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Author(s): Noam Wasserman

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Founder-CEO Succession and the Paradox of Entrepreneurial Success

Noam Wasserman

Harvard Business School, South Hall 310, Boston, Massachusetts 02163
nwasserman@hbs.edu

Abstract

In the last few decades, we have developed a substantial body of knowledge about CEO succession. However, except for some studies of family businesses that lack direct applicability to nonfamily CEO succession, the past studies of succession have not examined the very first succession event in a firm, when the Founder-CEO is replaced, on a large-scale basis. The critical differences between later-stage succession and Founder-CEO succession include the higher level of attachment between Founder-CEOs and the firms they create, the much larger equity holdings of Founder-CEOs (which give them much more control of the firm), the fact that many Founder-CEOs remain in the firm (even though it is being run by their successors), and the fact that nearly all early-stage succession events involve outside successors (in contrast to later-stage succession research, which has focused on the insider-outsider distinction). These differences make it hard to extrapolate from later-stage succession findings to Founder-CEO succession. Therefore, in order to examine Founder-CEO succession, I used field research and grounded theory building to study the factors that should affect Founder-CEO succession in Internet start-ups. I find that there are two central intertemporal events that may affect Founder-CEO succession: The completion of product development and the raising of each round of financing from outside investors. I develop testable hypotheses about how each of these events affect the rate of succession, and then test these hypotheses using an event-history analysis of a unique dataset containing the succession histories of 202 Internet firms. My findings point to multiple “paradoxes of success” in which the Founder-CEO’s success at achieving critical milestones actually causes the chance of Founder-CEO succession to rise dramatically.

(Entrepreneurship; Founder-CEO Succession; CEOs; Founding Teams; CEO Succession; Top Management Teams; Venture Capital; Entrepreneurial Finance; Private Companies; Information Technologies)

Introduction

Chief executive officers (CEOs) are critical players in their organizations. From their perch at the top of a company, CEOs are able to direct their companies in the active pursuit of opportunities (Barnard 1938), and can

control the company’s strategy and structure (Woodward 1965, Lawrence and Lorsch 1967, Thompson 1967). More specifically, CEOs make material strategic choices that can influence firm performance (Child 1972), and the quality and performance of an organization’s top managers is often the single most important determinant of both the success and survival of the organization (Drucker 1954). In short, the CEO of an organization is a critical factor in its direction and performance. As a result, changes in CEOs—“CEO succession events”—are critical junctures for organizations.

In the last few decades we have developed a substantial body of knowledge about CEO succession. For example, studies have examined the performance consequences of CEO succession (e.g., Khurana and Nohria 1999), the institutional/symbolic view of CEO succession (e.g., Gamson and Scotch 1964, Pfeffer and Salancik 1978), and stock market reactions to CEO turnover (e.g., Furtado and Karan 1990). However, nearly all past studies of CEO succession have focused on large, public companies. These companies are more visible than their smaller brethren, and it is much easier to get data on their histories, executives, and succession events. However, even though “research on the effects of managerial succession has focused on large bureaucracies” (Haveman 1993, p. 864), there are some marked differences between large bureaucracies and small companies that prevent us from extrapolating from research findings about large-company succession to small-company succession.

This is particularly true for the first succession event in an organization, where the Founder-CEO is replaced by a “professional” successor. Although succession is especially critical “for smaller organizations that are in the process of moving from founder to professional management” (Kesner and Sebora 1994, p. 363), large-scale studies have not focused on Founder-CEO succession. The past “early-stage” succession studies were either case-level explorations of succession issues (McGivern 1978, Tashakori 1980, Hofer and Charan 1984, Marino

and Dollinger 1987) or examinations of small public companies, where it is rare to find a CEO who founded the company (Dalton and Kesner 1983). In the family-business literature, studies have focused on the intrafamily transition from one generation to the next (Levinson 1971, Dyer 1986, Handler and Kram 1988, Lansberg 1988, Handler 1990), but not on the non-family transitions that are the core focus of research on CEO succession. It is therefore particularly problematic to extrapolate from these small-sample, family-business, and later-stage studies to overall Founder-CEO succession.

This paper seeks to begin filling this gap. It first outlines some of the most central ways in which Founder-CEO succession differs from succession in large companies. It then uses field research and grounded theory development to fill in our knowledge of the variables and key events that might affect Founder-CEO succession, and derives testable hypotheses about those antecedents and events. Finally, it uses a unique dataset containing the succession histories of 202 Internet startups to test the hypotheses using an event-history analysis, and explores some of the limitations of the findings and the implications for future Founder-CEO succession research.

Founder-CEOs vs. Past Succession Research

Given the growing importance of entrepreneurial firms in the world economy (Sahlman et al. 1999), the fact that small organizations employ a large proportion of all workers (Granovetter 1984), and the importance of founders for the growth of their companies (Schein 1985), it is important for us to gain a better understanding of the factors that drive Founder-CEO succession in entrepreneurial firms. However, given the stark differences between succession in large firms and in entrepreneurial firms, there is ample reason to believe that Founder-CEO succession will differ from large-firm succession, making it difficult to extrapolate from the existing literature on succession. In particular, large-company studies neglect at least three critical aspects of Founder-CEO succession.

First, large-company studies often take as their starting point Berle and Means' (1932) concept of the separation of ownership and control. In the large companies in which CEO succession has been studied, owners and managers are, indeed, two very different groups. This is necessary because the owners often do not have the skills, specific knowledge, or time necessary to manage the company, forcing them to hire "agent" managers

to do so. However, from an agency perspective (Jensen and Meckling 1976), because managers own little of the company, their interests can diverge markedly from the interests of the owners. This makes it necessary for owners to take actions that will align the incentives of the agents with their own. When the interests diverge too much, one of the major mechanisms that owners can use to achieve better alignment is replacement of the CEO with one whose interests are better aligned with the interests of the owners.

However, at the time of company founding, founder-executives usually own all of the company's equity, which does not fit the Berle and Means model. The founders craft a vision, attract employees, and develop products based on that vision, and perform the management tasks necessary to grow the business. These founders continue to own all of the equity until the first time they accept outside investors, which often comes many months after the company was founded. Even in more-mature entrepreneurial firms, the Founder-CEO often still owns a large percentage of the company (Wasserman 2001), there is much greater inside ownership than in large firms, and the separation of ownership and control that is typically the concern of agency theorists does not exist to the same extent. This makes it much harder to argue that owner-manager interests have diverged markedly due to differences in their ownership of the company. Therefore, the core situational characteristic of Berle and Means' (1932) large companies does not apply to the small-company settings of Founder-CEOs.

Second, as individuals, Founder-CEOs can be markedly different from later-stage, "professional" CEOs. In contrast to people who join an organization after its founding, the identity of organizational founders is "tightly linked" to that of the organization (Dobrev and Barnett 1999). The same may hold for the "psychological bonds" that link individuals to their organizations (O'Reilly and Chatman 1986). In addition, a large-scale study of entrepreneurial compensation in the Internet industry (the same industry examined in this study) found that Founder-CEOs differ from professional CEOs in several other ways (Wasserman 2001). Professional CEOs are older, have more years of prior work experience, are paid higher salaries but own dramatically less of the company's equity, and are locked into longer vesting schedules (which control how long it takes for the CEO's equity to become effective, and thereby indicate that the investors seek to ensure that the professional CEO remains at the company for a longer period of time). Furthermore, because they have much larger equity stakes than do public-company executives,

Founder-CEOs (and any cofounders) have a greater percentage of seats on the board of directors, giving them much more potential control of the succession event than large-company CEOs with smaller equity holdings would have. Reinforcing this is the fact that the “revered founder” of a company can have an extraordinary influence on the key decisions made within the company, even outside of any other instrumental influences (Zaleznik and Kets de Vries 1975).

Third, according to a recent review paper (Kesner and Sebra 1994), the most central distinction drawn in past succession work has been that of successor origin: Did the successor CEO come from outside or inside the organization? Outside successors have been found to make more changes, to be more highly compensated, and to achieve higher interorganizational status than inside successors (Grusky 1963). In more competitive industries, successors tend to come from inside their firms and to remain in the CEO position for longer than in less-competitive industries (Pfeffer and Leblebici 1973). In larger companies, boards of directors are usually reluctant to appoint an outside CEO (Mace 1971, Dalton and Kesner 1984) unless the company has experienced serious underperformance (Khurana and Nohria 1999). In addition, firms are more likely to change strategy when they choose successors from outside the company (Wiersema 1992), making outside CEO succession a way for boards to effect strategic changes in large companies. However, as indicated by my field research and confirmed by analysis of the data collected for this paper, the successors to Founder-CEOs almost always come from outside the firm, rendering moot the core insider-outsider distinction examined in past succession research. This supports past speculation that while large firms usually turn to inside successors, small firms, which have fewer candidates, and young firms, whose executives have accumulated less firm-specific experience, more often turn to outsiders (Helmich 1977, Reinganum 1985). As I show below, instead of outsider-versus-insider, there are other critical distinctions—such as whether inside executives have equity control, or whether critical intertemporal events are occurring—that may be much more salient for Founder-CEO succession.

In short, there are significant reasons why Founder-CEO succession should differ from later-stage succession events. Although they have not explicitly addressed the issue, several other studies have hinted that Founder-CEO succession in small firms should follow rules differently from those followed in large firms. For instance, although succession has no impact on the stock market performance of larger companies, it has a positive impact on the performance of small companies (Reinganum

1985), especially where the new executive came from outside the firm and the former CEO departed. Larger organizations experience succession events more frequently than do smaller firms (Grusky 1961) because their bureaucracies are more capable of handling the disruptive effects of a succession event, and because succession is one of the means by which an organization can adapt to a changing environment. Similarly, from a Weberian perspective, while founders rely on charisma to build their companies, organizations have become a lot more routinized by the time a professional CEO joins the firm (Burton and Khurana 2000). This formalization constrains individuals’ actions, imposing discipline such that those actions remain consistent with organizational goals and purposes (Weber 1946 trans.). Furthermore, “sensemaking has freer rein” in younger organizations where more innovative, nonroutine decisions are made, affecting how critical high-level decisions are made (Weick 1969). A classical example of such high-level decisions in younger organizations is the issue of whether to replace the founding CEO.

Past research has also indicated that Founder-CEO succession may be the most critical succession event in the life of most firms: “After the starting difficulties have been overcome, the most likely causes of business failure are the problems encountered in the transition from a one-person, entrepreneurial style of management to a functionally organized, professional management team” (Hofer and Charan 1984, p. 2), and the departure of a founder has an disproportionate negative impact on the likelihood of organizational survival (Carroll 1984). A final reason for studying Founder-CEO succession is its potential for helping us enrich our already deep understanding of CEO succession in general. Small firms are usually more focused than are their larger brethren, compete in fewer industries, and have simpler resource endowments. Therefore, they provide “a more controlled setting to study [succession’s] antecedents and effects” than do the larger, more established firms of past CEO succession research (Fiet et al. 1997, p. 364).

