New Venture Growth: A Review and Extension

Brett Anitra Gilbert*

*Robinson College of Business, Georgia State University, Department of Managerial Sciences,
P.O. Box 4014, Atlanta, GA 30302-4014*

Patricia P. McDougall

*Kelley School of Business, Indiana University, Department of Management, 1309 Tenth Street,
Bloomington, IN 47405*

David B. Audretsch

*School of Public and Environmental Affairs, Indiana University, Institute for Development Strategies,
1315 E. Tenth Street, Bloomington, IN 47405*

New venture growth differs from that of established firms and is an important topic for scholarly inquiry. Current literature on new venture growth has focused primarily on why *new ventures grow to the exclusion of* how *and* where *that growth is occurring. This article reviews the literature on new venture growth and addresses key limitations within this stream of research. It unites the literature on* why *new ventures grow with that of* how *(through internal or external means) and* where *(in domestic or international markets) new ventures grow to advance an important research agenda for future new venture growth studies.*

Keywords: *new ventures; growth; performance; review*

New venture creation has been statistically linked to both job creation and regional development (Acs & Armington, 2006). Yet according to Barringer, Jones, and Neubaum (2005), of the estimated 700,000 new ventures started each year in the United States, only 3.5% grow sufficiently to actually evolve into large firms (see also Acs & Armington, 2006). The relative scarcity of new venture growth combined with its importance for regional job creation and

*Corresponding author. Tel.: 404-651-2923.

E-mail address: bgilbert@gsu.edu

Journal of Management, Vol. 32 No. 6, December 2006 926-950
DOI: 10.1177/0149206306293860
© 2006 Southern Management Association. All rights reserved.

development has generated a large literature seeking to explain why some new ventures grow more than others.

A distinct literature focusing specifically on new venture growth has emerged for several reasons. First, attaining growth has different implications for new ventures than for their established counterparts. Unlike established firms, which have already achieved a level of viability and survival, new ventures are subject to a liability of newness where, in the absence of growth, their survival may be significantly reduced (Buederal, Preisendoerfer, & Ziegler, 1992). An exhaustive set of studies have similarly acknowledged that new ventures face an analogous liability of smallness (Carroll, 1983), where in the absence of large size that results from growth, the survival of the firms is challenged. In the absence of growth, both new and small ventures are confronted by a lower likelihood of survival (Freeman, Carroll, & Hannan, 1983), but as firm size and age increase, the adverse impact of lack of growth on firm survival is reduced. Thus, whereas the growth of established firms is about sustaining viability, new venture growth is about obtaining viability. Second, the variance of growth rates across firms diminishes with both firm size and firm age making the variance of growth rates for new ventures considerably greater than that for established firms. The economics literature acknowledges that for large and established firms, growth rates conform to what is known as Gibrat's Law, where growth is independent of size and age (Sutton, 1997). But Gibrat's Law has not been found to hold systematically for new ventures, which are characterized by a higher variance in growth rates. Given this difference from established firms, explaining growth for new ventures takes on special significance.

The new venture growth literature that has emerged to date primarily addresses the question implied by the high variance of new venture growth rates: Why do some new ventures grow more than others? Yet, this question largely disregards the manner by which growth has been attained. This literature review seeks to address this gap in the literature. We begin the literature review first by explaining how the articles used were selected for analysis. We then present a small body of literature that addresses the fundamental question of "how much" to grow that reflects the individual entrepreneur's attitude toward an appropriate level of desired growth. We next consider the various ways the concept of growth has been operationalized in prior entrepreneurship research. In particular, the three main measures of growth that are suggested by the literature to be the most salient for scholars to consider in evaluating new venture growth are identified and explained. We then examine the main factors addressing the "why" question, that is, the compelling predictors of growth that have been identified in previous new venture growth studies. The studies reviewed in this section represent the bulk of the new venture growth literature. Next, our discussion turns to what we believe are essential elements that are largely missing in the existing literature. Although the existing literature provides a rich overview of why growth rates vary across new ventures, research focusing on critical strategic decisions related to the how and where firms should grow has generally been neglected. New insights and research questions are raised in our discussion uniting the existing research in relation to the "how" decision of internal versus external growth and the "where" decision of domestic versus international growth. By revealing critical gaps in the literature, we hope to advance an important research agenda for furthering our knowledge of new venture growth.

New Venture Growth Literature Review

In developing this review, we began with the existing models of new venture growth to identify the predictors believed to explain why some new ventures grow more than others. We began with Sandberg's (1986) model of new venture performance that he derived from his study of venture capital–backed growth-oriented firms. Sandberg argues that new venture performance is a function of the entrepreneur, industry structure, and strategy. Chrisman, Bauerschmidt, and Hofer (1998) extended the Sandberg (1986) model to include resources, organizational structure, processes, and systems. Other models focused on limited aspects of new venture growth such as an entrepreneur's access to resources, opportunity choice, and managerial capability (Thakur, 1999) or the psychological characteristics and the background of the entrepreneur, the scanning intensity, and industry dynamics (Box, White, & Barr, 1993). All factors identified in these models were consistent with those identified in the Chrisman et al. (1998) research. We also examined Baum, Locke, and Smith's (2001) empirical model of growth, which tests for the significance of several factors including the entrepreneur characteristics, and organizational- and environmental-level constructs. We reviewed other empirical research focusing on the growth of "emerging," "start-up," "new," or "high- or rapid-growth" ventures to assess the impact of variables identified in one or more of the aforementioned models. Combined, these studies led us to conclude that the most important predictors of new venture growth include the entrepreneur characteristics, resources, strategy, industry, and organizational structure and systems.

The 48 empirical studies that serve as the basis for this review were published in foremost management and entrepreneurship journals. However, more than half (29) of the articles were published in the *Journal of Business Venturing.* Although most of the studies were published in the 1990s, some date into the 1980s. Several were published after 2000, some even in 2006. For the purpose of this review, we report the findings from the empirical growth studies integrated with insights from the small business literature regarding how those factors influence the growth of small firms. Because new venture survival and growth are so closely intertwined, we also scanned the new venture survival literature to determine whether findings reported to affect new venture survival were adequately represented through the constructs identified from the empirical growth studies. This latter step enabled us to consider the influence that factors that negatively influence survival may have on the venture's growth potential. We identified one factor that researchers have begun to focus on as an important influencer of venture survival, a venture's geographic location (Folta, Cooper, & Baik, 2006; Stuart and Sorenson, 2003), and consider its influence on venture growth. The gaps we identify and directives we advance for future researchers derive from our review of the new venture growth literature.

The Question of How Much to Grow

The entrepreneurship literature is replete with examples of entrepreneurs who realized little to no growth in their firms (e.g., Gimeno, Folta, Cooper, & Woo, 1997; Wiklund, Davidsson, & Delmar, 2003). Contrary to what some may think, limited growth is not always associated with an inability to grow but may actually be reflective of a limited desire of the entrepreneur to grow the firm (Cliff, 1998). For example, Wiklund et al. (2003) found that entrepreneurs' attitudes toward growth are influenced by their beliefs regarding the extent to which a firm's larger size may compromise the well-being of employees, the independence of the firm relative to key stakeholders, the owner's ability to control the growth, and the ability to ensure that the firm would survive any crises. The entrepreneur's belief that he or she could manage growth is very important for the growth the firms realized (Box et al., 1993). Baum and Locke (2004) similarly found that the goals the entrepreneurs set for growing the firm, the vision they communicated to their employees, and their belief in themselves to effectively execute the growth were significant factors influencing the growth of new firms. Even growth that is realized has been found to be directed by intentional actions of the entrepreneurs to influence additional growth that occurs (Cliff, 1998; Orser, Hogarth-Scott, & Riding, 2000). These findings have led many to conclude that deciding to grow the firm is the first and foremost strategic decision all entrepreneurs must make (Chandler & Hanks, 1994a; Cliff, 1998).

The decisions entrepreneurs make in the venture's early years have profound long-lasting implications for performance (Bamford, Dean, & Douglas, 2004; Boeker, 1989; Eisenhardt & Schoonhoven, 1990; Park & Bae, 2004; Stinchcombe, 1965). Extant models of new venture growth commonly reflect that the entrepreneur must choose growth and that growth will occur when the entrepreneur possesses the resources that enable growth, has a strategy that fosters growth, operates in an industry conducive for growth, and develops structures and systems that accommodate growth (e.g., Baum et al. 2001; Box et al., 1993; Chrisman et al., 1998; Thakur, 1999). Barringer et al. (2005) used content analysis to determine growth orientation for the firms and found that it delineated rapid–sales growth firms from other firms. Baum and Locke (2004) also found the extent to which the firm's goals and vision were communicated to employees influenced their sales and employment growth. These findings suggest that it is important for scholars to consider growth aspirations of the entrepreneurs when designing research as entrepreneurs have been found to vary considerably in their desire to realize growth (Liao & Welsch, 2003; Wiklund et al., 2003).

