



Organizational diversity and shared vision

Resolving the paradox of exploratory and exploitative learning

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Abstract

Purpose – The aims of this paper are: to address the tensions pertinent to exploration and exploitation from the organizational learning perspective; to conceptualize how organizational diversity and shared vision, as two core components of organizational culture, help resolve these tensions; and to discuss the organizational configurations necessary for instilling organizational diversity and shared vision.

Design/methodology/approach – This is a conceptual paper that focuses on the role of organizational culture in promoting corporate entrepreneurship from the organizational learning perspective.

Findings – Organizational diversity and shared vision are important for a balanced approach to exploratory and exploitative learning. Organizational parameters must be aligned to instill the two types of organizational culture to achieve either simultaneous or sequential ambidexterity.

Research limitations/implications – The key theoretical arguments regarding the role of organizational diversity and shared vision in entrepreneurial learning may be adopted for empirical testing in future research.

Practical implications – The arguments of the paper caution that organizations must not only focus on entrepreneurial values in terms of diversity and creativity, but also promote goal-oriented behavior through instilling a shared vision to integrate individual learning in organizational learning and to balance the need for different types of learning in the corporate entrepreneurship process.

Originality/value – The paper articulates the different learning styles and mechanisms involved in the exploratory and exploitative learning and then elaborates on the role of organizational diversity and shared vision in resolving the paradox of exploration and exploitation.

Keywords Workplace training, Organizational culture, Entrepreneurialism

Paper type Conceptual paper

Introduction

Organizational culture, is considered an informal mechanism governing corporate entrepreneurship (Guth and Ginsberg, 1990; Lumpkin and Dess, 1996). Fascinated by the role of organizational culture in entrepreneurship, scholars have examined the

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impact of entrepreneurial orientation, as the behavioral manifestation of an entrepreneurial culture, on performance outcomes. However, empirical results are not conclusive as to the effect of firms' entrepreneurial behavior on either new venture performance (Cooper, 1995) or firm performance (Wiklund, 1999). An important message from past findings is that a firm's entrepreneurial pursuit underpinned by values of proactivity, risk-taking, innovativeness, and autonomy does not necessarily succeed. In other words, an organizational culture that values differences and creativity, which we term "organizational diversity," is not enough by itself.

The need for appropriate organizational cultures is pertinent to the two heterogeneous learning styles required in the corporate entrepreneurship process: exploratory and exploitative learning (March, 1991). The two types of learning require different sets of resources. Exploratory learning involves "search, variation, risk taking, experimentation, play, flexibility, discovery," while exploitative learning entails "refinement, choice, production, efficiency, selection, implementation, execution" (March, 1991, p. 71). Firms must strike a subtle balance between exploration and exploitation for the purpose of successful innovation (March, 1991; McGrath, 2001; Bröring and Herzog, 2008). However, little is known as to how different organizational cultures enable effective balancing of exploratory and exploitative learning within organizations and how it affects innovation.

The strategic entrepreneurship literature (e.g. Hitt *et al.*, 2001), marrying strategic management and corporate entrepreneurship, has already drawn attention to organizational values of goal orientation (which we term "shared vision") and their role in translating entrepreneurial ambitions into innovative outcomes. In particular, the organizational learning literature highlights that shared vision, i.e. an organizational culture that promotes goal-oriented behavior, is a key pillar of a learning organization (Senge, 1990). Shared vision provides a direction, and a sense of purpose, for organization learning (Sinkula *et al.*, 1997), and effectively channels limited organizational resources toward commonly recognized organizational goals. However, the role of shared vision in corporate entrepreneurship process has not been fully understood.

The objectives of this paper are:

- to address the tensions pertinent to exploration and exploitation from the organizational learning perspective;
- to conceptualize how organizational diversity and shared vision, as two core components of organizational culture, help resolve these tensions; and
- to discuss the organizational configurations necessary for instilling organizational diversity and shared vision.

We aim to make a contribution to enhanced understanding of the roles of different organizational cultures in the corporate entrepreneurship process from the organizational learning perspective.

Organizational learning and corporate entrepreneurship

Organizational learning is described as:

[...] members of the organization act as learning agents for the organization, responding to changes in the internal and external environment of the organization by detecting and correcting errors in the organizational theory in use, and embedding the results of their inquiry in the private images and shared maps of organization (Argyris and Schön, 1978, p. 23).