For all of these reasons, it is important for us to gain a better understanding of what occurs within the “black box” of Founder-CEO succession. However, a dearth of data on private companies introduces challenges for studying Founder-CEO succession, and is probably one of the main factors in our lack of knowledge about it. Given that nothing systematic has been written about the process or determinants of Founder-CEO succession, I used a two-stage research design to investigate Founder-CEO succession. First, I conducted field research, consisting of separate case studies of each of 20 private Internet firms, to perform grounded theory

building (Glaser and Strauss 1999). Theoretical sampling and comparative analysis of these firms enabled me to gain an understanding of the Founder-CEO succession process and of the critical events that might affect this process. I then used my findings to craft hypotheses about the intertemporal factors that should affect Founder-CEO succession. Second, I collected a unique dataset containing the histories of 202 Internet companies and then used event-history techniques to test my hypotheses on the dataset. In the sections below, I describe each of these elements of the study and discuss its results.

Hypotheses

In this section, I describe the hypotheses that I derived from my field research. In order to generate hypotheses using grounded theory-building techniques (Glaser and Strauss 1999), I reviewed company documents and conducted interviews with 31 founders, professional CEOs, executives, and investors in 20 private Internet firms. I selected these companies based on theoretical-sampling considerations (Glaser and Strauss 1999), with the goal of illuminating the full range of core factors that might affect Founder-CEO succession on a wider scale. Toward this aim, I interviewed Founder-CEOs who were still the CEO, others who had been replaced and had left the companies they had founded, and Founder-CEOs who had remained with their companies after leaving the CEO position. They included both experienced Founder-CEOs and young, inexperienced ones. Some of their companies had been quite mature at the time of succession, while other companies were quite young at that point. In addition to these interviews, I also drew upon my experiences from working for three months inside a Boston-based venture capital firm as an associate, assessing potential investments, negotiating with entrepreneurs, and participating in firmwide deliberations about the Founder-CEOs with whom we dealt.

The following case vignette of one of the Founder-CEO succession events I studied includes most of the key issues that will be explored in the sections below, and will lay the groundwork for deriving my hypotheses.

At an Internet company focusing on the health care arena, the plan was for the M.D. who had originally developed the business concept “to be the CEO until the job outgrew me.” This desire was reinforced by the experiences of a friend of his, an experienced businessman who had founded a company and recently continued as its CEO until after the company’s successful initial public offering. However, the first venture capitalist who showed an interest in the company told him that he was “fine to start the company and get it going,” but that as a condition of his firm investing in the company, the VC would

require the company to hire a new CEO soon after the round closed. Although they knew that this could drive the company founder to look elsewhere for funding, the VC firm believed that it was better to raise the issue at the outset of the discussions. This would enable the VC to assess, prior to investing, whether the founder really was open to the need for a change, and to avoid putting the company through an unpleasant fight sometime in the future.

An executive who was working for the Founder-CEO at the time said that as the discussions with the VC continued, the founder began talking about “doing as well as I can from an equity perspective...[and] what will be required for the company to be long-run successful.” They soon hired an experienced CEO from a related industry, and the Founder-CEO’s relationship with the board changed dramatically. He felt like he “had disappeared.” The VCs did not call him anymore when they wanted to discuss critical company issues. Instead, they now looked to the successor CEO for leadership on such issues. Over the next few months, he realized that, “Less and less do I get referred to for my industry background and knowledge. In many ways, I’m not crucial to the company.” Instead, as product development was completed successfully and the company’s sales began to rise, his role became that of the “external face of the company,” promoting the company’s work through published articles and conference speeches, and by helping plot the company’s long-term strategy.

Echoing several other former Founder-CEOs I spoke to, he said that, “We’re trying hard to find a role for me that keeps me operational and active. . . . When and if I don’t have much value to give, I might decide to move onto something else. I’m sure that will come to pass eventually.”

From my field research, I have found that there are two critical events in a company’s development that may affect Founder-CEO succession: the completion of product development and the raising of a new round of financing. As these “inflection points” occur, the company changes in several important ways that may affect Founder-CEO succession. These changes include the achievement of milestones that both show if the Founder-CEO has the ability to lead the company, and change the contingencies faced by the firm. In addition, these events change the company’s ownership and decision-making structures, and the amount of resources available to develop the company. The sections below describe how these events may affect Founder-CEO succession, and derive hypotheses that will be tested later in this paper. Where appropriate, I also reflect on how the hypotheses either corroborate or conflict with general findings from the organizational and CEO-succession literatures. In addition, where I found contradictory evidence, I craft competing hypotheses that I test in an event-history analysis at the end of this paper.

Shipping the First Product

A high level of uncertainty marks the early stages of a company’s life. One of the critical milestones in

the growth of a technology-based company is finishing development of the initial product, which helps resolve much of the technical uncertainty regarding the feasibility of developing the product. Even more important, in almost all of the companies I studied, the completion of product development was closely linked to the shipping of the first product to customers.¹ Therefore, reaching this milestone enabled each company to prove the product's viability with customers and to begin generating revenues.

Given this, successfully reaching this milestone is an early, concrete indicator about the success and future prospects of the company. Many Founder-CEOs I studied believe that by successfully leading their companies through the product development phase, they should be assured of retaining the CEO position. As one Founder-CEO stated, "If I've gotten us to that stage, man—that should really say to them that I can lead this company for a while." They argue that investors have few tangible signs of how well the company is performing, and that the completion and shipping of the first product is the first real sign that the Founder-CEO is capable of leading the company to future successes. Furthermore, they believe that they are uniquely qualified to lead the company. As one young founder stated, "I'm the one with the vision and the desire to build a great company—I *have* to be the one to run it. The people here were my hires, and the vision was mine from the beginning."

A founding CEO who leads his company through this milestone should indeed be able to make a stronger argument for retaining his position, for he has proven his skills in an area critical to company success. This is supported by the findings in large-company succession studies, which consistently show that the rate of succession is much lower when the CEO's company is performing well or is meeting board expectations than when firm performance is low or falls short of board expectations (Grusky 1963, Allen et al. 1979, Jensen 1986, Puffer and Weintrop 1991, Boecker 1992, Cannella and Lubatkin 1993, Useem 1993). Therefore, I pose the following hypothesis:

HYPOTHESIS 1A. *After the Founder-CEO has successfully led his or her company through the successful completion of product development, the rate of Founder-CEO succession will decrease.*

However, my field research indicates that in entrepreneurial firms, the opposite may be true: *Successfully* completing product development may actually *increase* the chances that the founding-CEO will be replaced. This is because the company's needs shift dramatically. Early in a company's history, the focus is

typically on the technical issues involved in developing the company's initial product or service (Greiner 1972). Leading the organization requires a relatively narrow range of skills, for the tasks that must be accomplished are predominantly in just one or two areas (e.g., research and development), making it less critical for top executives to have a broad range of skills.

In contrast, according to executives and investors I interviewed, once a company begins selling its initial product or service, the range of tasks required to be successful expands dramatically. Now, the company must worry about marketing the product, building a sales force, supporting the product, and managing the complex finances that come with the onset of incoming revenues. The complexity that must be managed—and therefore the demands of the position—change dramatically at this point. Similarly, organizations that are growing usually reach a stage in their evolution where a centralized decision-making approach and the level of complexity require a change in leadership (Greiner 1972). The company's critical contingencies (Salancik and Pfeffer 1977) have shifted radically, from technical contingencies to marketing and sales ones, requiring very different skills from the company's CEO.

As a result, it may be the case that the *best*-performing companies may have to replace the Founder-CEO sooner than worse-performing companies. As a venture capitalist stated:

The toughest time to change CEOs is when the CEO has been really successful at developing the company. But those fast growth companies outstrip the CEO's skills the fastest, and that's when we have to push the hardest for a change. . . . With a good "story," it is best to add a professional CEO *before* the scale of operations might logically justify it. You must stay ahead of the curve to drive momentum.

Along these lines, I pose the following hypothesis that competes with Hypothesis 1A:

HYPOTHESIS 1B. *The rate of Founder-CEO change will increase after the company finishes development of the initial product.*

Raising a New Round of Financing

The second critical event is the raising of new rounds of financing. Because start-ups usually lack the resources to invest in product development, hire employees, and develop key facets of their business models, they usually have to rely on outside investors for capital. In early-stage technology companies, these outside investors predominantly include venture capitalists (professional private-equity investors investing on behalf of their limited partners), but they often also include angel investors

(wealthy individual investors) and corporate investors, who usually invest for strategic reasons (Robinson and Osnabrugge 2000). From the outside investor's perspective, the decision about whether to invest in a particular start-up is fraught with a high level of uncertainty. Early-stage companies rarely have substantial tangible assets that the investors can assess (Gompers and Lerner 1999, Sahlman et al. 1999). Therefore, potential investors seek to reduce uncertainty before investing by assessing the skills of the executive team (in particular, those of the founding CEO), the quality of the business idea and business model, and the "trajectory of the market" that the company is targeting. Opening up the firm to the "due diligence" questioning of potential investors usually subjects company plans and personnel to much more intense and impartial scrutiny than they have received in the past (Wasserman 1999). As a result of the findings from these due diligence inquiries, outside investors often require the company's management team to address perceived weaknesses. Sometimes, the list of weaknesses includes the Founder-CEO himself or herself, in which case the investors may choose to push for a change in CEO. In contrast to the family-firm literature (e.g., Handler and Kram 1988), which has reached "the general conclusion that the need for the initial succession is often ignored and seldom planned" (Rubenson and Gupta 1996, p. 26), Founder-CEOs in companies with outside investors must deal with parties that push for succession to be an explicit topic of discussion, as described further below.

Because preinvestment research always leaves many questions unanswered, investors also try to reduce the uncertainty over time by "staging" their capital investments across multiple, smaller "rounds" of investment that are months or years apart (Gompers 1995). Start-ups therefore typically have to go through multiple rounds of negotiating with their investors. In each of these rounds, the investors can make demands that affect the leadership of the company. Each round of investment is tied to the expected achievement of key milestones in the company's development. As they get more information about the Founder-CEO's abilities, the market, and the company's prospects, the investors are able to make better decisions about the company and the role of the Founder-CEO.

