

Corporate Entrepreneurship: A Strategic and Structural Perspective

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Recently there has been a growing interest in the use of corporate entrepreneurship as a means for corporations to enhance the innovative abilities of their employees and, at the same time, increase corporate success through the creation of new corporate ventures. However, the creation of corporate activity is difficult since it involves radically changing internal organizational behavior patterns. Researchers have attempted to understand the factors that stimulate or impede corporate entrepreneurship. They examined the effect of a firm's strategy, organization, and external environment. It appears that the environment plays a profound role in influencing corporate entrepreneurship, whereas there is consensus that the external environment is an important antecedent of corporate entrepreneurship.

With focus on the environment, the literature highlights two research questions that deserve examination. First, how do firms that compete in different environments vary in corporate entrepreneurship activities? Second, which corporate entrepreneurship activities are conducive to superior performance in different environments? This article develops the theoretical foundation of these questions and focuses on the relationship between corporate entrepreneurship and strategic management in integrating a model of corporate entrepreneurship, giving special attention to the strategic behavior, corporate context, and organizational types

Corporate entrepreneurship is an evolving area of research. Today, there is no universally acceptable definition of corporate entrepreneurship (Gautam and Verma 1997). Authors use many terms to refer to different aspects of corporate entrepreneurship: intrapreneurship (Kuratko et al. 1990), internal corporate entrepreneurship (Schollhammer 1982), corporate ventures (Ellis and Taylor 1987; MacMillan et al. 1986), venture management (Veciana 1996), new ventures (Roberts 1980) and, internal corporate venturing (Burgelman 1984).

Despite the growing interest in corporate entrepreneurship, there appears to be nothing near a consensus on what it is. Some scholars emphasizing its analogue to new business creation by individual entrepreneurs, and view corporate entrepreneurship as a concept that is limited to new venture creation within existing organizations

(Burgelman 1984). Others argue that the concept of corporate entrepreneurship should encompass the struggle of large firms to renew themselves by carrying out new combinations of resources that alter the relationships between them and their environments (Baumol 1986; Burgelman 1983). According to Zahra (1991) corporate entrepreneurship refers to the process of creating new business within established firms to improve organizational profitability and enhance a firm's competitive position or the strategic renewal of existing business.

Burgelman (1984, 154) conceptualizes the definition of corporate entrepreneurship as a process of "extending the firm's domain of competence and corresponding opportunity set through internally generated new resource combinations." The term "new resource combinations" is interpreted to be synonymous with innovation in the Schumpeterian sense. Thus, corporate entrepreneurship is the effort to extend an organization's competitive advantage through internally generated innovations that significantly alter the balance of competition within an industry or create entirely ones.

Corporate entrepreneurship is a process of organizational renewal (Sathe 1989) that has two distinct but related dimensions: innovation and venturing, and strategic stress creating new business through market developments undertaking product, process, technological, and administrative innovations. The second dimension of corporate entrepreneurship embodies renewal activities that enhance a firm's ability to compete and take risks (Miller 1983). Renewal has many facets, including redefinition of the business concept, reorganization, and introduction of systemwide changes for innovation.

According to Kuratko et al. (1990), the need to pursue corporate entrepreneurship has arisen from a variety of pressing problems including:

1. required changes, innovations, and improvements in the marketplace to avoid stagnation and decline (Miller and Friesen 1982);
2. perceived weakness in traditional methods of corporate management; and
3. turnover of innovative-minded employees who are disenchanted with bureaucratic organizations.

However, the pursuit of corporate entrepreneurship as a strategy to counter these problems creates a newer and

potentially more complex set of challenges on both a practical and theoretical level.

The identification of various dimensions or factors of corporate entrepreneurship, of course, is a broad arena to consider and the principal objective of this article is to extend the theory of entrepreneurship by providing a conceptual model of corporate entrepreneurship in organizations and of strategic process.

Domain of Corporate Entrepreneurship

Corporate entrepreneurship activities can be internally or externally oriented (MacMillan et al. 1986; Veciana 1996). Internal activities are typified as the development within a large organization of internal markets and relatively small and independent units designed to create internal test markets or the expansion of improved or innovative staff services, technologies, or production methods within the organization. These activities may cover product, process and administrative innovations at various levels of the firm' (Zahra 1991).

Schollhammer (1982) has proposed that internal entrepreneurship expresses itself in a variety of strategic modes:

- administrative (management of research and development),
- opportunistic (search and exploitation), imitative (internalization of an external development, technical or organizational),
- acquisitive (acquisitions and mergers, divestments), and
- incubative² (formation of semiautonomous units within existing organizations).

External entrepreneurship can be defined as the first phenomenon that consists of combining resources dispersed in the environment by individual entrepreneurs with his or her own unique resources to create a new resource combination independent of all others (Gautam and Verma 1997). External efforts entail mergers, joint ventures, corporate venture, venture nurturing, venture spin-off, and others.³

Whether internal or external in focus, corporate entrepreneurship can be formal or informal. Informal efforts occur autonomously, with or without the blessing of the official organization. Informal activities can result from individual creativity or pursuit of self-interests. Some of these efforts eventually receive the firm's formal recognition and thus become an integral part of the business concept. According to Zahra (1991, p. 262), a comprehensive corporate entrepreneurship must incorporate both formal and informal aspects of corporate venturing follows: "Corporate entrepreneurship refers to formal and informal activities aimed at creating new business in established companies through product and process innovations and market developments." These activities may take place at the cor-

porate, division (business), functional, or project levels, with the unifying objective of improving a firm's competitive position and financial performance (Morris et al. 1988).

It is evident that corporate entrepreneurship is not confined to a particular business size or a particular stage in an organization's life cycle, such as the start-up phase. In a competitive environment, entrepreneurship is an essential element in the long-range success of every business organization, small or large, new or long established.

