CHOICE OF TYPE OF CORPORATE ENTREPRENEURSHIP: A PROCESS MODEL

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ABSTRACT

Most research on corporate entrepreneurship has disproportionately emphasized external or organizational determinants. Although it is necessary to understand these external determinants, the premise of the present paper is that internal behavioral factors can also be equally helpful in understanding corporate entrepreneurship. Internal behavioral factors refer to the roles played by managers and employees in determining corporate entrepreneurship. Hence, two types of internal behavioral factors are identified and discussed: top managers' perception of the need for entrepreneurship and employees' desire to exploit entrepreneurial opportunities. By crossing high and low levels of these factors, it is shown that the combination of high and low levels of these factors actually result in different types of corporate entrepreneurship.

INTRODUCTION

Corporate entrepreneurship (C.E.) has become a popular and widely studied phenomenon in the last few years as evidenced by the special issue of Strategic Management Journal (Summer 1990) and the appearance of new academic journals (e.g., Academy of Entrepreneurship Journal, Entrepreneurship Theory and Practice, Journal of Business Venturing). The importance of C.E. can be primarily attributed to its impact on the renewed success of some declining firms that successfully transformed themselves through entrepreneurial activities (Miller & Friesen, 1985) and its critical role in the survival of underperforming firms (Gimeno, Folta, Cooper, & Woo, 1997). In addition, there has been a growing interest in C.E. because of its use by companies to enhance the innovativeness of their employees and to enjoy corporate success through the creation of new ventures (Kuratko, Montagno, & Hornsby, 1990). C.E. has been linked with superior firm performance (Zahra & Covin, 1995) and pursuit of competitive advantage (Covin & Miles, 1999). The interest in C.E. has even been extended to its study in multinational corporations (Birkinshaw, 1997).

A review of the recent literature and classical articles (see Table 1 for a list of some of the classical articles) on C.E. reveals a disproportionate emphasis on external factors (i.e., organizational and environmental factors). Generally, C.E. is considered more of an organizational property resulting from organizational and environmental factors. In addition, the few studies that examined internal aspects of the organization generally tied the success or lack thereof of entrepreneurial ventures to the entrepreneurs' background/attributes (e.g., Cooper & Bruno, 1975). Although it is necessary to understand the external determinants of C.E., the premise of the present paper is that
internal behavioral factors can also be equally helpful in understanding C.E. Internal behavioral factors simply refer to the critical roles played by managers and employees in determining the types of C.E. exhibited by any firm. Hence, while not denying the impact of external factors and organizational factors, this paper contributes to the literature by showing how levels of individual factors can have a significant impact on the type of C.E., an organizational property. The theory developed here broadens our understanding of corporate entrepreneurship by illuminating an area of importance that has not been fully developed before.

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<th>Table 1: Review Of Some Classic Articles On C.E.</th>
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<td>Zajac &amp; Shortell (1989)</td>
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<td>McDougall et al., (1994)</td>
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<td><strong>2. Strategic leaders influence on C.E.</strong></td>
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<td>Kanter (1983)</td>
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Why is a focus on internal behavioral factors so crucial? Because C.E. is such a complex activity, at a practical level, managers and organizations need more guidelines to direct or redirect resources to establish the desired type of C.E. In addition, although understanding external factors have academic merits, there is more value for practitioners if internal behavioral factors are studied because such factors are more easily changed and controlled. On a theoretical level, researchers need to continually assess and understand the components that actually predict types of C.E. Consequently, internal behavioral factors, which are in the control of management or employees within an organization, are identified and discussed.

**LITERATURE REVIEW**

**Corporate Entrepreneurship**

Although the literature abounds with conflicting definitions of entrepreneurship (e.g., Chung & Gibbons, 1997; Stopford & Baden-Fuller, 1994; Zahra, 1996), Sharma & Chrisman’s (1999) attempt to propose a converging definition is notable. They define entrepreneurship as encompassing “acts of organizational creation, renewal, or innovation that occur within or outside an existing organization” (Sharma & Chrisman, 1999: 17). As such, corporate entrepreneurship is defined as the “process whereby an individual or group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization” (Sharma & Chrisman, 1999: 18).

