From Founders to Firm: Examining the Retention of Founder-CEO Social Capital in Venture-Backed Firms

Bret R. Fund
University of Colorado Boulder
From Founders to Firm: Examining the Retention of Founder-CEO Social Capital in Venture-Backed Firms

Cover Page Footnote
Acknowledgements: I would like to thank Tim Pollock, Ted Baker, Don Hambrick, Justin Jansen, Harry Sapienza, Bob Hoskisson, Craig Crossland and Sharon Matusik for their helpful comments on prior versions of this paper. I would also like to thank the Farrell Center (at Penn State University) and Don Hambrick for providing research funds that allowed me to conduct the interviews and visits that aided in my data collection process for this paper.

This article is available in The Journal of Entrepreneurial Finance: https://digitalcommons.pepperdine.edu/jef/vol18/iss2/4
FROM FOUNDERS TO FIRM

ABSTRACT

This paper examines how organizations protect themselves from the negative social and economic consequences associated with the loss of a key member and their social capital. Drawing on the social capital and upper echelons literatures, the author(s) hypothesize that social capital can be institutionalized. The corresponding hypotheses are tested on a sample of 125 venture-backed software firms and the results demonstrate that the institutionalization of a founder-CEO’s social capital leads to better performance for a firm. The results provide a basis for understanding how social mechanisms influence economic organization as well as succession and compensation in a new venture context.

INTRODUCTION

Scholars have argued that the transition from a Founder-CEO to an outsider is potentially the most critical succession event in the history of the firm (Hofer and Charan, 1982; Haveman and Khaire, 2004). This is, in part, the case because the identities of the founders are more tightly linked to the organization’s identity than are the identities of later-stage managers (Dobrev and Barnett, 2005). Founders also often control a sizeable portion of the venture’s assets, so ownership and control are less separated in firms managed by founders than those run by non-founders (Berle and Means, 1932). A final reason why this first succession event is so critical is that the founder’s social capital, which has been shown to be beneficial to an organization (e.g. Cao, Simsek & Jansen, 2012; Bamford, Bruton, and Hinson, 2006), could be lost as a result of the succession event.

In regards to this last reason, inasmuch as new ventures are dependent on a founder-CEO’s social capital for its growth and survival and that these founder-CEO’s can often be replaced and/or exit the firm (Hofer and Charan, 1982; Haveman and Khaire, 2004), it presents an organization with the problem of protecting itself
from the potential negative implications from the loss of the founder-CEO’s important social capital (Boeker & Karichalil, 2002; Fischer & Pollock, 2004). The social capital of a new venture is brought into the firm by organizational members (Leenders & Gabbay, 1999) and includes relationships both inside and outside the firm (Cao, et al., 2012; Cao & Maruping, 2006; Adler and Kwon, 2002; Bolino, Turnley, and Bloodgood, 2002; Koka and Prescott, 2002). The founder’s and the top management team’s social capital are considered more important for the firm and its outcomes than the social capital of other organizational members (Bamford, Bruton, and Hinson, 2006; Pennings and Lee, 2002). Specifically, Bamford, et al (2006) have argued that that a founder-CEOs’ relationships are the most important consideration in the survival of new ventures, as they are often the biggest contributor to the firm’s initial social capital. In some cases the relationships in question have been developed prior to joining the firm while in other cases they were initiated during the founding and growth of the company. Regardless of when they are brought into the firm, the venture may extract considerable value from these relationships at a very formative time in its history (Neergaard and Madsen, 2004).

Within the executive succession literature however, it has been argued that top executives (in our case founder-CEOs) are only influential and effective during the early years of their tenures (Miller and Toulouse, 1986; Boeker, 1989) and must therefore be replaced as they quickly become impediments to change. In fact, Virany, Tushman, and Romanelli (1992) argue that executive succession is an important mechanism for organizational learning and adaption and is necessary in
order to improve organizational performance in turbulent environments. Katz (1982) argued that prolonged tenure of top executives leads to restricted information processing, reliance on routines, and a reduced willingness to take risks. Finkelstein and Hambrick (1990) argue that prolonged firm experience leads to a restricted mindset that limits more novel strategic endeavors. This limitation on the part of managers can lead to negative performance implications for the firm. According to these arguments, the replacement of a founder (and his or her social capital) may serve to benefit rather than harm the firm given the dynamic environments of most startups (Henderson, Miller, and Hambrick, 2006).