For instance, in an Internet telephony company I studied, the young founder had already raised an initial round of funding from angel investors. However, the company was now getting low on cash, and needed a large capital infusion in order to build a second-generation system that would be able to handle high volumes of users. A potential VC told the company

that it needed "an experienced executive, experienced at managing other executives and a major development project." Along with two other experienced executives within the company who agreed that there was a need to change CEOs ("we're in the big leagues now, we need someone serious"), the VC put pressure on the founder to step aside and refused to invest unless he did so. The building cash crunch helped increase the willingness of the founder to step up to the "honorific" chairman's role in the company, opening the way for a professional CEO to take over. Once the founder had "assured the VCs he would get out of the way and let professionals run the company," the VCs completed the investment that enabled the company to develop a very successful second generation of its product. According to the professional CEO who succeeded the founder, within three months it was already apparent that the founder's "operational-involvement days were long past," though the company's early investors still looked to him for advice on major business issues. In this and several other cases I examined, the need to raise a new round of financing helped force a change in CEOs.

These cases are consistent with the resource-dependency literature. From a resource-dependency perspective (Pfeffer and Salancik 1978), a critical challenge for entrepreneurial firms is the raising of capital with which to grow the business. Without capital, the firms cannot invest in product development, hire the executives and people necessary to build the business, and create the infrastructure to be a successful company. In addition, high-profile investors bring to their companies critical nonfinancial resources such as credibility, expertise, and contacts, enabling them to attract additional high-quality employees, partners, and other investors (Sahlman et al. 1999). Therefore, when firms become desperate for capital, they are more willing to accede to the demands of outside resource providers (Pfeffer and Salancik 1978).

However, the cases above conflict with a different part of the literature. The existing literature suggests that company founders usually have a "honeymoon period" (Choi and Shanley 2000) during which new stakeholders—such as investors—assess the company's performance against their expectations. During the initial "exploration" period (March 1991), stakeholders gain information about the founder's abilities and the company's prospects and begin to judge the company's future viability. In contrast, my field research indicates that outside investors, usually VCs, often try to force a CEO change much earlier in the process. A VC stated that, "Our default assumption when we first look at a

company is that the Founder-CEO can't lead this company going forward," and that they therefore push for an immediate change in CEOs. This is more in line with other research that found that CEOs do not have the luxury of a honeymoon period: "Instead of facing a honeymoon period, a newly appointed CEO begins with a period of extreme vulnerability." (Fredrickson et al. 1988, p. 258). As a result, Fredrickson et al. found that a disproportionate number of CEOs have very short tenures. Similarly, in the early-stage companies that are the focus of this study, VCs know that they will have the most leverage to effect a change when the company is coming to them for capital in a new financing round, and therefore push for a change immediately without waiting for a "honeymoon" period to pass.² The VC will only be willing to provide capital to the company once the VC is satisfied that the necessary changes will be made soon after the round of financing is complete. (In such cases, VCs often include an explicit CEO-succession clause in the term sheets they proffer to companies before they invest.) For example, a general partner at a large Boston-area venture capital firm explained:

Upfront, I ask founders to level with me. If they are interested in working with me on the basis of being a big shareholder, then I am interested. If they are interested in working with me because they have to run the company, then it's probably not going to make sense for us to work together.

In a similar vein, board beliefs and assumptions are one of the most critical sociopolitical factors in CEO dismissal (Fredrickson et al. 1988). If the VCs, who will be serving as board members once their investment has been finalized, believe that Founder-CEOs often have to be replaced immediately, they raise the issue at an early point in time when they have the most bargaining power: when the Founder-CEO's company is raising money from the VCs. Therefore, I pose the following hypothesis:

HYPOTHESIS 2. The rate of Founder-CEO change will increase after each round of outside financing.

Raising Big Versus Small Rounds

However, rounds of financing are not created equal. For instance, while companies often choose to raise a large amount of money in some rounds, other rounds might be a lot smaller. In addition, in some rounds, only the company's existing investors participate, while other rounds include some new investors. The next two sets of hypotheses examine the impact that each of these factors could have on Founder-CEO succession.

When they are raising new rounds of financing, companies can choose to raise a lot of capital during the

round, or a little bit of capital (Wasserman 1999). By raising a lot of capital ("doing a big round"), a Founder-CEO can get the resources to increase the company's rate of growth, as one Founder-CEO stated: "The primary reason to raise a lot of capital is to grow the business more quickly, both by organic growth and by acquisition." However, as described further below, CEOs have to balance a desire to do a big round with the need to give up more of the company's equity and control in exchange for the additional capital.

In one company, a Founder-CEO wanted to raise \$5M in his first round of financing in order to increase the rate at which his company could grow. In his negotiations with potential investors, he found that, as a condition of investing so much money in the company, investors would insist on bringing in a professional CEO once the round was completed. However, he said, "I was not going to hand the company over to someone else before I had to." Therefore, instead of the higher figure, he raised \$2M during the first round, and thereby avoided having to give up his CEO position until the second round of financing.

In two other companies, the Founder-CEOs made the opposite decision, preferring to raise a large amount of money all at once "at the expense of" giving up their positions as CEOs. One reason they gave was that they disliked raising capital from investors, and therefore wanted to avoid the "pain" of having to go out to raise a new round sooner than they had to. Another reason was that they believed that their company would miss a "fleeting window of opportunity" if they did not have the resources to make key investments or acquisitions soon, motivating them to raise all of the cash necessary to do so. However, they acknowledged that this made them more susceptible to demands for change from their investors. Similarly, from a resource-dependency perspective (Pfeffer and Salancik 1978), CEOs who want to raise a larger round put themselves more at the mercy of capital providers than do CEOs who raise smaller rounds, increasing their susceptibility to investor demands for a change in CEOs.

From the investor's perspective, when a company raises a small amount of capital, the investor knows that the company will have to raise additional capital sooner than if they raised a larger amount of capital. Therefore, there will be a shorter amount of time before the investor will be able to once again make demands that are backed up by the power to withhold capital. As one experienced West Coast investor told me, "If I can keep [Founder-CEOs] on a tighter leash by putting less in now and having them come back for more soon, I might not push as hard for changes now."

HYPOTHESIS 3. *Controlling for the number of previous rounds of financing, the more money raised by a company in its latest round of financing, the higher the rate of Founder-CEO succession.*

Bringing in New Investors

Another way in which financing rounds differ is in the mix of existing versus new investors. Each funding round, a company can either raise money from its existing investors or it can seek to add new investors. It is often easier to raise money from existing investors, for they are already familiar with the company, have relationships with the existing executives, have a strong interest in seeing the company succeed, and may not wish to have their equity positions diluted (Gompers and Lerner 1999). However, it is often necessary to raise money from new investors in subsequent rounds, for as a company grows and its capital requirements increase, the company's existing investors may be unable (or unwilling) to provide for all of its capital needs.

For Founder-CEOs, a benefit of only having existing investors involved is that when executives can form social ties with outside board members, they gain added ability to influence decisions about their future (Main et al. 1995). This may help Founder-CEOs stay in their positions as long as new board members or investors do not enter the picture. In contrast, the involvement of new investors can be detrimental to the Founder-CEO's ability to retain his position. These new investors, who have not developed the same social ties with the Founder-CEO, may have less confidence in his or her ability to continue to run the company and may therefore cause the board to reexamine whether to replace the founder. In addition, new investors can add credibility to the company and bring new skills and networks of contacts that the company can leverage (Bygrave 1987). Founder-CEOs are often willing to accede to the demands of such high-quality investors to gain their involvement with the company. Referring to one of the oldest and most prestigious of the Silicon Valley venture capital firms, one Founder-CEO stated, "I'd step down in a minute if that's what would get them to invest in us."

HYPOTHESIS 4A. *When a company adds new investors, there will be a higher chance that the Founder-CEO will be replaced than when it does not add new investors in a new round of financing.*

On the other hand, the other cases I studied indicate that existing investors often will not agree to bring new investors into a company unless they have a lot of confidence in its prospects and its management team. Much of VC investing occurs within "syndicates" (Bygrave

1987) in which VCs invite other VC firms with whom they have developed a relationship to invest in their best companies, in exchange for future reciprocated investing opportunities. To build good syndication relationships, VCs usually try to avoid dragging other VCs into their "lemons" (Gompers and Lerner 1999). Therefore, firms in whom new VCs are investing may be more likely to have excellent Founder-CEOs than firms into which VCs do not invite their syndication partners. In addition, there often are information asymmetries between the new VCs and the existing "insider" VC investors, who are more familiar with the firm (Jensen and Meckling 1976). Because they know less, new VCs may be less able to trigger a reexamination of whether to replace the Founder-CEO. Furthermore, new investors in each round (and especially the "lead" investor) are often added to the board of directors once the round is closed (Wasserman 2002), enlarging the board. Past research has shown that large boards usually contain a more diverse range of perspectives, which makes it harder to reach a consensus about major issues, such as whether to replace a CEO (Goodstein et al. 1994, Fiet et al. 1997). Adding new investors also spreads control of the company across more people, further preventing any one investor from having disproportionate control of the Founder-CEO succession decision. These reasons suggest that the rate of Founder-CEO succession may *fall* after a round that includes new investors. Therefore, I also pose the following hypothesis that competes with Hypothesis 4A:

HYPOTHESIS 4B. *When a company adds new investors, there will be a lower chance that the Founder-CEO will be replaced than when it does not add new investors in a new round of financing.*

Changing Ownership Structure

As mentioned above, each new round of financing also changes the percentage of the company that is owned by outside investors. The more capital raised in each round, the higher the percentage of the company that the inside executives have to give up to outside investors, which is the key trade-off in a Founder-CEO's quest to raise a large amount of capital.

The likelihood of CEO dismissal depends on the power of the incumbent CEO (Fredrickson et al. 1988), and a critical factor in that power is the amount of equity held by the top executives of the company (Rubenson and Gupta 1992). Conversely, the higher the percentage owned by outside investors, the more decision-making control the outside investors should have about important issues (Pfeffer and Salancik 1978). For critical decisions, such as whether to replace a Founder-CEO, the

key turning point is whether outside investors own more than 50% of the company and therefore have “equity control.” One venture capital firm I studied that invests large amounts in early-stage companies usually insists on having at least 50% ownership after the first round of financing (“the money buys half the company”) in order to have more control over each company’s critical decisions. However, according to an executive consultant who specializes in entrepreneurial firms, “You usually have to go two or three rounds before the executives have less than 50% of the equity. Once you go south of having equity control, the money interests can band together and force them out.”

Similar indications of the importance of equity control come from studies of family businesses, where generational transitions within a business are not complete until the voting stock is passed down as well (Handler 1990). In a striking example of how important equity control can be in nonfamily businesses, too, in one fast-growing start-up I studied, the young founder brought in a CEO who had been the head of a major public software company. The founder retained majority ownership of the company and became an outside director. However, within two months, the outsider-founder was disillusioned with the professional CEO’s “ability to execute our vision” in spite of the professional-CEO’s “tremendous blue-chip credentials.” Three months later, with the backing of the rest of the board of directors, the outsider-founder fired the high-profile professional CEO and began a search for a CEO who better matched what the founder believed the company needed. Had the professional CEO had a large equity stake in the company, the outsider-founder’s ability to oust the CEO “would have been severely hampered.”