The strategy literature identifies three types of C.E. (Stopford & Baden-Fuller, 1994). The first type is the creation of new businesses within existing organization (or corporate venturing) (for example, Block & MacMillan, 1993; Burgelman, 1983). Corporate venturing refers to the creation of new business(es) within existing organizations to take advantage of new opportunities. The second one is the more enduring activity of transforming or renewal of existing organizations (Beer, Eisenstat & Spector, 1990; Kanter, 1983; Zahra, 1996). Corporate renewal refers to the internal transformation of an organization in many areas; this conceptualization hints at fundamental changes in the way an organization conducts its activities. A firm undergoing corporate renewal exhibits changes in its product/market mix and the dimensions on which it chooses to compete. The third is where there is a major change in an industry in which the 'rules of competition' are radically changed (Schumpeter, 1934). Schumpeterian entrepreneurship refers to a situation where a firm changes the very rules of competition in an industry. The changes usually destabilize an existing industry structure and prompt the creation of a new one.

Although extensive research has been done on these three forms of C.E., none has actually used internal behavioral factors to develop an understanding of why firms have different forms of C.E. The present paper focuses on the discussion of two main internal behavioral factors.

As much as it is crucial to distinguish between individuals and organizations in studying C.E., it is also necessary that there is a clear difference between top management and those individuals who "pursue opportunities without regard to the resources the currently control" (Stevenson & Jarillo, 1990: 23). This distinction is necessary because 1) it is clear that top managers are not always the
ones who pursue opportunities within organizations, 2) employees who exploit entrepreneurial opportunities (i.e., entrepreneurs) tend to be different from non-entrepreneurs in that they tend to frame business situations differently (Palich & Ray, 1995), 3) entrepreneurs tend to think differently compared to other people (Baron, 1998), and 4) entrepreneurs tend to use different decision-making biases and heuristics in some situations (Busenitz & Barney, 1997). In sum, there is strong evidence supporting a distinction between top managers and the employees (i.e., entrepreneurs) who seek to exploit entrepreneurial activities.

The firm constitutes an opportunity structure for potential entrepreneurs within the firm (Burgelman, 1983). These ‘intrapreneurs’ (Pinchott, 1985) are employees who champion new ideas from development to reality. They tap into their entrepreneurial abilities through internal developments or diversification. This opportunity seeking behavior is seen as a very fundamental characteristic of a firm (Kirzner, 1973; Penrose, 1950) and has been linked to superior firm performance (Pearce & Carson, 1996). However, top management of the firm tolerates autonomous strategic behaviors in different degrees (Burgelman, 1983). In some organizations, top management allow high levels of autonomous strategic behavior while in others, top management rely more on induced behavior from employees (Burgelman, 1983). Consequently, the level of top management’s perception of the need for entrepreneurial activity within a firm and the level of employees’ desire to exploit entrepreneurial opportunities are identified as the two major internal behavioral factors that jointly determine which type of C.E. is exhibited in an organization.

For the sake of simplicity and discussion, only high and low levels of the two internal behavioral factors are considered. Hence, crossing high and low levels of top management’s perception of the need for entrepreneurship and high and low levels of employees’ desire to exploit entrepreneurial opportunities provides us with a lucid way to understand C.E.

Table 2
High and low levels of factors

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<th>Top Management Perception Of The Need For Entrepreneurial Activity</th>
<th>Low</th>
<th>High</th>
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<td>Operational Participant’s Desire To Exploit Entrepreneurial Opportunities</td>
<td>Low</td>
<td>Cell 1 (Status Quo)</td>
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<td>Cell 3 (Corporate Venturing)</td>
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The paper is structured as follows. The next section discusses how the crossing of different levels of top managers’ perception of the need for C.E. and employees’ desire to exploit entrepreneurial opportunities result in different types of C.E. Results are then summarized as propositions. The subsequent section discusses major factors that determine the desire of employees.
to exploit entrepreneurial opportunities and the top managers' perception for the need for entrepreneurial activities. Finally, some contributions of this paper for the C.E. field are discussed.