Organizational learning underpins corporate venturing and renewal – the key concern of corporate entrepreneurship (Miller and Friesen, 1982; Murray, 1984; Zahra *et al.*, 1999; Barringer and Bluedorn, 1999; Covin *et al.*, 2006). A learning organization that is “skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” (Garvin, 1993, p. 81) possesses the qualities needed to effectively recognize and pursue new opportunities (Lumpkin and Lichtenstein, 2005). In recent literature, the linkage between organizational learning and corporate entrepreneurship has received increasing attention in recent studies (Harrison and Leitch, 2005). In particular, the concepts of exploratory and exploitative learning have been the focus of inquiry, as inspired by the work of March (1991) and McGrath (2001). For example, Schildt *et al.* (2005) focused on exploratory and exploitative learning from external corporate ventures; Atuahene-Gima (2005) examined competence exploration and exploitation in new product innovation; Burgelman (2002) investigated exploratory and exploitative learning in the strategy process; and He and Wong (2004) examined the impact of exploratory and exploitative learning on innovation and firm performance.

Prior studies have largely applied and operationalized exploration and exploitation based on March’s (1991) definitions, but have not advanced their conceptualization. In particular, the learning styles and mechanisms underpinning exploratory and exploitative learning remain under-researched. Therefore, whilst acknowledging the empirical insights of existing studies, we recognize the need for a systematic conceptual development of exploratory and exploitative learning in the context of corporate entrepreneurship. More specifically, we focus on three aspects of organizational learning: generative vs. adaptive learning, individual vs. organizational learning, and divergent vs. convergent learning. The three aspects together underpin the effectiveness of exploratory and exploitative learning.

Generative vs adaptive learning

Adaptive and generative learning is parallel to the concept of single- and double-loop learning (Argyris and Schön, 1978). Adaptive learning occurs within a set of recognized and unrecognized organizational constraints (i.e. assumptions about its environment and itself), and hence entails sequential and incremental learning within the traditional scope of organizational activities (Slater and Narver, 1995) and knowledge building based on the existing knowledge base of the organization. Conversely, generative learning requires that an organization question long-held assumptions about its mission, customers, capabilities, or strategy, and understand the fundamental underlying cause-effect relationship between the environment and the firm (Slater and Narver, 1995). Therefore, generative learning encompasses knowledge creation that departs from the organization’s existing knowledge base.

Opportunity exploration entails the search for information leading to inventions, and the creation of new knowledge (Alvarez and Busenitz, 2001). However, how an opportunity is identified cannot simply be explained by a rational search process. For example, when change occurs in the environment, some firms see new opportunities while others tend to be concerned with protecting themselves from emerging threats and changes (Alvarez and Busenitz, 2001). An entrepreneurial opportunity invariably involves the development of a new idea that others have overlooked or perceived of less value and feasibility. What differentiates the two contrasting actions is entrepreneurial

alertness – the ability to see the gap where products or services do not exist (Kirzner, 1979). Entrepreneurial alertness requires “flashes of superior insight” to recognize the potential value of an opportunity (Kirzner, 1997) and the match between the opportunity and resource configuration in a creative manner. These “flashes of superior insight” are dependent on whether an entrepreneur has prior knowledge related to the new information (Shane and Venkataraman, 2000), and whether such new information can be absorbed and assimilated with the existing knowledge in order to create new knowledge (Cohen and Levinthal, 1990). It is the balance between novelty and familiarity that triggers an entrepreneurial conjecture (Kaish and Gilad, 1991) – a form of creative cognition (Ward, 2004). Therefore, exploration is dominated by generative learning to a large extent.

In contrast, opportunity exploitation requires a firm to commit resources in order to build efficient business systems for full-scale operations for producing, and gaining returns from, the new product arising from the opportunity (Choi and Shepherd, 2004). Generally, resource commitment has to be made even prior to exploiting an opportunity, to conduct market research (Chrisman and McMullan, 2000), develop and test technologies, and build the management team (Rice, 2002). Exploitation relies on the firm’s ability to build on existing knowledge base and systems with a clear focus of efficiency and feasibility. Hence, exploitation is largely an adaptive learning process.