Reinforcing this point, past research has found that in externally controlled firms, outside investors use selection and retention to control CEOs (Salancik and Pfeffer 1980). In owner-managed firms, where the CEO and the rest of the top-management team own controlling stakes in the firm, the tenures of top managers can be more than twice as long as the tenures of top managers in externally controlled firms (McEachern 1975, Finkelstein and Hambrick 1989). However, these large-company studies have not had to use a longitudinal approach to study the effects of ownership structure, given that the structure in large companies rarely changes dramatically over short amounts of time. In contrast, in early-stage companies like those in this study, the changes are dramatic during each of the rounds of financing (which may be only a few months apart), making the intertemporal changes in ownership structure an important factor to assess.³

HYPOTHESIS 5. *In insider-controlled firms, the rate of Founder-CEO succession will be lower than in outsider-controlled firms.*

Alternative Hypotheses: Individual, Company, and External Factors

The hypotheses above focus on the completion of product development and the raising of each new round of financing, which seem to be the two most important intertemporal events that might affect Founder-CEO succession. However, past succession work has also examined succession contingencies at the level of individual-CEO characteristics (e.g., Kotin and Sharaf 1967) and organizational characteristics (e.g., Gouldner 1954). To accurately test the hypotheses developed above, I included these factors as control variables in my event-history analyses.

Individual Characteristics. Individual-level characteristics that might affect Founder-CEO succession include the Founder-CEO’s years and breadth of prior work experience, the existence of “ally” cofounders, the Founder-CEO’s own percentage of equity owned, and whether the Founder-CEO left the CEO position voluntarily or involuntarily.

First, a powerful recurring finding from studies of later-stage CEO succession is the fact that CEOs with more years of work experience are able to hold onto their positions longer (Kesner and Sebora 1994). According to human capital theory (e.g., Becker 1964, Carroll and Mosakowski 1987, Dobrev and Barnett 1999), direct work experience provides skills that are not easily learned by other means. When these skills and actions help address the most critical problems faced by the firm, the executive gains power (Kanter 1977). The benefits of previous work experience may be particularly salient for entrepreneurs, especially when the experience is directly applicable to the building of young firms. For example, among early-stage companies around Boston’s Route 128, experienced executives were more effective at conveying a sense of confidence to potential partners and resource providers, thereby finding it easier to attract them to their new companies (Nohria 1988). By experiencing multiple roles or multiple organizations, executives build expertise applicable to the entrepreneurial setting, such as operational best practices and skills negotiating with multiple constituencies (Dobrev and Barnett 1999).

Most applicable to this study, when the Founder-CEO is young and inexperienced, there may be a higher probability that outside investors will not have confidence in his or her ability to lead the company, and will

therefore seek to replace the Founder-CEO with a more experienced person. However, if the Founder-CEO has a long track record that investors can assess, the outside investors might be able to gain more confidence in the founder and be less inclined to replace him or her. One founder I interviewed reflected on the advantages that experienced CEOs have over younger competitors: "Would a young CEO work more hours and be more manic about the business? Yes, but he wouldn't work as smart, and smart is what we need in a CEO." Therefore, in testing the hypotheses described above, I also included the Founder-CEO's years of prior work experience in my event-history models.

A second related factor is the Founder-CEO's breadth of prior work experience. On the one hand, before founding their current companies, Founder-CEOs may have spent their careers in a functional area (e.g., finance, business development, sales and marketing, technology development) and developed deep expertise in that particular area. On the other hand, a Founder-CEO may have achieved a broader "general management" background in business. Having previous general management experience can help a CEO adapt to new organizational demands and thereby retain his or her position for a longer period of time than if the CEO has a narrower background (Hambrick and Mason 1984, Rubenson and Gupta 1996). Therefore, in my models I also included a control for whether the Founder-CEO had a narrow, functional background or a broader, general management background.

Third, research on large-company succession has shown that CEOs who enter the position with allies are more secure than are CEOs who enter without allies (Grusky 1969). In early-stage companies, an analog to this would be whether the Founder-CEO has founded the company along with one or more cofounder "allies," or whether the Founder-CEO started the company on his or her own ("without allies"). Founder-CEOs may be able to build a broader base of power by attracting other talented executives to help them start the company. A young founder stated that, "With Mark [his cofounder] by my side, I felt like we were bulletproof and could take anything that came our way." A Founder-CEO who has cofounder allies may therefore be able to retain his position for a longer period of time, especially if the skills of those cofounders complement his own. Another company I studied had a very large founding team of eight people. The CEO had used his personal network to pull the team together, recruiting each founding team member for his deep expertise in a functional area critical to the company's success, and the team as a whole for its complementary skills. Two years after the company

had been founded, he attributed his very solid position within the company to his preexisting relationships with the team members, who were all still employed at the company. Therefore, in my event-history models I also included the number of company founders.

Fourth, we can extend this analysis of the impact of "ally founders" to the equity control issues discussed above. Hypothesis 5 focused on how the amount of equity held by the founding team might affect Founder-CEO succession. Even when there are multiple founders, Founder-CEOs own a disproportionate share of the equity held by insiders (Wasserman 2001). However, Founder-CEOs do not have direct control over the equity held by other insiders. Therefore, *ceteris paribus*, where the Founder-CEO herself owns more of the equity, she should have more control over a succession event than if she owned a smaller percentage. Therefore, in my models, I also controlled for the percentage of equity personally held by the Founder-CEO.

Fifth, in developing Hypothesis 2, I focused on how a VC's ability to force a succession event is highest when a company is raising a new round of financing, which should cause the rate of succession to rise after each round of financing closes. This assumes that all succession events are involuntary and initiated by someone other than the outgoing CEO (Friedman and Singh 1989). However, some succession events may be voluntary. This is important because how the predecessor CEO leaves office influences who is selected as a successor CEO (Sonnenfeld 1986). Most pertinent to the central issues of this paper, voluntary succession events may speed up the rate at which the CEO position changes hands, for it may facilitate the search for, selection, and integration of a new CEO. Past studies have grappled with how to identify whether a succession event is voluntary or involuntary (Kesner and Seboria 1994), using such proxies as whether the predecessor CEO was older than 65 years old. Aside from the problems introduced by the use of such proxies (Kesner and Seboria 1994), these metrics don't apply to the subjects of this paper, for nearly all of the Founder-CEOs were in their 30s and 40s and none was older than 49. Given this, is it possible in this setting to separate CEO "dismissal"—i.e., when the CEO's departure is ad hoc and against his or her will (Fredrickson et al. 1988)—from voluntary succession?

On the one hand, there is a strong psychological linkage between founders and the companies they create (Dobrev and Barnett 1999), indicating that Founder-CEO succession may be predominantly involuntary. In fact, the vast majority of the Founder-CEO successions I studied were involuntary. On the other hand, there were four cases I studied where the Founder-CEO was the

one who realized that a change was necessary. These were typically inexperienced founders who realized that investors would be unwilling to invest capital in a company that did not have a seasoned executive in charge, and therefore proactively initiated a CEO change. For instance, one founder I interviewed recognized that, “The VCs wanted a celebrity CEO as part of the package when we went to them” and initiated a professional-CEO search that he planned to complete before the next financing round. Another founder realized the need for a change after a series of meetings with accounting firms and potential investors where

I did not feel they went well. They were asking questions with acronyms I didn't know, and I felt I was hurting the company. I thought I might be in over my head, and those meetings reinforced that I did not know all I needed to run the company.

Both of these founders “voluntarily” brought in professional CEOs shortly before their next financing round.

Even when interviewing the people involved in a succession event, it can be hard to tell when a particular succession event truly was voluntary or involuntary. Even so, the cases described above suggest a possible way to control for whether the succession was voluntary: that “voluntary” succession may occur more frequently in the months *before* a financing round.⁴ *In between* financing rounds, when outside investors do not have the power to withhold capital in order to effect a CEO change, convincing the founder to step down as CEO would be a painful and drawn-out process of persuasion. This makes it more likely that succession events in the time before a financing round may be voluntary ones, in contrast to the investor-driven succession events of Hypothesis 2, which happen upon the closing of a new round of financing. Therefore, to control for this possibility, I included in my models a time clock measuring the amount of time until the next round closed.

Company Level. The company-level factors include the characteristics of the company's board of directors, the company's primary business segment, its recent level of performance, and the number of people employed by the company.

CEO dismissal is usually initiated by the board (Mace 1971, Mintzberg 1983, Mizuchi 1983, Lorsch 1989), making board characteristics a potentially important factor in Founder-CEO succession. Further, complex and ambiguous decisions—such as those about whether to replace the CEO—intensify the differences between individual board members (Mintzberg 1983), especially in industries that are highly competitive (D'Aveni 1994). The most frequently studied type of board diversity is the mix of outsider/investor versus insider/executive

directors (Fiet et al. 1997). On boards that have a high percentage of insiders, the Founder-CEO's position may be more secure because board members who have been handpicked by the CEO are often less vigilant than are outside directors who are on the board because they are major shareholders (Fiet et al. 1997). Outside board members tend to focus on organizational performance in assessing CEOs and are more inclined to dismiss CEOs of low-performing companies (Mizuchi 1983). At the same time, while outsiders are less beholden to the CEO, they also lack the firm-specific knowledge that inside directors would have (Fredrickson et al. 1988). To control for this heterogeneity between boards, I included in my models a control for the percentage of the board consisting of inside directors.

The second company-level factor is the company's primary business segment. A recent study showed that a CEO's ability to influence company performance varies markedly by business segment (Wasserman et al. 2001), which can affect the rates of CEO succession across segments. In the Internet industry, segments can differ in structure, capital intensity, maturity, growth rates, and other factors. In this data set, the segments were as follows: business-to-business e-commerce (“B-to-B”), business-to-consumer e-commerce (“B-to-C”), content/new media, infrastructure, and services. In my models I created a dummy variable for each of these segments, which would allow the succession rates to vary by segment.

As described above, large-company succession studies have consistently found that good recent company performance—e.g., a large increase in sales (Fiet et al. 1997)—significantly decreases the probability of CEO dismissal (Kesner and Sebora 1994). Past studies have predominantly used profitability- or sales-based metrics of performance. However, in the early-stage companies that are the focus of this study, these metrics would be problematic because in the time period before companies begin selling products to customers, they have no revenues and estimates of their profits or losses can be unreliable at best. The best alternative that applies to start-ups is probably the company's most recent valuation. When a private company raises a round of financing from investors, those investors place a valuation on the company, akin to a public company's market value on the stock market (Wasserman 1999). When the company has completed key milestones and succeeded in ways that gain the confidence of its investors, the company's valuation will usually increase accordingly, while failure to achieve milestones can result in a decrease in valuation (Sahlman et al. 1999). Therefore, as an indicator of recent company performance, I used the valuation placed

on the company by investors in the most recent round of financing.