**TYPES OF CORPORATE ENTREPRENEURSHIP**

Crossing high and low levels of both employees' desire to exploit entrepreneurial activities and top managements' perception for the need for entrepreneurial activities result in four cells. Each of the four cells will be discussed to show that based on the conditions that exist within each cell, one specific type of C.E. either exists or will evolve in the firm.

**Cell 1: Status-Quo**

In this cell, neither top managers nor operational participants exhibit any entrepreneurial behavior. Top managers are unlikely to encourage any autonomous strategic behavior on the part of the employees because they do not see any need for it. This can happen, for example, in times of little environmental changes or when the managers do not recognize the changes or even when they reject the changes. Employees also have no desire to take risks and exploit entrepreneurial opportunities.

A good example of status-quo organizations is a defender type organization. Miles and Snow (1978) suggest that defender type organizations are often active in a narrow niche with which the top management is quite conversant. Such organizations, they add, are characterized by formal rules, standardized procedures, clear and narrow work roles for employees. Autonomous strategic behavior on the part of the employees is not encouraged and, in fact, it would be discouraged because of emphasis on cost control. The slack needed and necessary for the autonomous strategic behavior is usually not available making it difficult for the employees to engage in entrepreneurial activities.

Organizations may also become locked in Cell 1 if there is a reverse of Jelinek's (1976) institutionalization innovation. In such cases, the very mechanisms (and administrative systems) that are set to promote innovation may actually become self-destructive. Administrative systems embody past learning and by becoming institutionalized, set innovation paradigms for the organization. However, these same administrative mechanisms may lead to the reduction of mistakes, discourage investigation of new areas, and encourage development only in known areas. In such cases, stagnation or status-quo is the result.

Consequently, in Cell 1 firms, there is much more emphasis on the induced strategic loop (Burgelman, 1983). Both top managers and employees can work within the current strategy and situation, and C.E. would be at the minimum level. Therefore,
Proposition I: When both top managers' perception of the need for entrepreneurial activity and employees' desire to exploit entrepreneurial opportunities are low, then C.E. is low.

Cell 2: Corporate Renewal

In cell 2, top management wants some degree of entrepreneurship, but employees do not provide many entrepreneurial activities and projects. Possibly they do not have any prior entrepreneurial experience, or have negligible management experience, or have very little training or education. However, it is also possible that inside environmental factors (i.e., organizational culture, inappropriate reward and compensation systems, declining financial situation, or ignorance of external environment) are constricting entrepreneurial behavior on the part of the operational participants.

Consider, for instance, that struggling or declining organizations can inhibit voluntary participation on the part of employees. Usually, the organizations in decline also show financial losses that make employees worry about their own employment. In addition, managers also make changes to the organizational structure and systems in an effort to revive the organizations. Such changes also unnerve employees. These conditions combined with lack of resources or slack can very likely inhibit any form of entrepreneurial activity on the part of the employees.

Consequently, when top managers face inside environmental factors that are not conducive to employees proposing entrepreneurial activities or are in declining or stagnating firms, serious turnaround is necessary. Corporate renewal represents such serious turnaround and is the likely result in Cell 2.

At a general level, revitalization or renewal involves "enhancing the abilities of, and contributions made by, managers, workers and the organization as a whole..." (Beer et. al., 1990:2). It involves competing in new markets rather than just the current markets. Beer et. al., 's (1990) research suggests that the initiative and involvement of the employees is the key to the success of these change efforts. There is usually a need for general change in mentality and attitudes. Participation of lower level employees in decision making is found to be critical for successful change efforts. Also, there is greater emphasis on teamwork at all levels of the organization. Employees are empowered to take initiative in reducing costs, improving quality, exploiting of new opportunities and responding to customer needs. In turn, this new organization will ask for different patterns of management and employee commitment, with a redefinition of the company culture.