Corporate Entrepreneurship and Strategic Management

The strategy literature identifies three types of corporate entrepreneurship:

1. Creation of new business within an existing organization or corporate venturing or intrapreneurship (e.g., Burgelman 1983; Kuratko et al. 1990; Guth and Ginsberg, 1990).
2. The more pervasive activity associated with transformation or renewal of existing organizations (Stopford and Fuller 1994).
3. The enterprise changes the rules of competition for its industry in the manner suggested by Schumpeter and implied by Stevensen and Gumpert (1985).

Changes in the pattern of resource deployment—new combinations of resources in Schumpeter's terms—transform the firm into something significantly different from what it was before—something "new." This transformation of the firm from the old to the new reflects entrepreneurial behavior. Corporate venturing, or new business development within an existing firm, is only one of the possible ways to achieve strategic renewal. Strategic renewal involves creation of new wealth through new combinations of resources. This includes actions such as refocusing a business competitively, making major changes in marketing or distribution, redirecting product development, and reshaping operations (Guth and Ginsberg 1990).

According to Burgelman (1983) relatively little is known about the process through which large, complex firms engage in corporate entrepreneurship. To Burgelman, corporate entrepreneurship refers to the process whereby firms engage in diversification through internal development. Such diversification requires new resource combinations to extend the firm's activities in areas unrelated, or marginally related, to its current domain of competence and corresponding opportunity set. In the Schumpeterian sense, diversification through internal development is the corporate analog to the process of individual entrepreneurship (Russell 1995). Corporate entrepreneurship, typically, is the result of the interlocking entrepreneurial activities of multiple participants.

The role of entrepreneurial activity is to provide the required diversity. Whereas order in strategy can be achieved through planning and structuring, diversity in strategy depends on experimentation and selection. The task of strategic management is to maintain an appropriate balance between these fundamentally different processes. These insights have implications for design of organizational arrangements and for the development of strategic managerial skills.

Miller and Friesen (1982) created a distinction between the concepts of corporate entrepreneurship and an entrepreneurial strategy. An entrepreneurial strategy is defined as the frequent and persistent effort to establish competitive advantage through innovation, while corporate entrepreneurship can describe any attempt, even if infrequent, to implement innovation. Corporate entrepreneurship is to a great extent a social process in which innovations are socially constructed through a series of trial-and-error learning episodes (Van de Ven 1986). These episodes constitute a complex network of interpersonal transactions involving an increasing number of people and a volume of information as the process unfolds over time.

Strategic Behavior and Corporate Entrepreneurship

Burgelman (1983) asserted that corporate entrepreneurship represents an important source of strategic behavior. Autonomous corporate entrepreneurship ventures are initiated by the owner or the other members of the organization other than the small business manager. The autonomous strategic behavior of middle managers provides the raw material—requisite diversity—for strategic renewal. Top management actions and responses in relation to the autonomous strategic behavior of middle managers may significantly influence the frequency and success of entrepreneurial effort in the firm.

Burgelman (1983) has proposed an inductively derived model of the dynamic interactions between different categories of strategic behavior, corporate context processes, and a firm's concept strategy. This model,⁴ represented in Exhibit 1 can be used to elucidate the nature and the role of corporate entrepreneurship.

In this model, the current concept of strategy represents the more or less explicit articulation of the firm's theory about the basis for its past and current successes and failures. It provides a more or less shared frame of reference for the strategic actors in the organization, and provides the basis for corporate objective setting in terms of its business portfolio and resource allocation.

The model proposes that two generic categories of strategic behavior can be discerned in such large, complex firms: inducted and autonomous.

Inducted Strategic Behavior. This type of behavior is provided by current concepts of strategic behavior to identify opportunities in the "enactable environment." Being consistent with the existing categories used in the strategic planning system of the firm, such strategic behavior generates little equivocally in the corporate context.

Autonomous Strategic Behavior. This behavior introduces new categories for the definition of opportunities. Entrepreneurial participants, at the product/market level, conceive new business opportunities, engage in project championing efforts to mobilize corporate resources for these new opportunities, and perform strategic-forcing efforts to mobilize corporate resources for these new opportunities, and perform strategic-forcing efforts to create momentum for further development.

"Structural context" refers to various administrative mechanisms which top management can manipulate to influence the perceived interests of the strategic actors at the operational and middle levels in the organization. It intervenes in the relationship between induced strategic behavior and the concept of strategy, and operates as a selection mechanism—a diversity reduction mechanism, on the stream of induced strategic behavior.