Discovering an opportunity is necessary, but not sufficient, for a firm to exploit an opportunity. A considerable number of studies have examined the factors that influence a firm’s decision to pursue and fully commercialize certain ideas. These factors include whether the expected economic gain outweighs the opportunity costs of alternatives, the investment of time and money, and a premium for bearing uncertainty (Shane and Venkataraman, 2000; Kirzner, 1979; Schumpeter, 1934). Research has shown that exploitation is more common when expected demand is large (Schumpeter, 1934); industry profit margins are high (Dunne *et al.*, 1988); the density of competition in a particular opportunity is neither too low nor too high (Hannan and Freeman, 1984); learning from other entrants is available (Aldrich and Wiedenmeyer, 1993); the technology life cycle is young (Utterback, 1994); and the cost of capital is low (Shane, 1996). Nevertheless, these studies deal with macro factors, which do not sufficiently explain why not all firms pursue opportunities with the same expected value (Shane and Venkataraman, 2000). Inevitably, it is a firm’s perception of an opportunity that determines its decision on taking up available opportunities. This is, in turn, influenced by its prior learning (Shane and Venkataraman, 2000), and underlying organizational culture (values and norms). The latter has been under-researched.

Individual vs organizational learning

The second tension lies in the relationship between individual and organizational learning. A firm’s perception of opportunities is formed through its individual members’ active engagement in processing and evaluating environmental information. Therefore, individuals are the key agents of entrepreneurial activities (Schumpeter, 1934). Stevenson and Jarillo (1990) refer to individuals pursuing opportunities for the firm as the “crux” of corporate entrepreneurship, whilst Shane (2003) labels this as the “individual – opportunity nexus”. Opportunities are objective and present at a point of time to all individuals, whereas perceptions of an opportunity are subjective depending on whether particular individuals possess the prior knowledge necessary for

identifying an opportunity and the cognitive properties necessary to value it. Moreover, the decision to pursue an opportunity is also influenced by individual differences in the willingness to bear risk, the perception of potential gain versus costs of exploiting the opportunity and the chance of success (Knight, 1921; Shane and Venkataraman, 2000).

Nevertheless, early entrepreneurship and learning literatures focusing on entrepreneurial characteristics or psychological traits have been criticized for being deprived of contexts. To this point, the social cognition literature and corporate entrepreneurship literatures have injected new vigor by framing individual entrepreneurs' mindsets in social and organizational contexts. Indeed, Ireland *et al.* (2001, p. 51) view corporate entrepreneurship as "a context-dependent social process through which individuals and teams create wealth." Through a study of entrepreneurship in reformulating Intel Corporation's corporate strategy, Burgelman (1991) found that entrepreneurial activities are the outcome of the interaction of individuals and groups at multiple levels within the firm. However, the integration of initiatives at multiple levels has become a thorny issue as Zahra (1993) points out: "Is a firm's entrepreneurship the sum of different initiatives at different levels?" In practical terms, organizational learning poses great challenges, as Chung and Gibbons (1997, p. 12) comment:

[...] aligning individuals' interests, motivating them to organize and resolve uncertainties, search for opportunities, and encouraging them to cooperate in the creation of new resource combinations and to exploit them successfully becomes a critical discriminator between firms that prosper, survive, and flounder.

The key to the above challenge lies in the integration of individual learning in organizational learning. The nature of opportunity exploration necessitates a greater level of individual-based, intuitive learning, whereas opportunity exploitation requires organizational learning and collective efforts to align individuals' opportunity-seeking behavior with the firm's advantage-seeking action (Hitt *et al.*, 2001). This, in turn, requires that organizations instill values promoting goal-oriented behavior. Dutta and Crossan's (2005) 4I (intuiting, interpreting, integrating and institutionalizing) framework provides some insights on integrating individual learning. However, their study focused on micro learning processes. Therefore, more efforts are needed to expand the understanding of how institutional forces, such as organizational culture, help to integrate individual learning in organizational learning.