How does top management participate in the corporate renewal process? They are the ones who have to motivate their employees to exploit entrepreneurial opportunities. They are also the ones who have the ability to change the "Not Invented Here" syndrome that is characteristic of Cell 2 organizations (Merrifield, 1993). They also have the responsibility to create the necessary changes in mentality and attitudes of workers. Hence, they have the ultimate responsibility to initiate the corporate renewal process by securing the employees' participation.
A good example of corporate renewal is General Product Corporation where top managers understood the importance of entrepreneurial activity. They devised ways to recognize the value of innovations, learn from them, and find ways to spread them (Beer et. al, 1990). In most successful renewal experience, the following strategies were usually employed: 1) demanding high performance and investing in human resources, 2) developing innovative organization models, 3) invest in learning, and 4) promoting and training managers who are engaged in and committed to renewal. Hence, typically corporate renewal involves the changing of organization structure and culture to promote the exploitation of new ideas and innovations. From the preceding arguments it is concluded that top management is inclined and often has a strong influence on the lower level employees in encouraging them to participate in the renewal process.

Renewal, therefore, is the appropriate form of corporate entrepreneurship in the present situation because top management will want to perform a turnaround to ensure that workers exploit available opportunities. Hence,

Proposition 2: When top managers perceive a high need for entrepreneurship, but employees have low desire to exploit such entrepreneurial opportunities, corporate renewal is the likely form of C.E. in the organization.

Cell 3: Corporate Venturing

In cell 3, although employees have a strong desire to exploit entrepreneurial opportunities, top managers do not see a need for such activities. The organization may lack the structural features that support entrepreneurship within the firm. In such a situation, two possibilities exist: 1) operational participants may persist and actually convince top management of the viability of their idea and form an internal corporate venture, thereby becoming a ‘corporate venture champion’ (Greene, Brush & Hart, 1999) or 2) if the desire is strong enough and if external funds are available, the entrepreneur might decide to leave the existing organization to create a new one. In both cases, the organization has corporate venturing as a form of C.E.

Corporate venturing is the logical form of C.E. in the firm because it represents the case where employees are actually the ones championing new ideas even with limited or without support of top management. From the top management perspective, a new venture should not only be viable but also be consistent with the firm’s current strategic direction. If not, managing the venture within the firm can be difficult and even be damaging to the current businesses (Simon, Houghton & Gurney, 1999). Consequently, if top managers are to take advantage of new opportunities but not risk the current business, they are likely to encourage corporate venturing as a form of C.E.

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According to Block and MacMillan (1983), corporate venturing involves a number of crucial steps: 1) involves a new activity, 2) starts or is conducted internally, 3) involves greater risk of failure and has greater uncertainty than the current business, and 4) will be managed separately at some future time. Burgelman (1983: 1349) sees corporate venturing as "the process whereby firms engage in diversification through internal development...which requires new resources combination to extend the firm's activities in areas unrelated, or marginally related, to its current domain of competence...(page 1349)." A corporate venture by definition suggests a new product and or market activity that is very different from the firm's current activities.

Burgelman (1983) argues that very often entrepreneurial projects represent the vision of top management ex post. Large, complex organizations preclude top management from being able to devote as much attention to new projects or ideas. Although top management is usually very familiar with the current business, it lacks the necessary capabilities to comprehend new resource combinations proposed by operational participants. Hence, top management has difficulty in evaluating and even accepting such new venture ideas. This, however, does not mean that the importance of new ideas and exploitation of new opportunities on the part of employees is any less. Therefore, top management, as Burgelman (1983) argues, has a responsibility to blend the new business ideas within its organization, typically through corporate ventures. This may also entail post hoc changes in the strategic plan and the organizational structure. On their part, employees may modify or further refine their ideas to best suit the organizational requirements. Hence, given the above, it is very likely that the employees' high desire to exploit entrepreneurial ventures coupled with low perception of need from top managers result in corporate venturing.

Proposition 3: When employees have a high desire to exploit entrepreneurial ventures, but top managers perceive no need for such ventures, corporate venturing is the form of C.E. in the organization.

