What role does entrepreneurship play in organizational culture?

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Abstract

In a global, knowledge-based economy, entrepreneurship and innovation are important for the creation of values and welfare. Society is becoming characterized more and more by social, cultural and economic diversity. An individual's abilities to adapt and be innovative are important elements for society.

Key words: entrepreneurship, organizational culture

Introduction

More and more people are interested in venturing, and it has becoming a trend to create one's own career. However, the resources that one person can manage to starting a new venture are limited. If one person is planning to start a new venture, he should seek the outer resources as much as he could. Therefore, he might find entrepreneurial partners to obtain capital, technology, and human resources. As a result, organizing entrepreneurial teams is the common form for entrepreneur. According to Timmons (2007), the existence of team cannot certainly promise the success of the new venture; however, the interaction and communication among team members is the most important thing to entrepreneurial teams. The process of interaction will lead to the integration and coordination of team member's contribution and team's performance. In additions, the team members' entrepreneurial orientation will lead to their reactions towards entrepreneurial challenges and it will help them to face the problem when establishing new ventures. All the team members' behavior will influence entrepreneurial performance directly.

Entrepreuneurial teamwork quality

Teamwork quality is the combination of team members' interaction, and the quality of their interactions. The interaction includes task-related activities and social-related activities. Hoegl and Gemueden (2001) defined six facets of teamwork quality, and we apply the concept of teamwork quality to entrepreneurial teamwork quality. The following are the six facets of teamwork quality:

Communication is the basis of teams' activities, and it is the means that team members exchange information (Pinto & Pinto, 1990). The measurement of communication is on the frequency of communication, the degree of formalization, structure and the openness of shared information. Coordination is the degree of understanding about the interrelatedness and current status of individual contributions. Every team has its own team task, and every team member is responsible for different subtasks. Therefore, coordination is to integrate all the members' subtasks and it can measured by the harmonization and synchronization of individual's contribution (Tannenbaum et al., 1992; Larson & Schaumann, 1993; Brannick et al., 1995). Mutual support is to intensively collaborate with other team members, and all members help each other with respect and assistance (Tjosvold, 1995). Effort is the workload of team task that one shared and the priority of team task over other obligations (Hackman, 1987; Pinto & Pinto, 1990). Balance of mutual support means that each team member should contribute his professions to the common task, and all members should show respect to others' ideas even if he posits different point of view. Cohesion is the close relationship among team and its members. It is the degree that team members' desires to stay in the team (Cartwright, 1968).

Entrepreneurial Orientation

Entrepreneurial orientation is the degree that top managers' acceptance of risks, support for innovation, and the degree of changing to gain organizational competitive advantages. Entrepreneurial orientation is composed of five sub-constructs. Innovativeness is the orientation that accepting new products, new services, new technologies, and new process, and put them into the markets in order to create new value (Lumpkin & Dess, 1996). Risk taking means one organization commits to put more resources in an uncertainty environment, and it can bear higher risks (Lumpkin & Dess, 1996). Proactive means that organization's leaders are aware of the changing, demands in the future markets, and what the leaders do to react it (Lumpkin & Dess, 1996). Autonomy refers to ones' independent decisions, and competitive aggressiveness is the intensity that one organization reacts to its competitors (Lumpkin & Dess, 1996).

Entrepreneurial Performance

According to Cooper and Arts (1995), new ventures' performance can be measured by entrepreneurs' satisfaction. Entrepreneurial performance can be defined into two levels, team performance and personal success. Hoegl and Gemueden (2001) defined two sub-constructs of team performance. One is effectiveness, which is the comparison of the team's actual outcome and the intended outcome. The other one is efficiency, which is the comparison of the team's actual inputs and the intended inputs. Personal success is also defined into two aspects. Work satisfaction connects individual's attachment and belief towards his job, and team members learn the skillof interpersonal management, project management, and innovative technology from the interactions and collaboration within the team..

Culture, Creativity and Innovation

Anyone who has worked in several different organizations surely knows that in one way or another, each is unique. Even organizations concerned with the same activities or that provide similar products or services can be very different places to work.

Accordingly, we define organizational culture as a cognitive framework consisting of attitudes, values, behavioral norms, and expectations shared by organization members. At the root of any organization's culture is a set of core characteristics that are collectively valued by members of an organization. Several such characteristics are especially important.

Organizations may be distinguished with respect to their basic values, such as the very fundamental ones summarized here.

• Sensitivity to needs of customers and employees

• Freedom to initiate new ideas

• Willingness to tolerate taking risks

• Openness to communication options

Our discussion thus far has implied that each organization has only a single, uniform culture—one set of shared values, beliefs, and expectations. In fact, this is rarely the case. Instead, organizations, particularly large ones, typically have several cultures operating within them.

This is not to say, however, that there isn't a dominant culture, a distinctive, overarching "personality" of an organization—the kind of culture to which we have been referring. An organization's dominant culture reflects its core values, dominant perceptions that are generally shared throughout the organization. Typically, while members of subcultures may share additional sets of values, they generally also accept the core values of their organizations as a whole. Thus, subcultures should not be thought of as a bunch of totally separate cultures, but rather, "mini" cultures operating within a larger, dominant culture.

Indeed, culture plays several important roles in organizations.

Most obviously, an organization's culture provides a sense of identity for its members.

The more clearly an organization's shared perceptions and values are defined, the more strongly people can associate themselves with their organization's mission, and feel a vital part of it.

A second important function of culture is to generate commitment to the organization's mission. Sometimes it's difficult for people to go beyond thinking of their own interests, questioning how everything that is done might affect themselves. However, when there is a strong, overarching culture, people feel that they are part of that larger, well-defined whole, and are involved in the entire organization's work. Bigger than any one individual's interests, culture reminds people of what their organization is all about.

The third important function of culture is that it serves to clarify and reinforce standards of behavior. While this is essential for newcomers, it also is beneficial for seasoned veterans. In essence, culture guides employees' words and deeds, making it clear what they should do or say in a given situation. In this sense, it provides stability to behavior, both with respect to what one individual might do at different times, but also what different individuals may do at the same time. For example, in a company with a culture that strongly supports customer satisfaction, employees will have clear guidance as to how they are expected to behave: doing whatever it takes to please the customer. By serving these three important roles, it is clear that culture is an important force-influencing behavior in organizations.

Several factors contribute to this state of affairs, and hence, to the emergence of organizational culture.

Company Founders. First, organizational culture may be traced, at least in part, to the founders of the company. These individuals often possess dynamic personalities, strong values, and a clear vision of how their organizations should operate. Since they are on the scene first, and play a key role in hiring initial staff, their attitudes and values are readily transmitted to new employees. The result: These views become the accepted ones in the organization, and persist as long as the founders are on the scene.

For example, the culture at Microsoft calls for working exceptionally long hours, in large part because that's what co-founder Bill Gates has always done. Sometimes, founders' values can continue to drive an organization's culture even after that individual is no longer around. For example, the late Ray Kroc founded the McDonald's restaurant chain on the values of good food at a good value served in clean, family-oriented surroundings—key cultural values that persist today.

Experience with the Environment. Second, organizational culture often develops out of an organization's experience with the external environment. Every organization must find a niche for itself in its industry and in the marketplace. As it struggles to do so in its early days, it may find that some values and practices work better than others. For example, one company may determine that delivering defect-free products is its unique market niche; By doing so, it can build a core of customers who prefer it to competing businesses. As a result, the organization may gradually acquire a deep, shared commitment to high quality. In contrast, another company may find that selling products of moderate quality, but at attractive prices, works best. The result: A dominant value centering on price leadership takes shape. In these and countless other ways, an organization's culture is shaped by its interaction with the external environment.

Contact with Others. Third, organizational culture develops out of contact between groups of individuals within an organization. To a large extent, culture involves shared interpretations of events and actions on the part of organization members. In short, organizational culture reflects the fact that people assign similar meaning to various events and actions – that they come to perceive the key aspects of the world, those relevant to the organization's work, in a similar manner.

The Effects of Organizational Culture

Organizational culture exerts many effects on individuals and organizational processes – some dramatic, and others more subtle. Culture generates strong pressures on people to go along, to think and act in ways consistent with the existing culture. Thus, if an organization's culture stresses the importance of product quality and excellent service, its customers generally will find their complaints handled politely and efficiently. If, instead, the organization's culture stresses high output at any cost, customers seeking service may find themselves on a much rockier road.

An organization's culture can strongly affect everything from the way employees dress (e.g., the white shirts traditionally worn by male employees of IBM) and the amount of time allowed to elapse before meetings begin, to the speed with which people are promoted.

Turning to the impact of culture on organizational processes, considerable research has focused on the possibility of a link between culture and performance. Research has shown that to influence performance, organizational culture must be strong. In other words, approval or disapproval must be expressed to those who act in ways consistent or inconsistent with the culture, respectively, and there must be widespread agreement on values among organizational members. Only if these conditions prevail will a link between organizational culture and performance be observed.

This idea has important implications both for individuals and for organizations. First, it suggests that people seeking employment should examine carefully the prevailing culture of an organization before deciding to join it. If they don't, they run the risk of finding themselves in a situation where their own values and those of their company clash. Second, it also suggests that organizations should focus on attracting individuals whose values match their own (what is referred to as person-organization fit). This involves identifying key aspects of organizational culture, communicating these to prospective employees, and selecting those for whom the person organization fit is best. Considerable effort may be involved in completing these tasks. Given that high levels of person-organization fit can contribute to commitment, satisfaction, and low rates of turnover among employees, the effort

Putting it all together

The components of creativity are important as they can be used to paint a picture of situations that are most likely to produce creativity. Given this connection, scientists claim that people will be at their most creative when they have high amounts of all three of these components.

