



A quantitative content analysis of the characteristics of rapid-growth firms and their founders

Bruce R. Barringer*, Foard F. Jones¹, Donald O. Neubaum²

Department of Management, College of Business Administration, University of Central Florida, Orlando, FL 32816, United States

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Abstract

A group of firms that is attracting attention are rapid-growth firms. These firms are of particular interest because rapid growth is an indication of market acceptance and firm success. By studying rapid-growth firms, researchers can help all firms better understand the attributes associated with firm growth. Despite these positive outcomes, however, rapid firm growth is difficult to achieve and maintain.

This study adds to the literature through a quantitative content analysis of the narrative descriptions of 50 rapid-growth firms and a comparison group of 50 slow-growth companies. The purpose of the study was to draw from the narratives a list of empirically grounded growth-related attributes that are associated with rapid-growth firms. The findings of the study resulted in the advancement of a conceptual model of the attributes of rapid-growth firms in four areas: founder characteristics, firm attributes, business practices, and human resource management (HRM) practices.

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* Corresponding author. Tel.: +1 407 823 2673; fax: +1 407 823 3735.

E-mail addresses: Bruce.Barringer@bus.ucf.edu (B.R. Barringer), Foard.Jones@bus.ucf.edu (F.F. Jones), Donald.Neubaum@bus.ucf.edu (D.O. Neubaum).

¹ Tel.: +1 407 823 2679; fax: +1 407 823 3735.

² Tel.: +1 407 823 5685; fax: +1 407 823 3735.

1. Executive summary

A subset of firms that are of particular interest to researchers and practitioners are rapid-growth firms. Rapid-growth firms, which are defined in this study as firms with a 3-year compound annual sales growth rate of 80% or above, provide an important stimulus to the national economy. In addition, rapid growth is frequently an indication of market acceptance and firm success. Young rapid-growth firms, such as Apple Computer, Cisco Systems, and Oracle, have spawned new industries and spearheaded the development of innovative products and services. By examining rapid-growth firms, researchers can help all firms better understand the attributes and behaviors associated with firm growth.

Despite these positive outcomes, rapid growth is difficult to achieve and maintain. In fact, only one in seven firms generate sustained, profitable growth (Zook and Allen, 1999). There is no consensus in the literature regarding why rapid growth is difficult to maintain. Yet, published surveys, along with our own field research, suggest that growth is a top strategic priority for a large percentage of firms. As a result, we believe that additional research regarding the attributes and behaviors needed to achieve and maintain rapid firm growth is needed.

This study utilizes a quantitative comparative case study methodology to analyze a sample of 50 rapid-growth and 50 slow-growth firms. A literature review revealed that the four most influential categories of variables, with regard to a firm's ability to achieve and maintain rapid growth, are (1) founder characteristics, (2) firm attributes, (3) business practices, and (4) HRM practices. The data used in the study came from a set of narrative case studies provided by the Ewing Marion Kauffman Foundation. The cases represent a subset of a larger database of firms that were regional and national winner of the Ernst & Young LLP Entrepreneur of the Year award sponsored by the National Center for Entrepreneurship Research at the Kauffman Foundation.

The findings from the study reveal that rapid-growth firms differ from their slow-growth counterparts on a number of important dimensions. With regard to founder characteristics, the founders of the rapid-growth firms in the sample are better educated, have a more compelling "entrepreneurial story" [or motivation to be an entrepreneur], and have a higher incidence of prior industry experience than the founders of the slow-growth firms. With regard to firm attributes, the rapid-growth firms in the sample have a stronger commitment to growth, are more involved in interorganizational relationships, and utilize a growth-oriented mission statement to a greater extent than the slow-growth firms. With regard to business practices, the rapid-growth firms in the sample add more unique value and have a deeper level of customer knowledge than the slow-growth firms. Finally, with regard to HRM practices, the rapid-growth firms in the sample emphasize training, employee development, financial incentives, and stock options to a greater extent than their slow-growth counterparts.

The results of this paper provide some practical advice for entrepreneurs. First, firm growth is not automatic. The characteristics of the founders of a firm, along with a firm's growth-related attributes, its business practices, and its HRM practices, make a difference in terms of its ability to achieve and sustain rapid-growth. As a result, the process of growing a firm is a management challenge, similar to the other managerial challenges that entrepreneurs face. This conclusion suggests that a firm should manage its growth consciously and deliberately, and should carefully evaluate the growth-related implications of the choices it makes.

Startups should also work hard to include individuals on their founding teams that have personal characteristics, such as related industry experience, which help a firm achieve and sustain a rapid-growth rate.

The results of the study are triangulated against the existing literature to advance a conceptual model that depicts the characteristics of rapid-growth firms. It is hoped that the model will be useful to firms that are trying to achieve rapid growth or are presently in a rapid-growth mode, and will provide a point of departure for researchers interested in doing additional work in this important area.

2. Introduction

Despite the fact that the average firm in America grows at only a 3.5% rate, there exists a subset of firms that grows in a more accelerated fashion. These rapid-growth firms, which are an important stimulus to the national economy, are of particular interest to academics and practitioners because rapid growth is often an indication of market acceptance and firm success (Fesser and Willard, 1990). Young rapid-growth firms, such as eBay and Cisco Systems, have spawned new industries and spearheaded the development of innovative products and services. By examining rapid-growth firms, researchers can help all firms better understand the attributes associated with firm growth.

Despite these positive outcomes, rapid growth is difficult to achieve and maintain. The growth rates of companies often stall because of the demands associated with the growth process. In fact, according to Zook and Allen (1999), only one in seven companies generate sustained, profitable growth. The figures are even lower for rapid-growth firms. According to the National Commission on Entrepreneurship (2001), a rapid-growth firm is a firm that grows its employment by at least 15% per year. A study by the commission found that only 4.7% of businesses that existed in 1991 grew their employment by at least 15% per year or at least doubled their employment over the 5 years from 1992 to 1997. In an earlier study, Hambrick and Crozier (1985) suggested that coping with the stresses imposed by instant size, a sense of infallibility, internal turmoil, and extraordinary resource needs are persistent challenges that managers of rapid-growth firms face. Missteps in the management of any one of these challenges might lead to the failure of an otherwise successful rapid-growth firm.