Divergent vs convergent learning

Related to the above is the contrast between divergent and convergent learning approaches. The concepts of divergent and convergent learning were first developed by Kolb (1976) to classify individual learners. Convergent learners are characterized by efficient problem solving, decision making, and application of practical ideas to solve problems, whilst divergent learners demonstrate the abilities of imagining possibilities, generating multiple solutions from various perspectives of the problem domain, seeing the connections of various solutions, and providing a meaningful "gestalt" whole of the problem domain (Kolb, 1984). Essentially, convergent learning involves thinking in the existing frame, and focuses on clearly defining a problem and finding a solution to it. In contrast, divergent thinking involves thinking outside the box, and focuses on expanding possible solutions.

It has been recognized that convergent and divergent learning are two aspects of creativity (Guilford, 1967) and major stages of the innovation process (Van de Ven *et al.*, 1999). However, the two learning approaches have not been effectively integrated in either the corporate entrepreneurship literature or the organizational learning literature. At the organizational level, convergent learning emphasizes specialization and standardization of organizational skills and competences accompanied by tight control systems, and its primary interests are the focus and efficiency of the operations of the organization (Hendry *et al.*, 1995; Kirk, 1998). On the contrary, divergent learning focuses on diversification and re-configuration of organizational skills and competences facilitated by loosely-coupled systems, with creativity as a primary objective. Therefore, the divergent learning process is important to allow individuals to generate as many alternative solutions as possible.

The tension between divergent and convergent learning exists because creative energy without effective organizational control could lead to a fragmented organization without any synergy that is needed when exploiting opportunities. The strategic entrepreneurship literature accentuates the importance of channeling individuals' creative resources toward goal-oriented strategic implementation in terms of exploiting identified opportunities in line with organizational goals (Hitt *et al.*, 2001). Essentially, strategic entrepreneurship advocates that entrepreneurial firms must not only seek new opportunities, but also "pursue only the best opportunities and then pursue those with discipline" (Hitt *et al.*, 2001, p. 488). The process of limiting choices and prioritizing ideas according to their strategic importance to the organization is essentially a convergent learning process. Nevertheless, little is known as to how organizational cultures influence convergent decision-making. This is particularly important because individual intuition and information processing may differ from the firm's advantage-seeking priority, and without organizational control a collective decision cannot be made to concentrate organizational resources on fully developing certain opportunities.

Based on the evaluation of the existing corporate entrepreneurship literature from the organizational learning perspective, we address three tensions of organizational learning. The three tensions have some overlap, but focus on different aspects of organizational learning. Generative and adaptive learning focuses on the extent of newness of knowledge involved in the learning process. Individual and organizational learning emphasizes the integration process of learning, whilst divergent and convergent learning highlights the need for generating, selecting, and prioritizing new ideas. The three learning aspects together underpin the concepts of exploratory and exploitative learning. Exploratory learning largely entails generative, individual-based learning often in a divergent process, whilst exploitative learning primarily encompasses adaptive, organizational-based learning often in a convergent process. Given the different emphasis of exploratory and exploitative learning, the conventionally termed entrepreneurial culture that values diversity and creativity is not sufficient alone for reconciling the learning tensions in a firm's entrepreneurial process. Next, we explain why shared vision should be considered as a fundamental component of organizational culture governing entrepreneurship.

Organizational diversity and shared vision: a learning perspective

The concept of diversity is traditionally referred to as "workforce diversity" – the extent of heterogeneity of workforce demographics (visible characteristics), such as

race, religion, gender, disability, age, education, skills, and ethnic composition of the workforce (Cox, 1994; Ivancevich, 2000). Workforce diversity is often measured by Blau's (1977) index of heterogeneity of selected workforce demographics (e.g. Richard, 2000). Moreover, diversity research has been expanded to top management team's demographic diversity (e.g. Hambrick *et al.*, 1996; Richard *et al.*, 2004), functional diversity (Menguc and Auh, 2005), or a combination of both (e.g. Knight *et al.*, 1999). Nonetheless, recent organizational learning literature has revitalized the concept, and specifically focuses on the intangible aspect of organizational diversity. We adopt the organizational learning perspective and define organizational diversity as the extent to which a firm values and tolerates differences, recognizes, evaluates, and rewards individuals' different viewpoints, which, in turn, contribute to a rich cognitive pool of ideas, experience, and knowledge. Heterogeneous perspectives within the firm or the team generate abundant and a variety of ideas (Menguc and Auh, 2005).

