The Founder Performance Relationship: Experience-Related Founder Antecedents and Moderators of New Venture Performance

Bob Kolodinsky (STUDENT)
Florida State University
College of Business, Department of Management
Tallahassee, Florida 32306-1110
O: (850) 644-9735
rwk8786@garnet.acns.fsu.edu

Paul Simmonds
Florida State University
College of Business, Department of Management
Tallahassee, Florida 32306-1110
O: (850) 644-8205
psimmon@garnet.acns.fsu.edu

The Founder Performance Relationship: Experience-Related Founder Antecedents and Moderators of New Venture Performance

Abstract

The study of entrepreneurship and new venture performance has grown rapidly in the past four decades. The link between those who start new firms and eventual firm performance has been the focus of mostly trait-related studies. However, conclusive research on linkages between performance and other founder antecedents has been scarce. A model is presented offering three experience-related founder antecedents that are suggested to have strong differential effects on firm performance. These include role diversity, strategic process capacity, and entrepreneurial intensity. Firm resources and the degree of munificence in a new venture's environment moderate the effects of these antecedents.

Introduction

New firm births and the subsequent performance of such ventures are important issues to business owners, financiers, public policy makers, educators, and researchers (Carter, Stearns, Reynolds, and Miller, 1994; Chandler and Hanks, 1994). New venture growth has been determined to be a critical source of new jobs, as well as an important factor in market economy variation and regional development (Reynolds and White, 1997). In addition, the entrepreneurial activity that leads to new venture creation helps prevent economic decline and fuels overall economic growth (Reynolds and White, 1997).

Coincident with the rapid growth in new venture research has been an equally impressive amount of research focused on those who found new ventures, often labeled ‘entrepreneurs’ (Schumpeter, 1934; Bygrave and Hofer, 1991). Entrepreneurship research is less than forty years old and is among the youngest paradigms in the management sciences (Bygrave, 1989a). While much empirical work has been done in entrepreneurship, it has primarily been in cross-sectional studies and commonly failed to operate from any theoretical foundation (Bygrave, 1989a). The lack of advanced research progress may be due in part to the seemingly consensus view that the entire field of entrepreneurship is quite complex, has no great theories, has fragile models, and has constantly changing parameters (Bygrave, 1989a). Moreover, consensus on such fundamental issues as definitions have not been reached (Bygrave, 1989a; Gartner, 1988; Lumpkin and Dess, 1996; Wortman, 1987).

Despite the growing volumes of research conducted on both organization-level and individual-level new venture variables, much of that exploration has been focused on industry or environment related issues. With the exception of personality related research, there has been a marked lack of research focused on those individuals founding new ventures (Chandler & Hanks, 1994). The small amount of research performed with non-trait related founder variables has often resulted in mixed or inconclusive findings (Begley and Boyd, 1987; Gartner, 1988; Stuart and Abetti, 1990).

The purpose of this paper is to offer a new model of non-trait related variables affecting the founder-performance relationship. It is posited that better understanding of certain founder antecedent variables will enhance the predictability of new venture performance. Such enhanced predictability will have important implications for each of the previously mentioned stakeholders, as well as for the well being

of many of the world's market economies. The variables proposed relate directly to the founder's prior experience. It is also suggested that firm resources and environmental conditions moderate the effects of these antecedent conditions. Should a founder's previous experience been exclusively at one firm making the same repeatedly myopic strategic decisions, the founder is likely to have a significantly different impact on a new venture's performance than a founder with a more varied and rich strategic experience. Specifically, the following research questions are considered*: Will certain experience-related founder variables affect differential new venture performance? Do firm resources and environmental conditions moderate the founder-performance relationship?*

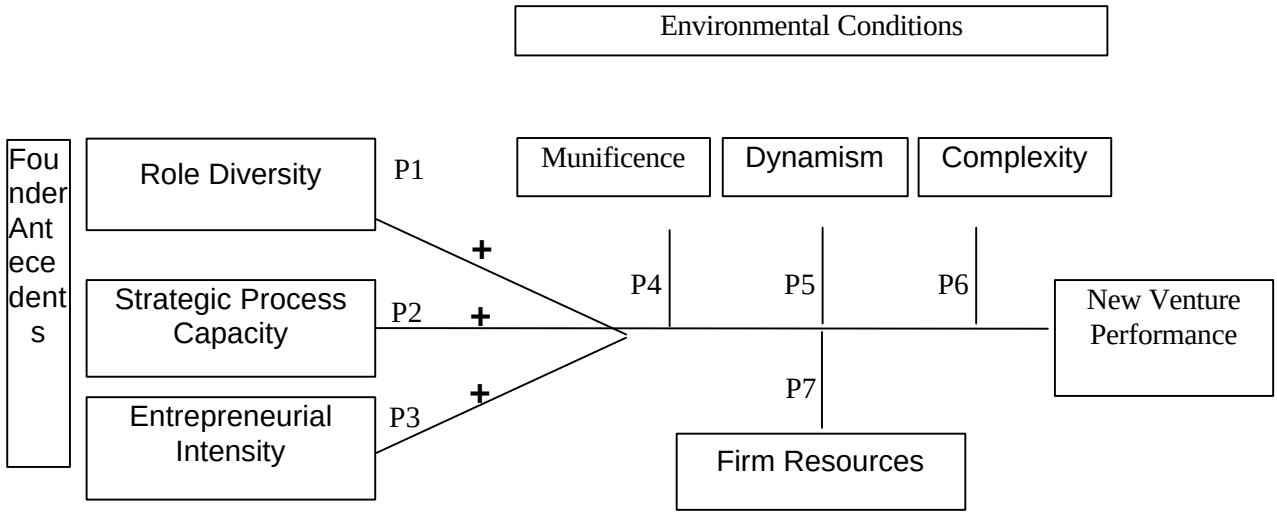
A Model of the Founder-Performance Relationship