Specifically, it has been claimed that there is a multiplicative relationship between these three components of creativity. Thus, if any one component that is low, the overall level of creativity will be low. In fact, people will not be creative at all if any one of these components is at zero (i.e., it is completely missing). This makes sense when looked at in detail. After all, you would be unlikely to be creative at a job if you didn't have the skills needed to do it, regardless of how motivated you were to be creative and how well-practiced you were at coming up with new ideas. Likewise, creativity would be expected to be nonexistent if either creativity-relevant skills or motivation were zero. The practical implications are clear: To be as creative as possible, people must strive toward attaining high levels of all three components of creativity.

The process of Innovation

Earlier, we depicted individual creativity as being composed of three components—motivation, resources, and skills. As it works out, these same components are involved in organizational innovation as well, albeit in somewhat different ways.

Motivation to Innovate. Just as individual creativity requires that people are motivated to do what it takes to be creative, organizational innovation requires that organizations have the kind of cultures that encourage innovation. When top executives fail to promote a vision of innovation, and accept the status quo, change is unlikely. However, at companies such as Microsoft, where leaders (including chairman and co-founder, Bill Gates), envision innovation as being part of the natural order of things, it is not surprising that innovative efforts are constantly underway.

Resources to Innovate. Again, a parallel to individual creativity is in order. Just as people must have certain basic skills to be creative, so too must organizations possess certain basic resources that make innovation possible. For example, to be innovative, at the very least, organizations must have what it takes in terms of human and financial resources. After all, unless the necessary skilled people and deep pockets are available to do what it takes to innovate, stagnation is likely to result.

Innovation Management. Finally, just as individuals must hone special skills needed to be creative, so too must organizations develop special ways of managing people so as to encourage innovation – that is, innovation management. Most notable in this regard is the matter of balance.

Specifically, managers help promote innovation when they show balance with respect to three key matters: goals, reward systems, and time pressure.

• Organizational innovation is promoted when goals are carefully linked to the corporate mission. However, they should not be so specific as to tie the hands of those who put them into practice. Innovation is unlikely when such restrictions are imposed.

• Reward systems should generously and fairly recognize one's contributions, but they should not be so specific as to connect literally every move to a bonus or some type of monetary reward. To do so, discourages people from taking the kinds of risks that make innovation possible.

• Innovation management requires carefully balancing the time pressures under which employees are placed. If pressures are too great, people may be unimaginative and offer routine solutions. By the same token, if pressure is too weak, employees may have no sense of time urgency and believe that the project is too unimportant to warrant any creative attention on their part.

Schumpeter linked the market process of creative destruction – which he associated with "new combinations" – and therefore economic development and progress, to innovation and distinguished the entrepreneur as the prime innovator. In addition to being an innovator, the entrepreneur is a leader. His actions channel the means of production into previously unexploited markets and other producers follow him into these new markets (1960: 89).

Perhaps Kirzner best described the market impact of Schumpeter's entrepreneur when he wrote: "…for Schumpeter the essence of entrepreneurship is the ability to break away from routine, to destroy existing structures, to move the system away from the even, circular flow of equilibrium" (1973: 127).

Although not the emphasis of his analysis, Schumpeter recognized that the entrepreneur (in addition to all economic actors) would have to adapt to his surrounding institutional environment:

Moreover, Schumpeter realized the necessity of private property in providing financial motives for entrepreneurial action and hence economic development. The entrepreneur, working within the societal institutional framework will adjust and adopt his actions based on the incentive structure he faces. Without a conducive framework in which he can pursue the activities of innovation and leadership, Schumpeter's entrepreneur will fail to carry out his function.

Kirzner recognized the role that the entrepreneur would play in economic development. "In economic development, too, the entrepreneur is to be seen as responding to opportunities rather than creating them; as capturing profit opportunities rather than generating them…Without entrepreneurship, without alertness to the new possibility, the long-term benefits may remain untapped" (1973: 74). For Kirzner, the competitive market and entrepreneurship are inseparable – the competitive process is in essence entrepreneurial (1973: 15-16). The consideration of economic progress and the institutions that facilitate that development through entrepreneurship occurs here on two levels. First, given that competition and entrepreneurship are inseparable, we must evaluate if the institutional framework provides a structure for competition. Second, we must consider if the institutional framework provides the incentive structure for the entrepreneur to: (1) exercise his subconscious alertness, and (2) act on his alertness to exploit arbitrage opportunities.

Entrepreneurial activity, according to Kirzner, does not require any initial resources so the only means of restricting the competitive process is the latter – government imposed restrictions (1973: 99-100). If we are looking for the connection between economic development and the entrepreneur and accept Kirzner's notion, then one institution we must consider is the presence of barriers to entry. If Kirzner's notion of entrepreneurship and competition is accurate, we would expect to see countries with high barriers to entry less economically developed then those where the competitive process is largely uninhibited.

For Kirzner, entrepreneurship does not just involve alertness, but also the exploitation of the opportunity realized through alertness:

It follows, then, that for opportunities for social improvement to be more rapidly discovered and exploited, these opportunities must be translated into opportunities that are not merely encountered…but into opportunities that are to the advantage of these potential entrepreneurs, and that most effectively excite their interest and alertness…(ibid, 149).

The pure entrepreneur…proceeds by his alertness to discover and exploit situations in which he is able to sell for high prices that which he can buy for low prices…It is not yielded by exchanging something the entrepreneur values less for something he values more highly. It comes from discovering sellers and buyers of something for which the latter will pay more that the former demand. The discovery of a profit opportunity means the discovery of something obtainable for nothing at all.

No investment is required; the free ten-dollar bill is discovered to already be within one's grasp (1973:48).

However, as Harper (1998) has pointed out, although the ownership of property is not a necessary condition for alertness, it would be extremely difficult for entrepreneurs to execute on the opportunities they have observed without it (in Kirzner's example the "sellers" and "buyers" involved in the transaction did not have known control of the related resources).

Moreover, although the entrepreneur need not start with any assets, it is quite possible that he will own some of the capital necessary to execute on his plan (Kirzner, 1973: 49; 1985).

The third view that we will consider is the notion of entrepreneurship in history as one of "betting on ideas" (Brenner, 1985; Mokyr, 1990). Historians, in an attempt to explain the economic advancement of developed countries, often use this notion of entrepreneurship. Its main focus is on the uncertainty of innovation as well as the risks and gambles involved in changing a known production process, or introducing a new product.

Despite differences in the notion of entrepreneurship, each of the notions emphasizes the dual role of entrepreneurship in the economic process. The entrepreneur, in discovering previously unexploited profit opportunities, pushes the economy from an economically (and technologically) inefficient point (A) towards the economically (and technologically) efficient production point (B). Moreover, in discovering new technology and new production processes, which use resources in a more efficient manner, the entrepreneurial process shifts the entire production possibility curve out from "pp 1" to "pp 2" (Kirzner, 1985). This shift represents the essence of economic growth – an increase in real output due to increases in real productivity.

The two most important "core" institutions for encouraging entrepreneurship are well-defined property rights and the rule of law. It is well established that those countries where these core institutions are developed have a record of strong economic growth (Boettke & Subrick; Gwartney, Holcombe and Lawson, 1998, 1999; Scully, 1988).

Capital flight is yet another indicator which highlights the influence of the institutional environment on entrepreneurship and hence, economic growth. Again, the issue of capital flight is directly linked to the core institutions – private property and the rule of law. It has been established that foreign capital only matters after private property has been established. Even with capital at the entrepreneur's disposal, there will be little incentive for him to invest it without property rights (Johnson, McMillan and Woodruff, 2000).

Institutions which are effective in one country may fail to have the same impact in other countries. This is due to the fact that institutions operate in a moral and cultural context, which in some cases may hamper the workings of the market. This is not a result of the market as such, but rather how agents decide to act within it.

Baumol (1990) makes the distinction between "productive" and "unproductive" entrepreneurship. If anything, his analysis further highlights the simple fact that institutions matter. Our analysis of the institutional structure dovetails nicely with Baumol's thesis in that we realize that the societal organization channels the entrepreneurial aspect of human action towards certain activities. However, while Baumol focuses on productive (i.e., innovation, etc) versus unproductive (i.e., rent seeking and organized crime) entrepreneurship we focus on this aspect of human action as being transformative or not. Transformative entrepreneur ship requires alertness to hitherto unknown opportunities.

Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance G.T.

For both start-up ventures and existing firms, entrepreneurship carried on in the pursuit of business opportunities spurs business expansion, technological progress, and wealth creation. Entrepreneurial activity rep-resents one of the major engines of economic growth and today accounts for the majority of new business development and job creation in the United States (Business Week, 1993). As such, writers in both the scholarly literature (e.g., Covin & Slevin, 1991) and popular press (e.g., Peters & Waterman, 1982) have argued that entrepreneurship is an essential feature of high-performing firms. As the field of strategic management developed, however, the emphasis shifted to entrepreneurial processes, that is, the methods, practices, and decision-making styles managers use to act entrepreneurially. These include such processes as experimenting with promising new technologies, being willing to seize new product-market opportunities, and having a predisposition to undertake risky ventures. The trend has been to use concepts from the strategy-making process literature to model firm-level entrepreneurship (Covin & Slevin, 1989, 1991; Miller, 1983). Five dimensions-autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness-have been useful for characterizing and distinguishing key entrepreneurial processes, that is, a firm's entrepreneurial orientation (EO). The essential act of entrepreneurship is new entry. New entry can be accomplished by entering new or established markets with new or existing goods or services. New entry is the act of launching a new venture, either by a start-up firm, through an existing firm, or via "internal corporate venturing" (Burgelman, 1983). New entry is thus the central idea underlying the concept of entrepreneurship. The key dimensions that characterize an EO include a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities. All of these factors-autonomy, innovativeness, risk taking, pro activeness, and competitive aggressiveness-may be present when a firm engages in new entry. In contrast, successful new entry also may be achieved when only some of these factors are operating. That is, the extent to which each of these dimensions is useful for predicting the nature and success of a new undertaking may be contingent on external factors, such as the industry or business environment, or internal factors, such as the organization structure (in the case of an existing firm) or the characteristics of founders or top managers. Thus, although some prior research suggests that the dimensions of an EO covary (e.g., Covin & Slevin, 1989), we suggest that autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness may vary independently, de-pending on the environmental and organizational context. This is consistent with Gartner's (1985: 697) perspective regarding new venture formation: The creation of a new venture is a multidimensional phenomenon; each variable describes only a single dimension of the phenomenon and cannot be taken alone.... entrepreneurs and their firms vary widely; the actions they take or do not take and the environments they operate in and respond to are equally diverse-and all these elements form complex and unique combinations in the creation of each new venture. The concept of entrepreneurship has been applied to many different levels, for example, individuals, groups, and "whole organizations.' One of the reasons there has been little agreement on the nature of entrepreneurship and how it contributes to performance is because the term is used in the context of various levels of analysis. Entrepreneurship often is thought to be within the purview of individuals only, because it is frequently associated with the introduction of a revolutionary invention (Kilby, 1971). It is also considered by some theorists to apply primarily to the domain of small businesses because they are responsible for the majority of economic growth and new-job creation via entry into untapped markets (Birch, 1979). Recently, there has also been an emphasis on corporate entrepreneurship as a means of growth and strategic renewal for existing larger firms (Guth & Ginsberg, 1990).