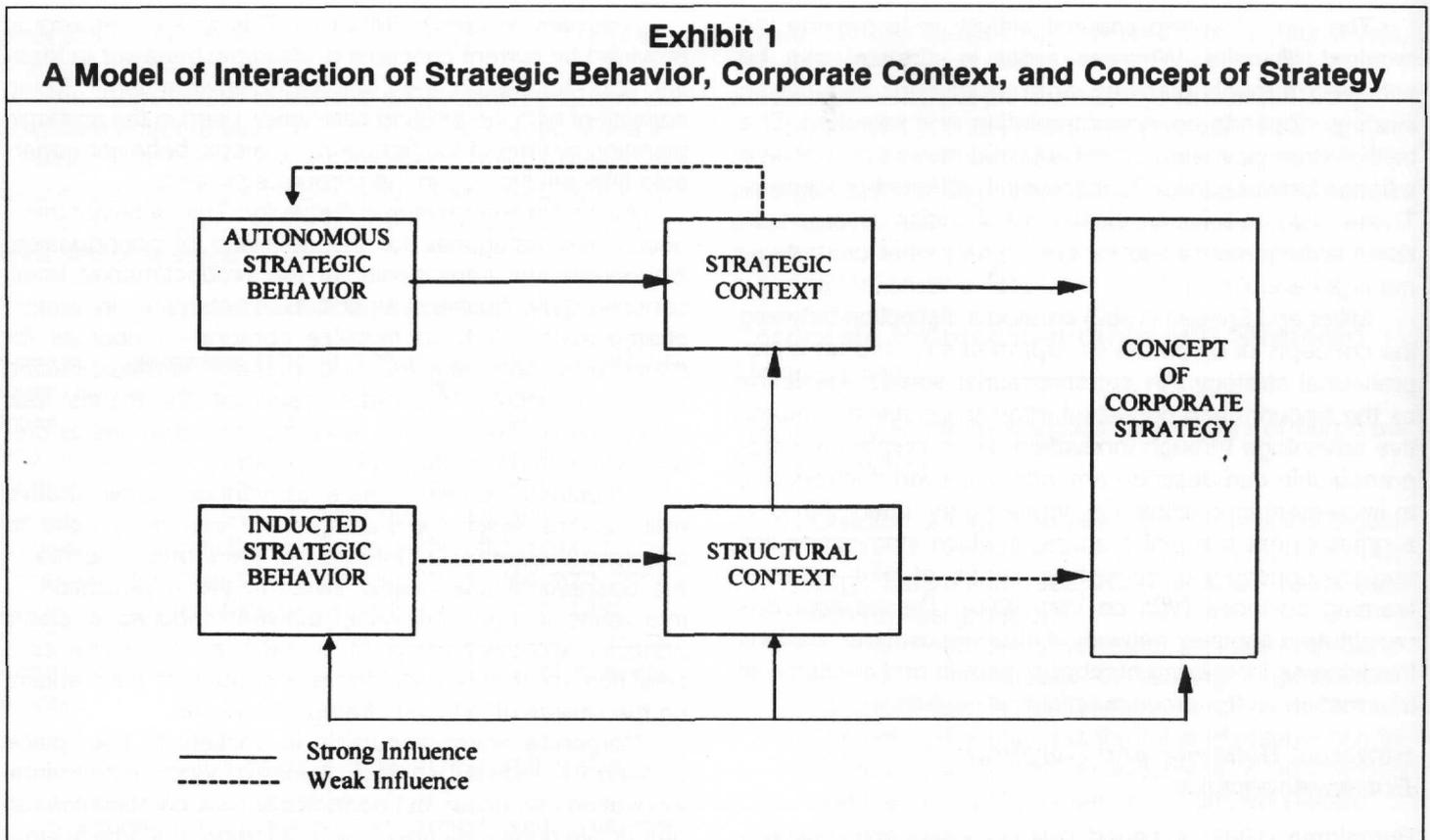
Corporate entrepreneurship is unlikely to take place through the induced strategic behavior loop.⁵ Incremental innovation can occur, but no radically new combinations of productive resources are likely to be generated in this loop.

The firms also are likely to generate a certain amount of autonomous strategic behavior. From the perspective of the firm, autonomous strategic behavior provides the raw material—requisite diversity—for strategic renewal. As such, autonomous strategic behavior is conceptually equivalent to entrepreneurial activity—generating new combinations of productive resources—in the firm. In this model, Burgelman (1983) identified corporate entrepreneurship with the autonomous strategic behavior loop. Autonomous strategic behavior takes shape outside of the current structural context. Yet, to be successful, it needs eventually to be accepted by the organization and to be integrated into its concept of strategy.

Strategic context refers to the political mechanisms through which middle managers question the current concept of strategy, and provide top management with the opportunity to rationalize, retroactively, successful autonomous strategic behavior.

Corporate Entrepreneurship and Organizational Types

The integration of corporate entrepreneurship and strategic management can be related to typologies of organizations and of strategic process proposed by Miles and Snow (1978) and Mintzberg (1973), respectively (Burgelman, 1983; Veciana, 1996).



Source: Burgelman. 1983: 1351.

Miles and Snow have suggested four empirically derived types of organizations:

1. "Defenders" have narrow product-market domains.
2. "Prospectors" search almost continually for new opportunities and experiment regularly with potential responses to emerging environmental trends. Their emphasis is on innovation.
3. "Analyzers" typically operate in two types of product-market domains: one rapidly changing, the other relatively stable. Their top management must be capable of dealing with strategy in different modes.
4. "Reactors" are unable to answer with effectiveness to environmental alterations. They make changes just when they are obligated.

Mintzberg (1973) has proposed a typology of strategic processes which would seem to parallel Miles and Snow's organizational typology. *Defenders* can be characterized by a planning mode, *prospectors* are likely to use an entrepreneurial mode, and *reactors* are likely to be characterized by an adapting mode. This typology has no analog for the *Analyzer* type, but, being a hybrid, it can be viewed in

Mintzberg's terms as a mixture of dealing with strategy in different modes.