Despite of the challenges associated with rapid growth, numerous surveys (e.g., Deloitte and Touch LLP and Wirthline Worldwide, 1996) suggest that growth is a top strategic priority for a large percentage of firms. Rapid growth, however, is not a random or chance event, but is associated with specific firm attributes, behaviors, strategies, and decisions. The purpose of this study is to add to the literature on rapid-growth firms by comparing the key attributes of 50 rapid-growth firms with those of 50 slow-growth companies. By using a quantitative content analysis of the narrative descriptions of these 50 rapid-growth and 50 slow-growth firms, this study hopes to draw distinctions in the key attributes between rapid-growth and slow-growth companies and provide prescriptive advice to executives who wish to increase their firms' growth potential.

The study proceeds in the following manner. First, a review of the literature on rapid growth is conducted. Second, a quantitative content analysis is presented, including a discussion of the

methodology, the sample, and the results. Finally, we present the study's major contributions and make several observations regarding the present state of research on rapid-growth firms.

3. Literature review

The literature on rapid-growth firms has focused on whether there are systematic differences between rapid-growth firms and their slow-growth counterparts, and what these differences are. In a review of 55 research articles on firm growth published between 1989 and 1996, Delmar (1997) concluded that there is little agreement on what factors affect growth. In a more recent article, Delmar and Davidsson (1998, p. 399) remarked that despite increased research efforts, our knowledge about high-growth businesses is “still very limited.” Similarly, after reviewing 68 studies on firm growth and performance, Wiklund (1998) characterized the literature as “highly fragmented.”

To review the literature, we examined 106 articles, book chapters, and books on firm growth and performance from the entrepreneurship, management, and economics literatures. A summary of our findings is provided in Table 1. Contrary to prior beliefs that the literature on firm growth is fragmented or limited, the implications from Table 1 suggest the literature is rather rich and mature. As shown in the table, we found that the literature on rapid-growth firms highlights four major areas: founder characteristics, firm attributes, business practices, and human resource management (HRM) practices. Each of these areas is briefly discussed below.

3.1. Founder characteristics

The relationship between founder characteristics and firm growth is important for at least three reasons. First, it is widely believed that the founders of a firm place a lasting “stamp” on their companies that influences the cultures and behaviors of their firms (Mullins, 1996). For example, for years after the death of Walt Disney, Disney executives, when confronted with an important decision, would often ask aloud “What would Walt do?” (Collins and Porras, 1994). Similarly, Hewlett–Packard's *Rules of the Garage* institutionalizes the values of its innovative founders. Second, investors and others often assess the potential of a new venture by evaluating the attributes of its founders. One of the most important criteria used by venture capitalists, for example, in deciding whether to fund a firm is their perception of the entrepreneur's or team of entrepreneurs' ability to successfully launch the venture. Third, launching a new firm is a challenging process. As a result, individual difference variables, such as educational level achieved and prior industry experience, have in many instances been found to be critical in successfully launching a new firm. In the following sections, a brief review of the research on the most widely studied founder characteristics is presented.

3.1.1. Relevant industry experience

The impact of relevant industry experience on an entrepreneur's ability to successfully launch and grow a firm has been studied. Here, the notion is that entrepreneurs with experience in the same industry as their current venture will have a more mature network of industry

Table 1
 Characteristics and behaviours of successful rapid-growth firms

Characteristic or behaviour	Description	Representative studies and method of analysis		
		Quantitative	Qualitative	Conceptual
<i>Founder characteristics</i>				
Relevant industry experience	Founders with experience in the same industry as their new venture should have better established professional networks and more applicable marketing and management expertise than founders without relevant industry experience.	Siegel et al. (1993), Fesser and Willard (1990), MacMillan and Day (1987)		Vesper (1980)
Higher education	Evidence suggests that important entrepreneurial skills are enhanced through higher education.	Watson et al. (2003), Sapienza and Grimm (1997)		
Entrepreneurial experience	Entrepreneurs with prior entrepreneurial experience are better accustomed to the entrepreneurial process and more likely to avoid costly mistakes than entrepreneurs with no prior entrepreneurial experience.	Duchesneau and Gartner (1990), Stuart and Abetti (1987), Cooper et al. (1988)		Singer (1995), Low and MacMillan (1988)
Broad social and professional network	Founders with broad social and professional networks have potential access to additional know-how, capital, and customer referrals.	Hansen (1995), Birley (1985)		Starr and MacMillan (1990)
Firm started by team rather than individual	New ventures that are started by a team can provide greater resources, a broader diversity of viewpoints, more risk-bearing ability, and a broader array of ideas than ventures started by individuals.	Watson et al. (2003), Barkman (1994), Eisenhardt and Schoonhoven (1990), Fesser and Willard (1990), Teach et al. (1986)	Kazanjian (1988), Cooper and Bruno (1977)	

(continued on next page)

Table 1 (continued)

Characteristic or behaviour	Description	Representative studies and method of analysis		
		Quantitative	Qualitative	Conceptual
<i>Firm attributes</i>				
Growth-oriented vision and mission	A growth-oriented vision and/or mission statement clearly communicates to relevant stakeholders the importance of growth to an organization.		Doorley and Donovan (1999)	Von Krogh and Cusumano (2001), Kim and Mauborgne (1997)
Commitment to growth (motivation to grow)	A drive and commitment to achieve rapid growth is frequently cited in the literature as a necessary precursor for successful rapid growth.	Cooper and Artz (1995), Davidsson (1991), Sexton (1989)	Ahrens (1999), Doorley and Donovan (1999)	Bird (1988)
Participation in interorganizational relationships	Interorganizational relationships help firms share costs, increase speed to market, gain economies of scale, and gain access to essential resources, knowledge, and foreign markets.	Almus and Nerlinger (1999), Deeds and Hill (1996)	Doorley and Donovan (1999), Zhao and Aram (1995)	Braggs (1999), Selz (1992), Lorenzoni and Ornati (1988)
Planning	Planning helps a firm organize for growth and address the relevant managerial and strategic issues necessary to maintain rapid growth.	Reid and Smith (2000), Roure and Keeley (1990), Duchesneau and Gartner (1990), Bracker and Pearson (1986)	Barringer and Greening (1998), Fisher et al. (1997), Van de Ven (1980)	
Geographic location that facilitates the absorption of knowledge from external sources.	A firm in a geographic area that is near important external sources of knowledge will have better access to the knowledge and will be able to substitute a portion of the externally derived knowledge for more expensive, internally generated knowledge.	Almeida and Kogut (1997), Goss and Vozikis (1994), Jaffe et al. (1993)		Porter (1998), Pouder and St. John (1996), Cohen and Levinthal (1990)

