

**A REVISED CONCEPTUAL MODEL OF THE FIRM-LEVEL
ENTREPRENEURIAL PROCESS**

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ABSTRACT

Research suggests that existing conceptualizations of firm-level entrepreneurship may not be sufficient in fully explaining the construct (Brown, Davidsson, & Wiklund, 2001; Brush, Manolova, & Edelman, 2008). In particular, there is little consensus regarding the organizational attributes that underlie the entrepreneurial act. This study integrates and extends existing conceptualizations to form a new theoretical framework for studying the firm-level entrepreneurial process. It is argued that three attributes: innovativeness, proactiveness, and strategic renewal, are necessary preconditions for firms to be considered truly “entrepreneurial.” The role that these three firm-level attributes play in generating important entrepreneurial outcomes is also considered.

Keywords: firm-level entrepreneurship, innovativeness, proactiveness, strategic renewal

INTRODUCTION

Firm-level entrepreneurship is recognized as offering various strategic benefits to organizations, including increased financial performance (Keh, Nguyen, & Ng, 2007; Wiklund & Shepherd, 2005; Zahra & Covin, 1995; Zahra & Garvis, 2000), heightened levels of organizational learning (Dess, Ireland, Zahra, Floyd, Janney, & Lane, 2003; Wang, 2008; Zahra, Nielsen, & Bogner, 1999), and the development of a

competitive advantage (Covin & Miles, 1999). Reflecting this fact, numerous conceptualizations and operationalizations of firm-level entrepreneurship have been offered in the entrepreneurship literature (Burgelman, 1983; Covin & Slevin, 1989; Guth & Ginsberg, 1990; Lumpkin & Dess, 1996; Miller, 1983). While these theories and measures have advanced the nature of research on this topic, there are still numerous issues that need to be addressed to enable future research on firm-level entrepreneurship to reach its

true potential (Brown, Davidsson, & Wiklund, 2001; Brush, Manolova, & Edelman, 2008; Davidsson, Low, & Wright, 2001; Zahra, Jennings, & Kuratko, 1999). Specifically, greater research attention is needed in determining the attributes underlying firm-level entrepreneurship that allow firms to develop a competitive advantage for their organization (Covin & Miles, 1999).

Consistent with the assumptions underlying the resource-based theory of the firm (RBT), entrepreneurial organizations utilize key resources and strategic activities in order to develop a competitive advantage (Alvarez & Busenitz, 2001). Extending the work of Covin and Miles (1999), there are four important outcomes that organizations generate through firm-level entrepreneurship. First, they can develop new products in order to capitalize on market trends, or they can enter existing markets that offer abundant opportunities. Second, they can develop new processes in order to better integrate their strategy within the organization's value chain (Dess et al., 2003). Third, they can utilize first-mover advantages to proactively create new markets that have not yet been realized or tapped by their competition. Fourth, firms can redefine their key strategies, ideas, and structures in an effort to take advantage of opportunities present in the external environment.

However, it is still unclear as to which organizational attributes are necessary components in enabling firms to achieve these four types of firm-level entrepreneurial outcomes. While these outcomes may be extensions of organizations having adopted an entrepreneurial mindset, it is still

necessary to determine the key attributes that must be present within an organization for it to actually be considered entrepreneurial. While researchers have elaborated on the potential attributes underlying firm-level entrepreneurship (i.e., Brown et al., 2001; Covin, Green, & Slevin, 2006; Lumpkin & Dess, 1996), there has been less agreement regarding the attributes that are fundamentally *necessary* in order for firm-level entrepreneurship to occur (Covin & Miles, 1999). That is, more clarity is needed regarding the fundamental and prerequisite attributes that allow firms to develop new products and processes, create new markets, and redefine their strategies and structures.

In order for future research on the topic of firm-level entrepreneurship to reach its true potential, a theoretically-grounded conceptualization of the key elements of this process is necessary. In this article, we adopt a mechanisms perspective to examine the relationship between the key attributes of firm-level entrepreneurship and four key entrepreneurial outcomes. Mechanisms help to explain how and why two sets of variables are linked with one another (Anderson et al., 2006). We argue that three attributes (i.e., innovativeness, proactiveness, and strategic renewal) are necessary components in allowing firms to consistently develop new products and processes, create new markets, and redefine their strategies and structures. As such, this study represents one of the first efforts aimed at establishing the link that exists between the necessary attributes of firm-level entrepreneurship and primary entrepreneurial outcomes. By integrating and extending existing theories of firm-level entrepreneurship, this study will provide a conceptual

framework that can be utilized in future research on the topic.