Measuring New Venture Growth

Growth can occur in many different aspects of a firm's operations, such as its cash flow, net income, customer base, sales, employment, and market share (Murphy, Trailer, & Hill, 1996). Although there is no single overriding measure of new venture growth, our review of the literature suggests that the most important measures of new venture growth are in terms of sales, employment, and market share. Empirical evidence confirms that strong corrections exist among these three different size-based measures of growth (Baysinger, Meiners, & Zeithaml, 1982). Even so, there are distinct considerations that delineate each measure of growth from the others.

Sales growth provides evidence of how revenues of a venture change over time. It indicates the extent to which customers are increasingly accepting the products or services offered by the firm (K. Robinson, 1998). As such, sales are the most commonly used indicator of new venture growth (Murphy et al., 1996; Weinzimmer, Nystrom, & Freeman, 1998). When sales growth occurs, a venture is supplied with revenues that can be reinvested into resource expansion or capability development. However, sales growth is dependent on the firm having a product or service available to sell, and some industries, such as biotechnology, may spend years developing their products for the market. Thus, a more relevant indicator of growth performance for such ventures, particularly in high-technology industries such as biotechnology, may be their growth in employment.

Employment growth indicates that a change has occurred in the organizational composition or strategy of the firm (Hanks, Watson, Jansen, & Chandler, 1993), which warrants an increase in the number of individuals working for the firm. This change is often due to expansion in the scope of firm operations or an immediate increase in business. With employment growth, a venture is equipped with new human capital through which its objectives can be executed. The venture is also better enabled to assess the external environment to ensure it can compete most effectively (Box et al., 1993). In addition to indicating internal changes occurring in the firm, employment growth signals the contribution the venture is making to the community from which it operates (Kirchoff & Phillips, 1988; Venkataraman, Van de Ven, Buckeye, & Hudson, 1990).

Market share growth, like sales growth, provides an indication of the acceptance of the venture's products or services in the market. However, unlike sales growth, market share growth is an external measure of venture growth that depends in part on the state of competition in the firm's industry. A firm's market share can increase as a result of concerted efforts on behalf of the firm to increase its share, or simply from industry dynamics, such as the withdrawal of a competitor, that result in it being awarded to the firm. Market share growth can be evaluated based on the industry or at the level of a given product category (Kerin, Varadarajan, & Peterson, 1992).

Understanding Why New Ventures Grow

Our review of the literature revealed several key factors influencing why some new ventures experience higher growth rates than their counterparts. In the sections below, we consider each of these factors and the manner in which each influences whether the venture will be capable of realizing growth through the growth outcomes discussed above.

Entrepreneur Characteristics

The belief that the entrepreneurial firm is an extension of the entrepreneur has led many researchers to examine the character traits of the entrepreneur that are most likely to influence the growth of the firm. A plethora of personality traits have been considered, most of which are now believed to have indirect rather than direct effects on the growth of the firms (Baum et al., 2001; Baum & Locke, 2004). Characteristics such as the educational background (Sapienza & Grimm, 1997), prior related industry experience of the entrepreneur(s) (Baum et al., 2001; Box et al., 1993; Cooper, Gimeno-Gascon, & Woo, 1994; Eisenhardt &

Schoonhoven, 1990; Siegel, Siegel, & MacMillan, 1993), and prior entrepreneurial or start-up experiences (Box et al., 1993; Baum et al., 2001), on the other hand, have well-established direct effects on the sales and employment growth of new firms. Experience growing other firms is also supported as an important catalyst for higher levels of growth in small firms (Wasilczuk, 2000).

Prior experience is important because the knowledge relevant for making business decisions is often tacit and requires time spent observing and studying a specific activity before tacit knowledge of the activity is developed (Cooper et al., 1994). Too much knowledge, however, has been shown to have diminishing returns on the sales and employment growth of new firms (Chrisman, McMullan, & Hall, 2005). Even still, education and background experiences are valued because they enable entrepreneurs to know where to go to obtain information relevant to the venture and also how to deploy the resources they obtain (Kirzner, 1983). For this reason, an entrepreneur's prior experiences in an activity will provide competencies that influence the decisions he or she makes regarding a given activity (Buchele, 1967; Mullins, 1996; Scherer, Adams, & Wiebe, 1989; Susbauer, 1979). Presumably, an entrepreneur with related experience makes better decisions than an entrepreneur who lacks similar experience.

Our review also reveals that when new ventures are founded by teams, rather than individuals, the experiences of the founders are of substantial importance. Under these circumstances, their tenure together, as well as their background heterogeneity and number of individuals involved, are important for the sales growth of the firms (Eisenhardt & Schoonhoven, 1990). The tenure of teams, specifically the cohesiveness they exhibit, is influential for sales growth as it makes communication between members easier (Ensley, Pearson, & Amason, 2002). Team size is also important because it enables the firm to distribute responsibility across a greater number of individuals. Larger team size, however, can lead to higher levels of disagreement between team members especially when the team is diverse. Research suggests that such disagreements, however, can "result in more extensive discussion of strategic options, more learning opportunities, and, thereby, reduce the likelihood of a groupthink-type phenomenon occurring" (Lant, Milliken, & Batra, 1992: 591). Disagreement (at least on secondary goals) is shown to correlate positively with the growth of firms relative to their competitors (West & Meyer, 1998). The heterogeneity of the top management team is another factor that may increase the likelihood that disagreements between team members will occur. Differences in age, education, major, and functional expertise have been found significant to new venture sales growth (Amason, Shrader, & Tompson, 2006). Such diversity, however, has been found to have negative implications for the process top management team members use for strategic decision making by lengthening the time it takes to make decisions (Miller, Burke, & Glick, 1998). As decision speed can affect the longevity of new firms (Forbes, 2005), the factors that influence it may be important indirect predictors of new venture growth.

Although the decisions entrepreneurs make are clearly important for new venture outcomes, most researchers link the entrepreneur characteristics directly to the sales growth of the firms. This relationship is commonly examined during a 3- to 5-year time period but is also often examined annually. The majority of researchers use an objective measure of growth; however, some scholars use subjective measures over the time period of interest. Interestingly, the 3- or 5-year period seldom coincides with the first 3 to 5 years of the venture's history when sales, employment, and market share growth rates are likely to be most volatile and the decisions entrepreneurs make more crucial (Bamford, Dean, & McDougall, 2000b).

Resources

For an entrepreneur to execute a strategic decision, it is necessary for him or her to allocate resources to that endeavor (Arthurs & Busenitz, 2006). However, the task of attracting resources into a new venture is perhaps the greatest challenge faced by entrepreneurs as the lack of both reputation and a track record creates a heightened perception of risk by potential resource providers (Brush, Greene, & Hart, 2001). To be successful at executing the decision requires that the firm possess the right fit of resources (Chandler & Hanks, 1994a). Although many different types of resources enable firms to efficiently and effectively pursue growth objectives through their quality (Chandler & Hanks, 1994b), strength (Brush & Chaganti, 1998), and the competencies they generate for the firm (Chandler & Hanks, 1994a, 1994b), the two resources examined most often and found to be most clearly related to new venture growth are the financial (Bamford, Dean, & McDougall, 2000a; Cooper et al., 1994; Lee, Lee, & Pennings, 2001) and human capital (Birley, 1987; Cooper et al., 1994) resources the firms employ.

Human capital. Resource-based capabilities of firm employees contribute positively to venture growth by helping the entrepreneurs execute their objectives (Chandler & Hanks, 1994a). However, human resource needs change as the firm progresses from start-up to an established mature firm (Thakur, 1999). According to Cardon (2003), a start-up may require more specific expertise and highly skilled workers than a mature firm. As the firm enters its expansion stage, it may be able to use lower skilled workers to meet production demands. In order for a start-up to survive the expansion stage Cardon argues, it is necessary for the entrepreneur to staff for it ahead of time. The majority of research we examined analyzed the effect of human capital resources on the sales or employment growth of the venture. However, most of the studies examined the effect over an aggregate period of time, such as a 3- or 5-year period, when human capital needs could drastically change as strategic direction changes.

As Birley (1987) reported, the growth in certain classes of employees is likely to change with the needs of the firms. The rate at which each of these classes of employees increases may also inform the field a great deal about strategic directions in which the firm is heading and the extent to which the venture is staffed to exploit new strategic opportunities.