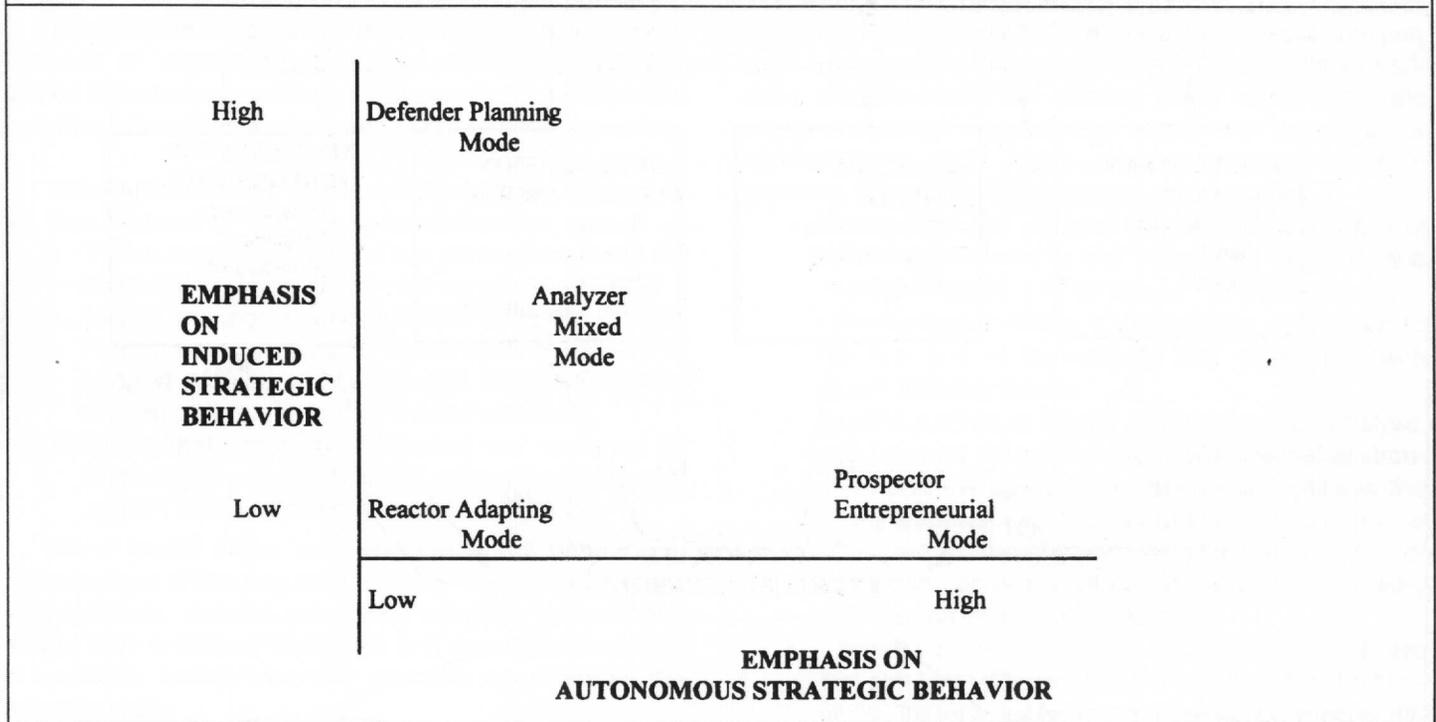
Miller and Friesen (1982) identified two strategic postures: conservative and entrepreneurial. Each posture was associated with a specific configuration of organizational variables. Strategy in the entrepreneurial configuration is characterized by a tendency to seek product-market innovation as a source of competitive advantage, a proactive posture in seeking change, and a moderate propensity to take risks. The conservative posture, in contrast, pursues innovation only reluctantly, tending to emphasize existing performance routines.

Those typologies, as well as the simple dichotomy between "entrepreneurial" and "conservative" firms proposed by Miller and Friesen (1982) (see Burgelman 1983) are reinterpreted in Exhibit 2.

Different firms are characterized by different combinations of autonomous and induced strategic behavior, and the typologies are only special cases of this.

Exhibit 2 could be used to raise questions about the long-term viability of each of these types. Also, conceptually, the strategic management problem of finding the optimal level of corporate entrepreneurship could possibly be formulated in terms of a constrained optimization model.

Exhibit 2
A Reinterpretation of the Miles and Snow and Mintzberg Typologies



Source: Burgelman. 1983: 1358.

A Framework for Mapping Corporate Entrepreneurship

Several studies have advanced the development of a theory of corporate entrepreneurship. Zahra (1991) developed a model of corporate entrepreneurship based on environmental, strategic, and organizational variables and empirically tested the model. Russell and Russell (1992) also developed and tested a model of intrapreneurship based on environmental, structural, strategic, and cultural variables. Hornsby et al. (1993) have proved an interactive model of the decision to act intrapreneurially. The model is focused on individual and organizational variables. Covin and Slevin (1991) analyzed strategic and structural variables and tested the relationship between intrapreneuring and firm performance. Their model surveys much of the literature on corporate entrepreneurship and includes these variables: entrepreneurial posture, external (environmental and industry measures), internal (structural and cultural measures), and strategic (mission strategy and competitive tactics).

A complete model of corporate entrepreneurship must provide an explanation of how a flow of creative ideas are produced and how innovation-supporting behaviors become part of the development process in entrepreneurial organizations (Russell 1995).

Building on earlier models of strategic management, Guth and Ginsberg (1990) present one model (Exhibit 3) that portrays the theoretical connections that can be drawn from corporate entrepreneurship to the other conceptual elements of the field of strategic management.