Cell 4: Schumpeterian Entrepreneurship

In cell 4, both top managers and operational participants agree on the need and necessity of exploiting entrepreneurial opportunities. There is more emphasis on the autonomous loop (Burgelman, 1983), where top managers would set in place a structure that will actually encourage and reward entrepreneurial activities. In such situations, the stage is set for Schumpeterian type of entrepreneurship. The Schumpeterian type of entrepreneurship referred to here is adopted from Stopford and Baden-Fuller (1994). Schumpeter (1950, pg. 132) defines entrepreneurship or the function of entrepreneurs as "to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new..."
outlet for products, by reorganizing an industry and so on." In the spirit of this definition, Schumpeterian entrepreneurship is recognized as something that transforms the industry through a radical departure from the way business is currently conducted. Schumpeterian entrepreneurship can be distinguished from other types of entrepreneurship in terms of its impact on not only the focal firm but also on the industry in which the firm is located.

Schumpeterian innovation can be viewed as not only the transforming of the enterprise but also the competitive environment into something substantially different (Stopford & Baden-Fuller, 1994). They also argue that these innovations apply to new products or ideas are usually associated with emerging industries, however, they are applicable to existing incumbents in well-established industries. For example, the study of Shell (De Geus, 1988) and GE (Tichy & Charan, 1989) reveals that sometimes organizations react to others' innovations and eventually create new capabilities to the extent that the rules of the industry would be changed. The competition within such an industry is radically altered due to the frame breaking change brought out by a firm in the industry.

Schumpeterian corporate entrepreneurship is the likely outcome of the present situation because the right atmosphere exists for major innovations. Not only are top managers encouraging new initiatives but employees also have very high desire to exploit available opportunities. By definition, this cell embodies the autonomous strategic behavior identified by Burgelman (1983). The basic raw material for Schumpeterian type entrepreneurship and entrepreneurial ideas are provided by the employees. And as Penrose (1950) suggests the slack resources of even average amounts can significantly enhance the entrepreneurial discovery. Hence, in this case, the managerial resource is abundantly available. Consequently, because the right incentives and encouragement are given to employees and because employees provide the new ideas, the likelihood that Schumpeterian entrepreneurship will take place is enhanced. Consequently,

**Proposition 4:** When top management perceives a high need for entrepreneurship and employees have high desire to exploit entrepreneurial opportunities, Schumpeterian type of C.E. exists in the organization.

**WHAT ARE FACTORS THAT DETERMINE EMPLOYEES' DESIRE TO EXPLOIT ENTREPRENEURIAL OPPORTUNITIES AND TOP MANAGEMENTS' PERCEPTION OF THE NEED FOR ENTREPRENEURSHIP?**

Cells 1 to 4 represent various levels of employees' desire to exploit entrepreneurial opportunities and top management's perception of the need for entrepreneurship. Consequently, a complete inquiry into the determinants of C.E. begs the following question: What are the factors that influence employees' desire to exploit entrepreneurial opportunities? What are the factors that
determine top management's perception of the need for entrepreneurship? In this section, we review the relevant literature and provide some answers to the above questions in the form of propositions.

**WHAT ARE THE FACTORS THAT DETERMINE EMPLOYEES' DESIRE TO EXPLOIT ENTREPRENEURIAL OPPORTUNITIES?**

Cell 3 and 4 refer to situations where employees have a high desire to exploit entrepreneurial opportunities. When can we expect such a situation? In this section, some of the internal factors that influence employees' desire to exploit entrepreneurial opportunities are discussed. It is assumed that the literature that applies to individual entrepreneurs is equally applicable to employees in organizational situations. Also, the discussion is limited to major factors only.

Studies that have looked at the antecedents of operational participant's willingness to exploit entrepreneurial opportunities can be categorized into three major areas: 1) the entrepreneur's background, 2) the entrepreneur's personality, and 3) the environment the entrepreneur is operating in. In the entrepreneur's background research, emphasis is placed on prior exposure, some biographical characteristics, and past entrepreneurial experience. A number of authors have conducted studies to look at psychological antecedents (such as personality traits and other psychological characteristics) of entrepreneurial actions (for e.g., Brockhaus, 1982; Gasse, 1982; Hornaday & Aboud, 1971; Welsch & White, 1981) and even personal motivation (McClelland, 1961). However, most of the latter research has not shown any relationship between such characteristics and entrepreneurship. Similarly, research has not identified any "standard" personality traits that make some individuals more likely to become entrepreneurs (Vesper, 1980; Sexton & Bowman, 1985). In the environment studies, researchers have looked at whether the environment is conducive to entrepreneurship or not. Consequently, after a careful review of the literature, it was decided to focus only on those internal factors that have promise for entrepreneurship research.