High buyer concentration	It typically requires fewer resources to service a small number of customers (i.e., high buyer concentration) than a large number of customers (i.e., low buyer concentration).	Duchesneau and Gartner (1990), Roure and Keeley (1990)	Roure and Maidique (1986), Hobson and Morrison (1983)
<i>Business practices</i>			
Creating unique value for customers	The creation of products and/or services that provide unique value to customers stimulates growth and attracts high-quality channel partners.		Doorley and Donovan (1999) Kim and Mauborgne (1997), Hanan (1987)
Product superiority (quality)	The production and sale of high-quality products and/or services provides a firm an important point of differentiation and encourages repeat customers.	Roper (1997), Roure and Keeley (1990), MacMillan and Day (1987), Anderson and Zeithaml (1984)	Roure and Maidique (1986), Hobson and Morrison (1983)
Innovation	Innovation results in a constant supply of new product and service offerings, which increases a firm's revenues and business reputation.	Deeds et al. (1999), Heunks (1998), Roper (1997), Schoonhoven et al. (1990), Dosi (1988)	Patterson (1998), Doorley and Donovan (1999)
Utilization of new, advanced technologies	The utilization of new, advanced technology is important for a company to create proprietary products and compete in fast-growing and dynamic markets.	Harrison and Taylor (1997), Siegal et al. (1993)	Roure and Maidique (1986)

(continued on next page)

Table 1 (continued)

Characteristic or behaviour	Description	Representative studies and method of analysis		
		Quantitative	Qualitative	Conceptual
<i>Human resource management practices</i>				
Exemplary recruitment and selection	The ability to attract skilled and capable employees increases the probability that a firm will be able to effectively implement and maintain a growth-oriented strategy.	Harrison and Taylor (1997)	Barringer et al. (1998)	Braggs (1999), Rich (1999)
Pay-for-performance plans (in general)	Pay-for-performance plans help firms align the interests of employees with the interests of the firm and also helps firms recruit, motivate, and retain key employees.	Oliver and Anderson (1995), Zenger (1992), Rosen (1989)	Barringer et al. (1998)	
Stock options plans and employee stock ownership plans (ESOPs)	Stock option plans and ESOPs help firms align the interests of employees with the interests of the firm and also help firms recruit, motivate, and retain key employees.	Gerhart and Miklovich (1990)		Rosen and Quarrey (1987)
Geographic location that provides access to a qualified labor pool	Locating a firm within a cluster of similar firms and/or in an area that provides access to a highly qualified labor pool should reduce HR search costs and help a firm identify and attract high-quality employees.	Galbraith and DeNoble (1988)		Braggs (1999), Porter (1998)

contacts and will have a better understanding of the subtleties of their respective industries (MacMillan and Day, 1987).

3.1.2. Higher education

In most studies, education has served as a proxy for entrepreneurial skills and abilities. Sapienza and Grimm (1997), for example, argued that search skills, foresight, imagination, and computational and communication skills are enhanced through college education. In addition, specific forms of knowledge-intensive education, such as engineering, computer science, and biochemistry, provide the recipients of education an advantage if they start a firm that is related to their area of expertise.

3.1.3. Entrepreneurial experience

Prior entrepreneurial experience is one of the most consistent predictors of future entrepreneurial performance (Singer, 1995). Launching a new venture is a complex task, and entrepreneurs with prior start-up experience have a distinct advantage. In addition, experienced entrepreneurs are more likely to avoid costly mistakes than entrepreneurs with no prior entrepreneurial experience.

3.1.4. Broad social and professional network

New firms suffer from liabilities of size and newness. As a result, their founders must often “work” their social and professional networks to gain access to critical resources. For example, an entrepreneur may call a business acquaintance to ask for an introduction to a potential supplier or customer. Johannisson (1990) provides an excellent overview on how entrepreneurs utilize these networks to fuel growth.

3.1.5. Size of founding team

The literature on founding team size and firm growth has produced compelling results, with larger teams having the advantage. Larger teams possess more talent, resources, and professional contacts than a sole entrepreneur (Barkman, 1994). In addition, the psychological support that the cofounders of a new business can offer one another is an important factor (Fesser and Willard, 1990).

3.2. Firm attributes

Another subset of the literature on firm growth focuses on the relationship between firm attributes and growth. Two important attributes are a growth-oriented vision and a commitment to growth. Both of these attributes communicate that a firm is serious about growth and intends to make growth an ongoing priority. Other firm attributes that facilitate growth include planning, interorganizational relationships, an opportune geographic location, and a focused strategy.

3.2.1. Growth-oriented vision and mission

A growth-oriented vision, whether it is articulated through a vision, mission, or values statement, helps crystallize the importance of growth and ensures that decisions are made with growth in mind (Kim and Mauborgne, 1997). Doorley and Donovan (1999) reported that nearly

60% of the rapid-growth firms in their study had put their growth vision in writing, whereas only 15% of the slow-growth firms had done the same.

3.2.2. *Commitment to growth*

This variable emphasizes the extent to which a firm articulates growth as an objective, as well as its commitment to the execution of an ongoing growth strategy. For growth to occur, it must make its way into the deliberate choices of owners/managers. Kolvereid (1992) provides an excellent overview of the commitment to growth literature.

3.2.3. *Participation in interorganizational relationships*

Interorganizational relationships include joint ventures, networks, consortia, alliances, trade associations, and interlocking directorates (Barringer and Harrison, 2000). Participation in joint ventures, networks, and alliances can accelerate a firm's growth by providing it access to its partner's resources, managerial talent, and intellectual capabilities (Braggs, 1999). The primary benefits of participation in trade associations are quick access to industry-related information, the opportunity to network with industry peers, and collective lobbying (Bluedorn et al., 1994).

3.2.4. *Planning*

The literature on planning suggests that firms that plan in a conscientious, thorough manner increase their chances of reaching their growth objectives. For example, Duchesneau and Gartner (1990) found that a number of aspects of planning, including assessing the market, considering a number of functional areas, and devoting more time to planning are all related to firm success.

3.2.5. *Geographic location*

Another growth-related attribute is locating in a region that facilitates the absorption of external knowledge (Cooper and Folta, 2000). Product or service knowledge tends to be localized, creating "knowledge spillovers" (Jaffe et al., 1993). The Silicon Valley, Route 128, and the Cambridge Region in the United Kingdom are well known clusters of high-tech firms. These clusters allow employees of various firms to network with one another and make it easier for the firms to gain access to specialized suppliers, scientific knowledge, and technological expertise indigenous to the area.