Finally, the number of employees can also play an important role in the occurrence of Founder-CEO succession. For instance, Greiner argued that the more people employed by a firm, the more acute the communication and coordination challenges, the more differentiated the functions within the firm, and the more complex the problems faced by the entrepreneur-CEO (Greiner 1972). Therefore, I used the number of employees, a robust metric of company size, in my models.

External Factors. Even broader, the performance of individual companies depends at least in part on external market factors (Porter 1980). For example, an industry's stage of development affects how much the industry "paradigm" has developed (Porter 1980), which affects the variance in performance and the number of firms against which each firm competes (Fredrickson et al. 1988) and can influence the size of the primary executive-level talent pool (House et al. 1985). Within the Internet industry, while the growth was consistently strong throughout most of my data set, the crash of April 2000 caused dramatic shifts in the dynamics of the industry (Barrett 2000) with possible implications for Founder-CEO succession. Therefore, I included a dichotomous variable indicating whether the succession event took place before or after the crash.

Data and Methods

Sample

As described above, past studies of CEO succession have focused on organizations, such as large companies or major sports teams, whose leaders were not founders of the organization. Data on these organizations are publicly available, facilitating research on them. However, in order to study Founder-CEO succession, I needed data that were not publicly available, for private companies do not have to disclose such data and rarely do so voluntarily. Therefore, I conducted a survey of Internet start-ups to collect data for this study and other related projects.

On one hand, financial data are relatively unambiguous and their reliability is strong (Antle and Smith 1985), so they lend themselves to collection via a survey. On the other hand, doing a survey introduced two major problems. The first problem was the fact that some of the data I sought—for example, the equity holdings of insider executives versus outsider investors at each stage of financing—was very sensitive. The second problem in collecting the data was the fact that,

because it included detailed questions on a broad array of issues, the survey could only be completed by a top officer of the company (i.e., the CEO, CFO, or head of human resources with the help of the CEO or CFO). Pretesting of the survey showed that the survey would require at least 20 minutes to complete, an amount of time that CEOs and CFOs might not be willing to invest. Further, surveys of CEOs—even those of stable, established companies—"have historically suffered from low response rates" (Zajac 1990, p. 223).

I pretested my survey (with 10 people from a variety of Internet companies) in order to learn how to avoid some of these problems. Results of the pretesting and of follow-up interviews with the participants enabled me to refine four of the survey questions and to reduce the amount of time that would be required to complete the questionnaire. In addition, discussions with pretesters indicated that the top executives of Internet companies severely lacked information about compensation in the industry, and believed that they suffered increased turnover within their companies because of it. This was true both for successful companies, which wanted to make sure that they could continue to attract new employees and that their current employees could not be "poached" by competitors, and for their less-successful counterparts, for whom attraction and retention were vital. Therefore, the main inducement that I used to get top executives to fill out the survey was the promise to provide respondents with a copy of the aggregate compensation results. (As an indication of the effectiveness of this inducement, of the respondents, all but one requested a copy of the aggregate results.) I accompanied this promise with a concise statement that ensured complete confidentiality regarding specific company submissions. Of the six pages in the final survey, three were compensation related, two were finance related, and only one page directly pertained to Founder-CEO succession. As a result, the title of the survey was the "Information Technology Compensation Survey," which helped reduce the chances that companies that had experienced messy Founder-CEO succession events would be sensitive to filling out the survey.

To build a list of candidate companies, I began with the Venture One database, creating a list of all companies whose primary line of business involves the Internet. After eliminating the companies with invalid addresses or that lacked contact information, I ended up with a list of 1,037 companies. Questionnaires were sent to all of them. I received valid survey responses from 202 of the companies, or 20% of my initial list of candidate companies. The 20% response rate was reasonably high considering the sensitivity of the questions and the

level of executives targeted (Finkelstein 1992, Waldman et al. 2001). Of the respondents, 59% were the chairman, CEO, or CFO of the company, with an additional 21% being the vice president of human resources.

Most important for this paper, the survey included questions about when development was completed on the company's first product (Hypotheses 1A and 1B), the timing of financing rounds (Hypotheses 2 and controls), financial details about company-financing history (Hypotheses 3 and 5), and executive, board, and founder demographics (control variables). In addition, to test Hypotheses 4A and 4B about the effect of having new investors, I used data from Venture One on the rounds in which each venture capitalist began investing in each company.

To test the representativeness of my sample, I obtained from Venture One the distributions of venture-backed Internet companies across three key dimensions. I used a Kolmogorov-Smirnov two-sample test to assess whether respondents were statistically different from the Venture One universe. In all three dimensions—industry segment, geography, and company stage (product-in-development versus shipping)—there were no statistically significant differences, indicating a lack of response bias. In addition, for those questions that could be verified, I checked randomly selected data from many of the responses against Venture One to reassure myself that the survey answers were accurate.

Geographically, of the 202 responding companies, 47% were headquartered in California, 17% in the Mid-Atlantic states, and 17% in the Northeastern states. With regards to business segments, 36% of the companies focused on business-to-business e-commerce, 26% on enabling software and infrastructure, 13% on business-to-consumer e-commerce, 10% on Internet services, 7% on content and new media, and 8% were categorized as "other." Almost all of the companies in the data set were founded between 1995 and 1999.

Methods and Variables

To test my hypotheses, I modeled Founder-CEO succession rates using a Cox event-history model (Cox 1972). An event history is a record of when a focal event occurred to a sample of individuals or organizations. In general, event-history methods enable us to make causal inferences about how changes in one variable affect the focal event (Blossfeld and Rohwer 1995). More specifically, Cox models—"unequivocally the best all-around method for estimating regression models with continuous-time data" (Allison 1984, p. 35)—use partial likelihood to estimate hazard rates, while assuming that transition rates for different values of covariates are

proportional (an assumption I test below). A particular strength of Cox models for this analysis is the fact that they allow us to include the time-dependent covariates (Blossfeld and Rohwer 1995) necessary to test my hypotheses.

In this data set, the risk set at each time point t consists of all Founder-CEOs who are still in the CEO position at the time point, and therefore "at risk" of being replaced. The hazard rate $h(t)$ is the probability that a Founder-CEO will be replaced between consecutive time points, given that the Founder-CEO is at risk of replacement at the earlier of the two time points. The destination state of interest is the exit of the Founder-CEO from the role of CEO, with the subsequent entry into the firm of the second CEO.⁵ To measure Founder-CEO succession, I modeled the likelihood that the founding CEO would be replaced. This variable was coded 1 at the time point when the Founder-CEO was replaced, and 0 otherwise. Firms where the Founder-CEO was still the company's CEO as of the end of the data collection period (July 31, 2000) were treated as censored observations, as were cases where the company was acquired (two companies) or went out of business (three companies) before there was a Founder-CEO succession event. Because I was able to get complete data on company history from time of founding, left truncation is not a problem in this data set.

With regard to the variables I used to test my hypotheses, the grounded-theoretical discussion above suggests that there are both time-constant and time-varying factors that influence the Founder-CEO succession event. Therefore, in my models I use both constant and time-varying predictor variables. Variables that are *constant* over time include the controls for the number of people who founded the company, the Founder-CEO's years of work experience before joining the company, whether the Founder-CEO had a narrow functional background before founding the company, and the company's business segment. For the first two of these variables, I took the data on founders and Founder-CEO work experience directly from the survey responses. For the breadth of the Founder-CEO's prior experience, I coded a dichotomous "narrow experience" variable as 1 if the Founder-CEO had worked in a functional area (e.g., finance, business development, sales and marketing, technology, or human resources) without having served in any general-management positions, and a 0 if the Founder-CEO had held a general-management position before founding the current company. For the business segments, I created one dummy variable for each of the five

segments (business-to-business e-commerce, business-to-consumer e-commerce, content/new media, infrastructure, and services).

To be able to include *time-varying* covariates, I used a spell splitting technique (Tuma et al. 1979, Gould 1999). For each unit of time (here, each month) that a Founder-CEO was at risk, I created a separate observation record. For each person-month, I coded the dichotomous dependent variable as 1 if the Founder-CEO was replaced in that month, and 0 otherwise. Finally, I pooled all of the person-months into a single sample, then estimated Cox models for the data set. Because this procedure treats each month at risk as a separate observation, I could include in the model the time-varying explanatory variables hypothesized to affect Founder-CEO succession.⁶

The time-varying variables include information about the latest round of financing and about the company's status with regard to product development. First, financing rounds are well-defined events that are accurate down to the month in which they occurred.⁷ To ensure the accuracy of the round dates, I checked every round against the Venture One database and against company press releases. I then calculated time clocks for both the time until the next round of financing and the time since the last round of financing (for company-months after the first financing round). Time-varying data that change each financing round include the amount raised (in \$M), the most recent valuation (in \$M), the percentage of the company owned by outside investors, the percentage personally owned by the Founder-CEO, how many new investors participated in the round, and the percentage of board members who were inside executives. Second, the company's status with regard to product development was captured via a dichotomous indicator of whether the initial product had begun shipping and a time clock that tracked the amount of time since product shipment had begun. As with the dates for financing rounds, I checked survey responses for product shipping dates against company websites, press releases, and press articles written on the companies. Because the time distributions of financing rounds and time elapsed since initial product shipping were both lognormally distributed, I logarithmically transformed these time clocks in my event-history models.

Results

The spell-split data set included 5,930 total person-months. Of the 202 companies included in the data set, 60 experienced a Founder-CEO succession event. Figure 1 shows a graph of the overall Kaplan-Meier survival estimates (with 95% confidence band) for the

companies in the sample. Table 1 shows summary data and a correlation matrix for the predictor variables used in the event-history models. Among the predictor variables, there were high correlations between the number of rounds of financing completed and the amount raised ($r = 0.48$, $p < 0.001$; companies tend to raise larger rounds as they mature), between the amount raised and the number of new VCs participating in the round ($r = 0.30$, $p < 0.01$; in order to raise more money, more VCs have to participate in the round), and between the number of rounds of financing completed and whether insiders control a majority of the equity ($r = -0.55$, $p < 0.001$; each round, more equity is sold to outsiders, diluting insiders' equity holdings).

To test the hypotheses, I built a series of three nested Cox models that estimated the effects of the independent and control variables on Founder-CEO succession. Table 2 presents these models.⁸ Model 1 is a "baseline" Cox model that predicts the likelihood of Founder-CEO succession on the basis of the control variables for the 202 companies. Model 2 adds to this baseline the effects of completing product development, and the full Model 3 adds the variables relating to financing rounds. With regards to assessing individual predictors, I focus on the significance of the t-statistics for the null hypothesis that each coefficient is equal to zero (Allison 1995).