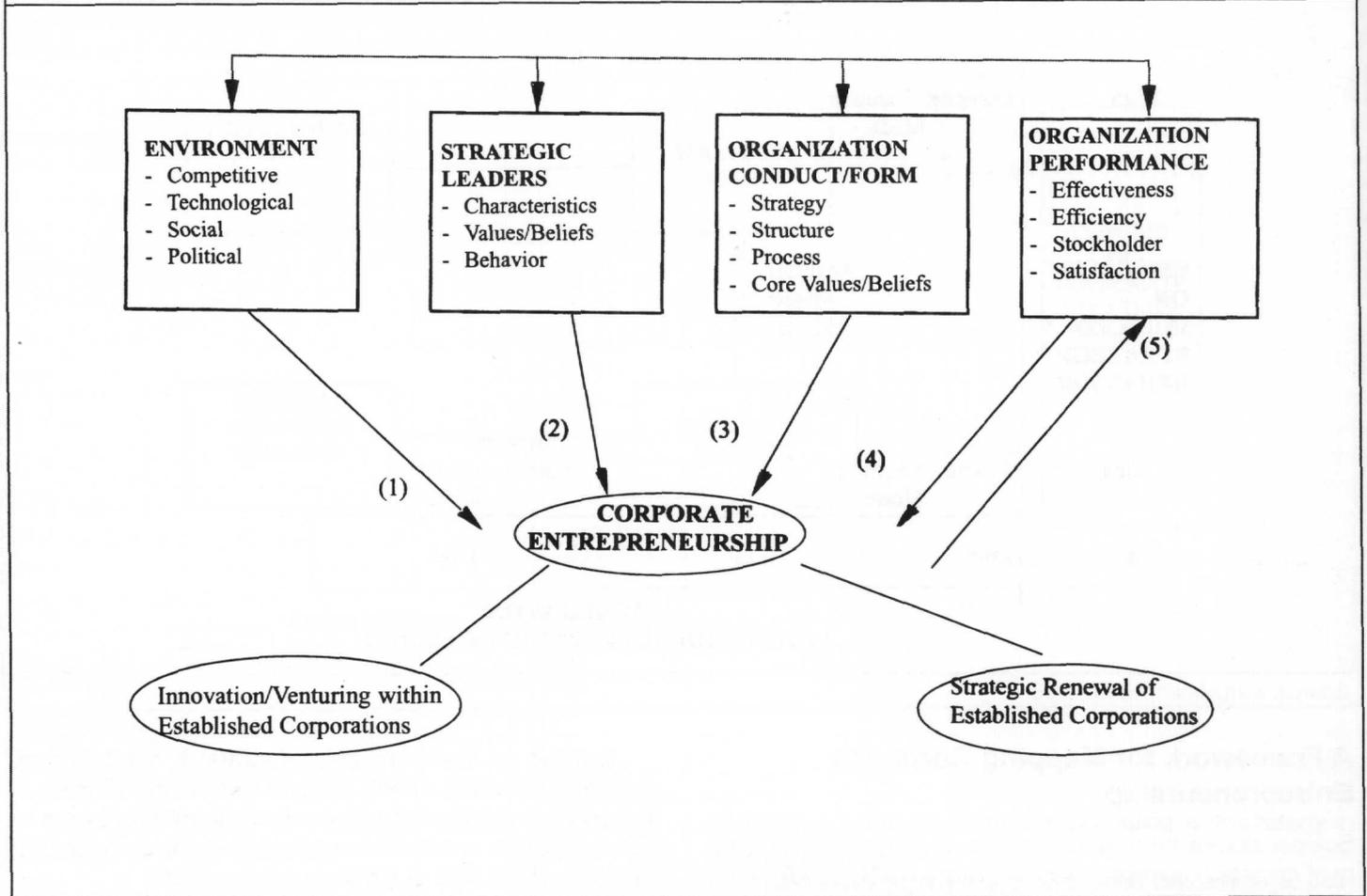
Researchers in strategic management generally agree that organization form/conduct includes strategy, structure, and management process (Hambrick 1989; Schendel 1990; Russell 1995). Zahra (1991) suggests that a firm's external environment, corporate strategy, and internal organizational factors may influence the intensity of corporate entrepreneurship activities. Each of these sets has multiple components that vary in their potential association with corporate entrepreneurship.

Increasingly, organization theorists argue for including core organization values or beliefs among the conduct variables (Guth and Ginsberg 1990), pointing to the fundamental role they play in effective and efficient implementation of strategy, structure, and process.

In this model Guth and Ginsberg (1990) identified five classes of corporate entrepreneurship:

- the environment,
- strategic leaders,
- organization form/conduct,

Exhibit 3
Relationship Between Corporate Entrepreneurship and Strategic Management



Source: Ginsberg and Guth. 1990:7.

- organizational performance, and
- corporate entrepreneurship 's influence on performance.

Environmental Influences. In this category, Guth and Ginsberg (1990) included:

- The impact of major environmental shifts (e.g., deregulation) can influence changes in strategy in a nonrandom way, with organizations (in the aggregate) moving away from one generic strategy toward other generic strategies.
- The more dynamic and hostile the environment, the more firms will be entrepreneurial.
- Industry structure affects opportunities for successful new product development.

Clearly, changes in industry competitive structures and the technologies underlying them affect corporate entre-

preneurship. Opportunities for new products and services stem from development of new technology and/or commercialization of technologies developed by others. Both opportunities and problems stem from the potential of the firm and its competitors in an industry to find new combinations of resources that lead to competitive advantage. Firms innovate and venture in participation of, or response to, their external environment. Zahra (1991) notes that an environment poses challenges and offers new opportunities to which firms must respond creatively through corporate entrepreneurship.

Covin and Slevin (1991) note that the external environment has played a seminal role in entrepreneurship theory and research and that an abundance of research has demonstrated that the external environment has a strong if not deterministic influence on the existence and effectiveness of entrepreneurial activity. Zahra (1991; 1995) and Gautam and Verma (1997) identified a number of influencing

factors in corporate entrepreneurship that could be viewed as types of precipitating events. These include environmental factors such as dynamism, hostility, and heterogeneity.

These influencing factors included some type of environment or organizational change that precipitates or ignites the interaction of organizational characteristics and individual characteristics to cause intrapreneurial events.

Strategic Leaders. Guth and Ginsberg (1990) included, these factors for strategic leader influence:

- The management style of top managers affects the level and performance of new corporate ventures.
- Middle managers' effectiveness at building coalitions among peers and higher-level managers in support of their entrepreneurial ideas affects the degree of success in their implementation.
- Banks that are more innovative are managed by more highly educated teams, who are diverse with respect to their functional areas of expertise.

Many would argue that entrepreneurial behavior in organizations is critically dependent on the characteristics, values/beliefs, and visions of their strategic leaders. The role of both individual managers and management teams in corporate entrepreneurship warrants considerable further research.