THEORETICAL DEVELOPMENT

Problems with Existing Conceptualizations

Two major impediments have plagued previous research efforts attempting to shed light on the firm-level entrepreneurial process. The first impediment has been the lack of a clear consensus regarding the essential attributes of the entrepreneurial process. This is particularly salient in that a general consensus regarding the necessary components of the entrepreneurial act has yet to emerge (Davidsson et al., 2001; Kuratko, Hornsby, & Goldsby, 2004; Tan, 2007). Symbolic of this ambiguity, several prominent scholars have argued for an expanded conceptualization of firm-level entrepreneurship (Lumpkin & Dess, 1996), while other researchers have argued for a more parsimonious framework to describe the construct (Covin & Miles, 1999). A second problem that needs to be addressed is the lack of integration of various key conceptualizations of firm-level entrepreneurship. While numerous conceptualizations and operationalizations of firm-level entrepreneurship are available in the literature, there has been less effort put forth toward tying together the salient arguments from these various viewpoints in order to arrive at an integrated framework (Sharma & Chrisman, 1999; Zahra, Jennings et al., 1999). In order to address these two impediments to existing conceptualizations, it is necessary to define the concept of firm-level

entrepreneurship and to review the competing views of firm-level entrepreneurship that currently exist in the organizational literature.

A Definition of Firm-level Entrepreneurship

The role that opportunities play in the entrepreneurial process is a key component of several existing conceptualizations of corporate entrepreneurship (Lumpkin & Dess, 1996; Stevenson & Jarillo, 1990). Shane and Venkataraman (2000) offered the most widely cited definition of entrepreneurship as opportunity-based behavior, arguing that the entrepreneurial act centered primarily around “how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Shane & Venkataraman, 2000: 218). Applying this reasoning to the firm level of analysis, firm-level entrepreneurship can be conceptualized as concerning *how and with what effects organizations discover, evaluate, and exploit opportunities to create future goods and services.*

This focus on opportunities is consistent with the resource-based theory of the firm. RBT postulates that organizations utilize key assets and resources in such a way as to build and maintain a competitive advantage for their firm (Barney, 1991; Hatch & Dyer, 2004; Wernerfelt, 1984). Consistent with RBT, one of the potential benefits of the entrepreneurial act is that it allows firms to utilize available resources to create and exploit opportunities to develop a competitive advantage (Ireland, Hitt, & Sirmon, 2003). As such, resources play a critical role in the creation and

exploitation of opportunities that occur as part of the firm-level entrepreneurial process (Alvarez & Busenitz, 2001). Specifically, RBT helps to explain the firm's "unique awareness of opportunities, the ability to acquire the resources needed to exploit the opportunity, and the organizational ability to recombine homogeneous inputs into heterogeneous outputs" (Alvarez & Busenitz, 2001: 771).

Competing Views of Firm-level Entrepreneurship

Having defined firm-level entrepreneurship, it is also necessary to review the key conceptualizations of firm-level entrepreneurship that currently exist in the organizational literature. Extant views of firm-level entrepreneurship can be grouped into three main categories: 1) Entrepreneurial Orientation, 2) Entrepreneurial Management, and 3) Venturing and Strategic Renewal.

Entrepreneurial Orientation

Miller (1983) argued that entrepreneurial firms exhibited three main attributes: innovativeness, risk-taking, and proactiveness. He theorized 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" (Miller, 1983: 771). Miller also argued that the level of entrepreneurship exhibited by a firm was the aggregate total of these three dimensions. According to Miller, a firm that was truly "entrepreneurial" would exhibit high scores on all three of these dimensions.

Covin and Slevin (1991) further clarified these three dimensions of entrepreneurial orientation as consisting of risk taking in the face of uncertainty, extensive and frequent product innovation, and a propensity to aggressively and proactively compete with rivals. Lumpkin and Dess (1996) expanded on the conceptualization of entrepreneurial orientation developed by Covin and Slevin (1988). Lumpkin and Dess (1996) argued that proactive firm behaviors and competitive aggressiveness represented distinct elements of entrepreneurial orientation.