Prior researchers have suggested that there is a set of organizational processes from which strategic decisions evolve (Hart, 1992; Rajagopalan, Rasheed, & Datta, 1993). These take the form of patterns or modes that can be characterized and identified across organizations (Hart, 1992). The 1996 Lumpkin and Dess 139 dimensions of a firm's strategy-making processes may be viewed as en-compassing the entire range of organizational activities that involve planning, decision making, and strategic management. Such processes also encompass many aspects of the organization's culture, shared value system, and corporate vision (Hart, 1992; Pascale, 1985). The study of a firm's entrepreneurial orientation is analogous to Stevenson and Jarillo's (1990) concept of entrepreneurial management, in that it reflects the organizational processes, methods, and styles that firms use to act entrepreneurially. With regard to the specific dimensions of EO, Miller (1983) has provided a useful starting point. He suggested that an entrepreneurial firm is one that "engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (1983: 771). Accordingly, he used the dimensions of "innovativeness," "risk taking," and "pro-activeness" to characterize and test entrepreneurship. Numerous re-searchers have adopted an approach based on Miller's (1983) original conceptualization (e.g., Covin & Slevin, 1989; Ginsberg, 1985; Morris & Paul, 1987; Naman & Slevin, 1993; Schafer, 1990). For example, Covin and Slevin (1989) investigated the performance of entrepreneurial firms in hostile and benign environments. In their study of 161 small manufacturers, "entrepreneurial strategic posture" was measured using a scale that ranked firms as entrepreneurial if they were innovative, risk taking, and proactive. Two other dimensions are important aspects of an entrepreneurial orientation. The first is competitive aggressiveness, which captures the distinct idea of "beating competitors to the punch," suggested by Miller's (1983) definition of an entrepreneurial firm. It refers to the type of intensity and head-to-head posturing that new entrants often need to compete with existing rivals. Competitive aggressiveness was highly correlated with entrepreneurship across all levels of risk in a study that used published risk rankings to compare firms in low- and high-risk environments in Eastern Europe, the Commonwealth of Independent States, and the United States (Dean, Thibodeaux, Beyerlein, Ebrahimi, & Molina, 1993). Another key component of an EO is a tendency toward independent and autonomous action. Start-up firms must exercise intentionality to carry forward the specific actions required to launch new ventures (Bird, 1988; Katz & Gartner, 1988). Autonomy The history of entrepreneurship is filled with stories of self-deter-mined pioneers who had a unique, new idea-a better idea-and made a business out of it. Entrepreneurship has flourished because independently minded people elected to leave secure positions in order to pro-mote novel ideas or venture into new markets, rather than allow organizational superiors and processes to inhibit them. Within organizations as well, it is the freedom granted to individuals and teams who can exercise their creativity and champion promising ideas that is needed for entrepreneurship to occur. Thus, an important impetus for new-entry activity is the independent spirit necessary to further new ventures. As such, the concept of autonomy is a key dimension of an entrepreneurial orientation. Autonomy refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion. In general, it means the ability and will to be self-directed in the pursuit of opportunities. In an organizational context, it refers to action taken free of stifling organizational constraints. Thus, even though factors such as resource availability, actions by competitive rivals, or internal organizational considerations may change the course of new-venture initiatives, these are not sufficient to extinguish the autonomous entrepreneurial processes that lead to new entry: Throughout the process, the organizational player remains free to act independently, to make key decisions, and to proceed. As the previous discussion suggests, evidence of autonomy in firms may vary as a function of size, management style, or ownership. For example, in a firm in which the primary decision maker is the owner/ manager, autonomy is implied by the rights of ownership. Miller (1983) found that the most entrepreneurial firms had the most autonomous leaders. That is, in small simple firms, high levels of entrepreneurial activity were associated with chief executives who maintained strong central authority and also acted as the firm's knowledge leader by being aware of emerging technologies and markets. To promote entrepreneurship (Pinchot, 1985), many large firms have engaged in changes in organizational structure such as flattening hierarchies and delegating authority to operating units. These moves are intended to foster autonomy, but the process of organizational autonomy requires more than a design change. Firms must actually grant autonomy and encourage organizational players to exercise it (Quinn, 1979). Thus, the exercise of organizational autonomy is often characterized by a two-stage process involving a project definition that is carried out by autonomous organizational members and a project impetus that is carried out by champions who sustain the autonomous efforts (Bower, 1970). Thus, in an organizational setting, it is often the champions that play the most entrepreneurial roles by scavenging for resources, going outside the usual lines of authority, and promoting risk taking on behalf of new ideas and promising breakthroughs (Kanter, 1983; Peters & Water-man, 1982). Thus "innovativeness" became an important factor used to characterize entrepreneurship. Innovativeness reflects a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes. Although innovations can vary in their degree of "radicalness" (Hage, 1980), innovativeness represents a basic willingness to depart from existing technologies or practices and venture beyond the current state of the art (Kimberly, 1981). There are numerous methods by which to classify innovations (see Downs & Mohr, 1976), but perhaps the most useful distinction is between product-market innovation and technological innovation. Until recently, most research has focused on technological innovativeness, which consists primarily of product and process development, engineering, research, and an emphasis on technical expertise and industry knowledge (Cooper, 1971; Maidique & Patch, 1982). Product-market innovativeness suggests an emphasis on product design, market research, and advertising and promotion (Miller & Friesen, 1978; Scherer, 1980). In either case, innovativeness is an important component of an EO, because it reflects an important means by which firms pursue new opportunities. Evidence of firm innovativeness may take several forms. In the broadest sense, innovativeness may occur along a continuum from a simple willingness to either try a new product line or experiment with a new advertising venue, to a passionate commitment to master the latest in new products or technological advances. In terms of human resources, Hage (1980) argued that the more professionals and specialists in a firm, such as engineers and scientists, the higher the level of innovation. Miller and Friesen (1982) examined the "technocratization" of firms and found that higher levels of innovativeness were associated with greater reliance on technically trained specialists. Miller (1987, 1988) used R&D costs as a percentage of sales to measure financial resources devoted to innovation. Thus, even though these factors may vary by industry, a simple count of financial or human resources committed to innovation activities may be useful for operationalizing innovativeness. Along with this type of work came the idea of assuming personal risk. Cantillon (1734), who was the first to formally use the term entrepreneur-ship, argued that the principal factor that separated entrepreneurs from hired employees was the uncertainty and riskiness of self-employment. Thus, the concept of risk taking is a quality that is frequently used to describe entrepreneurship. Risk has various meanings, depending on the context in which it is applied. In the context of strategy, Baird and Thomas identified three types of strategic risk: (a) "venturing into the unknown," (b) "committing a relatively large portion of assets," and (c) "borrowing heavily" (1985: 231- 232). The first of these definitions conveys a sense of uncertainty and may apply generally to some types of risk often discussed in the entrepreneur-ship literature, such as personal risk, social risk, or psychological risk (Gasse, 1982). As a term in financial analysis, risk is used in the context of the familiar risk-return trade-off, where it refers specifically to the probability of a loss or negative outcome. It can be argued that all business endeavors involve some degree of risk, such that it is not meaningful to think in terms of "absolutely no risk." Thus, the range of risk-taking behavior extends from some nominal level-"safe" risks, such as depositing money in a bank, investing in T-Bills, or restocking the shelves-to highly risky actions, such as borrowing heavily, investing in unexplored technologies, or bringing new products into new markets. Presently, however, there is a well accepted and widely used scale based on Miller's (1983) approach to EO, 146 Academy of Management Review January which measures risk taking at the firm level by asking managers about the firm's proclivity to engage in risky projects and managers' preferences for bold versus cautious acts to achieve firm objectives. Penrose (1959) argued that entrepreneurial managers are important to the growth of firms be-cause they provide the vision and imagination necessary to engage in opportunistic expansion. Lieberman and Montgomery (1988) emphasized the importance of first-mover advantage as the best strategy for capitalizing on a market opportunity. By exploiting asymmetries in the marketplace, the first mover can capture unusually high profits and get a head start on establishing brand recognition. Thus, taking initiative by anticipating and pursuing new opportunities and by participating in emerging markets also has become associated with entrepreneurship. This fourth characteristic of entrepreneurship is often referred to as pro-activeness. The term pro-activeness is defined in Webster's Ninth New Collegiate Dictionary (1991: 937) as "acting in anticipation of future problems, needs, or changes." As such, pro-activeness may be crucial to an entrepreneurial orientation because it suggests a forward-looking perspective that is ac-companied by innovative or new-venturing activity. In an early formulation, Miller and Friesen argued that the pro-activeness of a firm's decisions is determined by answering the question, "Does it shape the environment (high score) by introducing new products, technologies, administrative techniques, or does it merely react?" (1978: 923). Later, pro activeness was used to depict a firm that was the quickest to innovate and first to introduce new products or services. This is suggested by Miller's description of an entrepreneurial firm as one that is "first to come up with 'proactive' innovations" (1983: 771). Thus, a proactive firm is a leader rather than a 7 follower, because it has the will and foresight to seize new opportunities, even if it is not always the first to do so. In addition to the previous definition of pro-activeness, there also has been a tendency in the entrepreneurship literature to equate pro activeness with competitive aggressiveness. Although closely related to competitive aggressiveness, we feel there is an important distinction between it and pro-activeness that needs to be clarified. Pro-activeness refers to how a firm relates to market opportunities in the process of new entry. It does so by seizing initiative and acting opportunistically in order to "shape the environment," that is, to influence trends and, perhaps, even create demand. Competitive aggressiveness, in contrast, refers to how firms relate to competitors, that is, how firms respond to trends and demand that already exist in the marketplace. The two ideas are similar, because, as Porter (1985) suggested, the market is the playing field for competitors. But pro-activeness has more to do with meeting demand, whereas competitive aggressiveness is about competing for demand. Combining these distinct concepts inappropriately may explain why Stuart and Abetti (1987) found that a variable labeled "strategic aggressiveness," in which they joined the notions of "first-to-market" with a "highly offensive" posture, was not useful as a predictor of new-entrant success. Based on a review of the literature and our analysis of an entrepreneurial orientation, we suggest Proposition 1: Autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness are salient dimensions of an entrepreneurial orientation. Independence of the Five Dimensions Although innovativeness, risk taking, and pro-activeness are important dimensions that entrepreneurial firms may exhibit, Miller's (1983) original conceptualization using these three dimensions-which Covin and Slevin (1989) have labeled "a basic, unidimensional strategic orientation" (1989: 79)-implies that only firms that exhibit high levels of all three dimensions should be regarded as entrepreneurial. This approach may be too narrowly construed for explaining some types of entrepreneurial behavior. Research (e.g., Brockhaus, 1980) suggests that entrepreneurs may be very cautious and risk averse under certain conditions. Other research suggests that entrepreneurial firms may benefit more from imitation than from high levels of innovativeness (Nelson & Winter, 1982). In addition, the development of numerous typologies of entrepreneurial behavior suggests that an EO can be best characterized by several dimensions in various combinations. Finally, such methodologies also could help to address a more basic question, that is, how to operationalize the various constructs suggested in this article. For example, there are numerous methods employed for measuring the construct "risk taking" (Baird & Thomas, 1985). What is the best method in the context of EO? Prior research suggests that entrepreneurs simply don't "see" the risks that others see, or, alternatively, they see non-entrepreneurial behavior as far more risky. In the future, researchers should help to empirically capture such a construct. The same issue is relevant for all the EO constructs addressed in this article.