The "baseline" model shows that with regard to the individual-level controls, whether the Founder-CEO had a narrow background before founding the company is highly significant at $p < 0.005$ with a positive coefficient, indicating that having a narrow background significantly increases the hazard of Founder-CEO succession. The percentage of equity personally owned by the Founder-CEO is significant at $p < 0.05$ with a negative coefficient, suggesting that the higher the percentage owned, the lower the chances of succession. At the company level, the time-since-founding time clock is highly significant at $p < 0.005$ with a positive coefficient, indicating that as a company ages, the hazard of Founder-CEO succession increases significantly (before we add any other time clocks to the model). The company's most recent valuation is significant at $p < 0.10$ with a negative coefficient, suggesting that the higher the company's valuation, the lower the hazard of succession. No other variables were significant in this model,⁹ which had a log-likelihood of -195.64 .

Model 2 adds the time clock that tracks the (log) number of months since the completion of product development. This time clock is highly significant at the $p < 0.01$ level and indicates that the rate of CEO succession is high immediately after the completion of product development and decreases after that. Among

Figure 1 Graph of Kaplan-Meier Survival Estimates for All 202 Founder-CEOs in Sample

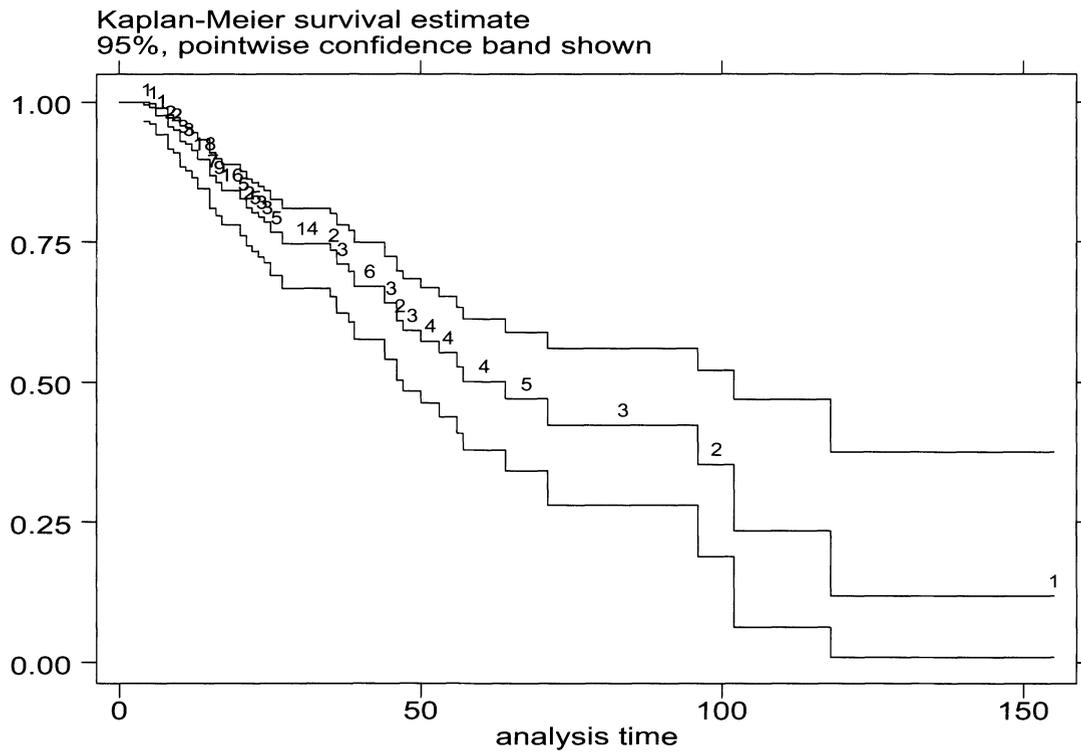


Table 1 Summary Statistics and Correlation Matrix for Cox Model Variables

	Mean	Std. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) After April 2000	0.12	0.33	1.00												
(2) Number of founders	2.46	1.29	(0.01)	1.00											
(3) Most recent valuation in \$M	16.34	90.85	0.16	0.12	1.00										
(4) Number of employees	29.65	58.01	0.21	0.07	0.72	1.00									
(5) Pct. of board who are insiders	0.81	0.20	(0.04)	0.17	0.14	0.08	1.00								
(6) Founder-CEO's equity pct.	0.47	0.30	(0.02)	(0.51)	(0.15)	(0.20)	0.29	1.00							
(7) F-CEO has narrow background	0.49	0.50	(0.14)	0.15	0.05	0.01	0.21	0.05	1.00						
(8) Time since product shipping	11.65	21.20	(0.08)	(0.20)	0.04	0.19	(0.06)	(0.09)	0.14	1.00					
(9) Rounds to date	1.05	1.15	0.05	(0.07)	0.46	0.36	(0.19)	(0.44)	(0.05)	0.34	1.00				
(10) Number of new VC investors	0.98	1.45	0.03	0.05	0.12	0.20	0.14	(0.21)	0.09	0.05	0.08	1.00			
(11) Amount raised in last round	6.02	13.78	0.13	0.13	0.55	0.48	(0.10)	(0.46)	(0.04)	0.02	0.48	0.30	1.00		
(12) Time since last round	6.25	6.45	0.04	(0.02)	(0.18)	0.08	0.11	0.07	0.10	0.29	(0.19)	(0.05)	(0.14)	1.00	
(13) Time to next round	13.27	17.57	(0.24)	(0.09)	(0.13)	(0.17)	0.03	0.04	0.15	0.11	(0.05)	(0.06)	(0.09)	(0.18)	1.00
(14) Insiders control equity	0.76	0.43	0.06	0.19	(0.06)	(0.09)	0.40	0.46	0.05	(0.28)	(0.55)	(0.30)	(0.39)	0.01	(0.10)

Table 2 Event History (Cox) Models for Founder-CEO Succession

	Model 1 Control Variables			Model 2 Completion of Product Dev't.			Model 3 Product Dev't. and Financing		
	Hazard Ratio	Coef.	(Std. Err.)	Hazard Ratio	Coef.	(Std. Err.)	Hazard Ratio	Coef.	(Std. Err.)
<i>Control Variables</i>									
Founder-CEO's equity %	0.172	-1.761	(0.791)**	0.571	-0.560	(1.202)	5.600	1.723	(1.115)
F-CEO's years of prior exp'c	1.031	0.031	(0.023)	1.022	0.027	(0.023)	1.290	0.081	(0.061)
F-CEO has narrow backgrd.	3.539	1.264	(0.362)****	4.083	1.407	(0.575)**	2.136	0.759	(1.249)
Number of founders	0.873	-0.136	(0.144)	0.966	-0.035	(0.202)	2.195	0.786	(0.483)
Time since founding (L)	8.191	17.222	(1.648)****	7.421	14.883	(8.624)	1.401	1.303	(3.181)
Most recent valuation (S)	0.878	-0.130	(0.073)*	0.891	-0.115	(0.097)	0.853	-0.159	(0.155)
Number of employees	1.000	0.000	(0.003)	1.002	0.002	(0.002)	1.003	0.003	(0.009)
% of board who are insiders	0.646	-0.436	(1.057)	0.771	-0.260	(1.367)	0.866	-0.144	(1.255)
Segment 2 (Bus.-to-consumer)	0.944	-0.058	(0.382)	0.659	-0.417	(0.495)	0.009	-4.685	(3.848)
Segment 3 (Content/NM)	0.957	-0.044	(0.581)	0.664	-0.410	(0.831)	0.025	-3.695	(2.423)
Segment 4 (Infrastructure)	0.777	-0.252	(0.714)	0.159	-1.840	(1.155)	0.428	-0.848	(3.225)
Segment 5 (Services)	0.780	-0.248	(0.457)	0.312	-1.164	(0.912)	0.051	-2.976	(2.158)
After April 2000	1.168	0.155	(0.493)	1.338	0.291	(0.538)	8.042	2.085	(1.329)
<i>Predictor Variables</i>									
Time since product ship'g (L)				0.482	-0.730	(0.262)***	0.093	-2.379	(0.843)***
Rounds to date							0.039	-3.247	(1.636)**
Time since last round (L)							0.185	-1.688	(0.852)**
Time to next round (L)							0.970	-0.030	(0.254)
Amount raised last rd. (L)							2.220	0.798	(0.173)****
Number of new VCs							0.090	-2.406	(0.671)****
Insiders control equity							0.030	-3.495	(1.476)**
Log likelihood	-195.64			-77.92			-10.57		

Note. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.005$. Variable transformations: (L) = natural log; (S) = square-root "Std. Err." columns show robust standard errors.

No. of companies 202.

No. of Founder-CEO succession events 60.

No. of Total observations 5930.

Dependent variable: Whether a Founder-CEO succession in event occurred at time point t .

the controls in this model, while the variable indicating whether the Founder-CEO had a narrow background loses some significance, it is still significant at $p < 0.05$. With the addition of the shipping time clock, the time-since-founding time clock's standard error increases to the point where the time-since-founding variable is no longer significant. Model 2's log-likelihood is -77.92 .

Model 3 is the full Cox model, which adds the financing-round variables. Focusing on the individual predictors in Model 3, I can assess the hypotheses developed in this paper. With regard to Hypotheses 1A and 1B about the effects of the completion of product development on the rate of Founder-CEO succession, the time clock for the completion of product development is significant at the $p < 0.01$ level. The more recently the first product began shipping, the higher the rate of succession. More specifically, doubling the number of

months since the company began shipping the product decreases the hazard of succession by a multiple of 0.193.¹⁰ This supports Hypothesis 1B (that completing product development precipitates a succession event) over Hypothesis 1A (that completing development solidifies the Founder-CEO's position).

Moving to the financing variables, the time since last round was significant at the $p < 0.05$ level, supporting Hypothesis 2 that the rate of Founder-CEO succession increases after the company raises a round of financing. In terms of practical significance, doubling the time-since-last-round time clock decreases the hazard of succession by a multiple of 0.310.¹¹ With regard to Hypothesis 3, the amount raised in the last round of financing is significant at the $p < 0.005$ level. The higher the amount raised in the last round, the higher the rate of Founder-CEO succession, supporting Hypothesis 3 that

large rounds are related to higher turnover. In terms of practical significance, a doubling of the amount raised in the last round increases the hazard of succession by a multiple of 1.738.¹² With regard to Hypotheses 4A and 4B, the number of new VCs participating in the latest round of financing was significant at the $p < 0.005$ level (with a hazard multiple of 0.090 for each new VC), supporting Hypothesis 4B (that the involvement of new VCs is linked to a *lower* rate of succession) over competing Hypothesis 4A (that the involvement of new VCs is linked to a higher rate of succession). With regard to the effects of outside equity ownership, the equity-control variable is significant at the $p < 0.05$ level. When insiders own more than half of the equity, the hazard of Founder-CEO turnover is much lower (by a hazard multiple of 0.030), supporting Hypothesis 5.