While this stream of executive succession research is convincing, another stream supports an alternative hypothesis—namely that replacing the founder with a “professional” CEO may be detrimental to the firm (e.g., Baron, Burton & Hannan, 1999; Certo, Covin, Daily & Dalton, 2001; Fischer & Pollock, 2004). As Hofer and Charan (1982) explained, “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” (p. 2). Furthermore, Carroll (1984) found that the departure of a founder had a disproportionately negative influence on the likelihood of organizational survival. Scholars from this perspective hold that such managerial succession leads to lower organizational performance and employee insecurity due to the uncertainty surrounding the change (Grusky, 1963, 1964). The loss of the founder to the organization has been shown to also signal the future demise of the organization (Haveman, 1993).
Understanding the role social capital plays in this important and timely debate in the literature becomes extremely valuable. More specifically, understanding the micro-processes through which a firm can institutionalize a founder-CEO’s social capital in order to gain the benefits it brings to the organization while also gaining the benefits that new and professional leadership might bring is of the utmost importance. This research addresses this debate by arguing that an organization can capture valuable social capital from one of its key members by engaging in the micro-processes of institutionalization and as a result reduce its liabilities of loss in regards to the founder, while still experiencing the potential gains of more professional leadership.

This paper makes a number of important contributions. First, it contributes to the micro-institutionalization literature in that it produces an empirical investigation of the processes undertaken by early-stage companies to transfer valuable relationships and ways of doing businesses by a key organizational member into organizational level routines, practices and positions. As part of this investigation process the research provides new theoretical insights and arguments extending existing institutionalization models and then tests those insights empirically. For example, building off the work of Lawrence, Winn & Jennings (2001), I argue that in the micro context, treating the target as a “subject” rather than an “object” serves to increase the pace of institutionalization rather than slow it down. This argument is in contrast to their original theorizing that was aimed at macro-level institutionalization efforts. The results of this study support the micro-
level arguments and provide an extension to this prior work as well as provide additional insights to the micro-institutionalization literature more broadly.

Secondly, this paper extends the current literature on social capital (e.g. Abou-Zeid, 2005; Levinsohn & Asahi, 1995; Patriotta, 2003; Nonaka, 1994; Szulanski, 1996). While some scholars researching have made conjectures as to the possibility of social capital being institutionalizable (e.g. Adler & Kwon, 2002; Pennings and Lee, 2002; Leenders & Gabbay, 1999), no empirical investigation has been published providing evidence of this possibility. The results of this study indicate that social capital appears to be institutionalizable and does have an impact on the organization in terms of performance. These findings therefore extend our knowledge about social capital and its portability in organizations.

Third, this research also contributes specifically to the upper echelons literature. First, it explores the effects of succession in early-stage firms. There is a growing number of studies that are now studying succession events in early-stage companies (e.g. Certo, Covin, Daily & Dalton, 2001; Wasserman, 2003; Fischer & Pollock, 2004). Examining succession in a new venture setting promises to yield additional insights that have not been discovered through past empirical examinations in later-stage contexts.

The article is organized as follows: First, I will draw on the micro-institutionalization and social capital literatures to discuss the institutionalization of social capital as a micro-process. Next, I will draw on the upper echelons literature to discuss various factors that influence the ability and motivation on the part of the organization to engage in such institutionalization efforts. I will present hypotheses
around how exit terms and CEO outsiderness and institutionalization. I will then
discuss the implications of these institutionalization efforts on organization
performance and survival and present corresponding hypotheses. I will then test
the hypotheses and present the results.

THE INSTITUTIONALIZATION OF SOCIAL CAPITAL AS A MICRO-PROCESS

Institutionalization scholarship has largely focused on the sectoral, field or
global level (Powell & Colyvas, 2008). Individuals through their actions, tools and
technologies, however carry out the institutionalization process. Some of these
actions serve to reinforce existing conventions, while others seek to alter or
transform them. Still, much of the current literature considers individuals as being
either “cultural dopes” (Garfinkel, 1967) or “heroic change agents” (Strang and Sine,
2002). Powell and Colyvas (2008) have made a recent call for a more explicit focus
on “how the local affairs of existing members of a field can both sustain and prompt
shifts in practices and conventions” (pg. 277). They further state that, “the ongoing
activities of organizations can produce both continuity and change, as such pursuits
vary across time.” This perspective provides an important lens through which to
view the micro-processes associated with the institutionalization of social capital in
that these processes are carried out by “existing members of a field” to produce
“continuity and change” through “pursuits that vary across time.”