Conversely, shared vision is related to the traditional concept of goal-oriented implementation and consensus-building in strategy and leadership literatures (Thompson and Tuden, 1959); in many cases entrepreneurial visions (related to products, technologies, or markets) and values are developed by strong, charismatic leaders and imbued in the organizations they found. In such organizations, entrepreneurial decision-making tends to be highly centralized among visionary leaders (Selznick, 1957). This conveys a clear top-down approach to sharing entrepreneurial visions. Informed by the approach, strategy research often examines the degree of strategic consensus in top management teams (e.g. Knight *et al.*, 1999). Recent literature on organizational learning has reinvigorated the concept of consensus building, and calls for better understanding of shared vision as a transformational mechanism of a learning organization (Senge, 1990; Sinkula *et al.*, 1997). In this paper, we follow the organizational learning approach to define shared vision as the organizational values that promote the overall active involvement of organizational members in the development, communication, dissemination, and implementation of organizational goals, contrary to the traditional top-down approach. In other words, organizational members play an active role in creating their own organizational culture (Schein, 1985; Gregory, 1983; Wilkins and Ouchi, 1983), rather than the strategic approach to culture, that is, leaders in an organization create the culture (Pettigrew, 1979).

Exploratory learning is essentially reflected through the alertness to environmental change and the creative process of resource configuration in the way to match the emerging opportunity. Literature on antecedents to creativity is long-standing, from individual traits-based to the group or social-psychological perspective, and eventually to the organizational level analysis (Amabile *et al.*, 1996). Research suggests that the conditions under which individuals work significantly influence the level of their creative outcomes, but individuals who have a predisposition to be affected by a favorable environment are more likely to produce creative outputs (Oldham and Cumming, 1996). In contrast to the outcome-oriented approach, Drazin *et al.* (1999) define creativity as a multi-level sense-making and learning process. As actors of communities, individuals independently engage in sensing problems, making sense of information, formulating hypotheses, contradicting conformity, and testing ideas among others (Torrance, 1988). However, in a complex creative process, multiple skills of a group of experts may be needed. Drazin *et al.* (1999, p. 291) describe this as:

Individuals develop ideas, present them to the group, learn from the group, work out issues in solitude, and then return to the group to further modify and enhance their ideas. The iterative, interactive nature of group creativity requires that individuals first choose to engage in individual-level creativity.

Therefore, the creative process places strong emphasis on individual-based generative learning that brings about many “unexpected” ideas contradicting conventions with a divergent learning focus.

An entrepreneurial culture that values organizational diversity creates an ambiance where individuals are encouraged to think originally in a frame-breaking way, behave differently and autonomously, and contribute their new ideas without fear of repercussions (Miller and Friesen, 1983; Popper and Lipshitz, 1998). Huber (1991) argues that organizational diversity brings about broader cognitive and mental maps, which increase the likelihood to prevent myopic thinking and prompt creative resource solutions (Huber, 1991). Empirical research has found that diverse groups generate more creative ideas, alternatives, and solutions, and have more potential for increased productivity than non-diverse groups (Ancona and Caldwell, 1992; Bantel and Jackson, 1989; Hartenian and Gudmundson, 2000). Therefore, organizational diversity promotes exploratory learning primarily featured by individual, generative and divergent learning.

While diversity is a catalyst for organizational creativity, the extent to which diversity is “managed” is an important element in differentiating effective entrepreneurial firms from mediocre ones (Chung and Gibbons, 1997). Effective entrepreneurial firms also seek to foster a culture that promotes organizational learning that involves shared representations and interpretations of information among individuals and filtration of useful information based on its value to the organizational goals (Hult, 2003). Shared vision is an integral part of organizational learning. An organization with a shared vision is more likely to relate multiple perspectives to the existing body of knowledge in line with organizational goals. Hence, shared vision facilitates adaptive learning.