Bygrave (1989b, 1993) has offered chaos theory to describe the entrepreneurial process. Chaos theory asserts that small incremental differences on a pertinent firm-related issue at time 1 can produce drastically and disproportionately massive result distinctions at time 2 (Bygrave, 1989b). Entrepreneurship has been described as a most difficult field in which to perform research, in part because entrepreneurial ventures are typically nonlinear systems which "are potentially fraught with problems if we try to make predictions about their future behavior" (Bygrave, 1993). Since the founder of a new venture is the starting point from which the entrepreneurial opportunity springs, the assumption here is that incremental differences in various founder-related experience will produce vastly disproportional firm results over time.

There has been a paucity of studies examining the founder-performance relationship, and even less on founder experience-performance models. However, there are a few exceptions. In a study of internal entrepreneurship at 37 companies, Sykes (1986) found a strong positive relationship between experience of the lead manager and financial performance. A study by Vesper (1980) found wide variety of functional experience and prior entrepreneurial experience to be strong indicators of successful performance. Stuart and Abetti (1987), in a study of 24 technical firms, found a strong correlation between experience and initial new venture success. In another study of new technical ventures, Stuart and Abetti (1990) explored age, education, and various dimensions of experience of the entrepreneur and, where applicable, the entrepreneurial team. While age, education, and the amount of years of experience were not found to be positive indicators of performance, the variety and types of experience, including the number of previous ventures started and variety of roles played in such new firms, were highly significant performance indicators.

Three critical non-trait related founder antecedent factors are key to new venture performance. These experience-related factors include the roles founders have previously experienced ('role diversity'), prior strategic process abilities ('strategic process capacity'), and degree of prior entrepreneurial activity experienced by the founder ('entrepreneurial intensity'). The effects of these three factors on new venture performance are moderated by environmental conditions in which the new venture competes and the new venture's available resources. The model of the proposed relationships is shown in Figure 1.

Figure 1: Founder Antecedents and Moderators of New Venture Performance Model



Role Diversity

The roles of founders and other organizational decision-makers have received much attention in the literature (Chandler and Jansen, 1992; Miles and Snow, 1978; Miner, 1997; Mintzberg and Waters, 1982, 1985; Schein, 1987). The three founder roles most prominently mentioned in the literature include the entrepreneurial, managerial, and technical-functional roles. These three roles address Miles and Snow's (1978) three major problems that must continually be solved by management: entrepreneurial, administrative, and engineering problems. In order to succeed in their new ventures, it has been suggested that successful founders must be adept at solving such problems by assuming each of the above roles (Chandler and Jansen, 1992).

In the entrepreneurial role, new venture founders perform environmental scans, choose from various promising opportunities, and develop strategies (Mintzberg and Waters, 1982; Thompson and Strickland, 1989). Various key competencies are associated with the entrepreneurial role, and include recognizing and envisioning taking advantage of opportunities (Timmons, Muzyka, Stevenson, and Bygrave, 1987) and then selecting high quality opportunities to pursue (Hofer and Sandberg, 1987). Other key competencies include possessing drive, willingness to work long, hard hours (Hofer and Schendel, 1987), and a capacity for intense effort (MacMillan, Siegel, and Narisimha, 1985). Miles and Snow (1978) suggested that the entrepreneurial problem is marked by the concrete conceptualization of an entrepreneurial insight or opportunity. Its solution is characterized by the acceptance of the viability of pursuing such an opportunity and commitment of resources toward achieving such objectives. Founders able to accurately conceptualize an opportunity and then commit the necessary resources in order to solve such a problem are in a position to effectively fill the entrepreneurial role.