To begin our understanding of the micro-processes through which social
capital is institutionalized, it is helpful to first consider the conditions under which
social capital exist. Prior research has identified general sets of factors that influence
the existence of social capital. For example, in their comprehensive review of the
social capital literature, Adler and Kwon (2002) argued that there must be sufficient opportunities and motivations to create social capital, and the actors in the network must have the necessary abilities to create and receive the resources provided. If actors cannot access each other through a shared set of relationships (Bourdieu, 1986; Watts, 2004), are not motivated to create social capital (Portes; 1998; Portes & Sensenbrenner, 1993), and/or do not possess the ability, competencies and resources necessary to create and receive social capital (Leenders & Gabbay, 1999; Lin, 2001) it will be impossible for social capital to exist and therefore be institutionalized. It is possible that in some founder succession events that the social capital of the founder is not considered important for the company moving forward. In such cases the motivation is absent and would make it impossible to institutionalize the founder’s social capital. In other instances, the company may desire to retain the social capital, but not understand or have the ability to engage in actions to institutionalize it and in these instances will also be unable to engage in appropriate actions meant to institutionalize the founder-ceo’s social capital. As a result, it is important to examine both the conditions that surround the founder transition event (as it directly affects the ability to engage in micro-processes leading to institutionalization) as well as the motivations to carry out such actions.

The next section will focus on how conditions of the succession event itself influence the temporal dynamics of institutionalization that ultimately affect the ability of the company to institutionalize a founder-CEO’s social capital. The following section will examine the background of the incoming CEO that will influence the strategic motivations for engaging in micro-processes leading to
institutionalization. Finally, we will examine the role of this micro-institutionalization and its impact on the firm more broadly.

TEMPORAL CONDITIONS SURROUNDING THE SUCCESSION

Clark (1985) argued that an event-driven or operational understanding of time is more consistent with developing an understanding of change processes such as institutionalization. Lawrence, Winn & Jennings (2001) extended the work in this literature by defining two main temporal dimensions of institutionalization (pace & stability) and four mechanisms by which these dimensions are affected (influence, force, discipline and domination). When considering the institutionalization of founder-ceo social capital, organizations that engage in a more systemic manner (discipline or domination) will have a greater ability to take more actions over a longer period of time where other organizations that engage in a more episodic fashion (influence or force) will take fewer more targeted actions.

The second important factor when considering the ability of a firm to institutionalize the founder-ceo's social capital is the relationship of power to its target. Lawrence et. al. (2001) argued that this particular dimensions would lead the target (in our case the one who currently holds the social capital desired) to be perceived either as a "subject" (capable of agency) or as an "object" (agency is inconsequential) and that this perception would affect the pace at which the more powerful individual(s) could take institutionalization actions in regards to the target. Their perspective was built on the more traditional macro-oriented institutionalization perspective and therefore incorporated a more coercive or punitive-oriented use of power and/or pressure by institutions which is found in
many of the seminal articles relating to this literature (e.g. DiMaggio and Powell, 1983; Scott, 1995). In contrast to this more macro perspective, I argue that when examining micro-processes of institutionalization that rely on the cooperation of an individual or individuals, treating them as a “subject” rather than an “object” will increase the pace at which those in power can undertake institutionalization actions and by default the sheer number of actions versus slow the pace of institutionalization. For example, it is easy to see how during the founder succession process the founder could be perceived as either a “subject” or an “object” in regards to the micro-processes. The approach taken by those in power will in turn lead to the selection of different mechanisms similar to those outline in Lawrence et. al.’s (2001) typology and as a result different direct actions. It is therefore important to understand how the conditions of a founder transition then affect this very important power relationship between the organization and the founder as it directly affects the organization’s ability to engage in institutionalization. One way in which to infer whether or not the founder was perceived as a “subject” or “object” is to examine the terms of exit, which consist of the friendliness of the exit and the exit compensation offered.

**Terms of Exit.** Past research in the executive succession literature has distinguished between forced and voluntary exits of CEOs as a means of depicting an arduous relationship between an executive and his/her firm (Fredrickson, Hambrick, and Baumrin, 1988), which might be construed as supporting the “subject” vs. “object” distinction described above. When the CEO is dismissed involuntarily it can be a politically contentious process (Vancil, 1987) and would
therefore be perceived as the founder having inconsequential agency relative to the
organization’s desires despite having valuable social capital. This distinction
between forced versus voluntary exit can been thought of as an important factor in
determining whether or not an organization is able to transfer valuable social
capital resources from a founder who has been ejected from his or her own
company.