Entrepreneurial Management

A second view of firm-level entrepreneurship, known as entrepreneurial management, was developed by Stevenson and Jarillo (1990). Similar to Shane and Venkataraman's (2000) more recent definition of entrepreneurship, Stevenson and Jarillo (1990) argued that the pursuit of opportunities was the central focus of the entrepreneurial act. As such, they defined firm-level entrepreneurship as the behaviors that occur when an organization "pursues opportunity, regardless of resources currently controlled" (Stevenson & Jarillo, 1990: 23). While recognizing the role that internal venturing played in the entrepreneurial act, Stevenson and Jarillo (1990) argued that an opportunity-based conception of entrepreneurial behavior was necessary to form a comprehensive view of firm-level entrepreneurship.

Brown et al. (2001) empirically tested the opportunity-based conceptualization developed by Stevenson and Jarillo (1990), as well as the entrepreneurial orientation scale developed by Miller

(1983). Their findings indicated that, while the two measures partially overlapped, each addressed unique elements of the entrepreneurial act. This suggested that “in order to get a complete assessment researchers should use both instruments” when measuring firm-level entrepreneurship (Brown et al., 2001: 965). A key component of the Stevenson and Jarillo (1990) framework was the extent to which firms proactively recognized and exploited opportunities (Brown et al., 2001).

Venturing and Strategic Renewal

A third conceptualization of firm-level entrepreneurship was offered by Guth and Ginsberg (1990). They argued that the entrepreneurial act consisted of two main components: venturing and strategic renewal. Venturing was “the birth of new businesses within existing organizations” and strategic renewal led to the “transformation of organizations through renewal of the key ideas on which they are built” (Guth & Ginsberg, 1990: 5). As such, this conceptualization of firm-level entrepreneurship captured a very dynamic element at the heart of the entrepreneurial act: the fact that organizations engaged in entrepreneurship were constantly enacting strategies aimed at finding successful new combinations of their existing resources (Guth & Ginsberg, 1990; Ireland, Kuratko, & Covin, 2003).

Zahra (1993) utilized a similar conceptualization of firm-level entrepreneurship in arguing that entrepreneurship embodied both venturing and strategic renewal. Zahra (1993) argued that a firm’s venturing activities were evidenced mainly through the creation of new businesses

or product, process, and technological innovations. Alternately, an organization’s renewal primarily involved “the redefinition of a firm’s mission through the creative redeployment of resources, leading to new combinations of products and technologies” (Zahra, 1993: 321). Drawing on the work of Schumpeter (1934), both Guth and Ginsberg (1990) and Zahra (1993) argued that one of the primary facets of the entrepreneurial act involved the utilization of new combinations of organizational resources and strategies in order to enhance firm performance.

Integrating the Key Conceptualizations of Firm-Level Entrepreneurship

Each of these three conceptualizations contributes a unique perspective to the study of firm-level entrepreneurship. If one looks at entrepreneurship from an opportunity-based perspective such as that posited by Shane and Venkataraman (2000), then firm-level entrepreneurship research should primarily be concerned with the manner in which organizations create and exploit environmental opportunities. These three perspectives (Entrepreneurial Orientation, Entrepreneurial Management, and Venturing/Strategic Renewal) highlight the roles that innovativeness, proactiveness, and strategic renewal play in allowing firms to create and exploit opportunities.

Innovativeness has been a key component of almost every previous framework attempting to capture the entrepreneurial act (Miller, 1983, Schollhammer, 1982; Tan, 2001; Woolley

& Rottner, 2008) and continues to be an area of interest in entrepreneurship research (Shih & Chang, 2008). Covin and Miles (1999: 47) claimed that “of the various dimensions of firm-level entrepreneurial orientation identified in the literature...innovation, broadly defined, is the single common theme underlying all forms of corporate entrepreneurship.” Schumpeter (1934) argued that innovation was the fundamental undertaking of the entrepreneurial organization. Such innovation is carried out through the creation and development of new products and processes. However, innovativeness itself is simply the proclivity of an organization to embrace novelty, to foster creativity, to tolerate new ideas, and to maintain an open outlook in regards to change.

The proactive pursuit of favorable opportunities has also played a key role in many conceptualizations of firm-level entrepreneurship (Lumpkin & Dess, 1996; Stevenson & Jarillo, 1990). Stevenson and Jarillo (1990) argued that entrepreneurial firms would pursue business opportunities that were deemed by the firm to be positive or favorable. This view is consistent with a definition offered by Lumpkin and Dess (2001), in which proactiveness is viewed as an “opportunity-seeking, forward-looking perspective” (Lumpkin & Dess, 2001: 431). As such, proactiveness represents an opportunity-seeking outlook whereby an organization places a high value on maintaining a leadership position in the industry.