The managerial role is another important role new founders must fill. According to Chandler and Jansen (1992), this requires managerial competence in at least three areas. The first is conceptual

competence, which is the cognitive ability to coordinate various organizational interests and activities (Pavett and Lau, 1983; Shein, 1987). The second is human competence, which is the ability to work well with people, individually and in groups (Pavett and Lau, 1983). Human competence includes leadership (MacMillan et al., 1985) and the ability to communicate goals and motivate others (Hofer and Sandberg, 1987). The third is political competence, which involves the ability to build a power base and to establish effective connections (Pavett and Lau, 1983), particularly with those who can provide valuable resources important to the new venture (Aldrich, Rosen, and Woodward, 1987). Problems encountered in the managerial role include the reduction of uncertainty with the organizational system brought about by the solution to the engineering problem, and the need to “successfully solve problems faced by the organization during the entrepreneurial and engineering phases” (Miles and Snow, 1978: 22). Additional administrative functions which must be performed in order for the organization to continue to innovate include various tasks of formulation and implementation of the entrepreneurial and engineering processes described in this section. Founders who have previously encountered and solved such problems in prior work roles are more likely to effectively fill the managerial role in a new venture.

The third critical founder role is the technical-functional role, which involves founder competence in using "the tools, procedures, and techniques of a specialized field" (Chandler and Jansen, 1992: 226). Contrary to suggestions made in early research studies that technical skills are important mostly to lower level managers (Katz, 1974), findings have shown that such skills serve important functions at all levels of management (Pavett and Lau, 1983). Miles and Snow (1978) posited that solving the entrepreneurial problem involved the development of a system that involved selection of appropriate technology and “linkages to ensure proper operation of the technology” (: 22). They referred to such a challenge as the engineering problem. Founders who have solved such engineering or technical problems in prior work organizations are better able to fulfill such a role in a new venture.

Since these three roles are critical to the success of all organizations, and in particular new ventures, to the extent that a founder has previously engaged in each of these roles and solved such problems (Miles and Snow, 1978), higher new venture performance should result. Therefore:

Proposition 1:The greater the number of roles a founder has previously engaged in, the higher the new venture performance.

Strategic Process Capacity

The successful company founder at the coming turn of the twenty-first century will need to be extremely flexible strategically (Womack, Jones, and Roos, 1990) using effective strategic processes to maximize organizational capabilities (Chakravarthy and Doz, 1992; Senge, 1990). Many authors have explored strategy-making processes (Ansoff, 1987; Hart, 1992; Miles and Snow, 1978; Mintzberg, 1973, 1978; Mintzberg and Waters, 1985) which often have been too simply dichotomized into "either / or" factors (Hart and Banbury, 1994). For example, strategies have been suggested to be either rational or incremental strategies (Fredrickson, 1984; Linblom, 1959) or formulation or implementation activities (Andrews, 1971; Porter, 1980). Others have suggested a normative ideal (Hart, 1992) for strategy making, such as Quinn's (1978) concept of logical incrementalism.

Of the many strategic process models explored, most have taken shape during the past thirty years with delineated typologies often viewed as mutually exclusive (Hart and Banbury, 1994). These include Mintzberg's (1973) entrepreneurial, planning, and adaptive modes of strategy, Bourgeois and Brodwin's

(1984) Commander, Change, Cultural, Collaborative, and Crescive modes, and Ansoff's (1987) systematic, *ad hoc*, reactive, and organic strategy modes.

Despite such abundance of strategy process models, little empirical work has been performed on strategic processes (Hart and Banbury, 1994), particularly for new ventures. An exception is a study by Romanelli (1989) which found a positive link between survival rates of new ventures and flexibility of organizational strategies employed by such new firms.

A recent strategic process model (Hart, 1992) has been tested with intriguing findings (Hart and Banbury, 1994). Hart's (1992) model consists of the following five strategy-making modes: command, symbolic, rational, transactive, and generative. The model is based on the varying roles strategy-makers play, and posits that these five modes are not mutually exclusive but rather interactive. Hart (1992) agreed with Venkatraman and Ramanujam's (1986) assertion that firm performance is a multidimensional construct, and matched some of the strategy-making modes with specific performance dimensions (the transactive mode is positively associated with quality and social responsibility). Moreover, Hart (1992) asserted that firms using multiple strategy-making modes would have positive performance on more performance-related dimensions than would firms using singular modes. Some support for this position was found by Hart and Banbury (1994), when they examined the proposition that the more firms develop capability in multiple modes, coined 'high process capacity' (Hart, 1992: 345), the better will be their performance.

Given the above organizational level findings, a strong individual level argument can be made for those who start and run new ventures. Those individuals whose prior experiences have been in more than one strategy-making mode will likely be able to influence their new firms' performance on more dimensions. For example, a firm in which the founder has strategy-making experience with both the symbolic and transactive modes would combine "a dedication to a shared vision and mission (symbolic) with a strong learning orientation (transactive). Such a firm should perform well in terms of growth, quality, and future positioning" (Hart, 1992: 345). In contrast, according to Hart (1992), a new venture run by a founder whose experience has been restricted to just the rational mode may cause the new venture to be focused primarily on strong profitability while ignoring other key performance criteria (growth; future positioning, quality; social responsibility). In summary, founder strategy-making mode experience will affect new venture performance. Therefore:

Proposition 2: The greater the number of strategy-making modes a founder has experienced, the higher the new venture performance.