Financial capital. The financial capital a firm holds is known to influence the sales and employment growth performance of new firms (Cooper et al., 1994; Lee et al., 2001). A higher level of financial capitalization is important because it buys entrepreneurs time to successfully execute strategic objectives, enables entrepreneurs to either undertake more ambitious strategies or change their course of action, and simply empowers the entrepreneurs to meet the financing demands that are required to sustain the growth being realized (Cooper et al., 1994). Financial capital provides the flexibility needed to support the firm's strategic endeavors (Zahra & Bogner, 1999), which has led some to investigate the options entrepreneurs have for accumulating financial capital. For example, Bollingtoft, Ulhoi, Madsen, and Neergaard (2003) found that for entrepreneurs with less innovative technologies, financial capital often comes from the entrepreneur's personal resources. For more innovative technologies, financial capital is often sourced from external sources of capital, such as banks or venture capitalists.

Although the initial financing needed to start a new venture may come from the entrepreneur's personal funds or from monies borrowed from relatives (Berger & Udell, 1998), the amount of financing required to obtain growth is often beyond that which can be garnered from one's own or network of personal resources. Some ventures have been able to accelerate their sales and employment growth by use of allowances from the government (Dahlqvist, Davidsson, & Wiklund, 2000). For those for which governmental support is not an option, the entrepreneur's ability to obtain capital from sources such as banks or venture capitalists takes on great importance for the growing firm. Not surprisingly, connections to sources of external funding such as banks and venture capitalists are significant predictors of new venture sales growth (e.g., Lee et al., 2001).

Outside resources. Our review of the literature reflects a strong consensus that a venture's connections to outsider competencies are beneficial for the growth of the firm. Cooper (1985), for example, found that growth-oriented ventures tended to be birthed out of other organizations and also to be engaging in activities that were related to those of the "incubator" organization. Chrisman et al. (2005) found that having used the assistance of counselors from a Small Business Development Center significantly influenced the sales and employment growth to a point, whereas too much assistance proved a hindrance for sustaining high levels of growth. Bamford et al. (2004) found that a firm's board of directors is influential for sales growth.

Geographic Location

Increasingly, a venture's geographic location has become a commonly recognized factor responsible for differences in survival in new and small firms (Lechner & Dowling, 2003). In recent work, Folta et al. (2006) reported that when a venture's location had more than 65 competing firms in it, a given new firm operating from such a location was more likely to fail than firms operating from other regions. These scholars reasoned that the competition for resources firms face in high-clustering locations influences their ability to acquire the resources needed to sustain operations. Because new ventures are highly dependent on the local environment for resources needed to sustain operations (Romanelli & Schoonhoven, 2001), any inability to acquire resources locally will have substantial implications for the levels of growth the firms will attain. As there is an inequality of resources available in differing locations, a venture's geographic location has strong implications for the growth it may be able to realize.

For example, Silicon Valley is often acknowledged for the breadth of financial capital available within the region (Saxenian, 1990, 1994). Inner cities, by contrast, are reported to be deficient of high levels of financial capital (Porter, 1995; Taub, 1988). Rural areas have also been reported to be at a disadvantage in providing financial capital to its firms (Green & McNamara, 1987). Greater access to financial capital may make it easier for a firm located in cluster regions like Silicon Valley to finance growth, whereas it is more difficult for an inner city or rural firm to do so. Ventures in such locations may grow at a slower rate than ventures in cluster locations. Similar inequities exist with human capital. The human capital of inner cities has been reported to be incapable of supporting highly skilled industries (Porter, 1995). In contrast, the human capital of cluster areas is widely acknowledged for its superiority and in some cases abundance (Hanson, 2000; Saxenian, 1994). Growing ventures require a ready supply of workers with specific competences (Baum et al., 2001; Chandler & Hanks, 1994b). As cluster locations may provide a more abundant supply of such workers with relevant competencies and skill sets (Feldman & Florida, 1994; Saxenian, 1990), ventures starting up in such locations may be more capable of attracting workers with the expertise that would enable the venture to pursue growth objectives.

Strategy

Numerous studies on new venture growth have considered the importance of a venture's strategy for its growth performance. The results of such studies have often yielded mixed results concerning the strategies that lead to growth for new venture firms. For example, Siegel et al. (1993) found that ventures with focused strategies, operationalized as more revenue being generated by a single product, had higher sales growth rates. Baum et al. (2001), on the other hand, found that low-cost and focus strategies correlated negatively with their aggregate measure of venture sales and employment growth, whereas differentiation through high quality and innovation exhibited positive relationships with venture sales, employment, and profit growth. These disparate results may be related to the fact that Siegel et al. (1993) used a 3-year measure of sales growth only, whereas Baum et al. (2001) used an annual measure of sales and employment growth combined. In the short term, focus strategies may require employees with specialized competencies that may be difficult to acquire short term. A negative relationship with employment growth might result. Too few studies, however, have considered the short-term versus potential long-term effects of venture strategies.

Alternatively, the disparate results could also point to the conclusion that there is a contingency or "fit" perspective that better reflects the nature of the relationship between a venture's strategy and its growth (Eisenhardt & Schoonhoven, 1990). Chandler and Hanks (1994b) reported support for a fit hypothesis, finding that ventures pursuing a quality differentiation strategy had higher aggregate market share, sales, and cash flow growth when they also had resources supportive of a quality strategy. In addition, McGee, Dowling, and Megginson (1995) observed that ventures entering into marketing cooperatives that emphasized marketing differentiation strategies had higher levels of sales growth. Similar results were found for firms emphasizing technical differentiation and entering into R&D cooperative strategies. In a prior study, McGee and Dowling (1994) found that the experiences of the top management moderated the relationship between cooperative arrangements and venture sales growth, with technical experience being crucial to observing significant sales growth from technical alliances and marketing experience being crucial to observing significant sales growth from marketing alliances. Similarly, Lee et al. (2001) found that technological capabilities were important for helping new ventures achieve the highest levels of sales volume through their network relationships.

Collectively, these studies corroborate the contingent relationship found by Chandler and Hanks (1994b) whereby the strategy-growth relationship is contingent on the resources the venture has to support the strategy being executed. Researchers have also considered other interaction effects between the strategy-growth relationship (McDougall, Covin, Robinson, & Herron, 1994) and reported a positive relationship between broad-breadth strategies and venture sales growth, particularly when the industry was in a growth stage. Further still, researchers have considered the effect of entry barriers on the strategy-growth relationship (Robinson & McDougall, 2001), finding again that the relationship between entry barriers and sales growth is more positive when the firms execute a broad-breadth strategy.

The influence of a venture's strategy on sales, employment, and market share growth may also depend on the scope of the product line the venture offers and the order of entry in which the venture enters the market. For example, Sandberg and Hofer (1987) found that broad, differentiation strategies appear to be marginally more effective than focused strategies when the venture is an early entrant; otherwise, focused strategies appear more effective for late entrants. Given the fact that industry characteristics seem partially responsible for determining how a venture's strategy influences its growth, it is surprising to see that few studies used market share growth as the measure of growth the ventures realized. Most studies use sales growth over a 3- or 5-year time period, which determines the extent to which internal execution of the venture's strategy is enabling it to realize growth but does not reflect the advantage the strategy may be providing the venture in the broader competitive space. Whereas sales or employment growth is more germane to the daily operations of the venture, market share growth indicates the extent to which the venture ultimately may remain viable in its competitive space and may be a better indicator of the effectiveness of a venture's strategy.

Industry Context

The founding conditions of new ventures are known to have long-reaching implications beyond founding (Bamford et al., 2000a; Eisenhardt & Schoonhoven, 1990) making it particularly important to understand the characteristics of the industry in which a firm operates in order to understand its patterns of growth. The stage of the industry, especially emerging or growing markets, has been found to have a significant impact in many studies of new venture growth (Brush & Chaganti, 1998; Covin, Slevin, & Covin, 1990; Eisenhardt & Schoonhoven, 1990; Chandler & Hanks, 1994b; McDougall et al., 1994; Park, Chen & Gallagher, 2002; Robinson & McDougall, 2001). In growing or emerging markets, the environment is munificent in available resources, and mistakes are not as costly as in less munificent environments (Castrogiovanni, 1991). One natural conclusion deriving from this research is that high growth will be realized by firms in growing markets. Even in growing markets, however, the growth that is possible may be dependent on the strategies the firms implement (McDougall, Robinson, & DeNisi, 1992; Park et al., 2002; Sandberg & Hofer, 1987). For example, Park et al. (2002) found that in growing markets, alliances were more common, making alliance strategies beneficial for propelling venture growth. Sandberg and Hofer (1987), on the other hand, found that the stage of market determines whether the venture's product scope matters for its sales growth. Specifically, in early-stage markets, broad strategies help firms capture higher levels of sales growth, whereas in later-stage markets, focused strategies help firms capture higher sales growth.

The stage of the industry's life cycle may also create opportunities for a firm's products and services to be adapted for new markets (Koberg, Uhlenbruck, & Sarason, 1996). Ventures competing in growth industries may have greater opportunities than ventures in emerging or mature markets to provide new product or service offerings that fill niches in the market. A continued ability to introduce products to the market has been found important for the sales growth of new firms in growing industries (Siegel et al., 1993).