Exploring relationships between entrepreneurial behavior and performance is very timely, given the competitive conditions faced by firms of all sizes in today's economy. Our goal has been to build on prior theory and research in order to (a) clarify the multidimensional nature of the EO construct and (b) suggest alternative contingency models that we believe will provide additional insight into the EO-performance relationship. We encourage research efforts directed at understanding the dimensionality of the EO construct and the role of contingency and configurational approaches in explaining its relationship to performance. Such efforts will contribute to further theoretical development in the field of entrepreneurship. Research to refine measures, explore the underlying processes associated with entrepreneurial activity, and recognize the multidimensional nature of entrepreneurial behavior also will enhance our understanding of EO and its relationship to organizational performance.

The Role of Entrepreneurial Culture and Human Capital in Innovation

Innovation in organizations has been considered a key means of generating competitiveness (Beer et al., 1990). Within the field of Business Management many theoretical arguments have been put forward demonstrating the various different organizational factors that affect innovation, such as organizational design, motivation and systems of incentives (Drake, 1999; Lipman and Leavitt, 1999), the capacity for absorption of knowledge (Cohen and Levinthal, 1990) and the capacity for organizational learning (Akgu¨net al., 2007); of particular importance is the human capital of the company (Dyer and Shafer,1999; Subramanian and Youndt, 2005; Tang, 1998). The human capital of a company merits study because it is acknowledged that the inimitable and nontransferable characteristics of human resources are important in generating a productive environment for innovation that competitors cannot imitate and that can also be enhanced by certain human resource management practices (Lado and Wilson, 1994) or by a corporate culture that encourage esinitiative and the generation of new ideas by employees (Russell and Russell, 1992; Woodman et al., 1993).

The organization that wishes to be innovative must be flexible, and be ready to change its strategy and structure. The work team must be able to see the results of its activities, must be given a sense of belonging, and must know how to recognize what knowledge is critical for the company, and for this to happen, it needs access to information both internal and external to the organization (Prokesch, 1997). The company needs to have a culture that enables its employees to use their creativity and initiative to generate active knowledge, gives them the opportunity to conceive ideas, and creates a climate that fosters learning; in short, the company needs to encourage its people to work in teams to develop innovation (Richterand Teramoto, 1995).

Human capital and innovation

Currently, given the global inter-connectedness of markets, the rapid and continuous advance of technology, and the consequent obsolescence of processes, knowledge and methods of management, the competitiveness of companies is necessarily determined by their innovative capacity. The possibility of securing profits or potential for profits that are greater than those earned by its competitors depends on innovation (Hill and Deeds, 1996).

In turn, it is widely accepted that the capacity of an organization to innovate is closely linked to its intellectual capital, or to its ability to utilize knowledge (Subramaniam and Youndt, 2005). The knowledge and capacities of employees are the source of innovation (Wang and Chang, 2005). Effective organizations establish robust structures, systems and processes for channeling individual resources towards results of innovation (Cooper, 2001).

The competitive advantage that makes a company superior to the rest, resides today in its employees, these being the depositories of knowledge and creativity, with the capacity to transform the information, skills and ideas into innovative results. In agreement with Grant(1996), who suggests that knowledge is the most critical competitive asset that a company possesses, and that a large part of that knowledge resides in its human capital (Hitt et al.,2001), we can see how the human element has come to be regarded as the fundamental factor for achieving competitive advantage. Human knowledge and experience are the principal elements supporting the other factors that affect the value of the company (van der Meer-Kooistra and Zijlstra, 2001). For this reason a company can create value by the way it selects, develops and uses its human capital (Lepak and Snell, 1999). Although not everyone in the organization contributes to the same extent to its strategic strengths. According to resource based view, the core competences, which let the firm to achieve and sustain its competitive advantage, are valuable, rare, inimitable, and nontransferable (Barney, 1991). In that sense, human capital of high value and high uniqueness can provide fundamental basis for the competitive advantage of companies (Lepak and Snell, 1999).

The value of human capital depends on its potential to contribute to the competitive advantage of the firm (Barney, 1991). Therefore, if the organization pretends to reach innovation, it needs employees with creativity, intelligence and expert knowledge, which constitute the fundamental source for new ideas and knowledge in an organization (Snell and Dean, 1992).These individuals provide the organization not only with a great repertoire and diversity of skills (Hayek, 1945), but also with great flexibility in the acquisition of new skills and abilities (March, 1991). This type of employee does not instinctively oppose experimentation and the application of new knowledge (Dyer and Shafer, 1999). Having employees with knowledge of high value facilitates better information handling and processing, rapid learning and an efficacious application of what has been learned (Taggar,2002). All of this leads to the belief that persons of this type will exert a positive influence on the innovative capacity of the company.

The relationship between human capital and innovation is also sustained by the other dimension proposed by Lepak and Snell (1999): uniqueness. According to resources-based approach, the human resources of high uniqueness should let to make a particular competitive sustainable over time. Although particular human resources could be utilized in other contexts, their capacities would not enhance the competitiveness of just any company. Some capabilities are based on very specific knowledge of a specific organization, and others are of value only to the extent that they are integrated with additional individual capabilities and company-specific resources that cannot be transferred (Hitt et al., 2001). Innovation requires individuals with unique and exclusive knowledge of the company (Dyer and Shafer, 1999).

The"athletes of knowledge," characterized by having unique and valuable knowledge, play a key role in innovation (James, 2002).

Entrepreneurial culture and innovation

There is abundant literature on the importance of creativity and innovation for keeping organizations healthy, viable and competitive. However, there are very few studies that focus on the organizational characteristics that lead to successful innovation. Daman pour (1991), in a study of the antecedents of organizational innovation, found that the attitude of the management towards change and external and internal communication were factors positively related to innovation. Woodman et al. (1993) proposed that organizational culture, compensation and resources are determinants of creative behavior in organizations.

Cabrera and Bonache (1999) established the importance of developing a strong culture to support the competitive strategy of organizations. However, organizational culture can be a restriction or a stimulus for the implementation of a new entrepreneurial initiative (Kuratkoand Montagno, 1989).

The culture is the unique collective of shared beliefs, values, customs, assumptions, behaviors and artifacts, that influence the behavior of members in an organization and helps them to cope whilst they work and collectively succeed in achieving their desired state.

Schein (1993) defined the culture of a group as the pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.

Organizational culture has been conceived as a global concept that describes a complex group of knowledge structures that the members of an organization possess in order to perform their jobs and generate appropriate social behavior (Gregory, 1983; Reichers and Schneider 1990). All companies construct their own culture, although they are subject to influence by other traditional institutions, such as families, that are the repositories off undamental values (Simon, 1957). The traditional culture has a climate and a system of rewards that fosters conservative decision-making throughout the system, leads to greater emphasis being placed on the compilation of large quantities of information for decision making, and often leads to a risky decision being postponed until there are sufficient assurances that the decision taken will be the correct one (Hisrich, 1989). Traditional culture differs considerably from entrepreneurial culture. The entrepreneurial culture, that facilitates innovation, is defined as the way of thinking and acting that generates values and attitudes in the company that tend to stimulate ideas and changes that could represent improvements in the functioning and efficiency of the company (Morcillo, 2007).