The first widely studied antecedent of willingness to engage in entrepreneurial activities is prior entrepreneurial experience (Collins & Moore, 1964; Vesper, 1980). It seems very likely that if somebody has had some prior entrepreneurial experience, then the likelihood of engaging in further entrepreneurial activities will be higher because some learning effect would have occurred. Having been an entrepreneur probably elevates the employee to a higher level of understanding of the business involved, and will probably encourage further experimenting, and exploitation of entrepreneurial opportunities. Exploitation of entrepreneurial opportunities involves the proper identification of entrepreneurial opportunities by the individual, and the subsequent act of merging of resources from the environment with his or her own unique resources to create a new combination. Hence, the following proposition can be advanced:

**Proposition 5:** Employees with prior entrepreneurial experience have a higher desire to exploit entrepreneurial opportunities.

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A second factor that will determine the degree to which operational participants want to exploit entrepreneurial opportunities is exposure to parental business (Morris, Williams, Allen, & Avila, 1997). Typically, it seems that entrepreneurs have a self-employed parent and that they follow in the footsteps of their parents, although some of them opt against self-employment (Brockhaus & Horwitz, 1986). However, as Krueger (1993) argues, self-efficacy theory posits that vicarious experience can have a significant impact on attitudes, beliefs, and intentions. Exposure to and participation in a parental entrepreneurial venture might change one's view of entrepreneurship making one more amenable to such ventures. Such vicarious experiences can also strengthen one's beliefs that one can be successful at entrepreneurial ventures. Hence,

**Proposition 6:** Employees with prior parental exposure to entrepreneurship have a higher desire to exploit entrepreneurial opportunities.

A third factor that can account for increased desire to exploit entrepreneurship opportunities is mere exposure to entrepreneurial activities. Hence, in many formerly communist economies where individuals have very little entrepreneurial experience or exposure to parental businesses, entrepreneurship is blossoming. This is possibly due to exposure to other entrepreneurial businesses and entrepreneurship workshops organized by other countries setting the stage to start one's own business. Consequently, we can argue that individuals who are more exposed to entrepreneurial activities would be more inclined to become interested in and exploit entrepreneurial opportunities. Hence,

**Proposition 7:** Exposure to entrepreneurial activities/businesses increases employees' desire to exploit entrepreneurial opportunities.

Finally, a background factor that determines employees' willingness to exploit entrepreneurial opportunities is education. If the employee is educated in a field that can contribute to the proper identification and recognition of entrepreneurial opportunities, then the participant would most likely be more willing to exploit such opportunities. Education probably gives a more abstract understanding of situations, and most likely will facilitate the entrepreneurial process. Hence, it has been found that education is very important for high-technology entrepreneurs (Cooper, 1979), although its relationship hasn't been established for more general settings (Hoad & Rosko, 1964). In addition, Robinson & Sexton (1994) found that those who were self-employed generally had more...
formal education and also that those who had more formal education had more success being self-employed. Consequently, education probably prepares employees in terms of understanding the issues inherent in entrepreneurship. The preparation probably facilitates the road to success. Therefore, the following can be advanced:

Proposition 8: Employees with directly relevant and applicable education have a higher desire to exploit entrepreneurial opportunities.

WHAT ARE THE FACTORS THAT DETERMINE TOP MANAGEMENT'S PERCEIVED NEED FOR ENTREPRENEURSHIP?

In Cell 2 and 4, top management's perception of the need for entrepreneurship is high. When does such a situation occur? In this section, it is argued that the top managers' perception for the need for entrepreneurship will depend primarily on the decision-making style of the manager and approach towards risk.