Finally, strategic renewal has also been recognized as a key component of firm-level entrepreneurship (Guth & Ginsberg, 1990; Sharma & Chrisman, 1999; Zahra, 1993). Guth and Ginsberg

(1990) noted that the renewal of “key ideas on which organizations are built...reflects the process of corporate entrepreneurship; renewal of key ideas requires the ability to manage transformation and discontinuous change” (Guth & Ginsberg, 1990: 5). Strategic renewal leads to the transformation of key organizational ideas and structures, which allows an entrepreneurial organization to alter its relationship with the external environment and to exploit environmental opportunities (Sharma & Chrisman, 1999; Verbeke, Chrisman, & Yuan, 2007). However, strategic renewal itself represents the willingness of a firm to examine its internal strategies and structures and an openness to modify these strategies and structures if necessary.

Firm-Level Entrepreneurial Outcomes

While the preceding discussion illustrates the various strategic attributes that may be associated with firm-level entrepreneurship, it is also important to consider the outcomes that these attributes allow entrepreneurial firms to achieve. That is, the presence of entrepreneurship at the firm-level may be reflected by four strategic outcomes: 1) Sustained regeneration, 2) Organizational rejuvenation, 3) Domain redefinition, and 4) Strategic transformation (Covin & Miles, 1999; Dess et al., 2003).

Sustained Regeneration

Sustained regeneration involves the cultures, processes, and structures that firms utilize in order to continuously introduce new products and services and enter into new markets (Covin & Miles,

1999; Dess et al., 2003). As such, it accentuates the “ongoing stream of new products and services or new market introductions intended to capitalize on latent or under-exploited market opportunities using the firm’s valued innovation-producing competencies” (Covin & Miles, 1999: 51). By developing new products and entering new markets, organizations are able to exploit opportunities before their competitors. Therefore, the primary manifestation of sustained regeneration in entrepreneurial organizations is evidenced through the introduction and utilization of new product innovations, as well as the entrance into new product markets (Schollhammer, 1982).

Organizational Rejuvenation

Organizational rejuvenation is concerned with the organizational development of new processes or the altering of existing processes in order to capture or create valuable market opportunities (Covin & Miles, 1999). Instead of being focused on new *product* innovations (as was the case with sustained regeneration), the focus of organizational rejuvenation is on *process* innovations. Through the demonstration of “process and administrative innovations rather than product innovations, organizational rejuvenation shows that firms can become more entrepreneurial through processes and structures as well as by introducing new products and/or entering new markets with existing products” (Dess et al., 2003: 355). Therefore, the primary manifestation of organizational rejuvenation in entrepreneurial organizations is evidenced through the introduction of new process innovations as a means of

creating and exploiting opportunities (Stopford & Baden-Fuller, 1990).

Domain Redefinition

Domain redefinition is the proactive creation of a new product-market that competing firms have not yet recognized or exploited (Covin & Miles, 1999; Dess et al., 2003). In essence, domain redefinition involves the process whereby an “organization proactively creates a new-product market arena that others have not recognized or actively sought to exploit. By engaging in domain redefinition the firm, in effect, takes the competition to a new arena where its first or early mover status is hoped to create some bases for competitive advantage” (Covin & Miles, 1999: 54). Instead of solely looking to exploit external opportunities, firms that partake in domain redefinition are actively seeking to create new opportunities for themselves. Therefore, the primary manifestation of domain redefinition in entrepreneurial organizations is evidenced through the creation of a new product-market in order to create a market opportunity that previously did not exist (Lumpkin & Dess, 2001).

Strategic Transformation

Strategic transformation involves the redefinition and transformation of key ideas and structures within an organization. The emphasis of strategic transformation is on allowing organizations to redefine themselves in such a way as to take advantage of opportunities present in the external environment. The process of strategic transformation thus creates a process where the “nature of rivalry with

competitors is altered as the firm concentrates on renewing the strategies it uses to successfully align itself with the external environment” (Dess et al., 2003: 355). By changing their strategies, firms engaged in strategic transformation are essentially able to change the way that they compete in a particular industry or environment (Covin & Miles, 1999). Therefore, the primary manifestation of strategic transformation in entrepreneurial organizations is evidenced through the transformation of organizational strategies and ideas in an effort to exploit environmental opportunities (Sharma & Chrisman, 1999).