There are also differences between the shared values and standards of the two cultures.

The company with traditional culture is hierarchical, with established procedures and information systems, well-defined lines of authority and responsibility, instructions and control mechanisms. However, the entrepreneurial company has a flatter structure, with networks and work teams rather than departments, and sponsors and mentors rather than supervisors. These close working relationships help to create a climate of trust and consensus that facilitates a common commitment to the goals and objectives of the company. There are no barriers; individuals can make suggestions not only in their own functional areas but also in other areas, thus frequently leading to the creation of new ideas throughout the entire organization. These types of cultures tend to result in different types of individual managers and different styles of management. Whereas traditional managers motivate employees principally by promotion and financial compensation, entrepreneurs are guided by independence and creative ability (Steele and Murray, 2004).

The characteristics that have been mentioned fit well with the definition of entrepreneurial culture that Cameron and Quinn (1999) propose; they define it as a culture that encourages dynamic and creative working. According to the cited authors, an organization with an entrepreneurial culture is sustained by commitment to experimentation and innovation. The emphasis is on being first in a field or market, and success implies developing successful new products and services. Thus the entrepreneurial organization inspires individual initiative, autonomy and participative decision-making. Employees are not inhibited by fear, and are ready to take risks; the leaders promote rewards for success and tolerance of failure.

Schein (1996) argues that culture is one of the most powerful forces operating in an organization. Russell and Russell (1992) verify empirically the connection between culture and innovation, and measure the effect of cultural values on innovative results.

Entrepreneurial culture predisposes members of the organization to regard innovation activities as favorable to them, and generates standards that directly motivate the participants to behave like entrepreneurs (Jassawalla and Sashittal, 2002).

Entrepreneurial culture as a moderating variable

Innovation is frequently a product of social relationships and a complex system of interaction. While human capital supplies diverse ideas and approaches, social capital can help to connect these together, resulting in unusual and unforeseen combinations that may generate innovation (Subramaniam and Youndt, 2005). However, if employees are not working in a propitious atmosphere that stimulates them to make their contributions explicit, their ideas, suggestions and thoughts may remain in their heads and thus fail to materialize in possible exchanges and connections. Moreover, it is not enough for employees to contribute breakthrough ideas: their recognition and dissemination will be necessary in order to maximize their impact on innovation (Subramaniam and Youndt, 2005).

The uncertainty and complexity inherent in innovation suggest that employees' confidence in their company's management is central for the development of a culture that supports innovation, because trust makes people capable of assuming risks without fear of failure. The organizational systems in place should provide reward and recognition for creative work. In fact, the reward system used can have a significant impact on innovative activity, because it can be either a positive instrument for increasing innovation or a negative factor that discourages the activity if it rewards other behaviors better. Consequently, the perception of organizational systems with an entrepreneurial culture that supports innovative activity is an important component of the individual's motivation for undertaking these activities (Sankar, 1988; Chandler et al., 2000).

The uniqueness of human capital is capabilities and knowledge that is less common among other members of the organization; it is a characteristic possessed by only some individuals or groups within the organization, and is not possessed by competitors (Lepak and Snell, 1999, 2002). Therefore it would make sense to think that the contribution of this type of ability to innovate would be of greater importance than that of the knowledge and abilities possessed by all members of the organization and by competitors, especially if product innovation is considered as the successful exploitation of new knowledge (Amabile et al., 1996).

In any case, from the results obtained, it can be concluded that human capital, that is, the set of knowledge, skills and abilities that the employees have and utilize (Schultz, 1961), has a positive influence on innovation. We have presented empirical evidence that confirms the importance of individuals as a source of competitive advantage, if innovation is considered a basic aspect of the actual competitiveness of the company. As authors such as Crozier and Friedberg (1977) and Mintzberg et al. (1998) state, competitive advantage can only be maintained in the market when it is based on original resources that are impossible to imitate.

Another important finding of this research is that an entrepreneurial culture does not directly influence innovation: its role is that of a moderating factor in the relationship existing between human capital and innovation. Although the value of the knowledge possessed by employees was found to have a direct effect on innovation, this effect is greater the more entrepreneurial the culture of the organization. Thus an entrepreneurial culture becomes an appropriate context for fostering teamwork among individuals, facilitating the sharing and exchange of ideas and knowledge so that human capital can be translated effectively into successful innovation. From empirical observation, the most relevant of the various dimensions of entrepreneurial culture has been shown to be that of a generator of ideas, given the importance of the identification of opportunities and the development of a creative setting capable of generating ideas that are finally translated into innovations.

However, entrepreneurial culture does not moderate the positive relationship between the uniqueness of the knowledge possessed by employees and innovation; it seems that those employees or groups who have developed abilities and skills that are specific and exclusive to the company do not need the support of an entrepreneurial culture to stimulate even further their intrinsically innovative behavior.

The Role of Entrepreneurial organizational design in maximizing the contribution of employee environment information harvesting

The key to company success lies in establishing and maintaining the competitive advantage in the market. Many authors (Mintzberg, 2004; Murmann, 2003) agree that the most important strategic aspect of a company today is its knowledge, i.e. capability for its collecting, developing, sharing and its implementation and that this knowledge is exactly what enables companies to provide superior value for their customers and develop sustainable competitive advantage, by combining of traditional resources of production that are disposable to all, in a new and unique way.

One of the main causes of dominance of knowledge as a strategic resource in today's market conditions is the development of information technology and its influence on increasing of market transparency. "Informatization" of the society provided fine tuning of the picture on the way of functioning of the market in general, but it also provided better information about individual market entities, which widens the possibility of choice from the customer standpoint and deepens the basis of decision making criteria when selecting products and services. Thanks to the development of information technology, information about business operations spreads extremely fast thus making it difficult to maintain the privileged position in the market based on the competitive advantage elements with high possibilities of reproduction (Porter, 2001). Besides the exceptional role played by the development IT, some other factors that also influence the shape of today's market are: accelerated dynamics of doing business, accelerated dynamics of change of the value system and social trends, information overload, increase of number of competitors who are willing to sacrifice profits in exchange for an increase in market share, etc., and all of them point at the increasing complexity and dynamics of business and the need for knowledge as an important navigation instrument (Edvinsson, 2003).

Management's perception of the efficiency of the employee motivation system is also incorporated into the organizational culture of the company (Schein, 1995). An organizational culture in which the management combines extrinsic and intrinsic motivators, applies individual and diversified approach in awarding organizational rewards and stimulations and notices a connection between employee's invested effort, his or her performance and the awarded rewards is favorable for maximizing employee contributions in various company activities, not necessarily closely related to the description of working assignments, which the employee performs daily (McClelland,1975; Vroom, 1964). Organizational culture is in the function of the development of the company when it enables diversity for creating creative and innovative potential in the company, when it develops flexibility, when it doesn't represent a barrier to change and does not insist on consistency in behaviour at any cost, and when it, ultimately, stimulates and enables entrepreneurial behaviour of its employees (Gibb, 2002).

Entrepreneurial organizational culture develops entrepreneurial characteristic in employees, such as creativity, ability to network and build a network of contacts with the environment, which are potentially significant for undertaking activities connected with the scanning the company's environment. Kuratko et al. (2005), describe entrepreneurially designed organizations as, among other things, organizations whose organizational culture facilitates and promotes entrepreneurial behavior of employees, allocates available resources to entrepreneurial activities, tolerates learning from own mistakes and allows discretion of work and autonomy in deciding on taking over risks in the search for innovations. Gibb (2002) points out feeling of freedom and control, feeling of ownership, dedication, building relations with stakeholders from the environment through personal contacts at all levels of the organization, propensity to assume responsibility and risks as some of the important components of entrepreneurially designed organizations.

The Evolution of Entrepreneurial Culture: Two Competing Perspectives

Changing opportunities and relationships among customers, suppliers, partners, and competitors can induce cultural shifts. While these sorts of changes can occur in larger, more established firms as well, the entrepreneurial, small business context is often distinct as it may lack a highly structured organization to facilitate change (Minguzzi & Passaro, 2000). In such cases, existing mechanisms and routines to absorb cultural changes may not exist or be less clearly defined.

Also, in entrepreneurial firms the presence of the founder may still hold great influence (Morley & Shockley-Zalabak, 1991).

An important question that has come out of these studies is how an entrepreneurial culture evolves in entrepreneurial firms. Two diverging perspectives have emerged to answer this question. One perspective highlights the key role that the founder plays in developing and perpetuating an entrepreneurial culture in the firm, through changes over time (e.g., Mintzberg, 1973; Schein, 1983). The other, in contrast, downplays the role of the founder in guiding this cultural evolution and suggests that culture is essentially reactionary to and constrained by environmental stimuli, (e.g., Gordon, 1991).

Organizational Culture

All societies and the organizations nested within them have culture. In a broad sense, culture tells us what is acceptable and not acceptable, desirable and undesirable, and is a homogenizing influence on both society and individuals (Thompson, 1967, p. 102). Organizational culture as a topic in management studies has been around for over 40 years, since it was developed as a construct from anthropology (Ajiferuke & Boddwyn, 1970). One such anthropology derived definition of culture is "the set of habitual and traditional ways of thinking, feeling, and reacting that are characteristic of the ways a particular society meets its problems at a particular point of time" (Schwartz & Davis, 1981, p. 32). In management research, organizational culture rose to prominence in the early 1980s (e.g., Frost, Moore, Louis, Lundberg, & Martin, 1985; Jelinek, Smircich, & Hirsch, 1983), particularly with proposed relationships to improved firm performance. This occurred alongside tremendous interest in the practitioner literature, such as Peters and Waterman's (1982) In Search of Excellence and Deal and Kennedy's (1982) Corporate Cultures. Some of this work was oriented around cultural trait based views, which focused on "strong" cultures that emphasized consistency, agreement, and conformity (Denison, 1984). More specifically, this strong-culture perspective indicated that organizations with "a high level of shared meaning, a common vision, a 'clanlike' attitude toward members, and a high level of normative integration [would] perform well" (Denison, 1984, p.20).