Entrepreneurial Intensity

Previously explored as an organization-level variable, entrepreneurial intensity refers to the frequency and degree of entrepreneurial activity undertaken by a firm (Keats and Bracker, 1988; Morris and Sexton, 1996). According to Morris and Sexton (1996), frequency refers to *how often* a firm engages in entrepreneurial activities. Degree refers to *how much* - the degree to which a firm uses innovation, takes risks, and is proactively seeking entrepreneurial activity.

The literature supports the increased usage of the entrepreneurial intensity concept (Schaefer, 1990; Cheah, 1990; Covin and Slevin, 1990, 1991). In a study of factors that contributed to new venture success, Stuart and Abetti (1987) described a firm's "organic emphasis" as the degree to which a firm exhibits innovative, risk-taking, and proactive behaviors; and "entrepreneurial level" as the degree to which a firm's management demonstrated entrepreneurial personality characteristics. A previous study further

illustrates the importance of the entrepreneurial intensity construct. In a study by Miller and Friesen (1983), entrepreneurial intensity was found to be significant on several performance measures, each related to growth of new ventures.

Similar results should be true for founders with prior entrepreneurial intensity experience. Entrepreneurial intensity can be used to characterize different types of entrepreneurs (Keats and Bracker, 1988), and organizational performance can be affected by such intensity (Morris and Sexton, 1996). Prior to founding a new venture, an individual who has often engaged in such behaviors as innovativeness, risk-taking, proactivity, autonomy, and competitive aggressiveness (Lumpkin and Dess, 1996) should be better suited to deal with the inevitable complexities encountered during the critical early legitimacy phase. Hence, founders with greater degrees of past entrepreneurial experience should be able to more positively affect new venture performance. Therefore:

Proposition 3: The greater the founder's prior entrepreneurial intensity, the higher the new venture performance.

Moderating Effects

While each of the above founder antecedents have a strong positive effect on new venture performance, it is also suggested that certain factors moderate these relationships. According to Freeman (1982), new ventures typically have a difficult time surviving their early years. This was referred to as the "liability of newness" by Stinchcombe (1965) in part because of the many contingencies that must be negotiated in order to survive. Moderators have received much attention in the entrepreneurship literature (Box, White, and Barr, 1994; McCann, 1991; Murphy, Trailer, and Hill, 1996; Romanelli, 1989; Zahra, 1991). While an exhaustive list of moderators is beyond the scope of this expose, moderators may generally be classified as external to the firm (environmental conditions) and internal to the firm (firm resources). These two categories and their effect on the founder antecedents-new venture performance relationship is addressed next.

Environmental Conditions

The relationship between an organization and its environment has been widely studied (Astley and Van de Ven, 1983; Burgeois, 1980, 1985; Brittain and Freeman, 1980; Carroll, 1985; Hannan and Freeman, 1977; Hrebiniak and Snow, 1980; Miles and Snow, 1984; Miller, 1991, 1992; Naman and Slevin, 1993; Romanelli and Tushman, 1986). Dess and Beard (1984) identified three key dimensions of a firm's environment: munificence, dynamism, and complexity. Environmental munificence is the level (or degree) of resources in a given environment (Castrogiovanni, 1991; Specht, 1993; Dess and Beard, 1984); environmental dynamism is the rate of volatility in the environment (Preim, Rasheed and Kotulic, 1995; Dess and Beard, 1984); and environmental complexity is the number and diversity of forces in the environment (Gibbs, 1994; Dess and Beard, 1984). The effect of these conditions on the founder antecedents-new venture performance relationship is detailed below.

Environmental Munificence. Miller and Friesen (1983) suggest that environmental munificence is the conceptual opposite of environmental hostility. Firms in highly munificent environments are generally more able to accumulate slack resources because of the abundance of resources in the environment. Such conditions make it easier for firms to perform successfully (Hart and Banbury, 1994). However, in less munificent environments, firms are pressured to make frequent adjustments in order to access scarce environmental resources (Koberg, 1987). Therefore, it can be argued that founder antecedents will be more

important to new venture performance in low munificent environments than in high munificent environments. The higher need for environmental scanning in low munificent environments is accommodated by a high diversity of roles. Likewise, prior exposure to a variety of strategic processes provides the founder with greater information processing capacity. This may be critical in evaluating the limited options available when encountering scarce resources and where the environment is less tolerant to abhorrent firm behavior. Consequently, the following are proposed:

Proposition 4a: The effect of prior founder role diversity on new venture performance will be greater in low munificent environments than high munificent environments.