Shared vision provides organizational members a sense of purpose and direction, and helps to hold together a loosely-coupled system and promote the integration of an entire organization (Orton and Weick, 1990). Therefore, shared vision can be viewed as a bounding mechanism for organizational resource exchange and integration (Tsai and Ghoshal, 1998), particularly when various opportunities emerge whilst limited organizational resources are available for deployment. Without a shared vision, the reality of a firm would be characterized by highly enthusiastic and committed individuals pulling the organization toward different directions. Shared vision channels entrepreneurial resources toward commonly recognized opportunities and boosts a firm’s capacity to fully exploit them. In the context of a new product development team, the existence of a shared vision enables the team to select appropriate creative ideas to pursue, as guided by the organizational objectives. Therefore, shared vision is an important mechanism governing the convergent learning process.

The social capital theory echoes the “bonding” effect of shared vision. Shared vision reflects individuals’ associability with the organization and provides them with a rationale to be good agents, and hence, shared vision increases their willingness to subordinate their individual goals and actions to collective goals and actions (Leana

and Van Buren, 1999). The congruence of individual values with an organization's values is the foundation of trusting relationships of organizational members (Sitkin and Roth, 1993), and helps to avoid conflicts and provide the harmony of interests that erases the possibility of opportunistic behaviors (Ouchi, 1980). Driven by collective goals and values, organizational members are inclined to trust one another, as they can expect that they all work for collective goals and will not be hurt by any other member's pursuit of self-interest (Tsai and Ghoshal, 1998). The collective behaviors create team efficiency that is required in the opportunity exploitation stage. The team efficiency is a form of social capital and valuable in translating diverse ideas into focused actions (McGrath *et al.*, 1994).

With reference to the social cognition theory, shared vision helps organizational members to see the potential value of their knowledge exchange and combination, and facilitate the attainment of consensus on the meaning of the information in relation to commonly understood goals (Slater and Narver, 1995). Therefore, shared vision boosts the likelihood of shared interpretation and evaluation of information acquired to achieve organizational goals (Sinkula, 1994). Therefore, shared vision helps integrate individual learning in organizational learning and promotes adaptive and convergent learning.

Discussion: can organizational diversity and shared vision co-exist?

The literature is disparate with regard to the approaches to a balanced organizational culture. The traditional view is that greater diversity creates dispersion in organizational perspectives, more interpersonal conflicts and consequently less strategic consensus (Hambrick *et al.*, 1996; Knight *et al.*, 1999). Hence, organizational diversity and shared vision cannot co-exist within one organization. This is exemplified in the case of Gucci, the Italian luxury goods group. The company encountered problems in the 1970s and throughout the 1980s, after the retirement of Guccio Gucci, the founder. Different interests between Guccio's two sons, and later between other family members caused conflicts. The top management conflicts distracted the whole business, leaving the company to grow without a clear sense of direction. By the late 1980s and till today, the company owns a series of independently managed brands with a great deal of overlap in products (De Wit and Meyer, 2004). Each brand has its own design team, sales and marketing, distribution channels, communications, and public relations, without too much synergy with other brands. Gucci's dramatic growth was driven by the diverse interests in exploring new opportunities. However, without a shared vision, many brands are under-exploited and the synergy potential between different brands has not yet been realized sufficiently. As March (1991, p. 73) predicted:

[...] compared to returns from exploitation, returns from exploration are systematically less certain, more remote in time, and organizationally more distant from the locus of action and adaptation.

In contrast, exploitation helps reduce variance in the short-term mean performance, because:

[...] the certainty, speed, proximity, and clarity of feedback ties exploitation to its consequences more quickly and more precisely than is the case with exploration (March, 1991, p. 73).

Nevertheless, exploitation is likely to decrease long-term performance.

Given the need to succeed in the short- and long-term, organizations are increasingly required to be ambidextrous (Tushman and O'Reilly, 1996), that is, to undertake both exploratory and exploitative learning. One type of ambidextrous organization instills organizational diversity and shared vision simultaneously, placing emphasis of organizational learning on "unity-in-diversity" (Dass and Parker, 1999) – managing important similarities and differences in the interests of long-term learning. To achieve this, "organizational leaders who act strategically to manage diversity usually recognize the important role that conflict and debate can play in creating a common sense of vision and beliefs within an organization" (Dass and Parker, 1999, p. 72). The organizational competence to balance diversity and shared vision is analogous to what Quinn (1985) calls managing controlled chaos, which is illustrated in the case of Sony: "Many of its (Sony's) personnel policies derived from its original goal to "establish an ideal factor, free, dynamic and pleasant". To Ibuka, (the founder), this means "to have fixed production and budgetary requirements but within these limits to give Sony employees the freedom to do what they want. This way we draw on the deepest creative potential." Unless diversity is integrated into the implementation of organizational goals, it may impair the effectiveness of coordination, cohesiveness, and collaboration (Menguc and Auh, 2005).