In the years since, many researchers have developed and applied the organizational culture construct using a variety of epistemological and theoretical orientations. These have included critical theoretic and constructivist perspectives that clashed with past positivistic views. In particular, the strong-culture perspective attracted criticism for being too simplistic and imprecise in its study of culture and the linking of culture to performance (Saffold III, 1988).

These somewhat fractured perspectives have led to numerous reviews and evaluations of the different interpretations over the years (e.g., Denison, 1996; Eisenberg & Riley, 2001; Smircich, 1983), but according to some, still describe a field in a "preparadigmatic" state (Detert, Schroeder, & Mauriel, 2000). However, while the debate continues in some circles over predominantly epistemological and methodological grounds, other authors have adopted particular interpretations of organizational culture in order to advance the field.

One of the most common perspectives has been described as the "culture as effectiveness" (Eisenberg & Riley, 2001) view, which is positivist, assumes the measurement and quantification of culture is possible, and has a management-centric orientation. Even though this orientation tends to dominate the organizational culture landscape, there are still a number of different definitions of organizational culture and the dimensions that constitute it (e.g., Detert et al., 2000; Hofstede, Neuijen, Ohayv, & Sanders, 1990; O'Reilly III, Chatman, & Caldwell, 1991).

Therefore, this paper relies on a very specific and functional definition of organizational culture: culture is a pattern of shared tacit assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 2009, p. 27).

Entrepreneurial Culture and Entrepreneurial Firms

Entrepreneurship and organizational culture research have been intertwined for years. Early research often focused on the role of the founder in the creation of organizations and the lasting imprint the founders may leave (Mintzberg, 1973; Pettigrew, 1979; Schein, 1983).

Entrepreneurship and strategy took an interesting turn together as the concept of corporate Entrepreneurship began to develop, which looked at entrepreneurial activity within large, complex organizations (Burgelman, 1983, 1984). Burgelman (1984) described corporate entrepreneurship as "extending the firm's domain of competence and corresponding opportunity set through internally generated new resource combinations" (p.154). Building on the firm-level of analysis, Stevenson and Jarillo (1990) defined an entrepreneurial organization as a firm which pursues opportunity, regardless of resources currently controlled. Work by Covin and Slevin (1991) noted that entrepreneurial organizations or as they described, organizations with an entrepreneurial posture, are risk taking, innovative, and proactive; similar behaviours of entrepreneurs as individuals. Furthermore, the relationship between entrepreneurship as a firm behaviour and organizational culture is one of mutual reinforcement. Organizational cultures are the context in which an entrepreneurial posture emerges, which when successful, affects the organizational culture in turn. Lumpkin and Dess' (1996) influential paper elaborated on the construct of entrepreneurial orientation. Entrepreneurial orientation referred to the processes, practices, and decision-making activities that lead to new entry. Lumpkin and Dess (1996) included five dimensions: autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness. These dimensions sparked additional research exploring the relationships between firm-level entrepreneurial behaviours and firm performance, a comprehensive review of which is beyond the scope of this paper (cf. Barringer & Bluedorn, 1999; Zahra, Jennings, & Kuratko, 1999). There is some consensus though among this body of work that entrepreneurial behaviours are influenced by firm culture and individual attitudes and behaviours, particularly at the management level (Hornsby, Kuratko, Shepherd, & Bott, 2009; Hornsby, Kuratko, & Zahra,2002).

In light of our definition of organizational culture and the connections suggested by the literature between entrepreneurship and organizational culture, we advance a set of propositions outlining these relationships. Our conceptualization of entrepreneurial culture is similar to one developed by Ireland, Hitt, and Sirmon (2003) but adapts Schein's (2009) mechanisms of cultural creation and perpetuation with Lumpkin and Dess' (1996) dimensions of entrepreneurial orientation.

Furthermore, we also hope to capture how "an 'entrepreneurial' philosophy permeates an entire organization's outlook and operations" (Covin & Miles, 1999, p. 48).

Entrepreneurial firms are the context in which we are presently considering entrepreneurial culture. However, defining an entrepreneurial firm can be complicated as there is a broad understanding of what an entrepreneurial firm is. For example, it might describe new, recently founded firms run by a founder or large, mature firms acting in an entrepreneurial manner.

However, given the context of this paper, a more specific definition is utilized, which also serves as a boundary condition. An entrepreneurial firm is thus defined as: an early stage organization that is past start-up but before mid-life where the founder (or team of founders) is still present in a managerial capacity.

This definition reflects a life cycle orientation rather than an entrepreneurial behavior orientation because the focus of this paper is on cultural evolution, rather than modeling a behaviour leading to performance. This definition of entrepreneurial firms is also used in the same sense that Daily, McDougall, Covin and Dalton (2002) used, in that the firm is "independent" and was created and operates outside the context of a previously established organization (p.390). Mid-life in this context is meant to reflect a firm that has yet to have had a professional manager appointed by an outside board, typically beholden to diverse stockholders (Schein, 2009). The reason why a firm in these early stages of development is the focus of this paper is because more mature organizations typically exhibit increasingly complex cultures and subcultures which are cumbersome (Schein, 2009), there are simpler structures and less diverging internal forces in the smaller, newer firms (Chandler & Hanks, 1994), and firms rarely escape increasing bureaucratization as they grow (Martin, Sitkin, & Boehm, 1985). We argue that these factors limit the capability for culture to evolve.

This definition of entrepreneurial firms implicitly puts boundaries on the notion of "evolution" in this paper. Evolution is meant here to reflect change over time up to mid-life or when the founder leaves the firm. As firms continue to mature and grow in both size and complexity, organizations move towards more bureaucratic systems as the need for coordination, control, and stability calls for greater procedures, rules, and routines (Becker, 2004). However, given that a great many things can happen to an entrepreneurial firm's culture before they reach that stage, assuming they even survive past start-up, there is ample time for the culture to evolve. This paper seeks to explore that evolution, how that might occur, and potential implications of that evolution.

Of special note is the relationship between entrepreneurial cultural evolution and the recent work by Shepherd, Patzelt and Haynie (2009) which introduced the notion of "entrepreneurialness" and "entrepreneurial spirals." Entrepreneurialness refers to "how entrepreneurial either an individual's mindset or an organization's culture is – the higher the entrepreneurialness, the more entrepreneurial the mindset and culture, respectively" (p.60). Shepherd et al.'s (2009) spiral model reflects the notion that enduring, deviation-amplifying feedback loops link the manager's mindset to his or her organization's culture, and vice versa. This innovative spiral model helps to address some of the mechanisms behind the mutually reinforcing nature of entrepreneurial orientation and organizational culture noted in previous research, albeit at the individual mindset level. While this work develops a similar theme of entrepreneurial culture in organizations, our paper notably diverges. Since our paper adopts an agnostic view between two competing perspectives, one founder-oriented and the other environment-oriented, it speaks in a different way to a founder's potential relationship to entrepreneurial culture evolution. Specifically, from a founder-oriented perspective the ideas are similar, but this paper focuses more on the effects on organizational culture change rather than the founder's own mindset. In the environmental perspective, the impact of the founder on culture is effectively diminished, which reduces his or her individual impact. However, while this paper proposes a different research question it is still anticipated that this work can help inform and contribute to the growing body of work on manager's entrepreneurial mindsets and organizational culture as spearheaded by Shepherd et al.(2009).

The Founder-Driven Entrepreneurial Culture Perspective

The founder-driven entrepreneurial culture perspective (abbreviated hereafter as FDP), at its core, is both simple and intuitive. Given that a founder or team of founders plays a central role in all aspects of the development of an entrepreneurial firm, the perspective emphasizes the primacy of the founder or team of founders in directing the culture. In this view, entrepreneurial culture is founder driven in a top-down fashion. An entrepreneurial culture established by the founder or team of founders during the early stages of the firm set the foundation for future cultural evolution that is perpetuated in this mode.

Culture Creation and Early Stage Development

As noted previously, a founder-centric perspective has existed for years (e.g., Mintzberg, 1973; Pettigrew, 1979; Schein, 1983) and the language has often been strong: "all revolves around the entrepreneur…its goals are [his or her] goals, its strategy [his or her] vision of its place in the world" (Mintzberg, 1988, p. 534). While this creates a somewhat "heroic" view of the entrepreneurial founder, we can begin to tease apart this idea to understand the role of the founder in creating culture. Schein (1983) argues that in the early stages of an organization, founders can shape the group's culture through the force of his or her personality and through a vision of how "a concerted effort could create a new product or service in the marketplace" (p.16). There is a strong intuitive connection here. Founders create organizations and bring to it their own personality. As our propositions would suggest, these are sentiments that associate positive normative value to innovativeness, risk taking, proactiveness, competitive aggressiveness, and autonomy.

As the organization begins to grow, employees are brought in and socialized into these belief and value systems (Schein, 1988). Research by Morley and Shockley-Zalabak (1991) and Shockley-Zalabak and Morley (1994) examined this phenomena in detail. Their 1991 work noted how the personal value systems of organizational founders identified to employees not only the way things should be (e.g. people should work hard, a smaller company is better, everyone should pull their own weight), but also the way things should not be (e.g. laziness is unacceptable, large and bureaucratic environments are dissatisfying). In the high-tech company they studied, the founders modeled behaviour for employees by working long hours, involving themselves in technical problems, and generally supporting a friendly work environment. They also found that over a multi-year period, founding management values were influential over time in helping to shape both management and worker values and rules. An important aspect of this cultural perpetuation was how employee values matched those of founding management, suggesting that employees of similar beliefs and values were hired into the company. It seems both consistent and logical that in the early stages of an organization, founders would look to hire individuals who "naturally" fit with the organization. It was once remarked to us by a founding entrepreneur of a successful media company that in his organization they only hired PLUs or "People Like Us." Similarly, people who were not "team players" rarely lasted long at his organization.