Other characteristics of the industry environment that are significant influencers on the sales and market share growth that new ventures attain include the capital requirements (Robinson & McDougall, 2001), level of competition (Baum et al., 2001), dynamism, heterogeneity, and lack of price hostility (Zahra & Bogner, 1999). To date, only one characteristic, environmental hostility, has been empirically examined and determined to be a known suppressor of venture employment and market share growth (Nicholls-Nixon, Cooper, & Woo, 2000; Zahra & Bogner, 1999). It is unknown, however, how environmental hostility influences sales growth. Presumably, environmental hostility negatively influences sales as it does a venture's market share; however, it is possible that ventures with strong competitive advantage in the market are less affected by environmental hostility, and their sales, therefore, are less likely to be affected.

Organizational Structures and Systems

To sustain the growth that occurs, it is necessary for the entrepreneur to adapt the internal structure of the firm to accommodate the growth it is experiencing. One of the few new venture growth studies to investigate the relationship with organizational structure and systems focuses on the impact of functional specialization and decision making on sales growth outcomes (Kazanjian & Drazin, 1990). Functional specialization is important because it enables individuals occupying functional positions to gain expertise in those areas. When a venture is small, the operations may be insufficient to sustain functional specialization to any great extent. As the venture grows and faces new challenges, specific functional expertise is needed to manage new roles for the firm (Kazanjian & Drazin, 1990). Functional specialization also enables the venture to engage in higher levels of environmental scanning. Individuals occupying functional positions can monitor the environment in their respective areas. Enhanced scanning enables the venture to recognize opportunities through which sales growth can occur (Box et al., 1993). It also enables ventures to become more innovative with their product and service offerings, to engage in more formal internal planning, and to experience higher levels of growth (Olson & Bokor, 1995). Essentially, the decision-making structure must enable the firm to remain flexible if sales growth will continue to occur (Kazanjian & Drazin, 1990). As ventures move through stages of conception and development, commercialization, growth, and stability, their decision making must become increasingly decentralized. At the same time, however, the decision-making structure must enable the entrepreneur to maintain a level of control that will enable growth to occur.

Other studies have included organizational structure or systems as a small part of a larger research program. For example, Barringer et al. (2005) found that the training the ventures provided, financial incentives, stock options, and overall development of employees were common systems in place in ventures experiencing rapid sales growth. Clearly, ventures must appropriately compensate their employees for helping the firm successfully manage the past, current, and future growth. Ensley, Pearce, and Hmieleski (2006) found that whether the venture was founded as an independent firm or through a university affiliation had implications for sales growth performance, with independent start-ups doing better than university-based start-ups. One interesting observation with regard to this area of research is the fact that researchers have only examined its impact for the sales growth of the ventures. It is likely, however, that changes to the organizational structure or system will also have implications for the employment growth of the firm in the event that such restructuring requires additional employees, as well as the market share growth of the firm in the event that necessary changes result in new divisions being created or acquired to exploit a growth opportunity.

Summary

This review of the literature demonstrates that new venture growth researchers have been intrigued with understanding why some ventures grow more than others. The extant models presented in our review commonly reflect that the entrepreneur must choose growth and that growth will occur most readily when the entrepreneur possesses the resources that enable growth, has a strategy that fosters growth, operates in an industry conducive for growth, and develops structures and systems that accommodate growth (e.g., Baum et al., 2001; Box et al., 1993; Chrisman et al., 1998; Thakur, 1999). The literature review also revealed that scholars have pointed to human, financial, and outside resources as important for the growth of new firms, yet the resources a venture will require depend on the decisions the entrepreneurs have made for how growth will be realized. For example, a venture growing through internal innovation has greater need for technical employees than one that does not grow through innovation. Similarly, a venture's strategy influences its growth particularly when certain resource and industry characteristics are in place. Resource or industry constraints will also influence the decisions entrepreneurs make for how they choose to grow and structure the venture. Although new venture researchers have developed a rich literature on the factors influencing growth, new venture scholars have given scant consideration to the complexities of the growth phenomenon.

In the following section, we build on the reviewed studies and examine two key decisions that are related to new venture growth that are scantly reflected in extant empirical research: how to grow and where the growth will occur.

Gaps in the Literature—How and Where New Ventures Grow

The shortcoming to omitting how the ventures are growing (i.e., via internal or external growth) and where that growth is occurring (i.e., domestically or internationally) when examining new venture growth performance is equivalent to assuming all students achieving an A in any class have achieved equivalent performance. It is true that in a grade report, an A is indeed an A, but the courses the students took often influence our final assessment of performance. For example, the performance of students achieving an A in advanced courses may be esteemed differently than those earning an A in basic courses. These two courses place different demands on the student's abilities, and the requirements for demonstrating mastery will differ. Likewise, to evaluate whether new ventures are achieving superior performance, it is not enough to observe the firms that are achieving the highest level of growth. It is also necessary to understand the factors that are driving the growth that is observed. Therefore, understanding the strategic decisions in place while growth was occurring will not only facilitate an apples-to-apples comparison when assessing new firm growth but also enables understanding of the challenges potentially affecting new firm growth that could impede levels of profitability.

In the following sections, we demonstrate the relevance of these "how" and "where" strategic decisions with existing predictors of new venture growth before advancing new directions for future research on new venture growth. The how decision is examined through a comparison of internal (organic) and external (acquisition) growth, and the where decision is examined through a comparison of a domestic or international market focus. We believe these decisions are important gaps in the literature that should be considered to advance our knowledge of new venture growth.

Internal or External Growth

Growing through mechanisms internal to the firm means that the venture uses innovative product development or marketing practices to identify and develop products to capture prospective audiences. The innovations a firm creates will either be highly novel, where a new category or product/service is offered, or incremental, where an existing product/service is improved upon or refined (Amason et al., 2006). Both novel and incremental innovation are important to the venture, but each has differing implications for growth performance. For new ventures, initial product entries that are more novel than those that exist in the marketplace have the strongest potential to build the venture's market share (Banbury & Mitchell, 1995; W. T. Robinson, 1990). Once a firm is established, incremental introductions, and in particular rapid introductions, become important for sustained growth (Banbury & Mitchell, 1995). Even still, research suggests that firms whose products represent more novel concepts to the marketplace are better positioned for higher success (Bruton & Rubanik, 2002). These findings underscore the importance of the technology strategies the ventures implement to maintain their level of internal innovation for new venture growth (Dowling & McGee, 1994). Research suggests that the radical nature of new products; frequency of product upgrades; use of external technology sources, patents, and copyrights (Zahra & Bogner, 1999); and use of advanced technologies (Siegel et al., 1993) or technologically advanced partners (Stuart, 2000) make important contributions to new venture growth.

Ventures pursuing external growth place emphasis on acquiring firms competing in the same or a complementary market. Acquisitions enable firms to enhance their product or service offerings (Penrose, 1959) or extend their reach into new markets without developing the competencies required to do so independently. By purchasing an existing business, a firm benefits from the reputation that firm established in the market (Banbury & Mitchell, 1995) and, naturally, increases its share of the market after the purchase is complete. In our review of the literature, we were surprised by the paucity of studies that considered the effect of acquisitions on new venture growth, particularly in light of the time periods over which growth was analyzed and the fact that many studies examined rapid- or high-growth ventures. In fact, even studies on established firms acknowledge the paucity of research on acquisition strategies (Hopkins, 1987). We did, however, identify a study (Delmar, Davidsson, & Gartner, 2003) examining the growth patterns of a sample of high-growth ventures to determine how they grew. This study acknowledged that 10% of the ventures in their sample grew primarily through acquisition. Interestingly, the acquisition activity was the primary driver only of employment growth for the firms. Another study used acquisition activity as a criterion to help them identify a sample of high-growth firms that would enable them to determine why some firms succeeded, whereas others faltered in managing the growth they realized (Hambrick & Crozier, 1985). Aside from these studies, however, there was little mention of the extent to which acquisition activity may have influenced the growth that occurred.

This absence in the literature is striking because clearly, growth resulting from internal or external mechanisms differentially influences the growth outcomes firms realize. Penrose (1959) acknowledged that the growth that results from internal growth mechanisms may be more constant but also slower than the growth that results from external growth mechanisms. For example, new product introductions may immediately increase the sales of the firm but may not immediately affect the firm's market share or employment growth. Market share may be affected when the sales have reached a level where the firm has strong popularity in the marketplace and is exceeding the sales of its competitors. Employment growth may not increase until it appears that demand will exceed the ability of workers to meet the demand. Internal growth may immediately increase the sales of the firm but only gradually increase the employment or market share growth. External growth mechanisms, on the other hand, unlike internal growth mechanisms, may simultaneously influence growth outcomes. Unless a target firm lacks sales, buying an existing firm substantially increases the year-to-year sales in the months pursuant to an acquisition. Similarly, employment growth increases as an acquisition increases the number of employees on the firm's payroll. The share of the market the combined firm holds should be greater as well. Therefore, growth outcomes that are observed are determined at least in part by the mechanisms the entrepreneur uses for growing the firm.