3.2.6. *High buyer concentration*

Typically, the decision to concentrate on a small number of customers is associated with a loss in bargaining power and diminished profits. Rapid-growth firms, however, often face constrained resources and must be careful to not spread themselves too thinly (Bantel, 1998). In addition, broader products and markets place greater demands on the firm, making it more difficult to manage (Roure and Keeley, 1990). As a result, a common piece of advice given to rapid-growth firms is to focus on a narrow set of markets and customers, rather than be too aggressive.

3.3. *Business practices*

Along with firm attributes, there are several key business practices that typify successful rapid-growth firms.

3.3.1. *Creating unique value for customers*

A firm's ability to create unique value is an important attribute for achieving and maintaining rapid growth (Kim and Mauborgne, 1997). A firm creates unique value by providing a new or more affordable way of accomplishing a task, solving a problem, or satisfying a need that was at best inconveniently satisfied in the past.

3.3.2. *Product superiority*

Another business practice that facilitates firm growth is product superiority or quality (Harrison and Taylor, 1997; Roure and Keeley, 1990). Product quality contributes to rapid growth in a number of direct and indirect ways, including easing market entry and establishing a basis of differentiation in fast-growth markets.

3.3.3. *Innovation*

The precursors to creating unique value are innovation and research and development (R&D). There are substantial literatures that suggest that firm growth is stimulated by both innovation (Deeds et al., 1999) and R&D (Chakrabarti, 1990). These practices are facilitated by locating in a region that provides opportunities for knowledge spillovers and participation in interorganizational relationships.

3.4. *Human resource management practices*

The final category of variables examined in this review is HRM practices. This research is based on the premise that a firm's employees are a critical resource in the achievement and maintenance of rapid growth, and that rapid-growth firms should manage their HRM practices accordingly.

3.4.1. *Selective hiring*

A critical priority for rapid-growth firms is to properly staff their organizations. According to a survey by PricewaterhouseCooper's *Trendsetter Barometer* (2000), the number one concern of the CEOs of rapid-growth firms is proper staffing. The ability to attract and retain skilled and capable employees increases the probability that a firm will be able to effectively implement and maintain a growth-oriented strategy (Rich, 1999).

3.4.2. *Performance-based incentives*

Performance-based incentives, such as profit sharing and bonus plans, have become increasingly prevalent in rapid-growth firms. These types of incentive plans are intended to help firms attract (Zenger, 1992), motivate (Landau and Leventhal, 1976), retain (Rich, 1999), and increase the productivity of employees (Weitzman and Kruse, 1990). Performance-based incentive plans also help firms share business risks with their employees and conserve cash.

3.4.3. *Stock option plans and employee stock ownership plans*

Despite recent skepticism over their effectiveness, stock options and employee stock ownership plans are becoming increasingly prevalent in rapid-growth firms. Stock options are unique in their ability to offer substantial rewards to their recipients.

In summary, the studies cited above provide a comprehensive list of the factors that potentially enable firms to achieve and maintain rapid growth. In the following section, we introduce a quantitative content analysis methodology that is used to identify the factors that most strongly differentiate rapid-growth firms from their slower-growth counterparts. The paper concludes with a presentation of the results and a discussion of their implications for researchers and entrepreneurs.

4. Methodology

4.1. Sample

The data used in this study came from a randomly selected set of narrative case studies provided by the Ewing Marion Kauffman Foundation. The cases represent a subset of a larger database of narratives from entrepreneurs that were regional or national winners of the Ernst & Young LLP Entrepreneur of the Year award sponsored by the National Center for Entrepreneurship Research at the Kauffman Foundation. The Entrepreneur of the Year program recognizes the achievements of U.S. entrepreneurs in 11 different categories, ranging from manufacturing to health care. The cases are about 3000 words long (about three to four single-spaced, typewritten pages). The narratives follow a format prescribed by a standard form, and include information about the entrepreneur's current venture in the following areas: (1) type of business and current activity, (2) management team, (3) culture/values/incentives, (4) innovative approaches, and (5) future plans. Each of the narratives we received was accompanied by sufficient financial information for us to compute a 3-year compound annual growth rate. This information is archival. Before a firm is designated a regional or national winner of the award, it must submit financial statements that are verified by the selection board. Even though the Entrepreneur of the Year award is given to individuals, rather than companies, the narrative portion of the application is weighted heavily towards a description of the firm the entrepreneur currently leads. As a result, we felt justified using the narratives to study both entrepreneurs and the organizations they lead.

For the purpose of this study, we define a rapid-growth firm as one with a 3-year compound annual growth rate of 80% or higher, and a slow-growth firm as one with a 3-year compound annual growth rate of 35% or lower. To obtain data for analysis, we selected a random sample of the narratives from 50 rapid-growth firms and 50 slow-growth firms. [Table 2](#) contains demographic statistics pertaining to the sample along with *t* tests to compare the rapid-growth firms against the slow-growth firms on number of employees, annual sales, 3-year compound annual growth rate, and firm age. As shown, the 3-year compound annual growth rate for the 50 rapid-growth firms ranged from a low of 80% to a high of 897%, with an average growth rate of 166.32%. In contrast, the 3-year compound annual growth rate of the 50 firms in the slow-growth group ranged from a low of -34% to a high of 35%, with an average growth rate of 1.55%. Furthermore, there are no significant differences between the two samples on number of employees or annual sales. As expected, the rapid-growth firms are younger (10 vs. 20.67 years old).

Table 2

Summary statistics and statistical tests for the differences between the rapid-growth and slow-growth firms in the sample

Variable	Rapid-growth firms		Slow-growth firms		<i>t</i> Statistic	<i>P</i> value
	Mean	S.D.	Mean	S.D.		
No. of employees	269	364	390	495	1.85	.14
Annual sales	\$53,041,134	\$75,463,783	\$53,178,624	\$80,152,995	1.13	.77
3-Year compound annual growth rate	166.32%	167.29%	1.55%	18.16%	168.10	.0001***
Age of firm	10 years	5.7 years	20.67 years	11.40 years	4.02	.0012***
High tech	.66	.48	.50	.51		.11

*** $P < .01$.

In a separate analysis, we compared the rapid-growth firms in the sample against the slow-growth firms to see if the rapid-growth firms are disproportionately “high tech” as opposed to “low tech.” To do this, we assigned an SIC code to all 100 firms in the sample. We then coded each firm either “high-tech” or “low-tech” based on the Nevada Technology Directory’s list of SIC codes that are considered to be high-tech. Sixty-six percent of the rapid-growth firms were labeled “high-tech,” as opposed to 50% of the slow-growth firms. The difference is not statistically significant.