Proposition 4b: The effect of prior founder strategic process capacity on new venture performance will be greater in low munificent environments than high munificent environments.

Proposition 4c: The effect of prior founder entrepreneurial intensity on new venture performance will be greater in low munificent environments than high munificent environments.

Environmental Dynamism. Dess and Beard (1984) posit that environmental dynamism represents the level of change in an organizational environment. Additionally, and most importantly, they argue that the dynamism dimension includes the unpredictability of such change. Their description suggests the need to develop flexible routines that are capable of responding to uncertainty and ambiguity. If a firm is to succeed in a highly turbulent environment it seems apparent that it must be run by a founder who can make decisions quickly (Bourgeois and Eisenhart, 1988), is analytical (Miller and Friesen, 1983) without being overly so (Fredrickson, 1984), and is highly skilled with diverse experience. Since a prescribed pattern of changes cannot be anticipated with any level of certainty in these highly dynamic environments, the more exposed founders are to a diversity of situations, the more likely they will be able to design effective responses to these ad hoc situations. The earlier arguments on the effect of prior founder antecedent characteristics suggest that the higher the diversity of roles, the more processes modes the founder has been exposed to, and the greater the founder's prior entrepreneurial intensity, the more effective the founder can be in responding to dynamic changes. Mintzberg (1990) suggests that an emerging strategic process is important when future environmental states are difficult to predict ("unstable environment"). Such a process is highly reliant on an entrepreneurial crafting of strategic responses based on past learning experiences. The major attribute a founder must possess in responding to "unstable environments" is flexibility, and such flexibility is only possible with high levels of "a priori" experience. Therefore:

Proposition 5a. The effect of prior founder role diversity on new venture performance will be higher in highly dynamic environments than in stable environments.

Proposition 5b. The effect of prior founder strategic process capacity on new venture performance will be higher in highly dynamic environments than in stable environments.

Proposition 5c. The effect of prior founder entrepreneurial intensity on new venture performance will be higher in highly dynamic environments than in stable environments.

Environmental Complexity. The cognitive limits of man constrain individuals to focus on a limited number of events in structuring decisions (March and Simon, 1958). As March and Simon describe in their seminal work, this leads to "satisficing" instead of maximizing behavior since individuals will tend to undertake limited searches. In highly complex environments, the high level of diversity limits the ability of a founder to effectively scan and analyze the diverse forces impacting the environment. This argument

suggests that prior founder antecedent conditions may only be effective when there is limited diversity (i.e., low complexity) in the environment. Hence:

Proposition 6a. The effect of prior founder role diversity on new venture performance will be higher in less complex than more complex environments.

Proposition 6b. The effect of prior founder strategic process capacity on new venture performance will be higher in less complex than more complex environments.

Proposition 6c. The effect of prior founder entrepreneurial intensity on new venture performance will be higher in less complex than in more complex environments.

Firm Resources

The resource based theory of the firm suggests that firms may be conceptualized as a bundle of resources (Barney, 1991; Wernerfelt, 1984, Peteraf, 1993), and its configuration of resources (i.e, rareness, imitability, value) determines its strategic effectiveness. One reflection of the resources of a firm that is prominent in the literature is firm size (Delacroix, 1984; Caloff, 1994). Larger firms tend to have an abundance of resources as compared with smaller firms, and research has consistently identified size as a significant moderator in firm performance (Daily and Dalton, 1992; Hart and Banbury, 1994). The higher the number of employees in a firm, the greater is the structural complexity of the firm due in part to the need for additional levels of management (Bower, 1970; Chandler, 1962). While small new ventures typically rely on the judgment and decision making prowess of its founder, larger new ventures must rely on more dispersed, rational, and formal decision making processes (Hage and Aiken, 1969; Lorange and Vancil, 1977) by wider groups of managers other than the founder. Success in small new ventures, therefore, should be more correlated with founder experience, such as the number of roles founders have assumed in prior work environments. Similarly, as firms grow in size, the process of strategy making becomes more decentralized (Pugh, Hickson, Hinings, MacDonald, Turner, and Lupton, 1963; Weber, 1947) and more complex (Bower, 1970). More rational and formal planning and resource allocation approaches are required as firms get larger (Lorange and Vancil, 1977), and the ability of management to be involved with individual employee activities becomes lessened (e.g. Hall, 1977).

Hart and Barnbury (1994) found support for the position that the relationship between strategy making process capability and firm performance is moderated by size. They found support for the process-performance relationship in larger but not smaller firms. Since their study was at the firm level and not the individual level, it can be argued that no single high-process manager in a large firm would have as much impact as multiple capable managers. By the same reasoning, the influence of the individual founder on a new venture should be greater in smaller rather than larger firms. Therefore, the following propositions are proposed:

Proposition 7a. The effect of prior founder role diversity on new venture performance will be greater for smaller than for larger firms.

Proposition 7b. The effect of prior founder strategic process capacity on new venture performance will be greater for smaller than for larger firms.