Forced turnover is generally viewed as signaling a much greater magnitude
of change in an organization’s operations, strategy, and power structure than a
voluntary change (Helfat and Bailey, 2005). Having the successor CEO come from
outside of the company (and/or industry) can also signal a strong break from the
past, further crippling the organization’s ability to transfer and make use of
important social capital resources in a founder’s network. From prior research, it
would appear that a majority of the Founder-CEO replacements in new ventures are
forced to some degree (e.g. Wasserman, 2003; Sapienza and Gupta, 1994), which can
potentially affect the ability of the leadership of the firm to successfully capture
important social capital held by the Founder-CEO.

In seeking to adequately capture the terms of exit, it is essential to look
beyond whether the founder voluntarily acceded to the transition, and instead look
at whether it was done in a friendly or an unfriendly manner. From the author’s
study of the executive succession literature, it appears that the majority, if not all, of
the research tends to treat these two dimensions as interchangeable (forced exit =
unfriendly and voluntary = friendly). While this may be an appropriate assumption
given a large firm context, it may be quite erroneous in a new venture context. It
may be the case that although a founder does not choose (or want) to step down from being the CEO, he or she does so under friendly terms and is able and willing to help institutionalize key personal relationships.

Walsh and Seward (1990) rightly point out that “the problem of agency initially was thought to disappear when a manager was made an owner. They note, “a management ownership stake was thought to align the potentially divergent interests of outside shareholders and management” (p. 434). While not downplaying the value of interest alignment, Walsh and Seward argue that the principal-agent problem can go beyond management opportunism. Sapienza and Gupta (1994) agree with Walsh and Seward (1990), but go further to argue that good faith disagreements may also create tension and friction between the VC and the entrepreneur. Specifically, they assert,

*As long as both the VC and the CEO have major financial stakes in the venture and as long as there exists a possibility that neither side will always be right or always be wrong, disagreements over the direction of effort will create agency problems for the venture capitalist. (Sapienza & Gupta, 1994, p. 1620)*

This uncertainty about the proper course of forward action leaves open the possibility that a CEO may be asked to step aside while still retaining a favorable disposition towards the VC and other board members who initiated the change as they perceive him/her as a “subject” rather than an “object” in the transition. In such circumstances, a firm could still retain the ability to institutionalize important social capital resources from the founder. What seems to be most salient in this sort of condition is not whether the founder was forced out or left voluntarily, but
whether he/she left on friendly or unfriendly terms and is therefore treated like a “subject” and not an “object”.

Based on the prior literature, it may be argued then that the more friendly the manner that the succession event is carried out, the more likely the founder is perceived as a “subject” and therefore the more likely the founder will be willing to help engage in the institutionalization of the social capital desired by the organization by taking or assisting in actions that lead to this end. According to the above logic built on and somewhat in contrast to Lawrence et. al. (2001), in situations where the target is treated like a “subject” and not an “object,” the pace at which the institutionalization can occur is increased. As a result, we would expect that in transitions that are perceived as friendly, the organization will be able to take more actions at a quicker pace and thereby increase its chances of institutionalizing the desired social capital. These arguments lead then to the following hypothesis:

**H1a: Organizations that conduct a Founder-Ceo succession event in a friendly manner will be able to undertake more institutionalization actions.**

Many studies have examined the link between compensation and succession (e.g. Zajac 1990, 1998; Wasserman, 2001). CEO compensation in larger public companies usually composed of multiple types of pay, cash bonuses, stock bonuses, among other things (Zajac, 1990). Compensation among founder-CEOs is somewhat different in that they are potentially large shareholders within the firm. However, while these founders might own substantial amounts of equity in the firm they started, this is equity is often referred to as “paper money” in that without any mode
of liquidity it is merely numbers on a paper and has not realized actual monetary value for the individual. In conducting a transition then, investor board members can incent a founder to leave by offering them some type of compensation (continued salary, buy-out...etc) in order to allow them to still have a means of living until an actual liquidity event can occur, whereby a portion of their equity can be exchanged for actual dollars. Such consideration on the part of the investor board members also adds to the overall friendly nature of the succession event and demonstrates a specific behavior on the part of the remaining organizational leaders as treating the founder as a “subject” and not as an “object”.