Since innovation is an uncertain, incremental process, strategic managers cannot apply traditional planning techniques to control entrepreneurial venturing (Quinn 1985). They can, however, articulate the focus and expected direction of entrepreneurial activities, ensuring that ventures remain within the competence and strategic direction of the firm. Strategic managers can enforce direction through their control over the resources necessary to sustain ongoing innovation projects, proving resources only to those initiatives that fit the mission of the firm.

Organization Conduct/Form. Guth and Ginsberg (1990) refer two factors:

- Firms pursuing strategies of acquisitive growth have lower levels of R&D intensity than firms pursuing strategies of internal growth through innovation.
- Creating new business venture units in larger organizations does not affect the level of sales from new products.

Several researchers have noted a relationship between an organization's formal strategy and innovation. Covin and Slevin (1991, p. 13) state that mission strategies based on building market share are more likely to incorporate entrepreneurial ventures based on innovation. They also note that the "entrepreneurial posture" of a firm represents a "strategic philosophy concerning how the firm should operate."

The literature highlights the importance of organizational factors for the pursuit of corporate entrepreneurial activities (Burgelman, 1983; Slevin and Covin 1989). These variables form the context within which employees and executives perceive opportunities for new ventures. Organizational variables also constitute the context within which corporate entrepreneurship ventures are evaluated, accepted, or rejected (Zahra 1993). These variables are: communication, scanning, integration, differentiation, and controls.

- The quality and amount of *communication* are of crucial importance to the successful initiation and implementation of corporate entrepreneurship. Communication helps in introducing new ideas to the firm and in familiarizing firm employees with recent industry trends.
- *Scanning* refers to formal efforts to collect, analyse, and interpret data about the firm's external environment and the competition. Scanning facilitates the timely acquisition of relevant data on industry trends and changes, thereby permitting the accumulation of information on new ventures initiated in the industry that may be of interest to the firm.
- *Integration* refers to formal organizational activities that aim to tie different units or levels within the hierarchy, through exchange of information among different units (Gautam and Verma 1997). This integration helps to disseminate corporate entrepreneurship ideas, and generate support among different units and levels in the firm for certain ventures.
- *Differentiation* reflects the division of labor within the organization. Differentiation is associated with corporate entrepreneurship because it helps to promote a strong identification with the mission of organizational units and commitment to their formal goals. Differentiation builds commitment to areas of expertise and profession.
- According to Zahra (1991) some *controls* are essential to the selection of corporate entrepreneurship projects. These controls enable a firm to separate promising corporate entrepreneurship ventures from less valuable projects. However, the excessive use of formal controls may stifle the pursuit of corporate entrepreneurship (MacMillan et al. 1986).

Organizational Performance. In this category, Guth and Ginsberg (1990) included:

- Successful firms make more radical and more frequent product and process innovations than unsuccessful firms.
- Organizations which experience performance downturns tend to innovate new practices and change strategic directions only after prolonged decline leads to changes in top management.

Innovation and radical change may be precipitated when firms have excess resources that allow them to seize opportunities that arise; they also may be induced by crises or severe external threats. More research is needed to shed light on questions concerning conditions that moderate the influence of organizational performance on innovation and strategic renewal.

Corporate Entrepreneurship and Performance. Guth and Ginsberg (1990) refer to three factors in this category:

- Scale of entry in new product introductions affects performance.
- Independent, venture-backed start-ups, on average, reach profitability twice as fast and end up twice as profitable as corporate start-ups.
- Early entry in new-product markets does not affect performance. It is clear that new ventures often take several years to turn into contributors to overall corporate profit performance. Organizational recreations may often have short-run negative performance consequences.

Zahra and Covin (1995) suggest that firms which pioneer the creation and introduction of new products or technologies (typical of firms that practice corporate entrepreneurship) often achieve superior performance. Zahra (1991) reported a positive association between corporate entrepreneurship activities and profitability, growth, and risk-related measures of firm performance. There are at least two reasons for expecting a positive and increasing relationship between corporate entrepreneurship activities and subsequent firm performance. First, consistent with arguments made by Miller (1987), innovativeness can be a source of competitive advantage for a firm. Innovative firms frequently develop strong, positive market reputations that ensure customer loyalty. They also monitor market changes and respond quickly, thus capitalizing on emerging opportunities. Importantly, sustained innovation can increasingly distance entrepreneurial firms from their industry rivals, thereby resulting in positive and growing returns to the entrepreneurial firms.

Second, the fact that firms which pursue corporate entrepreneurship are proactive by definition often allows them to exploit an additional basis for competitive advantage; that is, quick market response or the availability of a market offer ahead of competitors. And a quick response strategy often results in first-mover advantages that translate into superior performance.

An Integrated Conceptual Model of Corporate Entrepreneurship

The above discussion has exposed a number of gaps in the existing knowledge about corporate entrepreneurship (Gautma and Verma 1997). On the conceptual front, there is a lack of integrative models. Moreover, while there is not much clarity on the few most empirically supported studies, most of them concentrate on the individual characteristics of entrepreneurs. Not many have attempted to study macro-organizational behavior. An analysis of the interplay between individual, organizational, and environmental factors is crucial for understanding the entrepreneurial process. Studies on entrepreneurial behavior at the firm level will certainly be useful to better define the process and domain of corporate entrepreneurship.

The firm-level analyses of entrepreneurship are important and the impact from the environment needs to be considered, in addition to more traditional studies, preoccupied with the entrepreneur. When conducting firm-level analyses of entrepreneurship, strategic issues play an important role. In this investigation, environmental-, firm-, and individual-level analyses are combined as depicted in Exhibit 4. Three theoretical constructs are suggested, which may influence the degree or intensity of a firm's strategic orientation. Each of these constructs, or sets of variables, has multiple components that vary in their potential positive or negative influence on strategic orientation. The firm's degree of strategic orientation, in turn, influences its growth and performance levels.