The next section discusses these findings in light of the literature on CEO succession and describes potential future research possibilities.

Discussion

The results in this paper have shown how intertemporal events affect the likelihood that a Founder-CEO will be replaced. Using my field results and a unique dataset that included 202 companies and 5,930 person-months of data, the analysis provides strong evidence of a linkage between Founder-CEO succession and the completion of both product development and each round of financing.

The first intertemporal event examined here was the completion of product development. A company in the midst of product development faces critical technical challenges. Early on, Founder-CEOs who are adept at solving such challenges are often able to attract high-quality technical people, to manage the product development process well, and to help their organizations succeed at developing the product efficiently. However, once the initial product has been developed, the CEO's job broadens and gets much more complex, for he or she has to begin selling the product to customers, building an organization to support the product, and creating a marketing team. This dramatic change in the contingencies faced by the firm often results in a mismatch between the skills of the technically adept Founder-CEO—whose skills were the key to success until now—and the new needs of the organization. The fact that the rate of succession increases immediately after the completion of product development suggests that company owners proactively assess the quality of this skills-contingencies fit and make CEO changes before a mismatch would cause problems. The

strength of this factor overwhelms the power gained by the Founder-CEO from having successfully led the company to a major milestone.

The second intertemporal event is the raising of new rounds of financing. During these rounds, Founder-CEOs negotiate with potential investors in an effort to receive capital to build their companies. If such investors doubt the Founder-CEO's ability to lead the company over the long run, they will be unwilling to invest unless there is a change in CEO. As shown in this paper, investors have a particularly high amount of leverage to effect a Founder-CEO succession event at the time that Founder-CEOs come to them for a new round of financing, for the investors can refuse to provide capital if their demands are not met. The power to make demands is greatest when the company is raising a large amount of capital and when outside investors own a higher percentage of the company, giving them additional control of critical decisions within the company.

These results enable us to compare and contrast succession in larger companies, which has been the focus of past CEO-succession research, with the Founder-CEO succession event that is the focus of this paper. As with later-stage succession events, equity control can play a significant role in Founder-CEO succession. However, there are some critical ways in which Founder-CEO succession departs from the later-stage succession findings from past organizational research. Most important, in contrast to large companies, where delivering good performance helps ensure CEO longevity (Grusky 1963, Allen et al. 1979, Jensen 1986, Useem 1993, Denis and Denis 1995), success can be detrimental for Founder-CEOs who want to remain in their position. In this "paradox of success," Founder-CEOs who are successful either at leading their companies to successful completion of product development or at raising a round of financing have a *higher* rate of turnover. As initially indicated by my field work, succeeding at leading a company to key milestones often means that the company's needs outstrip the Founder-CEO's skills faster. While the Founder-CEO's skills were a good "fit" for the contingencies faced by the company before, enabling the company to reach its critical milestones, those skills are usually much less important now that the company faces radically different contingencies. As a VC from a large Northeastern firm told me:

In situation after situation we have found that if we are really focused on building a big and important business, and we do a great job of launching a company quickly, growth often outstrips the founding CEO's ability to manage.

Furthermore, succeeding at raising a *large* round of financing also increases the chances of succession significantly. By trying to raise a large round, Founder-CEOs put themselves at the mercy of capital providers, increasing the hazard of succession. Founder-CEOs therefore can face a critical dilemma, in which performing poorly would have undesirable consequences, but performing well may also cause them to lose their positions. One Founder-CEO who participated in the survey told me in a postsurvey follow-up interview why he had been able to retain the CEO position:

The only reason I'm still CEO is that we haven't been at either end of the spectrum. We haven't "cratered," so the VCs haven't been banging the table calling for my head. But the VCs also don't see us turning into one of their homeruns, so they don't want to eat up their time and resources trying to find a superstar to run the company.

It is important to note that the impact of "success" on the rate of CEO succession has been measured differently in large-company studies from how it was measured in this study. Past large-company studies have measured success using such metrics as the company's profitability or sales growth (Kesner and Seborá 1994). However, as noted in the "Data and Methods" section above, these metrics do not apply when companies are not yet shipping products, which can be true for a substantial period of time in new companies. Instead, for their metrics of success, young companies rely on the achievement of event-driven milestones (Sahlman et al. 1999) such as the successful completion of a round of financing or of initial product development. My field research showed that these events can have important impacts on Founder-CEO succession, and were therefore the metrics I used in my analyses. However, we should also keep in mind that they are not directly comparable to the "success metrics" commonly used when studying large-company succession.

The results of this study also help show what types of personal characteristics and situations might help Founder-CEOs retain their positions for a longer period of time. For example, with regard to personal characteristics, if the founders bring their own financial resources to the company (e.g., from their past successes at founding companies), they are less dependent on outside investors and less susceptible to their demands for a change in company leadership. They can wait longer before raising their first round of financing, which enables them to prove—and improve—their abilities for a longer period of time. A young Founder-CEO whose company failed due to a lack of funding made the following observations with regard to Founder-CEOs

who were able to remain in their positions for a long period of time:

Their businesses grew relatively slowly, with relatively little VC backing, so they had time to develop management skills ... whereas VC-backed startups tend to grow quickly, growing faster than the founder's bandwidth can expand.

In firms that either lack the resources to grow or are led by founders who do not want the firm to grow, founders can maintain direct control of the critical organization decisions (Carland et al. 1984). Furthermore, such Founder-CEOs also have more time to increase the value of the company before selling equity to outside investors, which means that they will be able to retain a larger percentage of the equity for themselves. From a situational perspective, Founder-CEOs who want to remain CEO might select business segments or business concepts where the critical contingencies faced by their companies do not change markedly when product development is complete, such as where the company's advantages are built on relationships with key partners, both before and after product development is completed. Founders interested in retaining the CEO position might also concentrate on proactively building the skills that will be necessary once such critical milestones are reached, even if those skills are not needed early in the company's history.

Looking to the broader literature, the intertemporal evolution of equity control, in which each financing event changes the balance between ownership and management, can help give us a richer picture of agency theory. As generally applied, agency theory assumes that managers and owners are distinct groups whose interests diverge due to their differential ownership stakes in the company. This assumption reduces agency theory's applicability to early-stage companies that have not accepted outside capital, or where the CEO still owns as large a share of the company as do the largest outside investors. However, from an agency perspective, we can view entrepreneurship as the process by which ownership and management *become* separated. At the time of company founding, when there are not any outside investors, the people running the firm own all of the equity and the principals are the same as the agents. As each round of financing is completed and the manager-owners sell more of the firm to outside investors, the firm begins to look more like the models studied in agency-based analyses. At the same time, at all stages of private-company development, Founder-CEOs own far more of the firm's equity than do nonfounding CEOs (Wasserman 2001). Interestingly, this means that replacing a Founder-CEO with a professional CEO who owns less of

the firm can, in fact, *worsen* the principal-agent problem, for the lesser amount of equity held by the professional CEO could mean that the professional CEO's interests are less aligned with the interests of the investors. In addition, the outsider professional CEO often has to climb a steep learning curve, further increasing the costs of succession.

On the other hand, there are other theoretical perspectives that might give us a richer understanding of the reasons why Founder-CEOs are replaced. As mentioned above, the "changing contingencies" perspective (Hickson et al. 1971) gives us strong forward-looking reasons for why Founder-CEOs might be replaced after achieving critical milestones. In addition, another perspective that might shed further light on Founder-CEO succession is institutional theory. Some of the quotes from my field research indicate that venture capitalists and other key succession players make decisions guided by "rationalized myths" (Meyer and Rowan 1977), following taken-for-granted assumptions, beliefs, and rules of thumb about Founder-CEOs. For example, one VC described above how his "default assumption" is that the Founder-CEO will not be able to lead the company for a sustained period of time, and he therefore seeks to remove the Founder-CEO much earlier in the process than might be expected. However, when pushed for how he had arrived at this rule of thumb, he admitted that it was a widely held belief within the venture capital industry and one that he had not questioned. This may be true even when the best decision may be to allow some time to learn about the Founder-CEO's capabilities by giving the founder a honeymoon period (Choi and Shanley 2000). Other such "institutions" or "conventions" that may affect Founder-CEO succession include the rules of thumb about how much equity outside investors should receive in the early rounds of financing, the appropriate role for outside board members in making critical decisions, and whether Founder-CEOs should remain at their companies after being replaced. Even though the people who adhere to them rarely assess the reasoning behind such rules, the rules help add legitimacy to the demands made by VCs.

As the first large-scale exploration of Founder-CEO succession, this paper probably opens up at least as many questions as it answers. Our knowledge of CEO succession could benefit greatly from future exploration of these questions.

For example, in this study, I focused exclusively on Internet firms. The fast growth of these firms—in which the time period for founding the firm, building the team and board, developing the product, and growing to be a large organization is compressed dramatically—helps

make the industry into the "Mediterranean fruit fly of succession research." There are many "subjects" to study and they develop very quickly. However, the benefits gained from focusing on the Internet sector do come with some costs. For example, by limiting my focus to the Internet sector, I may have introduced biases that are unique to this setting. Does the compressed time frame of competing in an ultracompetitive industry (Eisenhardt 1989, D'Aveni 1994) force boards to take material short-cuts in the succession process? Do Founder-CEOs usually stay at the firms they founded, or does the Internet industry have idiosyncratic characteristics of psychological attachment that lead its former Founder-CEOs to stay at their firms more often than in other industries? Are Internet companies more susceptible to the demands of outside investors, given their capital requirements and rates of growth? Future research that extends my analyses to other entrepreneurial settings such as biotechnology or medical devices would help locate the potential biases caused by a focus on the Internet sector. Other biases may have been introduced by the types of firms that responded to the compensation survey from which I obtained my quantitative data. For instance, as described in the Data and Methods section, the survey's respondents matched the distribution of private companies in the Venture One database. However, the sample was dominated by companies that had raised venture financing, as is true of Venture One itself. These companies are typically more successful than are similar companies that have not raised venture money (Gompers and Lerner 2001). They may have different ownership structures, may have boards that are more outsider-heavy, and may be at a different stage of organizational evolution. While some of these factors could decrease the hazard of Founder-CEO succession, most of them could increase it. Future research could help illuminate the actual impact of any biases introduced by a venture-heavy sample.