There were two obvious threats to the validity of the narrative data that we investigated and were able to overcome. First, since the narratives are filled out according to a standard form, we wondered if the questions on the form would elicit responses that would be too narrow to use for the broad study we were contemplating. After reading a handful of the narratives, we concluded that the questions are broad enough; in most instances, by answering the questions, the entrepreneur essentially told the story of his or her firm and what has made it successful. To substantiate this preliminary conclusion, we conducted a pilot study of 25 randomly selected narratives (which were not part of the 100 narratives selected for the main study) to obtain a preliminary understanding of the variables that were likely to emerge in the larger study. What we found was that the major categories of variables discussed in the narratives paralleled the major categories of variables identified in the literature review and Table 1. This process led us to conclude that the narratives could be relied on to provide sufficient information to conduct a broad study aimed at identifying the attributes of rapid-growth versus slow-growth firms.

Because the narratives were completed for the purpose of winning an award, the second threat to the validity of the narratives was the potential for self-desirability bias. We were able to set aside this concern for two reasons. First, if self-desirability bias were present, we would expect it to be equal across both the fast-growth and the slow-growth firms. Second, the way the narratives are evaluated discourages exaggeration and bravado. Each narrative is evaluated by a panel of judges, first at the regional level, and then at the national level for the applicants that make it that far. Many of the judges are past winners of the award. In addition, the judging process is very thorough and complete, as explained in a book on the process by [Erickson \(2002\)](#), the global director of the Entrepreneur of the Year Award for Ernst & Young. Combined, these factors suggest that it would be fairly difficult for narratives tainted by social desirability bias to make it through the judging process.

4.2. Method of analysis

The narratives were content analyzed with the assistance of the statistics software program ATLAS/ti. ATLAS/ti is a powerful program for coding and interpreting textual data. The initial coding was done by one author and was audited by a second author. Neither author knew whether a firm was a fast-growth or a slow-growth firm during the coding. The narratives were coded using standard content analysis techniques (Lincoln and Guba, 1985). The minor discrepancies that existed between the coders were resolved by examining the data together.

The cases were initially coded at the sentence level with each substantive sentence assigned to one or more of four categories. Consistent with the literature review and the results of the pilot study, the categories were founder characteristics, firm attributes, business practices, and HRM practices. The sentences were then analyzed to identify variables, such as prior entrepreneurial experience or emphasis on planning. Examples of how the coding was done are provided in Table 3. Although the categories identified in Table 1 were used to guide the coding, the variables that emerged through the content analysis do not map perfectly with the variables that were identified through the literature review. In these cases, either the variables identified in the literature review were not present in the Entrepreneur of the Year Award narratives, or the narratives did not contain enough fidelity for the content analysis to pick them up. In several cases, variables that we did not find in our review of the literature emerged from the content analysis and appeared important in the minds of the entrepreneurs in our sample. These variables are identified and discussed in the results section.

In an effort to increase confidence in the reliability of the coding process used, a second-year MBA student coded a randomly selected subset of 10 rapid-growth and 10 slow-growth narratives. A third coauthor who was not involved in the original coding process also independently coded these 20 random narratives. The coauthor and the MBA student then compared their results, coming to a consensus when they disagreed. Their combined results were then compared with the original coding data. Interrater agreement between these two coding tasks was 85.48%. That is, of the 420 codes created (20 firms times 21 variables), the two sets of raters agreed 359 times. Interrater reliability was also stable across the rapid- and slow-growth firms: 85.71% (180/210) for rapid-growth firms and 85.24% (179/210) for slow-growth firms.

5. Discussion of the results of the content analysis

Table 4 presents the categories and variables that emerged from the study. Throughout the analysis, we were interested in the extent to which the firms in the sample “emphasized” these variables. The frequency of emphasis for each variable, broken down by rapid-growth versus slow-growth firms, is shown in the table. We chose this method of frequency analysis to ensure that “vivid, but false impressions” (Eisenhardt and Schoonhoven, 1990) were not regarded as more meaningful and pervasive than otherwise might be inferred without such frequencies.

A one-tailed, Fisher’s Exact Test was used to test the differences between the frequencies for the rapid-growth and slow-growth firms. As shown in Table 4, the rapid-growth firms differed from the slow-growth firms with regard to their intensity of emphasis on 12 of the 21

Table 3

Examples of data coding for the firms in our sample (each example is from a different narrative)

Coding category	Example
<i>Founder characteristics</i>	
Relevant industry experience	Adam's experience and contacts in this industry have provided him with an opportunity to grow a one-person operation operated out of his basement in 1988 to a firm with sales of approximately \$13 million.
Higher education (Masters or PhD)	In addition to ADL (disguised name of a firm in our sample), Dr. Lee (name disguised) also founded two software companies.
College education	Melanie Petersen (name disguised) earned her bachelor's degree in civil engineering and went to work building pipelines across the southwest.
Prior entrepreneurial experience	LLD (disguised name of a firm in our sample) is Jim's second entrepreneurial venture.
Entrepreneurial story	The financial risks (of starting a firm) are immense. The company and I personally secure our \$3 million line of credit. EVERYTHING RIDES ON THE COMPANY (emphasis added by subject), for example, my savings, my house, and my two children's education.
Firm started by a team	In 1967, John and his brother Peter (names disguised) formed American International (disguised name of a firm in our sample).
<i>Firm attributes</i>	
Growth-oriented vision and mission	(Firm's name)'s mission statement for future growth sums up its founders vision. "To sustain growth, profitability, and the highest levels of customer satisfaction as a national provider of information processing products and services."
Commitment to growth	The future looks bright for (name of firm). We are forecasting the addition of 100 new employees joining the team by the end of 1998.
Participation in interorganizational relationships	From the start, (name of firm)'s policy has been to "partner to win." Rather than directly compete with the likes of IBM, Digital, and Sun Microsystems, (name of firm) has partnered with them.
Planning	To better understand the business, management uses strategic and tactical operating plans to forecast and monitor progress.
Goal setting	Each year a group of employees, together with management, creates a set of specific goals for the year.
<i>Business practices</i>	
Add unique value	(Name of firm)'s unique combination of software, content, and services allows manufacturing customers to effectively manage the components of the commodities they buy, generating significant cost savings through consolidation of commodity procurement, supplier rationalization, and strategic design.
Fill a niche	Stevens (name disguised) had recognized a trend in the printing industry in which customers were ordering increasingly smaller quantities. He believed this trend opened the door for a medium-size plant designed to print shorter press runs cost effectively.
Customer knowledge	We are committed to establishing and maintaining lasting partnerships with our customers, teammates, and vendors by understanding their needs and performing consistently to the highest standards of quality and ethics in a friendly and professional manner.