An entrepreneurial venture usually involves risk. Top managers' decision to agree to an entrepreneurial venture will involve a certain amount of risk. Consequently, managers perceived need for entrepreneurship will depend on how risk averse they are. In general, most people are risk averse, preferring a sure thing to a gamble (Kahneman & Lovallo, 1994). However, some studies have shown that people can be risk-seeking, specially in situations of losses (Bateman & Zeithaml, 1989; Fishburn & Kochenberger, 1979). In addition, some studies have found that as one moves up the hierarchy, there is more inclination for higher level executives to take risks and also encourage others to take risks (MacCrimmon & Wehrung, 1986; Shapira, 1995). In sum, the findings from these studies suggest that people have different notions of risk. However, it is to be expected that the more risk-seeking managers will probably be more inclined towards entrepreneurial ventures. Such managers will most likely be more willing to accept risky entrepreneurial ventures too. Consequently, the following can be proposed:

Proposition 9: Risk-seeking managers are more likely to perceive higher need for entrepreneurship than risk-averse managers.
Perceiving the need for entrepreneurship may also depend on the managers' decision making heuristics and biases. Two of the most widely studied decision making styles are overconfidence bias and the representativeness heuristic (Kahneman, Slovic & Tversky, 1982; Tversky & Kahneman, 1974). Some managers will tend to be overly optimistic in their estimation of an entrepreneurial venture based on initial information received, particularly when they are relatively unfamiliar with the project (Lichenstein & Fischhoff, 1977), while others will be may be more rational and methodical in making a decision. Hence,

**Proposition 10:** The more overconfident top managers are, the more likely they perceive the need for entrepreneurship.

Inferences about the need to fund a current project can also be made in the light of available current information (Busenitz, 1994). This inference process very often relies on the notion of “representativeness,” a heuristic discussed by Tversky and Kahneman (1974) as a relation between a hypothetical process and some event associated with that project. The representativeness argument goes that top managers will tend to perceive the need for entrepreneurship (and judge proposed entrepreneurial ventures) in the light of current knowledge and information that is based on prior experience. If we assume that an entrepreneurial venture is more of a novelty, then the manager who relies on the representative heuristic will tend to disfavor entrepreneurial project, and will most likely not perceive much need for entrepreneurship. The latter is simply because a new entrepreneurial project will not fit in the top managers' schema. Consequently, we can expect that,

**Proposition 11:** The more a top management uses the representative heuristic, the less likely they perceive the need for entrepreneurship.

**DISCUSSION**

The present paper was an attempt to discuss the crucial impact of internal behavioral factors on the type of C.E. that exists in an organization. It was shown how the interaction of individual behaviors within organizations can result in an organizational phenomenon. This approach shows that C.E. is not necessarily only an organizational phenomenon. Also, a number of testable hypotheses (some new, others old) that can shed some light on the role of these factors were provided.

This paper also clarifies the distinction between corporate venturing and corporate renewal. It is argued that corporate venturing (or intrapreneurship) stems more from employees' desire to exploit entrepreneurial opportunities with minimal support from top management (Kuratko, Motagno,
& Hornsby, 1990) while corporate renewal results more from top management actions with less support from employees.

An additional issue that can be tackled with this new formulation of the types of C.E. is its evolution over time. Stopford and Baden-Fuller's (1994) study of corporate entrepreneurship revealed that firms can have different forms of C.E. over time, and that the same firm can also have different forms of entrepreneurship at the same time. The present discussion of the various types of C.E. can provide a novel way of why some firms adopt one type of C.E. while others have a different type. Hence, by building on Stopford and Baden-Fuller's study, it is argued that any organization goes through stages of C.E. in a well-defined manner.