Integrating the Outcomes of Firm-Level Entrepreneurship

These four outcomes (sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation) are consistent with Shane and Venkataraman’s (2000) opportunity-based definition of entrepreneurship. Through the incidence of sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation, entrepreneurial firms are able to create and exploit environmental opportunities. Specifically, the development of new products and the entrance into new markets (sustained regeneration), the introduction of new process innovations (organizational rejuvenation), the creation of new product-markets (domain redefinition), and the transformation of key organizational strategies and ideas (strategic transformation) allow entrepreneurial organizations to create new environmental opportunities, as well as

to exploit existing opportunities for their firms.

THE FIRM-LEVEL ENTREPRENEURIAL PROCESS

A New Framework

A sufficient framework for delineating firm-level entrepreneurship should take into account both the strategic attributes and entrepreneurial outcomes that are associated with the creation and exploitation of opportunities. Fortunately, instead of being contradictory in nature, the key attributes of firm-level entrepreneurship posited in the extant literature, as well as the key firm-level entrepreneurial outcomes theorized in more recent research, are quite consistent with one another. As discussed in the section on existing views of entrepreneurship, the three main attributes that cut across previous conceptualizations are innovativeness, proactiveness, and strategic renewal. These three strategic attributes form a perfect match with the four outcomes often associated with firm-level entrepreneurship.

Specifically, the presence of innovativeness is a necessary component in enabling firms to benefit from sustained regeneration and organizational rejuvenation. Sustained regeneration creates value for firms through new product development and entrance into new product markets. However, it is the presence of innovativeness that allows firms to effectively match customer needs and to determine suitable product markets for firms to enter (Miller, 1983). As previously discussed, innovativeness represents an organizational willingness to embrace change and to be open to

new ideas. Firms are not likely to effectively utilize sustained regeneration activities if they have not first developed a proclivity towards innovativeness. Likewise, organizations that embrace innovativeness will be more likely to benefit from the practice of organizational rejuvenation. Firms displaying organizational rejuvenation capture valuable market opportunities by developing new processes and altering existing processes (Covin & Miles, 1999). Innovativeness serves as the primary vehicle through which firms are open to capturing these market opportunities, thus enabling entrepreneurial organizations to experience strategic benefits through the process of organizational rejuvenation. As such, an orientation towards innovativeness is a primary factor in enabling the organizational development of new products (sustained regeneration) and new processes (organizational rejuvenation).

Proposition 1: *Innovativeness is the primary organizational attribute that enables the outcome of sustained regeneration.*

Proposition 2: *Innovativeness is the primary organizational attribute that enables the outcome of organizational rejuvenation.*

The presence of a proactive orientation is a necessary component in allowing firms to effectively engage in domain redefinition. Firms are able to create a competitive advantage through domain redefinition by exploiting markets that have not yet been recognized by other organizations. The process of recognizing new market opportunities and then capturing those opportunities

is essential to the ability of the firm to continuously create a new product-market. As previously discussed, proactiveness represents an opportunity-seeking posture whereby organizations adhere to a philosophy of market leadership. Firms that are not proactive in orientation are unlikely to be first movers into new markets, thus limiting their ability to exploit available opportunities before their competitors (Lumpkin & Dess, 2001). This suggests that the willingness of firms to recognize opportunity and capitalize on available opportunities in the market before competition is essential for domain redefinition to occur. Following this logic, proactiveness is an orientation towards seeking out and recognizing emerging opportunities and domain redefinition is the actual ability of the organization to capture new product markets before the competition. Thus,

Proposition 3: *Proactiveness is the primary organizational attribute that enables the outcome of domain redefinition.*

The presence of strategic renewal is a necessary component in allowing firms to achieve meaningful strategic transformation. As discussed above, strategic renewal is the willingness of a firm to examine its internal strategies and structures. Dess et al. (2003) argued that firms achieve strategic transformation by redefining their strategies and structures in order to align themselves with their external environment. By realizing this strategic fit with the external environment, organizations better position themselves to exploit environmental opportunities. The willingness of an organization to alter itself enables it to achieve a fit with

its environment through strategic transformation. However, firms that do not possess an orientation towards strategic renewal will not be willing to adapt or to align themselves with a dynamic and changing environment (Covin & Miles, 1999). Thus, organizations possessing an inclination towards strategic renewal will foster strategic change and the altering of strategic objectives. Strategic renewal thus acts as a catalyst in encouraging organizations to strategically transform themselves to fit their external environment.