Table 3 (continued)

Coding category	Example
<i>Human resource management practices</i>	
Selective hiring	He is committed to hiring the best and most qualified employees and providing them an atmosphere in which they can grow to their full potential.
Employee empowerment	Dr. Sahai (name disguised) has built a culture that encourages active participation in decision making by all employees.
Training	To this end, (name of firm) puts all frontline employees through an extensive training program called “Above and Beyond” to cultivate a service focus.
Employee development	The company’s goal leader program is designed to build management expertise in employees.
Nonfinancial incentives	There are numerous employee recognition programs from both management and peers.
Financial incentives	Nancy’s (name disguised) employee benefits (program) ranks among the top 15% in her industry and includes a 401(k) program, profit sharing, and health and dental insurance.
Stock options	(Name of firm)’s stock option plan is offered to all employees, which fosters a strong, personal commitment to the company’s success.

variables identified. In general, the variables that emerged from the study are consistent with the variables identified through the literature review, with several important exceptions. Through the content analysis, several variables emerged that are not prevalent in the existing fast-growth literature, and were “emphasized” to a significantly higher degree by the rapid-growth firms as opposed to the slow-growth firms in our sample. These variables include entrepreneurial story, training, customer knowledge, and employee development. Two other interesting relationships were revealed. The rapid-growth firms in the sample “create unique value” for their customers to a higher degree than their slower-growth counterparts. The fast-growth firms also emphasize different forms of financial incentives for their employees to a significantly higher degree than the slower-growth firms.

5.1. Founder characteristics

The rapid-growth firms differed from the slow-growth firms on college education, entrepreneurial story, and prior industry experience. No differences were found for prior entrepreneurial experience and firm started by a team.

Founders with prior experience in the same or a closely related industry were found in 76% of the rapid-growth firms in the sample and only in 24% of the slow-growth firms. Apparently, related industry experience provides a founder with critical knowledge plus the advantage of access to a network of contacts that can help a firm overcome liabilities of newness and build a growth-oriented business.

The study also affirmed the importance of a college education. College education can provide founders with the skills necessary to launch a venture, particularly if the venture is in a technically oriented industry such as biotechnology or computer science. In other cases, the years spent obtaining a college education help embed an individual in a social network that is helpful in launching a business venture.

A new variable that we labeled “entrepreneurial story” emerged from the study. This variable was assigned when an entrepreneur recalled the sacrifices made to start the business or when the

Table 4
Variables identified in content analysis with Fisher's Exact Test for significance across growth rates

Number of cases affected ($n=50$ for both growth rates)			
Variable	Normal and slow growth	Fast growth	P (Fisher's Exact Test)
<i>Founder characteristics</i>			
Relevant industry experience	12	38	.0000***
College education	21	36	.0022***
Higher education (Masters or PhD)	13	16	.3299
Prior entrepreneurial experience	15	17	.8305
Firm started by a team	14	20	.1456
Entrepreneurial story	7	18	.0099***
<i>Firm attributes</i>			
Mission statement	5	14	.0198**
Commitment to growth	27	40	.0051***
Participation in interorganizational relationships	17	26	.0528**
Emphasis on planning	23	26	.7881
Goal setting	8	11	.3055
<i>Business practices</i>			
Fill a niche	12	11	.5000
Create unique value	10	27	.0000***
Customer knowledge	11	25	.0032***
<i>Human resource management practices</i>			
Selectivity in hiring	23	24	.5000
Employee empowerment	17	21	.2684
Training	7	15	.0448**
Employee development	16	24	.0763*
Nonfinancial incentives	13	19	.1419
Financial incentives	11	21	.0264**
Stock options	5	16	.0064***

* $P < .10$.

** $P < .05$.

*** $P < .01$.

life experiences of the founders set them on the path to become entrepreneurs. The inclusion of either of these forms of information, which were significantly more prevalent in the rapid-growth firms versus the slow-growth firms in the sample, suggests that the individuals that launched rapid-growth firms either overcame significant obstacles to start their firms or had a longtime objective to become a business owner. The insight provided by this variable is that launching and growing a successful firm may have a higher valence for some founders than others. Founders that associate the success of their venture with sentiments like "everything rides on the company" and "the thought of working for someone else never occurred to me" (quotes taken from the narratives of rapid-growth firms in our sample), may attach a degree of importance to the success of their ventures that results in extreme levels of motivation and commitment to see their ventures succeed.

5.2. Firm attributes

The rapid-growth firms in the sample differ from the slow-growth firms on commitment to growth, growth-oriented vision, and participation in interorganizational relationships. No differences between the two groups were found in the emphasis on planning or goal-setting variables.

With regard to commitment to growth, whereas researchers have found that growth is an important objective for most firms, they have also found that the lack of growth can be attributed to both external and internal factors, including motivational issues. As a result, the intensity of a firm's "commitment to growth" may motivate the members of a firm to make growth a reality. A related but separate topic is the presence of a growth-oriented vision. A growth-oriented vision may crystallize the activities of a firm and lead to the implementation of purposeful growth-oriented activities (Kim and Mauborgne, 1997).

The final firm attribute that was emphasized to a significantly higher degree by the fast-growth firms in the sample was participation in interorganizational relationships. Firms participate in interorganizational relationships to co-opt a portion of their resource needs from their partners. This is a common way for firms to speed up their growth trajectories.

5.3. Business practices

The rapid-growth firms in the sample differed from the slow-growth firms with regard to creating unique value and customer knowledge. Creating unique value is defined as helping a customer maximize utility, reduce costs, and/or increase organizational effectiveness in a unique manner. The variable customer knowledge refers to maintaining a keen sense of customer needs.