However, he was also clear to point out that at his organization, they appreciated shared values and not "clones" which perhaps highlights the cultural importance of autonomy and individual action and initiative.

Founder-driven Entrepreneurial Culture Evolution

The processes above describe how founders determine and create culture as well as how they encourage it in the early stages of the firm. They create an entrepreneurial culture with the backgrounds they bring and through hiring employees with similar values and beliefs. The FDP also explains a key point of interest in this paper, namely how entrepreneurial culture evolves and is perpetuated. One way this occurs is an extension of the selection of employees, but specifically at the top management level as the firm grows. Much has been written about the role of the top management team in organizations, such as Upper Echelons theory in particular (Hambrick, 2007; Hambrick & Mason, 1984), as well as the role of leadership in top managers(e.g., Cannella Jr. & Monroe, 1997). In a cultural context, top management plays an important role in setting the strategic direction of organizations, as well as providing attitude and value examples for employees. In entrepreneurial firms where the founder or team of founders begin to select or add to their top management team, they will likely look for employees either within the firm who have demonstrated potential and already know and understand the culture, or individuals external to the firm. When selecting for external managers, it is likely that they will also search for people who can integrate with the firm (Chatman, 1991; Chatman & Cha, 2003).

A second way that founders can direct entrepreneurial culture evolution in their firms is by setting examples and establishing correct patterns of behaviour during what Schein (1988) calls "critical incidents." A critical incident is essentially an emotionally charged or anxiety producing moment that is witnessed by members in the organization. In such an incident, the responses will very likely create a behavioural norm and subsequent assumption about appropriate conduct. For example, if an organization member challenges the founder in a public situation, such as a meeting, and is forced to back down or apologize for his or her "mistake", then an assumption might be generated amongst the group: "we do not attack the leader in this group; authority is sacred" (Schein, 1988, p.18).

Criticisms of the FDP

Apart from the environment-driven perspective itself, there have been criticisms levelled against a founder-centric view of culture evolution. Notably, Martin, Sitkin and Boehm (1985) took issue with several aspects of such a Ptolemaic view of founders.

Another criticism about the founder-driven view is whether it is leadership that employees focus on or the unique qualities of the founder. If it is leadership rather than the entrepreneur, then this implies that, in theory, any other person with the same leadership skills and abilities could replace the entrepreneur and act as effectively. We would argue that this distinction is misdirected because people, entrepreneurs and non-entrepreneurs alike, do have unique leadership skills that are part of their individual personalities. Thus, saying that it is leadership rather than the unique qualities of the entrepreneur is not making much of a distinction at all, given that the leadership provided from that individual is also unique.

Martin et al. (1985) also argue that from a lifecycle perspective, the founder's role diminishes as the organization ages and that his or her concerns become inconsistent with employee concerns as the company grows and changes. This is a plausible suggestion as one can imagine that as a company ages, past mid-life for example, the traditional "old" entrepreneurship behaviours may not be as important or a priori desirable to employees. However, it is likely that the espoused or implicit entrepreneurial values of the organization are still important touchstones of the culture, which may also be embedded in the routines of the organization (e.g., Salvato, 2009). Even as they age, retaining an organizational culture rooted in the founder may also be of particular importance for family firms, where family-based succession may be in effect (Zahra, Hayton, & Salvato, 2004).

However, the FDP would argue against the founder having no influence whatsoever, even if he or she chooses not to be as active. By virtue of their status as founder, employees would still likely view him or her with deference and respect. Consider Bill Gates, for example, long since past the role of CEO yet undoubtedly still an important figurehead for Microsoft.

The Environment-Driven Entrepreneurial Culture Perspective

The environment-driven entrepreneurial culture perspective (abbreviated hereafter as EDP) has its roots in studies of the relationship between organizations and their environment (e.g., Lawrence & Lorsch, 1967; Pfeffer & Salancik, 1978). That is, organizations change and adapt to address their external environment, such as developing cultures and systems that can help deal with the uncertainties and contingencies inherent to the environment (Thompson, 1967, p. 50).

The EDP clearly poses an oppositional perspective to the FDP. While not dismissive of the role of founders in establishing the early culture of organizations, the EDP proposes that over time, it is a variety of environmental stimuli, such as the particular industry, which primarily influences the evolution of entrepreneurial culture in entrepreneurial firms. The founder and/or top management team is still involved in leading the organization and performing their workplace roles, however their role in guiding cultural evolution is diminished by the influence of the external environment. That is, the EDP suggests a reactionary, environment-fit based perspective, whereas the FDP is rooted in an inherent, personal belief in establishing and directing the organization's culture with entrepreneurial attitudes and behaviours. The EDP maintains that entrepreneurial firms evolve entrepreneurial cultures as a result of changes driven by the conditions of the environment external to the firm.

Industry as a Driver of Entrepreneurial Culture Evolution

Industry was perhaps most directly proposed as an influence of culture initially by Gordon (1991) and further developed by Christensen and Gordon (1999). Gordon (1991) argued that "industries exert influences that cause cultures to develop within defined parameters" (p.396) and that as a result of this relationship, "the potential for changing a company's culture is limited to actions that are neutral to or directionally consistent with industry demands" (ibid.). Gordon (1991) noted corporate cultures, while partly molded by founder's backgrounds, also originate from industry-based assumptions about customer requirements, the competitive environment, and societal expectations.

From a customer perspective, Gordon (1991) discusses an industry's emphasis on reliability or novelty. We can imagine that entrepreneurial firms specializing in safety equipment, chemicals, or manufacturing components may give rise to cultures oriented around consistency and personal accountability. Alternatively, customers that demand novelty such as in software applications, consumer electronics, or fashion would encourage cultures devoted to creativity and diversity of views. Societal expectations can also hold sway over the development of culture as well.

Society's expectations often change over time, for example, emphasizing greater product safety, variety, environmental sustainability, or ethical behaviour, which can dramatically influence a firm's culture. For example, existing firms may start to develop values and strategies oriented around sustainable practices and corporate social responsibility, and new entrepreneurial firms may enter because of the strength of those values (e.g., electric car companies, "green" power).

Collectively, the strong influence that industry plays on culture suggests that the direction and extent of culture change is likely to be constrained by industry imperatives (Christensen & Gordon, 1999, p.416). In our case, this suggests that if the industry demands or is conducive to entrepreneurial behaviour, then entrepreneurial firms must adapt or risk losing out.

The notion of imitation and competitive environments are also related to industry as a driver of entrepreneurial culture evolution. Barney (1986) discussed imitability with respect to organizational culture being a source of sustained competitive advantage. He noted that "without imperfect imitability, any competitive advantage that a valuable and rare culture might give will create strong incentives for imitation" (p.661). More recently, Lieberman and Asaba (2006) wrote that firms often imitate one another in environments of uncertainty or to imitate superior products, processes, and managerial systems.

Nascent Markets as a Driver of Entrepreneurial Culture Evolution

A second environmental influencer of entrepreneurial culture is actually the absence or ambiguity of an industry, or a "nascent market" as described by Santos and Eisenhardt (2005, 2009). Here, in contrast with Gordon's point, the business environment is in an early stage of formation with undefined or fleeting industry structure, and unclear customers and competitors.

Santos and Eisenhardt (2009) describe a process of new firms creating organizational boundaries and new market niches using case studies of five high-tech firms. One of the examples they provide highlights how the activities of a firm in a nascent market may constitute environmental influences of entrepreneurial culture. The firm, Secret (a pseudonym), began as a team of four engineers who developed a sophisticated cryptography technology. However, they lacked an identity, a well-defined product, and a customer set. After great deliberation, the company began to form the organization's identity around the concept of trust, rather than security. From this identity they began to establish the market standard and hired a lawyer to help develop the burgeoning industry's best practices. Their efforts established them as the "cognitive referent" for the market, an enviable position that made them synonymous with this nascent market.

Through a relationship with the press and with the distribution of their product, they successfully "disseminated stories" and "signaled leadership" as Santos and Eisenhardt (2009) describe. In our application, this example demonstrates where the industry influence can begin to emerge from. In Secret's example, we can see how their efforts have created the industry standards and a great deal of forward momentum and inertia for their organization. At this point, after having established themselves as the standard for trust technologies and practices, it is hard to imagine them changing much away from the industry assumptions that they have developed. For example, Secret even shunned profitable activities if they fell outside of the product and venture identity they had established for themselves. Essentially, in a successful nascent market scenario, the organization may actually create the industry influence which drives entrepreneurial culture evolution. Of course, in a less successful nascent market scenario, where a firm fails to establish itself in an ambiguous environment, the EDP would suggest that the firm then needs to pay even greater attention to whatever cues and signals it can derive from the environment in order to better fit the environment.

Criticisms of the FDP

The primary criticism of the EDP is the FDP itself, as an alternative explanation for the evolution of entrepreneurial culture. This is because a "strong" version of the EDP can be seen as too diminishing of the role of founders and managers in entrepreneurial firms. As a result, cultural evolution becomes a sort of quasi-deterministic outcome based on the nature of the environment.

This may be evidenced by survival bias in empirical studies of entrepreneurial firms in fast paced industries like electronics and biotech. Firms that evolved entrepreneurial cultures to remain competitive in these kinds of industries survived and those that did not, were taken over, went bankrupt, or otherwise exited the market.

It is also difficult to falsify the EDP because it can be used to account for alternative explanations, like the founder's behaviour. For example, if a founder chooses to evolve an entrepreneurial culture in his or her firm over time because of an inherent belief that this is the best way for a company to be run and for employees to act (i.e. the FDP), this belief might be because of environmental influence. That is, the founder's belief can be entirely attributed to influence from the environment. Or perhaps an environmental shock like the economic downturn and subsequent recession was the "real reason" a founder decided to promote a culture that cut costs and emphasized innovation and new solutions, for example. As a result, it can be difficult to ever really extract the cause from the effect which renders the EDP potentially un falsifiable, at least without greater specificity of its terms. Nevertheless, the perspective is important for emphasizing the influence that the environment plays on the evolution of entrepreneurial culture in entrepreneurial firms.