Domestic or International Market Focus

Contrary to traditional theories of internationalization that suggest that firms enter international markets after first becoming established in their home country, new venture scholars began in the late 1980s to observe that entrepreneurs were internationalizing their operations from the inception of the firm (e.g., McDougall, 1989). D'Souza and McDougall (1989) have argued that internationalization activities may be essential for a venture's ultimate survival and growth. Consistent with this assertion, many of today's entrepreneurs are asking the question of where to compete at the time the venture is founded.

Although internationalization is argued to be important for venture growth, it has not been found to equivalently affect the growth outcomes a firm may realize. For example, Shrader's (1996) examination of 127 domestic new ventures and 87 international new ventures found that although the internationals outperformed the domestics in sales growth, the domestics had higher levels of employment growth. It is interesting to note that a further examination revealed that the internationals were more than twice as efficient in generating sales per employee. Although a positive relationship has been found with regard to the growth in sales of international new ventures, there is a need for additional research to validate these findings, particularly for samples of non-technology-based firms. There is also a need to examine the varied impact of internationalization on different growth outcomes and the influence that competing domestically or internationally may have on other variables that also influence new venture growth.

Whether growing domestically or internationally, a firm is likely to pursue one of two marketing expansion strategies. With market penetration strategies, a firm purports to sell larger volumes of products within its intended target market. To execute a market penetration strategy, a firm may need extensive advertising programs or partners that can promote the firm's products to the respective market. A market development strategy, on the other hand, pushes a firm to sell its products to new markets. An effective market development strategy may require the firm to either establish a new entity to service the new markets or partner with another firm already selling to the desired market. Either expansion strategy, whether it results from domestic or international markets, can strongly influence the sales and market share growth of the firms. However, by working with partners or leveraging the productivity and efficiency of current workers, a venture may be able to grow without increasing the number of individuals it employs. Moreover, in international markets, the growth that occurs may depend on the mode of entry selected for international operations (Brouthers & Nakos, 2004). A venture that internationalizes through exporting or licensing modes of entry may see an increase in sales or market share growth but little to no increase in employment growth. A venture using a foreign direct investment or joint venture mode of entry may see changes in employment for the firm before increases in sales or market share occur. Most new venture growth research does not account for these differences in foci for domestic or international growth strategies (Zahra & George, 2002), and some research that has assessed the influence of international activities on growth performance has presented results that run counter to conventional wisdom (Wijewardena & Tibbits, 1999). Thus, there is much to be learned about how domestic or international foci influence new venture growth.

Extending New Venture Growth Research

Our review of the literature suggests that the identified factors have strong implications for growth. Even so, the best predictors may depend on how and where the growth is realized. In this section, we draw on the reviewed studies to present research questions that challenge the way new venture growth is currently examined and encourage future researchers to integrate the important questions of how and where into their new venture growth studies.

Internal growth and external growth use different sets of competencies and, therefore, may require different characteristics in the entrepreneurs. For example, internal growth through innovation is a complex process that requires creativity and technical aptitude from both the entrepreneur and the firms' employees (Abernathy & Clark, 1985). Prior experiences with innovation activities provide to an entrepreneur the know-how relevant to the product development process. External growth requires a different set of competencies, particularly when the firm being acquired possesses assets that differ from those to which the acquiring firm is accustomed (Hopkins, 1987). When acquiring a firm with different assets and capabilities, an acquiring firm must spend some time valuing the assets of the target firm and completing due diligence. Prior experiences working for firms exhibiting acquisition activity would enable entrepreneurs to observe the processes and procedures that must be in place to successfully assimilate a firm into current operations.

Past research establishes that both domestic and international expansion are affected by the entrepreneur's knowledge and capabilities to guide the firm in identifying appropriate target markets, localizing and ultimately distributing products within the newly targeted market. Domestic expansion requires extensive planning and management to ensure success and will influence the sales and employment growth the venture realizes (Greening, Barringer, & Macy, 1996). Prior experience growing a firm domestically can inform entrepreneurs of the tactics that can be initiated to expand the operations with minimal interruptions to the existing business (Greening et al., 1996). International expansion is likewise a very complicated endeavor that requires good planning and management but can also require vast knowledge of international cultures and practices from those engaging in the process. For example, whereas entry through licensing or exporting may require little knowledge of the local area in which the entrepreneur operates, entry through direct investment or joint ventures necessitates greater understanding of the political as well as sociopolitical environment in which the firm will operate (Zahra, Ireland, & Hitt, 2000). Experience with international operations can provide the knowledge and contacts needed for recognizing opportunities to conduct business internationally (Bloodgood, Sapienza, & Almeida, 1996; Coviello & Munro, 1995). Without these capabilities, a firm may be constrained in its ability to expand operations into new geographic regions.

Future research must dig deeper to determine whether the specific forms of experiences the entrepreneurs hold have varying impact. It will also be important for the field to understand whether these experiences, or lack of specific experiences, may in some cases preclude the entrepreneur from successfully growing internally or externally, or domestically or internationally. For example, if an entrepreneur has only had experience growing through external growth, how effective would he or she be at growing through internal growth? Does an individual with negative experiences abroad develop a disdain for conducting business internationally and, therefore, limit future actions to the domestic market? Expanding our knowledge of experiences beyond those relating to prior start-up or industry experience will greatly enhance our understanding of how prior experiences influence new venture growth.

It will also be important to understand the role of teams in each of these processes. For example, are there certain size or team composition requirements that are best suited for growing internally or externally, domestically or internationally? Recent research suggests that some leadership styles are more associated with realizing higher levels of new venture growth than are others (Ensley et al., 2006). It seems reasonable to presume that there also are certain leadership styles that work best for growing via internal or external mechanisms or in domestic or international markets. Research that begins to illuminate these issues will provide great insight to the field.

There are many opportunities for researchers to examine the relationship of resources to venture growth. For ventures pursuing internal growth, it may be that technically skilled employees contribute significantly to growth, whereas ventures pursuing external growth may find that employees with financial or administrative skills more strongly influence growth. Ventures growing through international markets may see growth affected when employees have experience in international markets, whereas ventures growing domestically may have greater need for individuals with strong marketing skills. Moreover, the mode of entry (e.g., exporting, licensing, direct foreign investment) into the international market requires differing skills from the managers (Oviatt & McDougall, 1994) in order to successfully execute the internationalization process.

In addition, most research has focused on the capabilities of the entrepreneur or top management team to the exclusion of other employees the firm employs. Studies have also commonly used employment size as a control variable but have seldom considered whether firms have an optimal number of employees for growing the firm or whether they are experiencing a shortage of workers. Delays in hiring key employees into the firm may preclude a venture's ability to continue growing at a healthy pace. We suggest that understanding a venture's experiences in filling key positions and the type of employees that are needed may also contribute to a richer understanding of its growth.

The demands on financial resource requirements vary by the type of strategic initiative a venture undertakes. Financial resources are particularly important for supporting large strategic initiatives an entrepreneur may desire to undertake (Bamford et al., 2000b). For example, although innovation activities can require high levels of financial resources for development and successful execution (Abernathy & Clark, 1985), purchasing an existing business can also require a significant level of financial capitalization in the acquiring firm. Similarly, expanding internationally can be a more costly endeavor than just expanding domestically as there may be substantially higher transportation and transaction costs. The modes of entry into international markets can also command high resource commitments and are likely selected on the basis of the resources available to the firm (Brouthers & Nakos, 2004). The level of financial capital available to support strategic endeavors may influence the decisions entrepreneurs make, which in turn has implications for new venture growth. However, little consideration has been given to the indirect relationship financial capital may have on new venture growth. Moreover, given the importance of cash, it may be useful for scholars to consider the cash flow the firm has for operations during the time period of study. Growth can only be achieved when the venture is able to finance it and cash flow will help scholars understand why growth could or could not be accomplished during the period of investigation. We suggest there is a need for additional research that enhances understanding of how financial capital enables or constrains the strategic decisions entrepreneurs make and ultimately the growth of the firm (see, e.g., George, 2005; Pissarides, 1999).

