-years) – entrepreneurs	14
Tenure (mean-years) – managers	< 10

Note: FTE, full time employees

employees (Liao and Long, 2016), entrepreneurs (Wood *et al.*, 2014) and samples that included both managers and entrepreneurs (Jiao *et al.*, 2014; Karabey, 2012; Roundy *et al.*, 2018). This operationalization encompasses the systematic search proposed by Fiet *et al.* (2005). Finally, the dependent variable, opportunity identification, is derived from Singh, Hills, Hybels and Lumpkin (1999). The English translation of the instrument (the original version was in Spanish) is reported in Table AI.

Control variables

We included control variables to consider possible alternative explanations for the results and, in turn, substantially alleviate potential endogeneity problems (Papies *et al.*, 2017). First, we controlled for firm size, measured by the actual number of FTE. This measure is a reliable surrogate for the various available resources of a firm, and it reflects quality of management, technological intensity or investment in research and development. These factors may directly affect firm's performance (Calabrò *et al.*, 2013). Second, we included firm age, measured as the number of years since the firm's founding, because well-established firms are more likely to build new capabilities to enter international markets (Davis and Harveston, 2000).

Instrument validity

Among the respondents, 176 are founders of their companies and 100 are professional managers. Also, 87 percent of respondents are male, and approximately 42 percent of the sample have more than 10 years of service for the same company. More than 77 percent of the companies are 10-year old or more. Table II reports the reliability coefficient for the instrument, Cronbach's α (Cronbach, 1951), the means and the standard deviations. The analysis also checks for multicollinearity issues (see the variance inflation factor in Table II), unidimensionality and normality assumptions. Kurtosis indexes for univariate normality check are acceptable, having absolute values between 0.5 and 1.6, smaller than the suggested critical value of 7 (Hancock and Mueller, 2013). The skewness index is less than 1, providing evidence that non-normality was not an issue in this sample. The Kaiser–Meyer–Olkin (KMO) index of sampling adequacy is good (KMO = 0.819). The Bartlett's test of sphericity is significant ($\chi^2(78) = 1{,}078.912$, $p = 0.000$), indicating the presence of patterned relationships. Finally, the determinant score is significantly different from zero, indicating an absence of multicollinearity. Thus, the sample was suitable for the exploratory factor analysis (EFA). Three components explain 56.022 percent of variance. Table III reports the EFA factor loadings after Promax rotation with Kaiser normalization. The loadings pattern is consistent with the hypothesized measurement model, thus providing evidence of convergent validity. From the measurement model, three items were dropped because their loadings were lower than the threshold of 0.7 (Hulland, 1999). Finally, the average variance extracted (AVE) of a measure is greater than 0.5 and its square root is greater than its coefficients of correlation with the other measures (Table II), thus providing evidence of discriminant validity (Chin, 1998). In addition, the Hausman test for endogeneity suggests that endogeneity does not pose a serious problem. In sum, the instrument performance is satisfactory and we can proceed with the structural model analysis.

Latent variable	Cronbach's α	VIF	Mean	SD	1	2	3
1. Alertness	0.73	< 0.6	3.99	0.57	(0.745)		
2. Proactiveness	0.76	< 1.9	3.12	0.87	0.355***	(0.822)	
3. Innovativeness	0.69	< 1.5	3.29	0.83	0.347***	0.516***	(0.786)
4. Opportunity recognition	–	–	1.30	0.89	0.207***	0.207***	0.182***

Note: ***$p < 0.001$

Table II. Descriptive statistics, Cronbach's α, square root of average variance extracted (within brackets) and Pearson correlations for the latent variables