Although the variable creating unique value is rarely discussed in the rapid-growth literature, it emerged as a strong discriminator between the rapid-growth and the slow-growth firms in the sample. The most compelling examples of this are firms that claim to have established new paradigms in their industries, which exponentially increase the effectiveness of their customers' products or internal operations.

The second variable in the category of business practices that differentiated the firms in the sample was customer knowledge. Fast-growth firms were more likely to report a keen sense of customer needs and desires. Among the rapid-growth firms in the sample, it was common for the words "trust" and "relationship" to surface in the context of talking to or surveying customers to better understand their needs.

5.4. Human resources management practices

The final category of variables examined in the study was HRM practices. The rapid-growth firms in the sample differed from the slow-growth firms on the variables training, employee development, financial incentives, and stock options. No differences were found in selectivity in hiring, employee empowerment, and nonfinancial incentives.

Training has not received much coverage in the literature, but the incidence of mention of an employee-training program was higher in the rapid-growth than the slow-growth firms. In most cases, the firms reported the role of their training programs in helping them achieve their

objectives or in equipping their employees for advancement. The fast-growth firms in our sample also emphasized employee development to a significantly greater extent than their slow-growth counterparts. It was apparent that rapid-growth firms depend heavily on the abilities and efforts of their employees to maintain their growth-oriented strategies.

The final variables that differentiated the rapid-growth from the slow-growth firms dealt with employee incentives. More rapid-growth firms in the sample provided their employees financial incentives and stock options as part of their compensation packages. It is clear that these incentives are provided to achieve multiple goals. These goals include eliciting high levels of performance from employees, providing employees the feeling that they have an ownership interest in the firm, attracting and retaining high-quality employees, and shifting a portion of a firm's business risk to the employees. A firm shifts a portion of its business risk to its employees by providing modest salaries and generous bonuses that pay off only if the firm does well.

6. Summary

Most of the findings reported above affirm the existing literature on rapid-growth firms. The characteristics of the founder of a firm, along with a firm's attributes, business practices, and HRM practices, are important in helping a firm achieve rapid growth. The results of the study are important because they confirm the results obtained through conventional deductive research, which is represented by the majority of the studies cited in [Table 1](#).

Several new concepts emerged from our content analysis that had not been previously considered in the literature. First, the variable "entrepreneurial story" was identified, based on evidence in the narratives that some entrepreneurs make significant sacrifices to start their firms. Some individuals might also have salient life experiences that set them on the path to become entrepreneurs. These "entrepreneurial stories" can create a greater valence for success with certain founders, which might spur them to push their firms onto a trajectory of rapid growth. Some founders may simply try harder than others, which is a notion that is hard to quantify but may nonetheless exist.

Second, in the category of business practices, the variable "creating unique value" emerged as a strong predictor of rapid growth. Although this variable is conceptually similar to [Porter's \(1985\)](#) concept of "product differentiation," the results of this study suggest that unique value is a separate concept and refers to the ability of a product or service offering to help customers maximize utility, reduce costs, and/or increase organizational effectiveness in a unique manner.

Finally, the results of this study draw attention to the importance of HRM practices in facilitating rapid growth as several variables not considered in the rapid-growth literature emerged from our content analysis. First, emphasis on "training" was found to be much more prevalent in rapid-growth firms as it was mentioned twice as often in the fast-growth narratives. Second, a clear distinction emerged in our content analysis in the reliance on different incentive systems within rapid-growth and slow-growth firms. Whereas the use of nonfinancial incentives was similar among rapid-growth and slow-growth firms, the former were much more likely to report use of financial incentives and stock option plans.

6.1. Conceptual models

Fig. 1 is a conceptual model that summarizes the results discussed above. As shown in the key, the boldface variables in Fig. 1 represent variables found significant in the present study. The other variables were discussed in the literature review and are consistent predictors of rapid growth as articulated in Table 1. The variables followed by a “*” denote the variables that emerged from our content analysis but were not uncovered by the literature review. These variables represent the primary contribution of this study.

Several limitations suggest that the results of the study should be interpreted with caution. First, the cross-sectional nature of the study does not allow us to make causal inferences. For instance, we are not able to tell whether an activity like training predicts growth, or whether the resources generated from growth makes training possible. A longitudinal study could more carefully examine the specific nature of this relationship. Second, whereas the Fisher’s Exact Tests used in the data analysis allow us to test the significance of the variables in the study across growth rate, the analysis does not provide us an indication of which variables provide the greatest contribution towards firm growth. Third, the study does not allow us to determine if the variables work independently of one another, or in tandem. Finally, although our list of 21 growth-related variables included in our study is comprehensive, it is not exhaustive. There are likely other factors that contribute to a firm’s ability to achieve and maintain a rapid growth rate.

7. Implications, observations, and conclusion

The results of the paper provide several important implications for entrepreneurs. First, growth is not a random event. A firm’s growth-related attributes, its business practices, and its HRM practices make a difference in terms of its ability to achieve and sustain rapid growth. The growth-facilitating variables identified in this study are shown in Table 4. Entrepreneurs who lead growth-minded firms may benefit by studying this table and considering the extent to which their firms embrace the variables identified. For example, one of the strongest findings in the study is that firms that have made a concrete “commitment to growth” are more likely to achieve rapid growth than firms that have not made a similar commitment. This is a finding that a growth-minded firm could implement at virtually no cost. Making growth an important firm objective, and continually championing the importance of growth, may create a context in which growth-enhancing measures receive attention and support.

A second implication of the study is that the personal characteristics of the entrepreneurs who start a firm have an impact on the firm’s ability to achieve and maintain a rapid growth rate. The most important variables in this area are relevant industry experience, college education, and entrepreneurial story. It may benefit startups to pay attention to these variables, and include individuals who exemplify one or more of these characteristics on their founding teams.

To conclude the paper, we would like to make three observations about the results of the present study, the conceptual models depicted in Fig. 1, and the present state of the academic literature on rapid-growth firms.