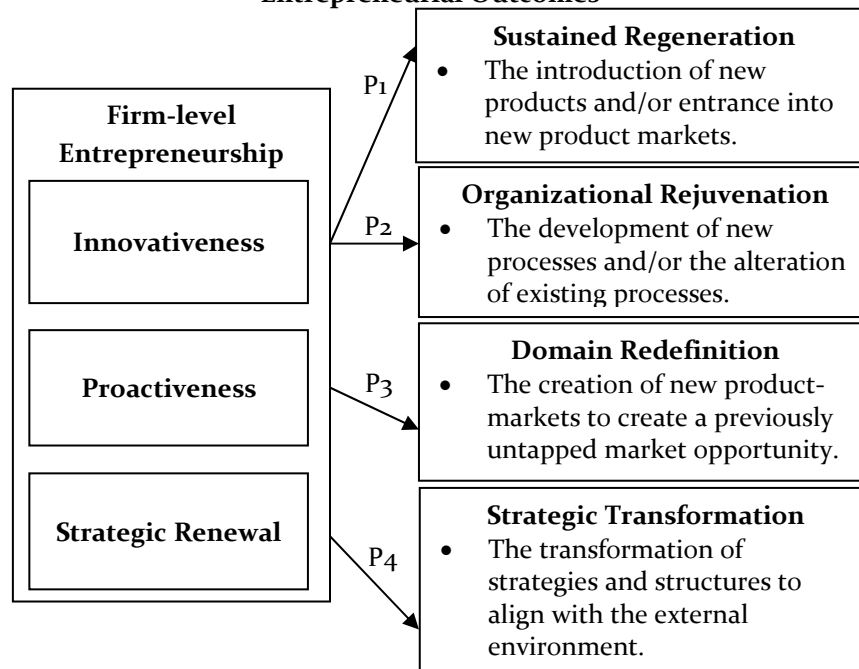
Proposition 4: *Strategic renewal is the primary organizational attribute that enables the outcome of strategic transformation.*

While entrepreneurial firms utilize sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation in order to

create a competitive advantage for the organization (Covin & Miles, 1999), it is unlikely that these outcomes will actually culminate in a competitive advantage if the organization has not first developed its attributes of innovativeness, proactiveness, and/or strategic renewal. The primary antecedent of effective sustained regeneration and organizational rejuvenation is innovativeness, the primary antecedent of effective domain redefinition is proactiveness, and the primary antecedent of effective strategic transformation is strategic renewal.

Building on these arguments, a new theoretical conceptualization of firm-level entrepreneurship should consist of three attributes: innovativeness, proactiveness, and strategic renewal. Figure 1 displays the relationship between these three strategic attributes and the four primary entrepreneurial outcomes.

Figure 1: Relationship Between Firm-level Entrepreneurial Attributes and Key Entrepreneurial Outcomes



*** Numbers included (P1, P2, P3, and P4) correspond with propositions in the text.

Elements Not Included in this Conceptualization

Several attributes that were present in earlier conceptualizations of firm-level entrepreneurship were not included in this framework. First, risk-taking is not included as a necessary component of firm-level entrepreneurship. The concept of risk-taking has received an increasing amount of scrutiny in recent entrepreneurship research (Alvarez, 2007; Alvarez & Barney, 2005). This scrutiny is the result of theoretical and empirical ambiguity surrounding the inclusion of risk-taking as a component of the firm-level entrepreneurship construct. The theoretical underpinnings of these arguments were initially suggested by Knight (1921) and more recently renewed by Alvarez (2007). These authors emphasize the difference between risk and uncertainty, pointing out that risk is decision-making when the probability of an outcome is known, whereas uncertainty is decision-making when this probability is unknown. As such, uncertainty deals with a lack of perfect information, while risk deals with the probability of failure. A higher degree of risk thus connotes a higher known likelihood of failure. As the probability of success resulting from a particular strategic move goes up, the degree of risk associated with that strategy is decreased. Following these definitions, entrepreneurial decision-making normally takes place under conditions of uncertainty rather than conditions of risk. In fact, Alvarez (2007) points out the “growing agreement that one of the most important differences between non-entrepreneurial and entrepreneurial decision-making is that the former takes

place under conditions of risk, while the latter takes place under conditions of uncertainty” (Alvarez, 2007: 429). This is a significant distinction given that entrepreneurs tend to be more optimistic about the business situations that they pursue than non-entrepreneurs and “may not think of themselves as being any more likely to take risks than non-entrepreneurs” (Palich & Bagby, 1995: 426). So it appears that entrepreneurial firms may in fact be more willing to tolerate ambiguous and uncertain situations than non-entrepreneurial firms, but may not necessarily be any more willing to take risks.