In any organization, Cell 1 (Status-Quo) will probably be the result of careful analysis of the environment and realization that expected future value of change is not beneficial. Firms in such cells are not very keen on making any major improvements and may be content with the status-quo, specially taking into consideration the cost of change. A good example of an organization from cell 1 might be a small family business. However, as argued before, the competitive environment is always changing (Beer et al., 1990). Ignoring such changes will inevitably threaten chances of survival. To be able to survive, firms have to change and innovate. Innovation can only happen if either top managers or employees or both realize the need to generate and exploit entrepreneurial opportunities. If employees are the ones who perceive the need for change (which may be caused by poor results, or threat of job loss etc.), then firms are in Cell 3 (Corporate Venturing). However, if top managers are the ones who want change and perceive the need for entrepreneurship, then firms will be engaged in Cell 2 (Corporate Renewal).

Stopford and Baden-Fuller (1994) argue that an organization will go through a definite route to Schumpeterian entrepreneurship. Firms initially have a few broad-minded individuals and teams that work on ideas that are remote to the current overall strategy. Eventually, a chief executive recognizes that a new direction is needed and that there is a lack of leadership. The chief executive will then examine entrepreneurial projects more carefully and allow corporate venturing (Cell 3). Once corporate venturing has taken place, the chief executive gets a better appreciation of entrepreneurial activity, which reduces their fear of new projects. Consequently, the executive then embarks on a program of renewal to change the organization so that entrepreneurial ventures are encouraged and rewarded (Cell 2). Eventually, the organization reaches a level where major innovations are possible and where rules of the industry are changed (Cell 4: Schumpeterian entrepreneurship).

According to Stopford and Baden-Fuller's (1994) arguments, firms usually go through stages from corporate venturing (Cell 3) to renewal (Cell 2) and finally to Schumpeterian entrepreneurship (Cell 4). However, it is argued here that firms can move from Cell 1 (status-quo) through either Cells 2 or 3 to Cell 4. Hence, firms can eventually achieve Schumpeterian entrepreneurship by simply going through corporate venturing or through renewal, but not necessarily through both sequentially. The succeeding paragraphs will elaborate on this point.

If corporate venturing has taken place, then it implies that employees have been able to 'sell' their idea to top management. Consequently, it is logical to expect that experience with a novel entrepreneurial project will lessen top managers' fear of accepting future projects. At the same time,
trying a new experience will lessen managers' representativeness heuristic and overconfidence bias. Estimates about future projects can be expected to be more accurate and less of a threat. Consequently, it is very possible that after a few corporate venture projects, top managers' view of entrepreneurship will change and they will be more likely to perceive the need for and accept future projects (depending obviously on budget constraints). Hence, from Cell 3, the organization can move to Cell 4 (Schumpeterian entrepreneurship). It is appropriately assume that the level of the employees' interest and involvement in exploiting entrepreneurial opportunities would not wane. Therefore, once the top managers also get interested, the firm has no where but to get into Cell 4.

Similarly, if a firm is in Cell 2 (renewal), then top management is actively involved in changing and creating an a situation where operational participants are willing to exploit entrepreneurial opportunities. Renewal is a very challenging task that involves changing the organization structure and corporate culture so that employees are encouraged and rewarded for their new ideas and entrepreneurial projects. Hence, if top management is successful, then that organization will have a situation where both top managers and operational participants agree on the importance of entrepreneurship. This agreement will then increase the likelihood of a shift to Cell 4, whereby Schumpeterian entrepreneurship is possible. Here again, the assumption is that the top managers' perception of need for entrepreneurial activity does not wane. In fact, it is argued that it would only get stronger.

In summary, it is argued that it is only logical that firms have different forms of C.E. over time, and that contrary to Stopford and Baden-Fuller's (1994) argument, an organization can achieve Schumpeterian entrepreneurship either through corporate venturing or through renewal. The route a firm takes is dependent on who between top management and operational participants has the most influence on entrepreneurial activities of the organization.

CONCLUSION

The present paper was an attempt to propose a theoretical framework to understand how different types of C.E. emerge in organizations. In contrast to past studies that have relied on external determinants of C.E., the dimensions proposed here are primarily of an internal nature and within the control of management. As such, a proper understanding of these factors can help in prescribing organizational action to encourage the desired type of C.E. Academicians can also use these factors to develop a more complete understanding of C.E. In sum, it is hoped that the present paper will stir interest and encourage researchers to develop and empirically test more comprehensive models of C.E.

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