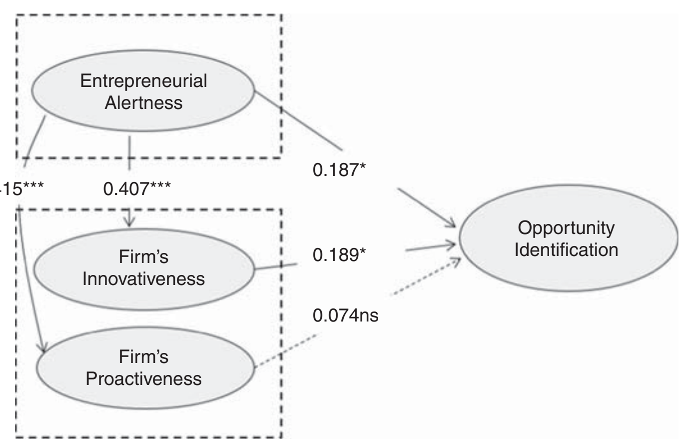
	Factor		
	EA	INN	PRO
EAL_1	0.534	−0.007	0.092
EAL_2	0.720	0.173	−0.161
EAL_3	0.687	−0.115	0.017
EAL_4	0.501	−0.155	0.135
EAL_5	0.698	−0.137	0.141
EAL_6	0.517	0.143	−0.233
EAL_7	0.498	0.179	0.061
INN_1	0.107	0.085	0.607
INN_2	−0.070	0.098	0.707
INN_3	0.016	0.051	0.493
PRO_1	0.004	0.750	0.041
PRO_2	−0.054	0.770	0.111
PRO_3	−0.015	0.531	0.059

Notes: EAL, entrepreneurial alertness; INN, innovativeness; PRO, proactiveness. Promax rotation with Kaiser normalization. Rotation converged in five iterations

Table III.
EFA rotated factor matrix

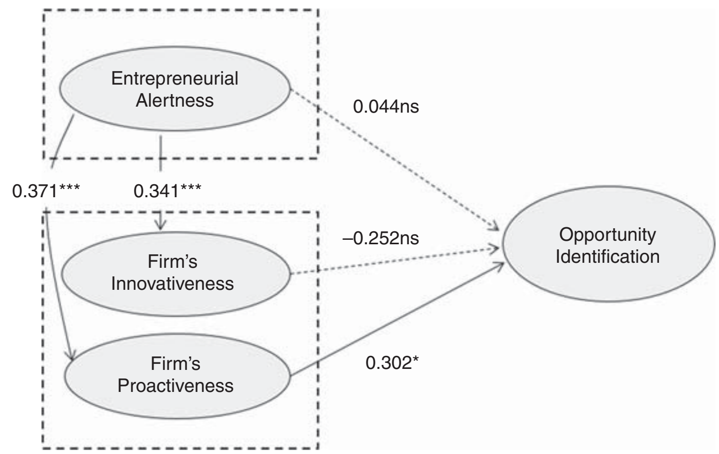
Results

Data analysis is performed using partial least square structural equation modeling (PLS-SEM) analysis (Sanchez, 2013), which is appropriate for models that include latent constructs (Hair *et al.*, 2012). As our data include one observation at an individual level matching another observation at an organizational level, hierarchical linear model analysis is not required (Raudenbush and Bryk, 2002). The PLS-SEM approach is especially suitable for this research for two reasons. First, PLS-SEM can capture the normative implications of the total system of variables and clarify the entire model (Schuster and Holtbrügge, 2014). Second, the PLS-SEM algorithm transforms non-normal data in line with the central limit theorem (Hair *et al.*, 2012), making the results robust when skewed data are used (Cassel *et al.*, 1999). These advantages are very important for the study, as it aims at estimating a model of simultaneous relationships. Figures 3 and 4 show the reflective measurement model coefficients resulting from the PLS-SEM analysis on the two groups (entrepreneurs and managers). The significance of the path coefficients



Notes: ns, non-significant. $^*p<0.05$; $^{***}p<0.001$

Figure 3.
PLS-SEM results for entrepreneurs



Notes: ns, non-significant. $^*p<0.05$; $^{***}p<0.001$

Figure 4. PLS-SEM results for managers

was estimated using bootstrapping with a recommended sample size of 500 (Chin, 2003). Tables IV and V report the structural model coefficients and the corresponding 95 percent confidence intervals (95% CI) for the two sub-sets. Sobel tests were conducted to test for the significance of the mediating effects (James *et al.*, 2006; Mackinnon *et al.*, 2002; Preacher and Leonardelli, 2001).