Second, competitive aggressiveness was not included as a dimension of firm-level entrepreneurship in this framework. Although Lumpkin and Dess (1996) have convincingly argued that competitive aggressiveness and proactiveness are separate constructs, it is less clear why competitive aggressiveness is a necessary part of a framework of firm-level entrepreneurship. Such as with risk-taking, it may be true that entrepreneurial firms are more willing than other types of firms to engage in competitive behaviors. However, if Shane and Venkataraman’s (2000) definition of entrepreneurship as the creation, discovery, and exploitation of market opportunities is correct, then competitive aggressiveness may be a potential, but not *necessary*, component of the entrepreneurial act. These theoretical concerns are exemplified by recent studies that have not included competitive aggressiveness as a distinct element of firm-level entrepreneurship (Covin et al., 2006; Green, Covin, & Slevin, 2008). In summary, it is argued

here that aggressive competition with rival firms and risk-taking behaviors should not be considered as prerequisites when determining and evaluating the presence of firm-level entrepreneurship. Rather, these variables should be considered as optional behaviors utilized to enhance entrepreneurial behavior.

Measuring the New Framework

Previous research on the topic of firm-level entrepreneurship has not made a clear distinction between the strategic attributes underlying firm-level entrepreneurship and the outcomes that entrepreneurial firms typically achieve. In other words, if we assume that firm-level entrepreneurship consists of the organizational creation and exploitation of opportunities, research is still needed to assess the fundamental attributes that allow firms to create and exploit those opportunities. To simply say that a firm that was profitable last year “made more money than it lost” does not underscore the process of how that firm was actually able to achieve profitability. Likewise, to simply say that an entrepreneurial firm creates and exploits opportunities does not offer much insight into the attributes that preceded these entrepreneurial outcomes. Therefore, this framework is not as concerned with offering a new definition of firm-level entrepreneurship as it is with defining *how* the process underlying firm-level entrepreneurship actually occurs within organizations. If firm-level entrepreneurship is focused on the creation and exploitation of opportunities, then the process of firm-level entrepreneurship consists of the attributes and outcomes associated with the creation and exploitation of opportunities.

These arguments suggest several issues that should be considered in future research intended to capture the entrepreneurial process that occurs within organizations. First, it has been argued that firm-level entrepreneurship should be viewed as consisting of three attributes: innovativeness, proactiveness, and strategic renewal. Second, it has been argued that these three attributes enhance the ability of firms to generate four entrepreneurial outcomes: sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation. This distinction underscores previous concerns that have been raised by researchers regarding whether firm-level entrepreneurship should be measured as a disposition or a behavior (Zahra, Jennings et al., 1999). Our arguments would lend support to modeling the three main attributes of firm-level entrepreneurship as primarily dispositional in nature and the four main outcomes of firm-level entrepreneurship as primarily behavioral in nature. Since the primary focus of this conceptualization of firm-level entrepreneurship is to capture the true essence of the entrepreneurial act, future research on the topic should be focused on both the organizational dispositions and the strategic behaviors that distinguish entrepreneurial firms from non-entrepreneurial firms.

A variety of methodological perspectives can be fruitfully employed in future research efforts on the topic of firm-level entrepreneurship. Qualitative, survey, and archival methods can all be effectively utilized to study the firm-level entrepreneurial process. Interviews, case studies, and other qualitative techniques can be utilized to

assess the manner in which entrepreneurship unfolds within organizations. For example, interviews with the key decision-makers within different firms might provide very important insights into the strategic goals and objectives of entrepreneurial organizations, as well as the manner in which these firms attempt to achieve these goals and objectives. Survey data can be utilized to measure both dispositions towards firm-level entrepreneurship (i.e., innovativeness, proactiveness, and strategic renewal) and outcomes associated with entrepreneurship. Archival data can be utilized to examine the incidence of the four primary entrepreneurial outcomes explored in this study. For example, the number of patents can be utilized as an archival indicator of sustained regeneration activities (i.e., product innovation). Utilizing all three of these techniques (qualitative, survey, and archival) would help to provide a more comprehensive and richer understanding of the firm-level entrepreneurial process.