Key Attributes that Differentiate Rapid-Growth Firms from Slow-Growth Firms

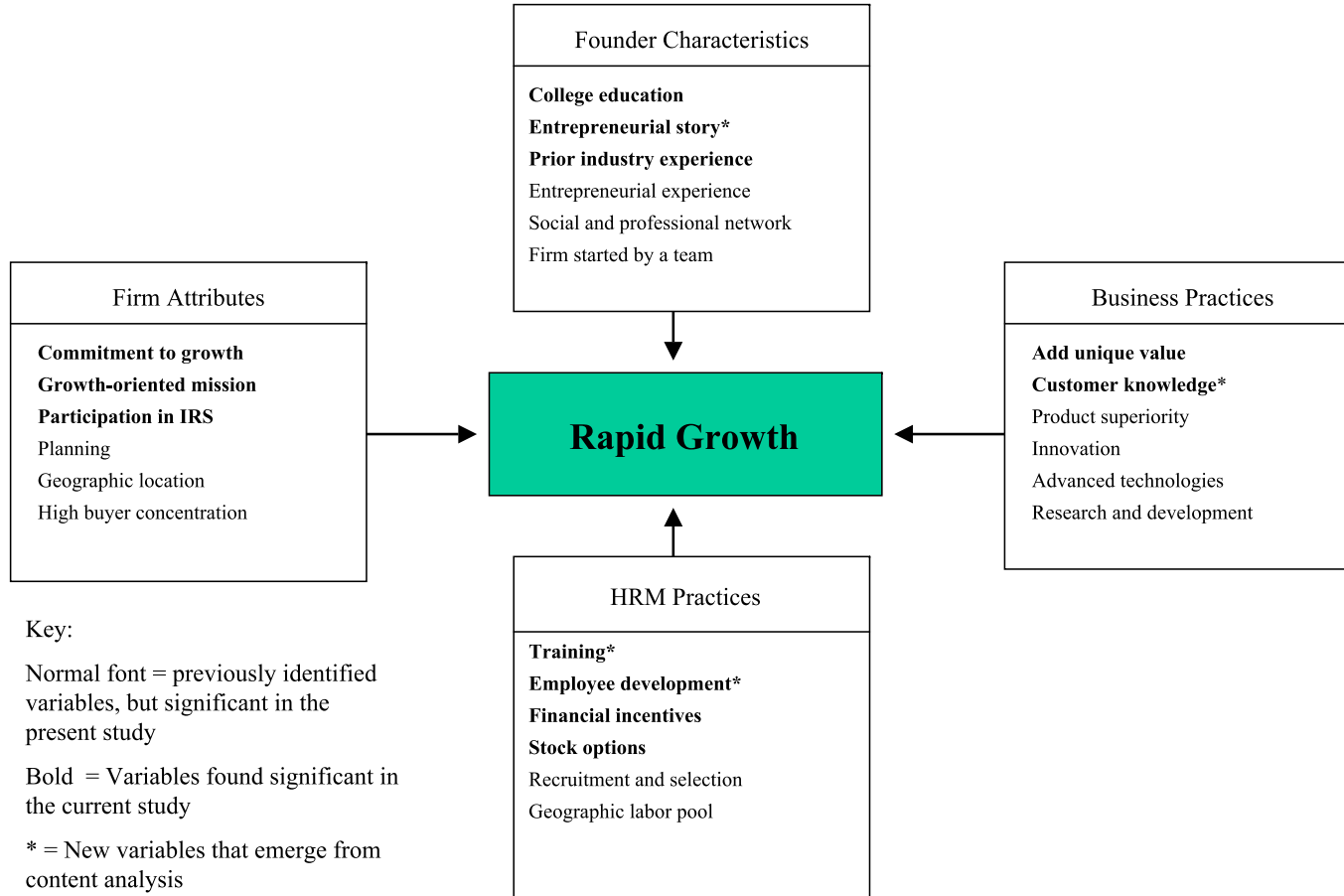


Fig. 1. Key attributes that differentiate rapid-growth firms from slow-growth firms.

First, none of the categories of variables examined in the study are holistic, they each study rapid-growth firms from a narrow point of view. For instance, the literature on founder characteristics focuses on the attributes that potentially provide one founder an advantage over another in launching a firm that achieves and maintains a rapid growth rate. Although it is tempting to criticize the literature for organizing itself into neat categories, without much integration across categories, it is impressive that these four categories provide concrete advice to the managers of rapid-growth firms. In addition, each category, as shown in [Table 1](#), contains variables that have been shown to facilitate rapid growth in a number of different studies across different settings. As a result, our thinking evolved during the course of the study, and we are now more impressed with the breadth and depth of the literature on rapid-growth firms than we were at the outset. As a result, we believe the results of this study contradict the claims made in the introduction to the paper, which characterized the literature on rapid-growth firms as fragmented and immature (e.g., [Delmar and Davidsson, 1998](#); [Wiklund, 1998](#); [Delmar, 1997](#)). Instead, although much work remains to be done, the literature review conducted for this paper suggests that the literature on rapid-growth firms is converging and provides convincing prescriptive advice to managers. In our judgment, any manager who read representative samples of the literature referenced in [Table 1](#) and studied the results of this empirical study would be much better prepared to lead a rapid-growth firm than a manager without this advantage.

The second observation is that although the literature on rapid-growth firms is converging, there is a need for more integration across the categories of variables that are associated with rapid growth. For example, whereas the literature on firm attributes does much to explain rapid growth, the literature on firm attributes rarely cites the literature on HRM in explaining rapid growth. As a result, stand-alone statements that emerge from a single category of variables such as “an important precursor to rapid growth is innovation” are not very helpful. Most managers are aware of the importance of innovation. The challenge is determining how to achieve innovation. In the context of HRM, this may mean the recruitment of new employees, the implementation of specialized training programs, an improved employee incentive program, or a host of other alternatives. The cross-integration of topics, like firm attributes and HRM practices, will move the literature on rapid-growth firms forward and will enrich the debate.

Finally, the field of rapid-growth firms suffers from a noticeable halo effect. The majority of the literature either implicitly or explicitly addresses the benefits of rapid growth without fully discussing the potential pitfalls involved. There are many potential pitfalls and unintended consequences associated with the path to rapid growth. For example, whereas it is tempting to focus solely on the benefits of an employee incentive program like stock options, if the options never pay out they may become a disincentive rather than an incentive. For instance, an employee may be attracted to a rapid-growth firm as a result of its stock option plan, work hard, and never realize a financial reward if the company’s stock price does not appreciate. Worse yet, an employee may sign on with a firm, anticipate that the value of one’s options will show a steady gain as a result of the past performance of the firm, and watch the value of the options evaporate as a result of a broad retrenchment of the Nasdaq or Dow. The point is that the managers of rapid-growth firms should be equipped with information on the potential pitfalls as well as the potential advantages of implementing growth-stimulating management techniques in their firms. We hope this study contributes to that dialog.

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