Causal path	Coefficient	95% CI	Hypothesis
Alertness – opportunity identification	0.187*	0.048–0.370	*H1*
Alertness – proactiveness	0.415***	0.283–0.528	
Alertness – innovativeness	0.407***	0.296–0.514	
Proactiveness – opportunity identification	0.074^{ns}	−0.089–0.208	
Innovativeness – opportunity identification	0.189*	0.049–0.360	
Sobel test for mediation effect			
Innovativeness mediating effect	$Z=2.102^*$		*H3*
Proactiveness mediating effect	$Z=0.868^{ns}$		*H2*

Notes: ns, non-significant. $^*p < 0.05$; $^{***}p < 0.001$

Table IV. PLS-SEM results for the entrepreneurs' group and Sobel tests for mediation

Causal path	Coefficient	95% CI	Hypothesis
Alertness – opportunity identification	0.044^{ns}	−0.266–0.322	*H4*
Alertness – proactiveness	0.371***	0.167–0.583	
Alertness – innovativeness	0.341***	0.160–0.536	
Proactiveness – opportunity identification	0.302*	0.010–0.536	
Innovativeness – opportunity identification	-0.252^{ns}	−0.494–0.146	
Sobel test for mediation effect			
Innovativeness mediating effect	$Z=-1.760^{ns}$		
Proactiveness mediating effect	$Z=2.047^*$		

Notes: ns, non-significant. $^*p < 0.05$; $^{***}p < 0.001$

Table V. PLS-SEM results for the managers' group

The results of the analysis confirm the effect, both direct and indirect, of entrepreneurial alertness on opportunity identification. The analysis provides empirical evidence that entrepreneur's alertness directly affects opportunity identification ($\beta = 0.187$, $p < 0.05$), thus confirming *H1*. Entrepreneurs exhibiting higher alertness exhibit more opportunity identification. The mediating role of EO presents a more engaging pattern. An entrepreneur's alertness positively affects both dimensions of the firm's EO, innovativeness ($\beta = 0.407$, $p < 0.001$) and proactiveness ($\beta = 0.415$, $p < 0.001$), thus confirming that the firm's orientation reflects the attitudes of the individual who is in charge (Lumpkin and Dess, 1996). Only the dimension of innovativeness has a significant positive effect on opportunity identification ($\beta = 0.189$, $p < 0.05$), whereas the proactiveness effect is not significant ($\beta = 0.074$, $p = 0.38$). The Sobel tests confirm this finding (Preacher and Leonardelli, 2001). The EO dimension of innovativeness positively mediates the relationship between entrepreneurial alertness and opportunity identification ($Z = 2.102$, $p < 0.05$), supporting *H3*. Conversely, there is no evidence that dimension of proactiveness mediates the alertness–opportunity nexus identification ($Z = 0.868$, $p = 0.386$). *H2* is, thus, rejected. In sum, entrepreneur's alertness affects opportunity identification, both directly and indirectly, through the mediating effect of an EO dimension, innovativeness.