An alternative type is the sequential ambidextrous organization, which Tushman and O'Reilly (1996) illustrated. In such organizations, organizational diversity and shared vision exist in a sequential manner, often in different business units, rather than promoting both diversity and shared vision in each single business unit. For example, based on a study of a leading international hotel chain, Wang and Altinay (2008) find that the international franchising process was characterized by different cultures and different types of organizational learning in the headquarter office and its business units in different country markets. In country markets where potential franchisees were identified, an organizational culture that encouraged diversity and creativity dominated in order to explore potential franchising opportunities. Conversely, in the headquarter where the decisions were made as to whether certain opportunities should be exploited, there was a high-level of organizational control and positive decisions were made only if the proposed franchise opportunity helped to maintain a consistent brand image across the hotel chain and achieve a chain-wide strategic goal. Therefore, exploring and exploiting opportunities were undertaken sequentially in different business units.

Conclusions and future research agenda

Our main objective is to address the key tensions of organizational learning in the corporate entrepreneurship process and to conceptualize how organizational diversity and shared vision, as two core components of organizational culture, help to resolve the tensions of exploration and exploitation. Pertinent to the heterogeneous activities of corporate entrepreneurship, we systematically address three aspects of organizational learning: generative vs adaptive learning, individual vs organizational learning, and divergent vs convergent learning, which together underpin exploratory and exploitative learning. Although organizational learning is widely recognized as a key element in the entrepreneurial process, existing literature on the understanding of learning tensions demonstrates an ad-hoc nature.

Furthermore, whilst acknowledging the need for organizational diversity in the creative process, we incorporate shared vision as an essential aspect of entrepreneurial culture. Several parallel concepts of consensus building or consensus on objectives are central to strategic management (Barringer and Bluedorn, 1999), but have not yet been integrated into the entrepreneurship literature in a meaningful way. We highlight that successful entrepreneurial firms must instill two fundamental aspects of entrepreneurial cultures: one that values organizational diversity and creativity, and the other that values shared vision and goal-orientation. It is a shared vision that differentiates those entrepreneurial firms that can take their creative ideas a step further towards successful commercialization from those that leave many projects under-developed.

In addition, March (1991) has long anticipated entrepreneurial firms balancing exploration and exploitation. The ambidexterity literature (Tushman and O'Reilly, 1996) also echoes this element. However, how organizational culture can be used as an informal governing mechanism to balance exploration and exploitation was a missing link. We argue that one way to configure an ambidextrous organization is to instill organizational diversity and shared vision simultaneously within the organization. Whilst this can be challenging given the tensions of different learning needs, the alternative is to instill organizational diversity and shared vision in a sequential manner in different business units within the organization.

Finally, this paper points out several avenues for future research. First, the organizational learning literature has started to operationalize the construct of shared vision (e.g. Sinkula *et al.*, 1997). However, little research has been done to operationalize organizational diversity in the corporate entrepreneurship literature. Future research could quantify the construct of organizational diversity and empirically test the research propositions of this paper. Second, how shared vision is developed and maintained in entrepreneurial firms remains unknown. Future research could take a case-based qualitative approach to provide fine-grained insights. More specifically, comparative case analysis could be used to illuminate how shared vision is promoted in a learning orientated organization as opposed to the traditional top-down approach to consensus building. Third, we illustrate the roles of organizational diversity and shared vision in two alternative configurations of ambidextrous organizations. Future research could investigate how organizational diversity and shared vision can be aligned with other organizational parameters, such as strategy, structure, and leadership (Tushman and O'Reilly, 1996) using quantitative and/or qualitative approaches. Moreover, future comparative studies that examine the impact on short- and long-term performance outcomes in ambidextrous and non-ambidextrous organizations would also make a fruitful research topic.

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