Our review also identified geographic location as a compelling factor influencing new venture growth. Geographic location has been confirmed to influence firm patenting performance, ability to attract alliance partners as well as private equity partners, each of which are factors relating to the growth of new firms (Folta et al., 2006; Lechner & Dowling, 2003). It is also reported to heighten demand for a firm's products (Chung & Kalnins, 2001) and to affect whether new ventures internationalize their operations (O'Farrell, Wood, & Zheng, 1996; Westhead, Wright, & Ucbasaran, 2001). It is apparent that a venture's geographic location influences entrepreneurs' perceptions of the environment and the strategies they desire to pursue (Baum & Haveman, 1997; Canina, Enz, & Harrison, 2005; Furman, 2003). If so, are ventures located in clusters better able to identify acquisition targets? Do ventures located in clusters mimic the international growth patterns of the established firms in their cluster? We must better understand what local environmental cues and dynamics influence the decisions entrepreneurs make and ultimately the growth their firms attain.

Prior research has shown that firms following niche strategies, as well as those pursuing first-mover advantages, may need to internationalize to maximize the size of the market they are targeting (Baum et al., 2001). The differences in national laws for foreign entrants into the market (Busenitz, Gomez, & Spencer, 2000) may mandate that international ventures adapt new strategies to operate in the new foreign market. Internal growth mechanisms may be essential for such firms to constantly meet the needs of their specially targeted markets. Firms following broad-breadth strategies or those following early follower strategies may have a large enough market available to exploit that their urgency to internationalize their operations is suppressed relative to firms with focused strategies. Given the size of the market and likely presence of numerous competitors, firms following broad and follower strategies may find it necessary to acquire other firms to enhance their product offerings, which could more strongly affect the observed growth of the firms. We suggest that the field needs to consider the venture's strategy in light of the strategic decisions the entrepreneur has made and the resources the entrepreneur has for growing the firm. As resource needs differ depending on the strategic decisions that are made, this shift may be particularly important as some research has shown that neither resources nor strategies directly affect venture growth (Edelman, Brush, & Manolova, 2005); rather, an effect on performance is only observed when strategies and resources appropriately align. As Chrisman et al. (1998) proposed in their listing of factors influencing new venture growth, we agree that it is important for the field to give more extensive consideration to the planning and formulation processes entrepreneurs undergo, the goals and objectives they set, the strategic direction they possess, the entry and business strategies used, the market segmentation selected, the scope of the market, and alliance strategies they employ.

Our review revealed a large and impressive body of research on the relationship between industry and new venture growth; however, researchers have not considered whether varying industry characteristics would affect the decision and success of internal versus external growth. How might the stage of the industry or the presence of a dominant design affect whether the venture should pursue internal or external growth? In industries with a high degree of rivalry, might external growth be the preferred mechanism? Most new venture studies on industry factors have only considered the venture's domestic operating environment. The international arena, however, may introduce new industry dynamics from which the domestic operations sheltered the venture. For ventures operating internationally, characteristics of the domestic environment may not adequately reflect the competitive environment the ventures face, and their relationship with growth may be little understood. We believe the emphasis on the interaction between industry characteristics and venture strategy is a crucial one that must continue to be developed if we are to continue comparing growth patterns of new firms. An important starting point would be expanding our use of industries to include a more diverse collection of industries at varying stages and determining the strategic elements that are needed to successfully grow in those industries. Some industries may be growing but at a less rapid pace than what is observed for the technology-related firms commonly reflected throughout extant research. Building on new venture research examining how the nature of products or services a venture offers influences its growth (e.g., Sandberg & Hofer, 1987), future researchers should examine in the context of international and domestic markets whether the nature of products bears significance. For example, when ventures offer products with the potential for global application yet do not operate beyond their domestic market, other factors are likely in place that may be suppressing the growth of the ventures. As we expand our understanding of the conditions under which entrepreneurs are competing, we will enhance understanding of why, given the same competitive environment, some ventures are more successful than others.

The organizational systems a firm uses have also been found to influence new venture growth. Sophisticated technologies are generally required for firms to create the proprietary products needed to grow in dynamic markets (Siegel et al., 1993). The organizational structure and systems that entrepreneurs institute, however, will be related to the decisions they have made for growing the firm. Will ventures that have already adopted the systems and technologies needed for internal growth be more likely to reinvest in those activities and continue exploiting growth through internal means? The basic questions related to the appropriate organizational structure and systems needed for a venture to grow externally are largely unanswered, even though acquisition strategies are common among ventures competing in growing industries.

Similarly, whether a firm grows in domestic or international markets may influence the determination of the systems and processes most conducive for sustaining growth. The coordination activities required for internationalizing may be best managed by those whose complex operations have them adept at balancing the specialization and coordination skills internationalization will require (Oviatt & McDougall, 1994). Consequently, might ventures without these structures and processes be limited in their international growth? As internal or external growth and domestic or international growth require differing structures and systems to execute, surely the structures and systems may differentially affect the growth the firms realize.

Explicitly considering how and where new ventures grow will enhance our understanding of the conditions the venture faces while realizing growth. This understanding should foster greater knowledge of the potential problems firms face growing via a particular means, which should enlighten our understanding of why new firms fail. Equipped with this knowledge, entrepreneurs and scholars alike will be better enabled to make predictions of firm outcomes based on the method through which growth is occurring. It should also enable us to provide suggestions for overcoming those problems to preserve the future performance of the firm, which should advance the field toward broadening the normative component of new venture growth research.

Conclusion

Growth is a vital indicator of any thriving firm. An extensive literature has made considerable progress in identifying why some new ventures experience more growth than others. This article has identified a rich array of factors, ranging from characteristics of the entrepreneur, to access to resources such as human capital and finance that have now consistently emerged as explaining why some ventures grow more than their counterparts. However, this article has identified two aspects of entrepreneurial strategy influencing new venture growth that have been largely overlooked in the literature—how and where new ventures grow. By focusing on two growth decisions that entrepreneurs make—how to grow (internally or externally) and where to grow (domestically or internationally), this article enhances the field's conceptualization of new venture growth as something more than what occurs when certain correlates are in place. Growth is a function of the decisions entrepreneurs make about how and where they should grow their firms and the extent to which other factors are in place that enable growth to occur. Through further empirical research on new venture growth, the field will improve its understanding of this complex process while progressing toward helping entrepreneurs achieve the ultimate measures of performance, longevity and wealth creation—profitability.

References

Abernathy, W. J., & Clark, K. B. 1985. Innovation: Mapping the winds of creative destruction. *Research Policy*, 14: 3-22.

Acs, Z. J., & Armington, C. 2006. *Entrepreneurship, geography and American economic growth*. New York: Cambridge University Press.

Amason, A. C., Shrader, R. C., & Tompson, G. H. 2006. Newness and novelty: Relating top management team composition to new venture performance. *Journal of Business Venturing*, 21: 125-148.

Arthurs, J. D., & Busenitz, L. W. 2006. Dynamic capabilities and venture performance: The effects of venture capitalists. *Journal of Business Venturing*, 21: 195-215.

Bamford, C. E., Dean, T. J., & Douglas, T. J. 2004. The temporal nature of growth determinants in new bank foundings: Implications for new venture research design. *Journal of Business Venturing*, 19: 899-919.

Bamford, C. E., Dean, T. J., & McDougall, P. P. 2000a. Entry strategies and the growth of bank start-ups in the U.S.: A critical examination of the niche prescription for new ventures. Paper presented at the ICSB World Conference, Brisbane, Australia, June.

Bamford, C. E., Dean, T. J., & McDougall, P. P. 2000b. An examination of the impact of initial founding conditions and decisions upon the performance of new bank start-ups. *Journal of Business Venturing*, 15: 253-277.

Banbury, C. M., & Mitchell, W. 1995. The effect of introducing important incremental innovations on market share and business survival. *Strategic Management Journal,* 16: 161-182.

Barringer, B. R., Jones, F. F., & Neubaum, D. O. 2005. A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing*, 20: 663-687.

Baum, J. A. C., & Haveman, H. A. 1997. Love thy neighbor? Differentiation and agglomeration in the Manhattan hotel industry, 1898-1990. *Administrative Science Quarterly*, 42: 304-338.

Baum, J. R., & Locke, E. A. 2004. The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89: 587-598.

Baum, J. R., Locke, E. A., & Smith, K. G. 2001. A multidimensional model of venture growth. *Academy of Management Journal,* 44: 292-303.

Baysinger, B. D., Meiners, R. E., & Zeithaml, C. P. 1982. *Barriers to corporate growth*. Lexington, MA: Lexington Books.

Berger, A. N., & Udell, G. F. 1998. The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, 22: 613-673.

Birley, S. 1987. New ventures and employment growth. *Journal of Business Venturing*, 2: 155-165.

Bloodgood, J. M., Sapienza, H. J., & Almeida, J. G. 1996. The Internationalization of new high-potential U.S. ventures: Antecedents and outcomes. *Entrepreneurship, Theory and Practice*, 20(4): 61-77.

Boeker, W. 1989. Strategic change: The effects of founding and history. *Academy of Management Journal*, 32: 489-515.