Proposition 7c. The effect of prior founder entrepreneurial intensity on new venture performance will be greater for smaller than for larger firms.

Implications and Conclusion

With the free enterprise system sweeping the world (Bygrave, 1993), a better understanding of a founder's impact on new venture performance can be extremely beneficial. For example, new venture financial resource allocation could become significantly more efficient if there were valid and reliable founder antecedent measures. Employment decisions could become more scientific if more was known about a founder's past and its likelihood of influencing the success of the new venture. With the near exponential growth in certain industries (biotechnology; computer software) and in initial public offerings (IPOs), greater knowledge of the founder antecedent-performance relationship could yield strong implications for a variety of stakeholders.

Just as importantly, illumination of studies undertaking such relationships could help individuals understand the degree to which they are prepared to start a new venture. Many failed ventures would have had increased chances for success if founders' limitations had been understood at the time of founding, and instead had sought a bit more experience. For example, they could have worked for one more year at their previous places of employment in a different capacity to give them experience in previously unfamiliar roles. Or, they could have taken more risks (i.e., entrepreneurial intensity) while still under the employ of someone else. Knowledge gained from such experiences could save struggling entrepreneurs from some of the problems they are likely to encounter in new ventures.

Future research on the founder-performance relationship may benefit both theorists and practitioners alike. Theorists may benefit from such theory extensions by helping to add to the still embryonic entrepreneurial paradigm. Such extensions, if communicated effectively to the potential practitioners, may help reduce the number of ventures that are started prematurely by unprepared but optimistic entrepreneurs.

This paper provides an important new framework for understanding and predicting new venture success. It is based on the position that, subject to the internal and external conditions of a new venture, certain key founder experience components will drastically affect the performance. The next step in the evolution of this framework is empirical validation of the relationships proposed.

References

Aldrich, H., Rosen, B., & Woodward, W. (1987). The impact of social networks on business foundings and profit: A longitudinal study. In N. C. Churchill, J. A. Hornaday, B. A. Kirchhoff, O.J. Krasner, and K. H. Vesper, eds., Frontiers of Entrepreneurship Research, 456-478. Wellesley, MA: Ballinger.

Andrews, K. (1971). The concept of strategy. Homewood, IL: Irwin.

Ansoff, I. (1987). The emerging paradigm of strategic behavior. Strategic Management Journal, 8, 501-515.

Astley, W. G., & Van de Ven, A. H. (1983). Central perspectives and debates in organization theory. Administrative Science Quarterly, 28(2), 245-273.

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1): 99-120.

Begley, T. M., & Boyd, D. P. (1986). Executive and corporate correlates of financial performance in smaller firms. Journal of Small Business Management, 24(2), 8-15.

Begley, T. M., & Boyd, D. P. (1987). Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses. Journal of Business Venturing, 2, 79-93.
Bird, B. J. (1989). Entrepreneurial behavior. Glenview, IL: Scott, Foresman.
Bourgeois, III, L. J. (1980). Strategy and environment: A conceptual integration. Academy of Management Review, 5(1), 25-39.
Bourgeois, III, L. J. (1985). Strategic goals, perceived uncertainty, and economic performance in volatile environments. Academy of Management Journal, 28(3), 548-573.
Bourgeois, III, L. J., & Brodwin, D. (1984). Strategic implementation: Five approaches to an elusive phenomenon. Strategic Management Journal, 5, 241-264.
Bower, J. (1970). Managing the resource allocation process. Boston, MA: Harvard Business Press.
Box, T. M., White, M. A., & Barr, S. H. (1994). A contingency model of new manufacturing firm performance. Entrepreneurship Theory and Practice, 19, 31-45.
Brittain, J. W., & Freeman, J. H. (1980). Organizational proliferation and density dependent selection. In J. R. Kimberly and R., J. Miles (eds.), The organizational life cycle, 291-338. San Francisco, CA: Jossey-Bass.
Bygrave, W. D. (1989a). The entrepreneurship paradigm (I): A philosophical look at its research methodologies. Entrepreneurship Theory and Practice, 14(1), 1-26.
Bygrave, W. D. (1989b). The entrepreneurship paradigm (II): Chaos and catastrophes among quantum jumps. Entrepreneurship Theory and Practice, 14(2), 7-30.
Bygrave, W. D. (1993). Theory building in the entrepreneurship paradigm. Journal of Business Venturing, 8, 255-280.
Bygrave, W. D., & Hofer, C. W. (1991). Theorizing about entrepreneurship. Entrepreneurship Theory and Practice, 16, Winter, 13-22.
Caloff, J. L. (1994). The relationship between firm size and export behavior revisited. Journal of International Business, 25(2), 367-387.
Carroll, G. R. (1985). Concentration and specialization: Dynamics of niche width in populations of organizations. American Journal of Sociology, 90, 1262-1283.
Carter, N. M., Stearns, T. M., Reynolds, P. D., & Miller, B. A. (1994). New venture strategies: Theory development with an empirical base. Strategic Management Journal, 15, 21-41.
Castrogiovanni, G. J. (1981). Environmental munificence: A theoretical assessment. Academy of Management Review, 16(3), 542-565.
Chakravarthy, B., & Doz, Y. (1992). Strategy process: Managing corporate self-renewal. Strategic Management Journal, 13, Summer.
Chandler, A. (1962). Strategy and structure. Cambridge, MA: MIT Press.
Chandler, G. N., & Hanks, S. H. (1994). Founder competence, the environment, and venture performance. Entrepreneurship Theory and Practice, 19, 77-89.
Chandler, G. N., & Jansen, E. (1992). The founder's self-assessed competence and venture performance. Journal of Business Venturing, 7, 223-236.
Cheah, H. B., (1990). Schumpeterian and Austrian entrepreneurship: Unity within duality. Journal of Business Venturing, 5, 341-347.
Covin, J. G., & Slevin, D. P. (1990). New venture strategic posture, structure, and performance: An industry life cycle analysis. Journal of Business Venturing, 5(2): 123-135.
Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. Entrepreneurship Theory and Practice, 16(Fall): 7-25.
Daily, C. M., & Dalton, D. R. (1992). Financial performance of founder-managed versus professionally managed small corporations. Journal of Small Business Management, 30(2): 25-34.
Delacroix, J. (1984). Export strategies for small American firms. California Management Review, *26*(3): 138-153.