The analysis of the managers' sub-sample provides the following results. First, managers' alertness does not show a direct relationship with opportunity identification ($\beta = 0.044$, $p = 0.68$). This provides empirical evidence that managers' mental models focalize uniquely on the firm, whereas entrepreneurs' mental schemas include both, the firm and business opportunities. When the firm is taken into account, there is evidence that manager's alertness indirectly affects opportunity identification through the organization's EO. Manager's alertness shows a significant relationship with proactiveness ($\beta = 0.371$, $p < 0.001$) and innovativeness ($\beta = 0.341$, $p < 0.001$); however, only proactiveness has a significant relationship with opportunity identification ($\beta = 0.302$, $p < 0.05$). Sobel test for the managers' sub-sample provides evidence that proactiveness significantly mediates the relationship between alertness and opportunity identification ($Z = 2.047$, $p < 0.05$). As expected, there is no empirical evidence for the mediating effect of innovativeness ($Z = -1.76$, $p = 0.08$). These findings confirm *H4*. In sum, manager's alertness indirectly affects opportunity identification through the firm's proactiveness. Finally, the results did not show a significant effect of the two control variables on the model ($\beta = -0.114$, $p > 0.05$ for firm age; $\beta = -0.008$, $p > 0.05$ for firm size).

The results show both differences and commonalities between the two groups. First, the findings provide evidence that firms' EO mediates the effect of the leader's alertness on the identification of business opportunities. This result holds for both managers and entrepreneurs. Entrepreneurs affect opportunity identification both directly and indirectly, through firms' innovativeness, whereas managers affect opportunity identification only indirectly, through firms' proactiveness. This may reflect the differences in mental models between the two groups that, in turn, affect how they discover new opportunities. The next section provides the discussion of these findings.

Discussion

This research aims to study the entrepreneur–opportunity nexus in the context of an existing organization. In particular, this paper is guided by overriding questions: does the organization play any role in the entrepreneur–opportunity nexus? In other words, a re the entrepreneurs still entrepreneurial while managing their firm? If so, what is the role of the firm? Moreover, what are the differences between managers and entrepreneurs? Below we summarize the answers uncovered by this research and explore the implications.

Entrepreneurial activity in a post-startup context is an important, but understudied, aspect in entrepreneurship literature. Kaish and Gilad (1991) proposed that "successful and experienced entrepreneurs reduce the scanning behavior indicative of general alertness and assume behavior characteristics more consistent with those found in managers." However, these claims conflict with research on habitual entrepreneurship (Westhead and Wright, 1998). For example, Westhead *et al.* (2005) provided evidence that habitual entrepreneurs are alert to the potential of additional business opportunities while managing a firm. The results of this research contribute to the literature in this field, providing evidence that entrepreneur's alertness directly facilitates identifying additional opportunities in the marketplace. This finding, reinforced by the fact that the average tenure of the entrepreneurs in the sample is 25 years, confirms that entrepreneurs are still alert to business opportunities while managing their organizations. Indeed, one of the primary implications of our research is that founder-managed firms have the potential to identify more economic and innovative opportunities (Block *et al.*, 2013), which, in turn, generate growth and economic wealth (Van Auken *et al.*, 2008). This finding informs practitioners and scholars that the individual–opportunity nexus in a post-startup context can be a fertile direction of research. In the next section, we discuss the potential research directions that can stem from these findings.