CONTRIBUTIONS AND LIMITATIONS

The framework for studying the firm-level entrepreneurial process developed in this study offers several important contributions to the organizational literature. First, this framework has integrated the key elements of several commonly utilized conceptualizations of firm-level entrepreneurship. Specifically, the primary attributes of three key conceptualizations of firm-level entrepreneurship were combined with more recent theoretical arguments espousing four key outcomes related to the entrepreneurial act. The distinction

between firm-level entrepreneurial outcomes, and the necessary attributes that underlie these outcomes, was also discussed. As such, this framework has provided an integrated view into the manner that the entrepreneurial process exhibits itself within the organizational setting. Second, the ability of this framework to integrate existing views has made it more comprehensive in nature, while the framework is still parsimonious enough to be easily measured. Third, this conceptualization is focused on both dispositions (attributes) and behaviors (outcomes), a fact that addresses concerns related to previous frameworks that were not consistent in what they claimed to measure. Fourth, the major components of this framework can be easily assessed in future research efforts, and this study has offered several suggestions regarding how such studies could be conducted.

The role that innovativeness, proactiveness, and strategic renewal play in the firm-level entrepreneurial process has important ramifications for managers. It has been argued that firm-level entrepreneurship helps organizations to develop a competitive advantage (Covin & Miles, 1999) and produces other important strategic benefits for firms (Dess et al., 2003). This manuscript combines numerous studies examining the components of entrepreneurship at an organizational level into a single model. This model suggests organizations should take great care in developing their proclivity towards innovativeness, proactiveness, and strategic renewal. By so doing, they will be able to more effectively utilize sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation as a means of

developing a competitive advantage in relation to rival firms.

This framework also has important research implications. While sustained regeneration, organizational rejuvenation, domain redefinition, and strategic transformation are important outcomes in helping firms develop a competitive advantage, there are certain strategic attributes that encourage firms to display these four outcomes. It has been argued that innovativeness, proactiveness, and strategic renewal should be considered fundamental attributes in considering firms to be entrepreneurial in nature. As such, future research studies on the topic of firm-level entrepreneurship should be set up to include these three attributes. The suggestions offered in this study regarding appropriate methodological techniques when studying these three attributes provide a first step in aiding such research efforts and support the use of triangulation in order to more comprehensively model the construct of firm-level entrepreneurship.

There were several potential limitations of this framework. First, the conceptualization of the firm-level entrepreneurial process developed in this study still needs to be empirically tested. Future research aimed at developing appropriate measurement tools would help provide support for the theoretical arguments contained in this study. This study suggested several measurement issues that a new operationalization of the firm-level entrepreneurial process should address, such as the key strategic attributes that should be included in a new conceptualization and ideas regarding how these attributes can most effectively be measured. Second, although this

conceptualization of firm-level entrepreneurship has integrated several previous frameworks, it is still necessary to empirically test the discriminant and convergent validity of this framework in relation to other important conceptualizations and measures, such as those offered by Miller (1983), Guth and Ginsberg (1990), and Stevenson and Jarillo (1990).

In conclusion, this study has offered important insights into the entrepreneurial process that occurs within organizations. Consistent with Shane and Venkataraman's (2000) definition of entrepreneurship as the creation and exploitation of environmental opportunities, it has been argued that innovativeness, proactiveness, and strategic renewal serve as the underlying factors in supporting such outcomes. Therefore, any future conceptualization of the firm-level entrepreneurial process should take into account the role that innovativeness, proactiveness, and strategic renewal play in the entrepreneurial process. Further, this study has offered several suggestions regarding how such a conceptualization of the firm-level entrepreneurial process could be assessed. The study of firm-level entrepreneurship has played a prominent role in the organizational literature during the past several decades, and in order to promote future meaningful research on the topic, it is necessary for accurate and parsimonious conceptualizations and operationalizations of the entrepreneurial process to be available to researchers. Further, given the evidence of a clear link between entrepreneurship and increased firm performance, this study provides a clear agenda for practicing managers.

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