Bollingtoft, A., Ulhoi, J. P., Madsen, H., & Neergaard, H. 2003. The effect of financial factors on the performance of new venture companies in high tech and knowledge-intensive industries: An empirical study in Denmark. *International Journal of Management*, 20: 535-547.

Box, T. M., White, M. A., & Barr, S. H. 1993. A contingency model of new manufacturing performance. *Entrepreneurship Theory & Practice*, 18(2): 31-45.

Brouthers, K. D., & Nakos, G. 2004. SME entry mode choice and performance: A transaction cost perspective. *Entrepreneurship Theory & Practice*, 28: 229-247.

Brush, C. G., & Chaganti, R. 1998. Businesses without glamour? An analysis of resources on performance by size and age in small service and retail firms. *Journal of Business Venturing*, 14: 233-257.

Brush, C. G., Greene, P., & Hart, M. M. 2001. From initial idea to unique advantage: The entrepreneurial challenge of constructing a resource base. *Academy of Management Executive*, 15: 64-81.

Bruton, G. D., & Rubanik, Y. 2002. Resources of the firm, Russian high-technology startups and firm growth. *Journal of Business Venturing*, 17: 553-576.

Buchele, R. B. 1967. *Business policy in growing firms*. San Francisco: Chandler.

Buederal, J., Preisendoerfer, P., & Ziegler, R. 1992. Survival chances of newly founded business organizations. *American Sociological Review*, 57: 227-242.

Busenitz, L. W., Gomez, C., & Spencer, J. W. 2000. Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43: 994-1003.

Canina, L., Enz, C. A., & Harrison, J. S. 2005. Agglomeration effects and strategic orientations: Evidence from the U.S. lodging industry. *Academy of Management Journal*, 48: 565-581.

Cardon, M. S. 2003. Contingent labor as an enabler of entrepreneurial growth. *Human Resource Management*, 42: 357-373.

Carroll, G. 1983. A stochastic model of organizational mortality: Review and reanalysis. *Social Science Research*, 12: 309-329.

Castrogiovanni, G. J. 1991. Environmental munificence: A theoretical assessment. *Academy of Management Review*, 16: 542-565.

Chandler, G. N., & Hanks, S. H. 1994a. Founder competence, the environment and venture performance. *Entrepreneurship Theory & Practice*, 18(3): 77-89.

Chandler, G. N., & Hanks, S. H. 1994b. Market attractiveness, resource-based capabilities, venture strategies, and venture performance. *Journal of Business Venturing*, 9: 331-349.

Chrisman, J. J., Bauerschmidt, A., & Hofer, C. W. 1998. The determinants of new venture performance: An extended model. *Entrepreneurship Theory & Practice*, 23: 5-29.

Chrisman, J. J., McMullan, E., & Hall, J. 2005. The influence of guided preparation on the long-term performance of new ventures. *Journal of Business Venturing*, 20: 769-791.

Chung, W., & Kalnins, A. 2001. Agglomeration effects and performance: A test of the Texas lodging industry. *Strategic Management Journal*, 22: 969-997.

Cliff, J. E. 1998. Does one size fit all? Exploring the relationship between attitudes toward growth, gender and business size. *Journal of Business venturing*, 13: 523-542.

Cooper, A. C. 1985. The role of incubator organizations in the founding of growth-oriented firms. *Journal of Business Venturing*, 1: 75-86.

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. 1994. Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9: 371-395.

Coviello, N. E., & Munro, H. J. 1995. Growing the entrepreneurial firm: Networking for international market development. *European Journal of Marketing*, 29(7): 49-61.

Covin, J. G., Slevin, D. P., & Covin, T. J. 1990. Content and performance of growth-seeking strategies: A comparison of small firms in high- and low-technology industries. *Journal of Business Venturing,* 5: 391-412.

Dahlqvist, J., Davidsson, P., & Wiklund, J. 2000. Initial conditions as predictors of new venture performance: A replication and extension of the Cooper et al. study. *Enterprise & Innovation Management Studies*, 1: 1-17.

Delmar, F., Davidsson, P., & Gartner, W. B. 2003. Arriving at the high-growth firm. *Journal of Business Venturing*, 18: 189-216.

Dowling, M. J., & McGee, J. E. 1994. Business and technology strategies and new venture performance: A study of the telecommunications equipment industry. *Management Science,* 40: 1663-1677.

D'Souza, D. E., & McDougall, P. P. 1989. Third world joint venturing: A strategic option for the smaller firm. *Entrepreneurship Theory & Practice*, 14: 19-33.

Edelman, L. F., Brush, C. G., & Manolova, T. 2005. Co-alignment in the resource-performance relationship: Strategy as mediator. *Journal of Business Venturing*, 20: 359-383.

Eisenhardt, K. M., & Schoonhoven, C. B. 1990. Organizational growth: Linking founding team, strategy, environment, and growth among U.S. semiconductor ventures, 1978-1988. *Administrative Science Quarterly*, 35: 504-529.

Ensley, M. D., Pearce, C. L., & Hmieleski, K. M. 2006. The moderating effect of environmental dynamics on the relationship between entrepreneur leadership behavior and new venture performance. *Journal of Business Venturing,* 21: 243-263.

Ensley, M. D., Pearson, A. W., & Amason, A. C. 2002. Understanding the dynamics of new venture top management teams cohesion, conflict, and new venture performance. *Journal of Business Venturing*, 17: 365-386.

Feldman, M. P., & Florida, R. 1994. The geographic sources of innovation: Technological infrastructure and product innovation in the United States. *Annals of the Association of American Geographers*, 8: 210-229.

Folta, T. B., Cooper, A. C., & Baik, Y.-S. 2006. Geographic cluster size and firm performance. *Journal of Business Venturing*, 21: 217-242.

Forbes, D. P. 2005. Managerial determinants of decision speed in new ventures. *Strategic Management Journal*, 26: 355-366.

Freeman, J., Carroll, G. R., & Hannan, M. T. 1983. The liability of newness: Age dependence in organizational death rates. *American Sociological Review*, 48: 692-710.

Furman, J. L. 2003. Location and organizing strategy: Exploring the influence of location on the organization of pharmaceutical research. *Advances in Strategic Management*, 20: 49-88.

George, G. 2005. Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48: 661-676.

Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42: 750-783.

Green, G. P., & McNamara, K. T. 1987. Traditional and nontraditional opportunities and alternatives for local economic development. In L. J. Beaulieu (Ed.), *The rural South in crisis: Challenges of the future*. Boulder, CO: Westview.

Greening, D. W., Barringer, B. R., & Macy, G. 1996. A qualitative study of managerial challenges facing small business geographic expansion. *Journal of Business Venturing,* 11: 233-256.

Hambrick, D. C., & Crozier, L. M. 1985. Stumblers and stars in the management of rapid growth. *Journal of Business Venturing*, 1: 31-45.

Hanks, S. H., Watson, C. J., Jansen, E., & Chandler, G. N. 1993. Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organizations. *Entrepreneurship, Theory & Practice*, 18(2): 5-29.

Hanson, G. H. 2000. Firms, workers, and the geographic concentration of economic activity. In G. L. Clark, M. P. Feldman, & M. S. Gertler (Eds.), *The Oxford handbook of economic geography:* 477-494. New York: Oxford University Press.

Hopkins, H. D. 1987. Acquisition strategy and the market position of acquiring firms. *Strategic Management Journal*, 8: 535-547.

Kazanjian, R. K., & Drazin, R. 1990. A stage-contingent model of design and growth for technology based new ventures. *Journal of Business Venturing*, 5: 137-150.

Kerin, R. A., Varadarajan, P. R., & Peterson, R. A. 1992. First-mover advantage: A synthesis, conceptual framework, and research propositions. *Journal of Marketing*, 56: 33-52.

Kirchoff, B. A., & Phillips, B. D. 1988. The effect of firm formation and growth on job creation in the United States. *Journal of Business Venturing*, 3: 261-272.

Kirzner, I. M. 1983. *Perception, opportunity and profit: Studies in the theory of entrepreneurship*. Chicago: University of Chicago Press.

Koberg, C. S., Uhlenbruck, N., & Sarason, Y. 1996. Facilitators of organizational innovation: The role of life-cycle stage. *Journal of Business Venturing*, 11: 133-149.

Lant, T. K., Milliken, F. J., & Batra, B. 1992. The role of managerial learning and interpretation in strategic persistence and reorientation: An empirical exploration. *Strategic Management Journal*, 13: 585-608.

Lechner, C., & Dowling, M. 2003. Firm networks: External relationships as sources for the growth and competitiveness of entrepreneurial firms. *Entrepreneurship & Regional Development*, 15: 1-26.

Lee, C., Lee, K., & Pennings, J. M. 2001. Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, 22: 615-640.

Liao, J., & Welsch, H. 2003. Social capital and entrepreneurial growth aspiration: A comparison of technology- and non-technology-based nascent entrepreneurs. *Journal of High Technology Management Research*, 14: 149-170.