Other fertile areas for research include gaining a richer understanding of how CEO succession is affected by other characteristics of financing rounds, other Founder-CEO characteristics, the event of going public, and how the timing of Founder-CEO succession affects firm survival. First, within financing rounds, does Founder-CEO succession increase when the new investor in a round is high status, compared to when the new investor is a lower-status VC firm? Is Founder-CEO succession more prevalent when one investor owns all of the outside equity and holds one board seat, or when the outside equity is more evenly spread across investors who collectively hold more than one board seat? Second, the Founder-CEO characteristics controlled for here were

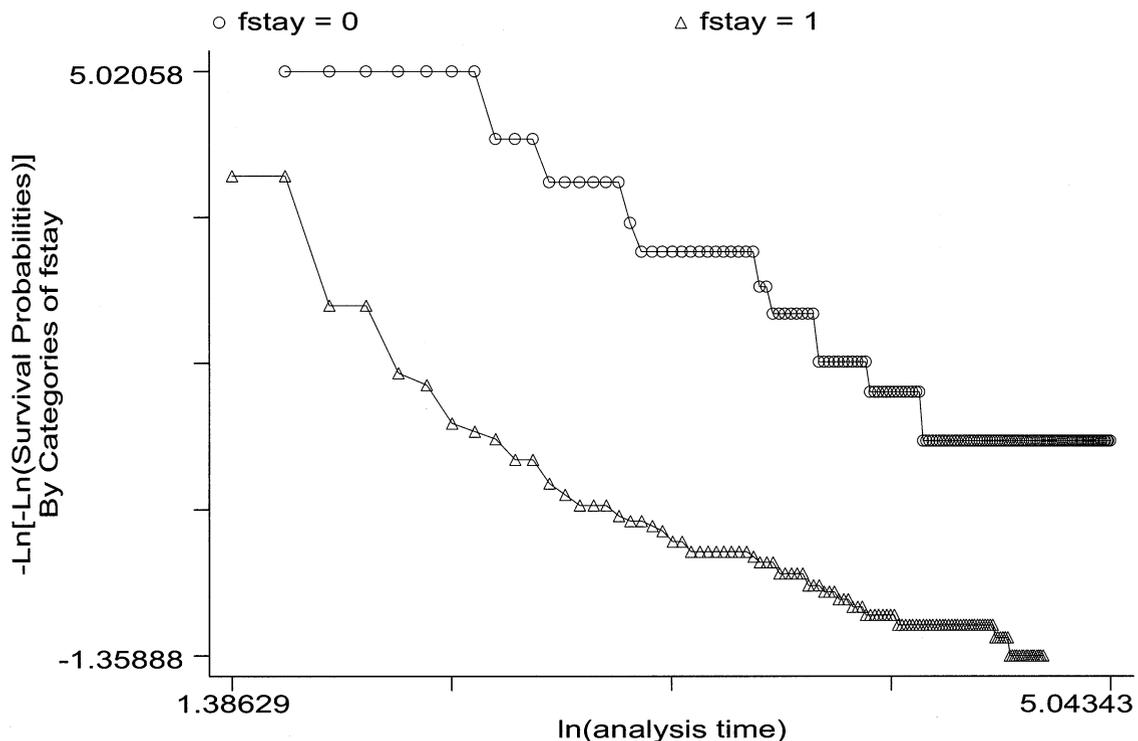
years and breadth of prior work experience. Besides prior work experience, what other Founder-CEO characteristics affect the rate of succession? For Founder-CEOs who worked in Internet companies before, does the rate of succession decrease? For Founder-CEOs who previously founded another company (whether Internet-focused or not), does the rate decrease? Are Founder-CEOs who have already accumulated substantial wealth quicker or slower to step down? Does the gender or educational background of the Founder-CEO affect the rate of succession?

Third, while my data set did not include many later-stage companies, my field research indicates that the process of preparing to go public could also have a powerful effect on Founder-CEO succession, similar to the effect of raising a large round of private financing. After all, as one executive consultant commented to me, "Underwriters put the team under a microscope and are ruthless about it," much like VCs who perform due diligence on a potential investment. Does the rate of Founder-CEO succession increase prior to going public, given that the firm's financial contingencies should change dramatically once it is a publicly held firm? Does the rate of succession differ by how large a public offering the firm decides to pursue, just as the amount of money raised in each financing round affects succession when the firm is private? Fourth, compared to large companies, whose survival rates are relatively high, the mortality rate of small companies is very high (Sahlman et al. 1999). According to some researchers, organizational survival is the ultimate indicator of success (Hannan and Freeman 1989). Interestingly, young newspaper firms have been found to have a disproportionate likelihood of failure after publishers who were founders resign (Carroll 1984). Further research that focused on the survival rates of entrepreneurial firms that experience Founder-CEO succession at different points in their development would enable us to perform a survival assessment of the intertemporal affects of Founder-CEO succession. Do firms that replace their Founder-CEOs early have a higher or lower rate of survival? Do firms whose Founder-CEOs stay after the succession event have higher or lower rates of survival?

Finally, almost all of the factors examined in this study are "prearrival factors" in the CEO succession. However, succession research has also started exploring "postarrival factors," such as the actions taken by the new CEO and the "sources of power and influence" in the organization after the successor's arrival (Gordon and Rosen 1981). Founder-CEO succession adds an interesting element to this exploration. In contrast to larger companies, where deposed CEOs rarely remain in an

operating capacity within their organizations (Kesner and Sebora 1994), more than half of the Founder-CEOs in this study remained with their companies after the succession event. This has important implications for the process by which new executives "take charge" of their organizations (e.g., Ciampa and Watkins 1999). While the former CEOs of large companies rarely remain with their companies, it is very common for former Founder-CEOs to remain with their companies, either in the chairman's role or in a role below the CEO.¹³ Even after a succession event, many investors—and even some successor CEOs—want the Founder-CEO to stay with the company in some capacity. As one investor told me, "You can replace an executive, but you can't replace a founder." Once the professional CEO has entered the company, the deposed Founder-CEO has to negotiate a new role, often from a position of weakness. For the company's new CEO, the continuing involvement of the Founder-CEO can introduce some very different "taking charge" challenges than when the previous CEO does not stay with the company. This is especially true when the Founder-CEO remains in an operating position within the company. However, even when the Founder-CEO does not retain an operating role, the Founder-CEO often keeps his seat on the board of directors (often as chairman), which also introduces critical board management challenges for the new CEO. The former CEO can have a major effect on an organization long after the CEO has left office (Gordon and Rosen 1981), particularly when the former CEO becomes chairman of the board, able to look over the new CEO's shoulder (Fredrickson et al. 1988).

Board members' perceptions of whether the Founder-CEO will stay may even affect the timing of the succession event itself. As a venture capitalist expressed it, board members often go through a "feeling-out process" during which they "take the measure of the Founder-CEO" to see if the founder will stay with the company after a professional-CEO is brought in. Future research could benefit from exploring whether this feeling-out process affects the timing of Founder-CEO succession. For instance, if the board believes that it is critical to keep the Founder-CEO around, but realizes that the Founder-CEO will leave the company if forced to vacate the CEO position, it may delay pushing for the succession. Support for this proposition is provided by Figure 2, which shows that the survival profile of Founder-CEOs who will stay with their companies differs markedly from the survival profile of Founder-CEOs who will not stay with the company after the succession event. If a Founder-CEO can credibly threaten to leave the company if replaced by a professional CEO,

Figure 2 Graph of Survival Probabilities by Whether Founder-CEO Continued at the Company After Succession Event

the Founder-CEO may be able to retain the position for a longer period of time. A competing-risk analysis of Founder-CEO succession, with the two outcomes being whether the deposed Founder-CEO stays or departs from the firm, would illuminate whether the “all or nothing” threat of leaving the company is able to affect the process of succession and delay the succession event.

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Endnotes

¹This was epitomized by the CEO whose exhortation to his engineering team was, “We’re not done with first-generation development until a customer order says we’re done!”

²In addition to this field evidence, I also ran auxiliary analyses of my large-scale data set to check whether the honeymoon effect exists in this arena. I included in my models honeymoon periods of both two and four months, but did not find them significant at any standard level of statistical significance.

³For this reason, a recent study emphasized the need for small-company research to use longitudinal data and quantitative controls (Fiet et al. 1997).

⁴The Founder-CEOs I interviewed had a solid idea of when the next funding round would occur, and planned accordingly. One stated that

at the time that his company completed its first round of financing, “We knew to the month when we would need our second round. It always depends a little on market conditions, but you have a pretty good idea of when the next round will be coming up.”

⁵Although it is possible for companies to progress through multiple CEO succession events, restricting attention to the first transition is appropriate if we suspect that the process of replacing the Founder-CEO differs from that of later successions (Allison 1984).

⁶Because each company in the data set has multiple company-months of observations, I used the “robust” method of calculating the variance-covariance matrix (Lin and Wei 1989), clustering the observations by company.

⁷When a round of financing is completed, both sides to the transaction (the company and the investors) sign documents containing the final terms of the round and often issue a press release to publicize completion of the financing milestone.

⁸To check the adequacy of the full Cox model, I tested the central Cox model assumption about proportional hazards. I examined the Schoenfeld and scaled-Schoenfeld residuals (Schoenfeld 1982) on both a “global” (full model) and “detailed” (covariate-specific) level, with the null hypothesis that proportionality holds. In short, at both levels of testing, the Cox model assumption that proportionality holds appears to be well justified at any standard level of significance. In the detailed tests, all but one covariate had chi-squared statistics smaller than their degrees of freedom, so I could not reject the null hypothesis that proportionality holds. (The one exception was Rounds-to-date, with $\rho = 0.37269$, $\chi^2 = 1.07$, and $\text{Prob} > \chi^2$ of 0.3011 with 1 d.f.

However, even for this covariate, I could not reject the null hypothesis.) For the "global" model as a whole, I also could not reject the null hypothesis, for the global test's $\text{Prob} > \chi^2$ was 0.9974 (16 d.f.).⁹ Perhaps the most surprising is the fact that prior years of work experience do not affect Founder-CEO succession in this dataset. However, the youth of the Internet industry may mean that few people have any preexisting industry-specific knowledge or skills to apply in their positions as CEO.

¹⁰Using the hazard ratio of 0.093 from Table 2, doubling the number of months in the shipping-product time clock changes the hazard of succession by a multiple of $0.093^{(\ln 2)} = 0.193$.

¹¹Using the hazard ratio of 0.185 from Table 2, doubling the number of months in the last-round time clock changes the hazard of succession by a multiple of $0.185^{(\ln 2)} = 0.310$.

¹²Using the hazard ratio of 2.220 from Table 2, doubling the amount raised in the last round changes the hazard of succession by a multiple of $2.220^{(\ln 2)} = 1.738$.

¹³In the data set used in this paper, of the Founder-CEOs who were replaced, 23% took a position below the CEO, while 40% moved into the chairman role. Thirty-seven percent of the Founder-CEOs left the company upon the arrival of a professional CEO. Another study of high-growth firms found that of the Founder-CEOs who were replaced, 50% remained on the board of directors for at least five years after the succession event, and a little less than 25% left their companies completely (Rubenson and Gupta 1992).

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