Dess, G. & Beard, D. (1984). Dimensions of organizational task environments. Administrative Science Quarterly, 29: 52-73.
Fredrickson, J. (1984). The competitiveness of strategic decision processes: Extension, observations, future directions. Academy of Management Journal, 27: 445-466.
Freeman, J. (1982). Organizational life cycles and natural selection processes. In B. M. Staw and L. L. Cummings (eds.), Research in organizational behavior, 4: 1-32. Greenwich, CT: JAI Press.
Gartner, W. B. (1988). Who is the entrepreneur? Is the wrong question. American Journal of Small Business, 12: 11-32.
Gibbs, B. (1994). The effects of environment and technology on managerial roles. Journal of Management, 20(3): 581-604.
Hage, J., & Aiken, M. (1969). Routing technology, social structure and organizational goals. Administrative Science Quarterly, 14: 368-379.
Hall, R. (1977). Organizations: Structure and process. Englewood Cliffs, NJ: Prentice-Hall.
Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. American Journal of Sociology, 83: 929-964.
Hart, S. L. (1992). An integrative framework for strategy-making processes. Academy of Management Review, 17(2): 327-351.
Hart, S. L., & Banbury, C. (1994). How strategy-making processes can make a difference. Strategic Management Journal, 15: 251-269.
Hofer, C. W., & Sandberg, W. R. (1987). Improving new venture performance: Some guidelines for success. American Journal of Small Business, Summer, 11-25.
Hofer, C. W., & Schendel, D. (1987). Strategy formulation: Analytical concepts. St. Paul, MN: West Publishing Co.
Hrebiniak, L. G., & Snow, C. C. (1980). Industry differences in environmental uncertainty and organizational characteristics related to uncertainty. Academy of Management Journal, 23(4): 750-759.
Katz, R. L. (1974). Skills of an effective administrator. Harvard Business Review, 52(5): 90-102.
Keats, B. W., & Bracker, J. S. (1988). Toward a theory of small firm performance: A conceptual model. Entrepreneurship Theory and Practice, 12(4): 41-58.
Koberg, C. S. (1987). Resource scarcity, environmental uncertainty, and adaptive organizational behavior. Academy of Management Journal, 30(4): 798-807.
Linblom, C. (1959). The science of "muddling through." Public Administration Review, 19, 79-88.
Lorange, P., & Vancil, R. (1977). Strategic planning systems. Englewood Cliffs, NJ: Prentice-Hall.
Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review, 21: 135-172.
MacMillan, I. C., Siegel, R., & Narisimha, S. P. (1985). Criteria used by venture capitalists to evaluate new venture proposals. Journal of Business Venturing, 1(1): 119-128.
March, J. G., & Simon, H. A. (1958). Organizations. New York: John Wiley & Sons.
McCann, J. E. (1991). Patterns of growth, competitive technology, and financial strategies in young ventures. Journal of Business Venturing, 3: 189-208.
Miles, R. E., & Snow, C. C. (1978). Organizational strategy, structure, and process. New York: McGraw-Hill.
Miles, R. E., & Snow, C. C. (1984). Fit, failure, and the Hall of Fame. California Management Review, 26(3): 10-28.
Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. Management Science, 37(1): 34-52.
Miller, D. (1992). Environmental fit versus internal fit. Organization Science, 3(2): 159-178.