McDougall, P. P. 1989. International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing*, 4: 387-400.

McDougall, P. P., Covin, J. G., Robinson, R. B., Jr., & Herron, L. 1994. The effects of industry growth and strategic breadth on new venture performance and strategy content. *Strategic Management Journal*, 15: 537-554.

McDougall, P. P., Robinson, R. B., Jr., & DeNisi, A. S. 1992. Modeling new venture performance: An analysis of new venture strategy, industry structure, and venture origin. *Journal of Business Venturing*, 7: 267-289.

McGee, J. E., & Dowling, M. J. 1994. Using R&D cooperative arrangements to leverage managerial experience: A study of technology-intensive new ventures. *Journal of Business Venturing*, 9: 33-48.

McGee, J. E., Dowling, M. J., & Megginson, W. L. 1995. Cooperative strategy and new venture performance: The role of business strategy and management experience. *Strategic Management Journal*, 16: 565-580.

Miller, C. C., Burke, L. M., & Glick, W. H. 1998. Cognitive diversity among upper-echelon executives: Implications for strategic decision processes. *Strategic Management Journal*, 19: 39-58.

Mullins, J. W. 1996. Early growth decisions of entrepreneurs: The influence of competency and prior performance under changing market conditions. *Journal of Business Venturing*, 11: 89-105.

Murphy, G. B., Trailer, J. W., & Hill, R. C. 1996. Measuring performance in entrepreneurship research. *Journal of Business Research*, 36: 15-23.

Nicholls-Nixon, C. L., Cooper, A. C., & Woo, C. Y. 2000. Strategic experimentation: Understanding change and performance in new ventures. *Journal of Business Venturing*, 15: 493-521.

O'Farrell, P. N., Wood, P. A., & Zheng, J. 1996. Internationalization of business services: An interregional analysis. *Regional Studies,* 30: 101-118.

Olson, P. D., & Bokor, D. W. 1995. Strategy process-content interaction: Effects on growth performance in small, start-up firms. *Journal of Small Business Management*, 34-36.

Orser, B. J., Hogarth-Scott, S., & Riding, A. L. 2000. Performance, firm size, and management problem solving. *Journal of Small Business Management*, 38: 42-58.

Oviatt, B. M., & McDougall, P. P. 1994. Toward a theory of international new ventures. *Journal of International Business Studies*, 25: 45-64.

Park, S., & Bae, Z-T. 2004. New venture strategies in a developing country: Identifying a typology and examining growth patters through case studies. *Journal of Business Venturing*, 19: 81-105.

Park, S. H., Chen, R., & Gallagher, S. 2002. Firm resources as moderators of the relationship between market growth and strategic alliances in semiconductor start-ups. *Academy of Management Journal*, 45: 527-545.

Penrose, E. 1959. *The theory of the growth of the firm.* New York: Oxford University Press.

Pissarides, F. 1999. Is lack of funds the main obstacle to growth? EBRD's experience with small- and medium-sized businesses in central and eastern Europe. *Journal of Business Venturing*, 14: 519-539.

Porter, M. E. 1995. The competitive advantage of the inner city. *Harvard Business Review*, (May/June): 55-71.

Robinson, K. 1998. An examination of the influence of industry structure on eight alternative measures of new venture performance for high potential independent new ventures. *Journal of Business Venturing*, 14: 165-187.

Robinson, K. C., & McDougall, P. P. 2001. Entry barriers and new venture performance: A comparison of universal and contingency approaches. *Strategic Management Journal*, 22: 659-685.

Robinson, W. T. 1990. Product innovation and start-up business market share performance. *Management Science*, 36: 1279-1289.

Romanelli, E., & Schoonhoven, C. B. 2001. The local origins of new firms. In C. B. Schoonhoven & E. Romanelli (Eds.), *The entrepreneurship dynamic:* 40-67. Stanford, CA: Stanford University Press.

Sandberg, W. R. 1986. *New venture performance: The role of strategy and industry structure*. Lexington, MA: Lexington Books.

Sandberg, W. R., & Hofer, C. W. 1987. Improving new venture performance: The role of strategy, industry structure, and the entrepreneur. *Journal of Business Venturing*, 2: 5-28.

Sapienza, H. J., & Grimm, C. M. 1997. Founder characteristics, start-up process, and strategy/structure variables as predictors of shortline railroad performance. *Entrepreneurship Theory & Practice*, 22(1): 5-23.

Saxenian, A. 1990. Regional networks & the resurgence of Silicon Valley. *California Management Review*, 33: 89-111.

Saxenian, A. 1994. *Regional advantage: Culture and competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press.

Scherer, R. F., Adams, J. S., & Wiebe, F. A. 1989. Developing entrepreneurial behaviours: A social learning theory perspective. *Journal of Organizational Change Management*, 2: 16-27.

Shrader, R. C. 1996. Influences on and performance implications of internationalization by publicly owned U.S. new ventures: A risk taking perspective. Unpublished doctoral dissertation, Georgia State University, Atlanta.

Siegel, R., Siegel, E., & MacMillan, I. C. 1993. Characteristics distinguishing high-growth ventures. *Journal of Business Venturing*, 8: 169-180.

Stinchcombe, A. L. 1965. Social structure and organizations. In J. G. March (Ed.), *Handbook of organization:* 142-193. Chicago: RandMcNally.

Stuart, T. E. 2000. Interorganizational alliances the performance of firms: A study of growth and innovation rates in a high-technology industry**.** *Strategic Management Journal*, 21: 791-811.

Stuart, T., & Sorenson, O. 2003. The geography of opportunity: Spatial heterogeneity in founding rates and the performance of biotechnology firms. *Research Policy*, 32: 229-253.

Susbauer, J. C. 1979. Strategic management: New ventures and small business. In D. E. Schendel & C. W. Hofer (Eds.), *Strategic management: A new view of business policy and planning:* 327-332. Boston: Little, Brown.

Sutton, J. 1997. Gibrat's legacy. *Journal of Economic Literature*, 35: 40-59.

Taub, R. P. 1988. Community capitalism: *The South Shore Bank's strategy for neighborhood revitalization*. Boston: Harvard Business School Press.

Thakur, S. P. 1999. Size of investment, opportunity choice and human resources in new venture growth: Some typologies. *Journal of Business Venturing*, 14: 283-309.

Venkataraman, S., Van de Ven, A. H., Buckeye, J., & Hudson, R. 1990. Starting up in a turbulent environment: A process model of failure among firms with high customer dependence. *Journal of Business Venturing*, 5: 277-295.

Wasilczuk, J. 2000. Advantageous competence of owner/managers to grow the firm in Poland: Empirical evidence. *Journal of Small Business Management*, 38: 88-94.

Weinzimmer, L. G., Nystrom, P. C., & Freeman, S. J. 1998. Measuring organizational growth: Issues, consequences and guidelines. *Journal of Management,* 24: 235-260.

West, G. P., & Meyer, G. D. 1998. To agree or not to agree? Consensus and performance in new ventures. *Journal of Business Venturing*, 13: 395-422.

Westhead, P., Wright, M., & Ucbasaran, D. 2001. The internationalization of new and small firms: A resource-based view. *Journal of Business Venturing*, 16: 333-358.

Wijewardena, H., & Tibbits, G. E. 1999. Factors contributing to the growth of small manufacturing firms: Data from Australia. *Journal of Small Business Management*, 37: 88-95.

Wiklund, J., Davidsson, P., & Delmar, F. 2003. What do they think and feel about growth? An expectancy-value approach to small business managers' attitudes towards growth. *Entrepreneurship Theory & Practice*, 26: 247-270.

Zahra, S., & Bogner, W. 1999. Technology strategy and software new ventures' performance: Exploring the moderating effects of the competitive environment. *Journal of Business Venturing*, 15: 135-173.

Zahra, S., & George, G. 2002. Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27: 185-203.

Zahra, S. A., Ireland, R. D., & Hitt, M. A. 2000. International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43: 925-950.

Biographical Notes

Brett Anitra Gilbert is an assistant professor in the Department of Managerial Sciences at Georgia State University. She is the first entrepreneurship PhD to graduate from Indiana University. Her research interests seek to understand the conditions under which new ventures are able to attain the highest levels of performance.

Patricia P. McDougall is the William L. Haeberle Professor of Entrepreneurship and the associate dean of Faculty and Research at Indiana University's Kelley School of Business. Her current research interests are international entrepreneurship and new venture strategies. She earned her PhD from the University of South Carolina.

David B. Audretsch is the Ameritech Chair of Economic Development at Indiana University. He is also director of the Entrepreneurship, Growth & Public Policy Group at the Max Planck Institute of Economics in Germany and a scholar-in-residence at the Kauffman Foundation. He researches the geography of entrepreneurship and received his PhD from the University of Wisconsin.