Variables from different levels of analysis are integrated in Exhibit 4: variables relating to the entrepreneur, firm, and environment.

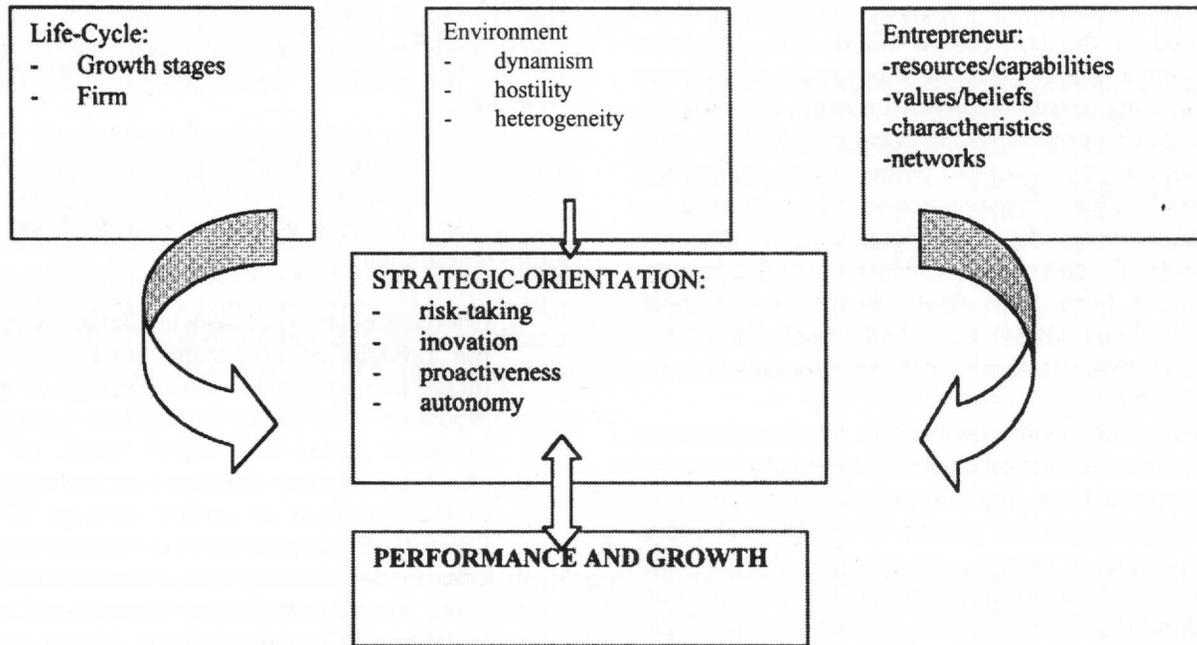
If firms are new and/or very small, single individuals are responsible for important decisions and actions and there is little need to study entrepreneurial strategy: all revolves around the entrepreneur. Its goals are his goals, its strategy his vision of its place in the world. As the firm becomes larger, but varying across industries, more people inside the firm are likely to get involved in its management. After a firm gets established and starts growing, the smaller the influence from a single individual, the more professional management becomes. It is important to recognize strategic issues in these firms. Hence, it is important for entrepreneurship researchers to recognize entrepreneurial dimensions of strategy in addition to individual-level entrepreneurship.

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Miller and Friesen (1978) describe the adaptive behavior of a firm using a biological metaphor. Just as organisms

Exhibit 4

An Integrated Conceptual Model of Corporate Entrepreneurship



respond to the stimuli they receive, firms adapt through their strategy to the stimuli they get from the environment. If organisms are able to adapt well to stimuli, they will be healthy; if firms are able to select an appropriate strategy, they will be successful. This implies that in a particular environment some strategies will outperform others (i.e., some strategies are better suited to a specific environment than others).

Changes in the conditions of the environment create both new opportunities and threats to firms. These changes may alter the congruence between the firm's strategy and environment and pressure on the firm to select a different strategic orientation. However, organizational responses to environment can vary, including not responding at all. Threats and opportunities in the environment can lead to responses with either an internal or external target. These responses could involve mergers as well as actions taken to influence politicians to change decisions.

Some suggestions have been made concerning suitable strategic choices under different environmental conditions (Dess and Beard 1984; Miller 1987; Russell 1995; Zahra 1991). These conditions could be viewed as types of

precipitating events such as: dynamism, hostility, and heterogeneity. *Dynamism* refers to the perceived insatiability of a firm's market because of continuing changes. Opportunities emerge from the dynamism of an industry where social, political, technological, and economic changes bring about new developments that can enrich a firm's niche. Corporate entrepreneurship helps to respond to these new competitive forces, either through innovations or imitating competitors' practices. As result firms that view their environment as dynamic will emphasize corporate entrepreneurship.

A *hostile* environment creates threats to a firm's mission, through increasing rivalry in the industry or depressing demand for a firm's products (or services), thereby threatening the very survival of the firm. Environmental hostility is also expected to stimulate to pursuit of corporate entrepreneurship. Faced with unfavorable environmental conditions, a firm may opt to differentiate its products through intensive marketing and advertising activities to sustain customer loyalty or increase penetration of existing segments. And, if hostility continues to intensify in the firm's principal markets, these firms consider novel business

ideas to replace or supplement their additional business core through internal developments, internal joint venturing, or diversification.

Opportunities also emerge from the *heterogeneity* of the environment, where developments in one market create new pockets of demand for a firm's products in related areas. Heterogeneity indicates the existence of multiple segments, with varied characteristics and needs, that are being served by the firm (Zahra 1991). This dimension refers to the number of different organizationally relevant attributes or components of the environment. For instance, two firms may compete in the same industry and serve the same customer groups but will perceive the environment quite differently. One firm may perceive the environment as manageable (simple); the other views it as complex and uncontrollable. These perceptual differences arise from the experience of firms with the external environment. According to Zahra (1991) increased environmental heterogeneity is associated with greater use of corporate entrepreneurship.