Discussion

The two perspectives presented here offer different accounts of the phenomenon of entrepreneurial culture evolution. In the FDP, the founder or team of founders begins to create the culture from the moment the organization is established. The founders bring an entrepreneurial culture which is reflected in the people they initially hire and later in the managers who reinforce this culture throughout the levels of the organization as it grows and matures. Through this process of entrepreneurial culture creation and perpetuation, founders are able to direct the evolution of entrepreneurial culture over time through selection, leadership, and modeling behaviour. In contrast, the EDP suggests that while founders play an important initial role in developing the entrepreneurial culture, cultural evolution is constrained by the environment, notably the existing or an emergent industry. Entrepreneurial culture in entrepreneurial firms will thus evolve in line with or neutral to the existing industry culture as exemplified by the competitive environment, customers, and societal expectations. Each perspective thus leads to a number of different implications and questions for entrepreneurs and entrepreneurship research.

Implications of the FDP

One of the primary implications of the FDP is that with respect to an entrepreneurial culture, founding entrepreneurs should focus their efforts on maintaining their legitimacy and authority in the workplace. Founders are responsible for directing the cultural evolution of their organization because employees look to them for leadership, example setting, and resolving ambiguity. For example, Schein (1988) described a critical incident where employees learned not to attack the leader and that authority was sacred. This may work in cases where the founder is "right" or the attack was inappropriate. However, if the founder always maintains this view even when they are "wrong" or his or her reaction is inappropriate, this will undermine their support. Furthermore, if some of the encouraged entrepreneurial behaviours are autonomy (acting independently) and innovation (acting creatively) and then employees' ideas and initiatives are rejected by the founder, particularly in public, it will have cultural implications. Building an entrepreneurial culture does not necessarily mean ruling with an "iron fist" or building a dictatorial culture.

Instead, it means continuing to promote many of the behaviours and attitudes that the organization started with, behaviours that are demonstrably beneficial and useful to the entrepreneurial firm.

Underlying the FDP is the deeply held belief that what the founder is doing is the right thing to do and that an entrepreneurial culture is the best one to promote, regardless of what else is going on in the world. After all, it is this internal entrepreneurial compass, based on experience and personal beliefs, which lead to the building of the firm in the first place. Therefore, the FDP suggests that founders need to keep this entrepreneurial mindset (Shepherd et al., 2009) in focus as they direct the evolution of the entrepreneurial culture in their firm. A founder needs to ask him or herself, do I want an entrepreneurial culture in my organization? If so, what kind of people should I hire and what kind of examples should I be setting for my employees? One logical conclusion of the FDP is highlighted by the work of Wasserman (2003, 2008) when he described the "founder's dilemma." Basically, it is very difficult for entrepreneurs to make lots of money and be in control. Sometimes, founders will grow a company to a size and level of success such that their board will wish to replace them with a professional manager.

Wasserman's work suggests that this often results in a financial windfall for the founder. On the other hand, founders often wish to retain control over their companies, under the belief that they brought the company this far and that they are still the best person (or team) to run it. These decisions and what happens to the company afterwards are perhaps some of the most interesting tests of the FDP.

For entrepreneurship researchers, one of the implications of the FDP is a renewed focus on the role of founders as the firm matures and the host of questions that arise from this perspective. For example, what might some other specific mechanisms be for founders to impart entrepreneurial culture on their firms? Schein (1988) wrote about a number of different socialization techniques which given their unique results, may be variously applied in combination to provide different effects. However, entrepreneurial firms may not have appropriate systems in place to implement formalized socialization. For example, some entrepreneurial firms may lack human resources departments or knowledge management capabilities in order to formally train people or codify and store knowledge. We had a discussion with the founder of a geo-engineering firm of about 70 employees, predominantly engineers, who remarked that in his firm, "everybody does everything" and that there were no administrative assistants and no HR department. At the time, he was wrestling with when to bring an "HR person" into the firm and what exactly that would accomplish. Indeed, would that change the "everybody does everything" entrepreneurial culture that he prized?

A closer look at where entrepreneurial values come from in founders may also be valuable. It is easy to assume that founders have these values because they are starting or have started a business, but learning where these values come from might help to put context on their passion for entrepreneurship. Furthermore, examining founder's own perceptions of their influence on the organization compared to employees' perceptions would be revealing. The FDP certainly has a heroic sense to it, yet, we have likely all met founders who were very humble and downplayed their own role in being a figurehead, perhaps even a reluctant leader. Does this kind of behavior affect the cohesiveness or resilience of the entrepreneurial culture?

Finally, given the prominence of the founder from this perspective, an interesting question is the nature of their worst cultural fear. Is it bureaucratization, unionization, or the loss of control? Is it the loss of camaraderie and shared purpose? Where might these fears come from and what might the cultural processes be that lead to those outcomes instead? Are they the logical consequences of failing to develop an entrepreneurial culture?

For entrepreneurs, the EDP leads to a number of different implications than the FDP. For example, it means a greater focus on the environment and assessing what the industry looks like or how industry values might be created in nascent markets. Of course, founders still need to act and make decisions for their firms, but the EDP suggests that entrepreneurial culture will evolve along the lines established by the external environment. Therefore, founders will need to consider how their firms can be more aligned and consistent with industry values and beliefs.

Importantly, they will also need to assess what kind of flexibility they have within those boundaries. By extension, this means that given limited time, financial, and human resources, which aspects of the entrepreneurial culture should be emphasized? For example, if the industry demands rapid product development and deployment, should autonomy or innovation take precedence over risk-taking or competitive aggressiveness? What are some of the ways that founders can identify and articulate industry values and beliefs to themselves and their employees? Or in nascent markets, how might the organization define its corporate and product identity? How might the firm then signal leadership and/or influence industry standards and best practices? This external influence means that not just founders, but employees at all levels of the organization will need to be aware of environmental cues in order to shape and promote the culture.

For researchers, the EDP means a renewed call for work examining industry culture. This paper is guilty of it as well, but there is often implied meaning behind the use of descriptors like a "high-tech industry" where we have an image of the fast-paced environments of the Googles and Apples of the world. However, exploring the cultures of industries in greater depth and where those cultures come from would be enlightening and provide greater evidence for those implied meanings. The relationship between those industries and entrepreneurial culture would also be interesting to explore. For example, it is common to associate industries like biotech as being entrepreneurial (e.g., Deeds, Decarolis, & Coombs, 2000) but probably less so for automotive manufacturing. Why is this the case? Automotive manufacturers may once have been entrepreneurial, so what happened? What changed? Or if they were never entrepreneurial, why not?

How entrepreneurs identify industry values and beliefs is an important question for researchers as well because these values and beliefs, or their perception, shape organizations individually and collectively. Do they identify these values and beliefs primarily through trade shows, industry associations, or partner and supplier networks? Perhaps it is all of the above or even something else. What role might employees play in finding this information and transmitting it up to management?

Finally, what are some of the major shifts in societal expectation that have occurred and how have they affected entrepreneurial culture? Are firms that are more responsive to these shifts performing more competitively or are they just maintaining a new minimum in the industry? A topical example would be the move towards "green" and organic products. How might these expectations become part of an entrepreneurial firm's values and beliefs?

Combining the perspectives

While useful separately, it is obvious that combining the perspectives holds immense value as well. For example, the founder's actions can be viewed as an internal driver of entrepreneurial evolution with the environment as an external driver. Focusing on one perspective narrows the lens to achieve depth, but incorporating both perspectives provides breadth. Breadth provides a bigger picture and greater nuance to the phenomenon of entrepreneurial culture in entrepreneurial firms. Many of the questions asked from each perspective can be asked in combined form as well. For example, what happens when founders ignore environmental cues?

Conclusion

The past literature on entrepreneurship and organizational culture has often focused on the benefits and value of entrepreneurial culture for firm performance but has infrequently discussed how that culture evolves. There has typically been some reference to the founder and to the environmental context, but to date, a specific review of the implications of those perspectives has been missing. Furthermore, how these references and suggestions as to the role and importance of the founder and the environment in shaping entrepreneurial culture build up into their own perspectives of how entrepreneurial culture evolves has also been neglected. This work thus attempts to address that gap in order to provide greater understanding of how these components integrate with research on entrepreneurial culture.

The evolution of entrepreneurial culture is important for two key reasons. One reason is that as past work has demonstrated, there are important positive implications for firm performance and competitiveness by adopting an entrepreneurial culture. The second reason is that as entrepreneurial firms grow and age into mid-life, change is inevitable. This fact brings an inherent tension to founders: how do we maintain an entrepreneurial culture in the face of inexorable organizational change? The answer is evolution and this paper has presented two different perspectives as to how that evolution occurs. One perspective emphasizes the primary role that founders play in directing that change, while the other emphasizes the more dominant role of the environment. Each perspective leads to quite different implications for both entrepreneurs and researchers, and enumerating them is one of the main contributions of this paper. Greater exploration of these perspectives individually, as well as their combination, presents numerous potential research opportunities for the future. This work also integrates with the new research agenda of entrepreneurialness and entrepreneurial-spirals (Shepherd et al., 2009) to help explore how an entrepreneurial culture is created and perpetuated in entrepreneurial firms. It also helps to explicate the role of the environment in entrepreneurial culture.

Culture is an important aspect of any firm but especially for entrepreneurial ones. Their comparatively small size and proximity to the founder and the founder's vision means that culture takes on a much more complex meaning then merely a superficial interpretation of "how we do things around here." The added element of the environment, particularly for entrepreneurial firms in nascent markets, means that entrepreneurial firms need to be responsive to survive and thrive. Looking at the challenge of entrepreneurial culture evolution through the lens of the founder or the environment or both provides strong opportunities for creating practical solutions and increasing our knowledge of organizational culture and entrepreneurial firm behaviour.

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