Another novel contribution to literature is the empirical evidence that the strategic posture of the firm mediates the relationship between individual's alertness and opportunity identification. This finding confirms that the individual who is in control influences the organization's vision and processes in order to enable the identification of entrepreneurial opportunities. This contributes to explain how the individual's alertness allows the organization to profit from disruptions through the spotting of business opportunities (Roundy *et al.*, 2018). In particular, habitual entrepreneurship literature can benefit the most from this research. For example, the relative weight between the direct and the indirect relationship between alertness and opportunity identification can explain why some habitual entrepreneurs decide to direct their efforts to establish new businesses, while others decide to develop their existing firms (Westhead *et al.*, 2005). The former leverage their own experience, knowledge and social network to start new economic activities, whereas the latter seek opportunities through the strategic posture of their companies. Future research can explore the relationship between habitual entrepreneurship and the firm's strategic posture through a multilevel study. The results of this study clearly shows that the individual and organizational levels are intimately entwined, thus confirming the need for multilevel research on this topic (Davidsson and Wiklund, 2001). The entrepreneurial initiatives take place in organizational contexts, often resulting in the formation of new firms or in improved performance of established firms. Entrepreneurs' alertness influences both dimensions of strategic posture of the firm, proactiveness and innovativeness. However, our findings provide evidence that only innovativeness promotes opportunity identification for founder-owned businesses. The innovativeness dimension in EO suggests an emphasis on novel and creative activities that facilitate the search for and exploitation of new products and market opportunities, departing from current processes and technologies (Cohen and Levinthal, 1990). This confirms that entrepreneurs motivate people by example, setting as a major incentive the desire to succeed through personal achievements (Miner, 1990). Entrepreneurs perhaps think that innovation is a goal even more important than profit. Thus, it does not come as a surprise that the strategic posture focuses on innovativeness, which implies a high rate of technological and/or product market innovation to pursue new opportunities and maintain competitive advantage (Covin and Miles, 1999; Zahra and Covin, 1993). These findings inform practitioners on the role of entrepreneurs within an organization. For example, stakeholders should assess the strategic role of innovativeness in the firm's competitive advantage before planning for the replacement of the founder manager with a professional manager. Our work clearly shows the crucial role of the entrepreneur's alertness in the firm's innovative posture. This is different for professional managers, as shown below.

The last contribution of this work relates to the differences between managers and entrepreneurs. The literature outlines the relationship between firm performance and the entrepreneur/manager's personal values, psychological traits and business strategies (Begley and Boyd, 1987; Holm *et al.*, 2013; Kotey and Meredith, 1997; Miner, 1990). The differences in personality and leadership styles between entrepreneurs and managers reflect on the organization's values and structure. Managers operate in a hierarchical system, where they lead by organizational authority (Miner, 1990). This form of management has a risk-averse nature, and it consequently adopts growth strategies based on incremental innovations and development of existing products (Miles *et al.*, 1978; Norman and Verganti, 2014). The mediating role of proactiveness between manager's alertness and opportunity identification provides evidence that managers foster the firm's forward-looking perspective of proactiveness as a crucial component of the venturing activity and performance (Wiklund and Shepherd, 2005). The finding that manager's alertness does not affect opportunity identification confirms that managers do not focus directly on innovation. Instead, firm's proactiveness suits a manager's goals because it impacts the operations (Hitt *et al.*, 2001) with the aim of capturing competitive advantage in the market and delivering superior value and performance (Lumpkin and Dess, 1996; Rauch *et al.*, 2009; Weerawardena and Sullivan-Mort, 2001). Indeed, managers motivate the organization by exercising power over others, carrying out routine decision-making and communication tasks in order to promote the strategic posture within the organization to reach their planned business goals (Miner, 1990). These findings are consistent with the literature that depicts entrepreneurs as highly motivated achievers, risk-takers and innovators when compared to upper management in businesses (Shane, 2000; Stewart and Roth, 2007; Stewart *et al.*, 1999; Ward, 1993). Our work explains these results. Finally, differences in corporate values promoted by entrepreneurs and managers explain why corporate venturing activities appear to be sensitive to organization structure and internal culture (Narayanan *et al.*, 2009). The findings provide empirical evidence of the differential effect of individual traits on an organization's processes.

Limitations

Although this study was able to test the hypotheses with a two-level study, there is a need to recognize the limitations presented in this work. As it is true with most investigations of privately held firms, our data were obtained through self-reported measures. However, we took several steps to guard against common method variance and endogeneity issues, such as using face-to-face interviews as the favored data collection method. Second, the analysis does not include the other dimensions of an EO as proposed by Lumpkin and Dess (1996). An expansion of this work should include autonomy, risk-taking, competitive aggressiveness and the individual's personality elements to help produce a more complete model of the nexus between individuals and organizations, and the subsequent effect on opportunity identification. Third, a new analysis should take into account control variables, such as the organization's structure and industrial sector, that may have an effect on the proposed model. Finally, the sample includes four large cities in Mexico. Future research should include other cities and countries to understand the broader generalizability of the model by including cultural, political and economic variables.