Discussions on environment and its relation to strategy and performance developed under the strategic orientation perspective could be a major contribution to research on small firm performance and growth, as well as in entrepreneurship research in general. According to this perspective, the firm and its environment are not two separate entities independent of each other. Instead, by selecting an appropriate strategy suitable to the firm's environment, the firms can perform well and grow.

Research in the area also needs to recognize the fact that different strategic responses to environment threats and opportunities are possible; and that particular strategies are not inherently better. Rather, the success of any particular strategy is dependent on the environment of the firm.

Conclusions

The relationship between a firm's external environment and corporate entrepreneurship activities has been the subject of interest in the literature (Zahra 1993; Miller 1987; Russell and Russell 1992; Slevin and Covin 1989; Veciana 1996). Whereas there is consensus that external environment is an important antecedent of corporate entrepreneurship (Guth and Ginsberg 1990; Gautam and Verma 1997), there has been little empirical research on the patterns of the specific associations between these two variables. Also, previous studies have focused on only a few environmental dimensions as the predictors of corporate entrepreneurship, offering only a fragmented view of their potential associations.

Future studies may explore the potential causal chain among these variables (Keats and Hitt 1988), testing whether the impact of environment, strategy, and structure

on corporate entrepreneurship is sequential rather than simultaneous. Further, the effect of motivational and organizational factors on the level of entrepreneurship over time needs to be fully explored. As observed by Schollhammer (1982), there is a need for longitudinal studies to analyse the effectiveness of various internal entrepreneurial strategies. Changes in internal entrepreneurship relative to operating conditions, the impact of specific external environmental developments, and the internal organizational context on various entrepreneurship strategies have to be looked at carefully.

The volume and diversity of research on the topic of corporate entrepreneurship is already impressive. At the same time, many important issues are largely unexplored. This article concludes with four questions/implications for future researches:

1. Conceptual and field work is necessary to articulate the domain of corporate entrepreneurship. As recent comprehensive reviews suggest, definitional problems continue to plague this "young" area of research (Zahra and Covin 1995). Of particular interest is whether corporate entrepreneurship is a multidimensional or unitary concept (Slevin and Covin 1989; Miller and Camp 1985). Little effort has been made to identify each of these dimensions and show how they relate to one another. For instance, there are no widely accepted definitions for terms like intrapreneurship, entrepreneurship, and corporate entrepreneurship. The literature on entrepreneurship lacks uniform definition and a central core.
2. There is a need to develop a comprehensive framework for studying predictors and outcomes of corporate entrepreneurship. There also is a need to explore how relevant environmental dimensions of the proposed model influence corporate entrepreneurship.
3. Does the "optimum" entrepreneurial configuration vary with the nature of firm's external environment; size of a firm, and the firm's evolutionary phase? In the life-cycle perspective, the firm grows in distinct evolutionary phases, each phase followed by a revolutionary transformation into the next phase (Gray and Ariss 1985; Kazanjian 1988; Greiner 1972; Quinn and Cameron 1983). This gives the growth curve of the firm a stepwise appearance with periods of growth interrupted by volatile crises phases, in which the firm is transformed into the next growth phase. The logic behind this discontinuous growth pattern is that in each growth phase, the firm needs to adopt a specific configuration. Usually, the configuration refers to relationships between size, age,

strategy, organization structure, and environment. As the firm grows within a particular growth stage, the configuration becomes inappropriate and the firm again needs to transform (Galbraith 1982; Kimberly 1979). Life-cycle models are mainly concerned with the need for change that growth imposes on the firm, and how this growth affects other characteristics of the firm such as its organization structure and strategy. Growth creates organizational problems within the firm that need to be resolved (Fombrun and Wally 1989; Glueck 1980; Lavoie Culbert 1978).

4. Are some management and leadership styles more effective in creating an entrepreneurial context? The "entrepreneur" plays a main role in the entrepreneurship process. An entrepreneur is most often regarded as an innovative and creative person suitable to manage a firm that emphasizes innovation. The proactiveness of a firm indicates that it searches for new opportunities, probably reflecting these

characteristics of the entrepreneur. Strategic leaders can also enhance the organizational context for entrepreneurship by reinforcing an innovation-supporting culture and providing the organic structures (characterized by decentralized authority and informal relations between participants) that facilitate innovation development. These and other research questions need to be answered before a practical model of corporate entrepreneurship can be offered.

In sum, corporate entrepreneurship would seem to depend both on the capabilities of operational-level participants to exploit entrepreneurial opportunities and on the perception of corporate management that there is a need for entrepreneurship at the particular moment in its development. From the perspective of top management, corporate entrepreneurship is not likely to be a regular concern, not an end in itself. Rather is it a kind of "insurance" against external disturbances or a "safety valve" for internal tensions resulting from pressures to create opportunities for growth.

Endnotes

1. For more details, see Veciana (1996).
2. Incubator units "are designed to infuse innovative developments into the corporation, to explore and pursue novel business opportunities, and to develop them into viable, profitable entities" (Schollhammer 1982, p. 216).
3. For more details, see Roberts (1980) and Veciana (1996).
4. This model inductively derived, is isomorphous to the variation-selection-retention model currently emerging as a major conceptual framework for explaining organizational survival, growth and development in organizations and environment in Aldrich, 1979 (Burgelman 1983).
5. The identification of the autonomous strategic behavior loop is the result of grounded theorizing efforts based on a field study of the internal corporate venturing process in the large, diversified firm (Burgelman, 1983, p. 1352).

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