Miller, D., & Friesen, P. H. (1983). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. Strategic Management Journal, 3: 1-25.
Miner, J. B. (1997). The expanded horizon for achieving entrepreneurial success. Organizational Dynamics, 25(3): 54-67.
Mintzberg, H. (1973). Strategy-making in three modes. California Management Review, 16, 44-53.
Mintzberg, H. (1978). Patterns in strategy formation. Management Science, 24(9): 934-948.
Mintzberg, H. (1990). The design school: Reconsidering the basic premises of strategic management. Strategic Management Journal, 11(3): 171-195.
Mintzberg, H., & Waters, J. A. (1982). Tracking strategy in an entrepreneurial firm. Academy of Management Journal, 25(3): 465-499.
Mintzberg, H., & Waters, J. A. (1985). Of strategies, deliberate and emergent. Strategic Management Journal, 6, 257-272.
Morris, M. H., & Sexton, D. L. (1996). The concept of entrepreneurial intensity: Implications for company performance. Journal of Business Research, 36: 5-13.
Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring performance in entrepreneurship research. Journal of Business Research, 36: 15-23.
Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the concept of fit: A model and empirical tests. Strategic Management Journal, 14(2): 137-153.
Pavett, C. M., & Lau, A. W. (1983). Managerial work: The influence of hierarchical level and functional specialty. Academy of Management Journal, 26(1): 171-177.
Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14*(3): 179-191.
Porter, M. E. (1980). Competitive strategy: Techniques for analyzing industries and competitors. New York: Free Press.
Priem, R. L., Rasheed, A. M., & Kotulic, A. G. (1995). Rationality in strategic decision processes, environmental dynamism and firm performance. Journal of Management, 21(5): 913-929.
Pugh, D., Hickson, C., Hinings, K., MacDonald, C, Turner, C., & Lupton, T. (1963). A conceptual scheme for organizational analysis. Administrative Science Quarterly, 8: 289-315.
Quinn, J. B. (1978). Strategic change: Logical incrementalism. Sloan Management Review, 20, 7-21.
Reynolds, P. D., & White, S. B. (1997). The entrepreneurial process: Economic growth, men, women, and minorities. Westport, CN: Quorum Books.
Romanelli, E. (1989). Environments and strategies of organization start-up. Effects on early survival. Administrative Science Quarterly, 34: 369-387.
Romanelli, E., & Tushman, M. L. (1986). Inertia, environments, and strategic choice: A quasi-experimental design for comparative-longitudinal research. Management Science, 32(5): 608-621.
Schaefer, D. S., (1990). Level of entrepreneurship and scanning source usage in very small businesses. Entrepreneurship Theory and Practice, 15(1): 19-31.
Schein, E. H. (1987). Individuals and careers. In J. Lorsch, ed., Handbook of Organization Behavior, pp. 155-171. Englewood Cliffs, NJ: Prentice Hall.
Schumpeter, J. A. (1934). The theory of economic development. Cambridge, MA: Harvard University Press.
Senge, P. (1990). The fifth discipline. New York: Doubleday.
Specht, P. H. (1993). Munificence and carrying capacity of the environment and organization formation. Entrepreneurship Theory and Practice, 17(2): 77-86.
Stinchcombe, A. L. (1965). Social structure and organizations. In J. G. March (ed.), *Handbook of organizations*, 142-193. Chicago: Rand McNally.
Stuart, R., & Abetti, P. A. (1987). Start-up ventures: Towards the prediction of initial success. Journal of Business Venturing, 2: 215-230.

Stuart, R., & Abetti, P. A. (1990). Impact of entrepreneurial and management experience on early performance. Journal of Business Venturing, 5: 151-162.

Sykes, H. B. (1986). Lessons from a new ventures program. Harvard Business Review, May: 69-74.

Thompson, A. A., & Strickland, A. J. (1989). Strategic management: Concepts and cases. Plano, TX: Business Publications Inc.

Timmons, J. A., Muzyka, D. F., Stevenson, J. J., & Bygrave, W. D. (1987). Opportunity recognition: The core of entrepreneurship. In N. C. Churchill, J. A. Hornaday, B. A. Kirchhoff, O.J. Krasner, and K. H. Vesper, eds., Frontiers of Entrepreneurship Research, 109-123. Wellesley, MA: Ballinger.

Venkatraman, N. & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. Academy of Management Review, 11: 801-814.

Vesper, K. H. (1980). New venture strategies. Englewood Cliffs, NJ: Prentice-Hall.

Weber, M. (1947). The theory of social and economic organization. Glencoe, IL: Free Press.

Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5,171-180.

Womack, J., Jones, D., & Roos, D. (1990). The machine that changed the world. New York: Rawson Associates.

Wortman, M. S., Jr. (1987). Entrepreneurship: An integrating typology and evaluation of the empirical research in the field. Journal of Management, 13: 259-279.

Zahra, S. A., (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. Journal of Business Venturing, 6: 259-285.