Conclusion

Overall, the results provide support for the proposed theory and for the multilevel approach. The mediating role of a firm's strategic posture explores new aspects of the entrepreneurial process, thus confirming the necessity to approach the study through harmonizing "polyphonic" models that can shed light on effects that would be otherwise neglected (Moroz and Hindle, 2012). These results provide input for the improvement of extant theories.

In particular, the differences between entrepreneurs (founders) and managers in the proposed model may explain the diverse resource allocation strategy and knowledge embeddedness within the firm (Madhok, 1996). This could contribute to explain why some entrepreneurs choose to exploit opportunities within the existing firm while others choose to start a new venture (Wiklund and Shepherd, 2008). Furthermore, this research contributes to the large body of management literature that explores differences between founders and executives (Baron, 1998; Forbes, 2005; Stewart and Roth, 2007; Stewart *et al.*, 1999; Ward, 1993). This work contributes to explain how the unique traits of the entrepreneur interact with their organization to affect opportunity identification.

Future research should test this model within the corporate context. The findings suggest an improvement in theories that have previously explored corporate entrepreneurship, and can shed light on improving management practices. Entrepreneurs foster an internal culture and set of values that are more favorable to radical innovation, compared to managers who favor incremental and less risky projects. The option theory proposes that the corporate venturing activity pursues multiple strategic long-term objectives, not only short-term economic goals (Hurry *et al.*, 1992). Strategic objectives center on organizational learning that can promote innovation and risk-taking activities with the aim of strengthening the company's overall competitive standing (Dushnitsky and Lenox, 2005; Fletcher, 1998). The organization evaluates multiple options available in its portfolio and selects what would most benefit the stakeholders. Since firm culture and core values affect the evaluation process, these findings suggests that organizations led by managers may choose differently from firms led by entrepreneurs, thus affecting the overall venture strategy and dynamics. The management of knowledge within the firm and between the firm and external sources is critical to develop the portfolio of strategic objectives (Keil, 2004). Knowledge accumulation and transfer is crucial for the success of corporate venturing and requires balancing the need of autonomy and discretion to develop radical innovation (Keil, 2004) with the need of coordination and integration to satisfy operational needs (Zahra *et al.*, 2000). This finding suggests that entrepreneurs and managers find different balances between strategic and operational needs to benefit from corporate venturing.

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Appendix

Code	Item (5-points Likert scale)	Construct
EAL_1	I have frequent interactions with other people to acquire new information	Alertness
EAL_2	When I search for information, I always look towards new business ideas	
EAL_3	I regularly read newspapers, magazines or commercial publications to acquire new information. (Dropped)	
EAL_4	I explore the internet on a daily basis. (Dropped)	
EAL_5	I see links between pieces of information seemingly unrelated to each other	
EAL_6	I have hunches towards potential opportunities. (Dropped)	
EAL_7	When I see multiple opportunities, I am able to select the best ones	
INN_1	In general, the management team at my company favors a strong emphasis on research and development, technological leadership and innovations	Innovativeness
INN_2	My company has launched many new lines of products or services in the last five years	
INN_3	Changes in our product or service lines have usually been truly dramatic	
PRO_1	When facing our competitors, my company typically initiates the actions, which then instigate response from the competitors	Proactiveness
PRO_2	When facing our competitors, my company is often the first to introduce new products/services, administrative techniques and operational technologies	
PRO_3	When facing our competitors, my company typically adopts a very competitive position to defeat the competitors.	
EO_1	During the 2011–2012 period, how many potential opportunities did you detect?	Opportunity identification

Table AI.
The instrument
(English translation)

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