In line with logic above, it can be argued that the inclusion of some form of monetary compensation as part of the Founder-CEO replacement will increase the likelihood the outgoing founder will cooperate by taking or assisting in more institutionalization actions at a quicker pace. This leads to the following hypothesis:

**H1b: Organizations that include monetary exit compensation in a Founder-Ceo succession event will be able to undertake more institutionalization actions.**

**STRATEGIC MOTIVATIONS FOR MICRO-INSTITUTIONALIZATION**

It may be the case that under certain circumstances it is more important to focus on the incoming CEO’s social capital, rather than seeking to also preserve the Founder-CEO’s social capital. In an early-stage context, however, it can be argued that disregarding a founder’s social capital in most instances may increase the firm’s “liability of newness” (Freeman, Carroll, and Hannan, 1983; Li and Guisinger, 1991), making the firm as a whole more vulnerable to failure. With that understanding
however, it is important to note that the background of the incoming CEO will be an important determinant of the pace and mode of institutionalization actions undertaken. One important aspect of this background that has been identified in the literature as directly affecting strategic action after a succession event is the degree to which the successor CEO is an insider or outsider (e.g. Gunz and Jalland, 1996; Finkelstein, Hambrick and Canella, 2008).

**CEO Outsiderness.** Finkelstein, Hambrick, and Cannella (2008) argue that viewing CEO successions in binary terms can be a very limiting approach since there are degrees of “insiderness” and “outsiderness.” They conjecture that the biggest breakthroughs in the study of insider versus outsider succession will come from this conception of outsiderness (p. 183). Since a large majority of successors in early-stage contexts come from the “outside” (Wasserman, 2003) it would seem that the current body of work conducted on larger public firms using the binary approach would have little if any value in helping to understand the Founder-CEO succession event itself. However, in seeking to apply Finkelstein and Hambrick’s (1996) concept of outsiderness, it may be the case that an outside successor in a vc-backed organization that comes from within the firm’s industry will be less of an outsider than a new CEO who comes from an entirely different industry. This degree of outsiderness can then be a very useful and powerful concept in understanding the succession process in both early and late stage settings. It can also be helpful in understanding how this process affects the long-term performance or survival of the firm. A more continuous measure of “outsiderness,” rather than the binary
inside/outside distinction, seems to have the most relevance in this particular setting.

A CEO’s outsiderness has been identified as an important factor affecting his/her cognitive representations (Prahald and Bettis, 1986) and choice of strategy (Gunz and Jalland, 1996). Research suggests that long-tenured executives tend to maintain current firm conditions rather than introducing new strategic changes (Finkelstein and Hambrick, 1990; Wiersema and Bantel, 1993). Therefore, an incoming “insider” CEO with a similar perspective as the out-going Founder-CEO may be more likely to carry out strategic actions similar to those pursued by the Founder-CEO as well as have greater motivation and ability to easily engage in systemic micro-processes of institutionalization in regards to important others in the founder’s network.

In a similar manner, incoming CEOs that are complete outsiders to the organization, while less likely to be committed to the status quo and are more cognitively open, are also less likely to be as socially connected (Finkelstein and Hambrick, 1996) and might feel less able to tap into the important social capital resources embedded in a founder’s network without some additional help. As a result, they may be very deliberate in their approach to engage in systemic micro-processes that are aimed at institutionalizing the out-going founder’s social capital. In these instances, the incoming executive will experience a high motivation to undertake institutionalization actions in a systemic fashion.

As most incoming CEOs in founder transitions are from outside the organization to some respect (Wasserman, 2003; Lauterbach, Vu, and Weisberg,
1999), they will have very little, if any, organizational tenure. A typical practice is to bring a potential successor into the organization 6-months to a year before the actual transition of power takes place (Shen & Cannella, 2002). This somewhat limited experience within the company may restrict a successor’s awareness of important social ties that are currently being mediated by the founder or over inflate the confidence of the successor in regards to their ability to maintain such valuable social ties. Ultimately, whether or not these delicate social capital resources are lost depends on the actions taken by the successor CEO in regard to the founder or the specific individuals within the founder’s network. A new CEO that has some, but only very limited organizational experience has also been shown to alter the TMT (Brady and Helmich, 1984) or even bring a group of managers with him/herself in order to help implement changes (Puffer and Weintrop, 1991). As a result of this limited familiarity with the organization, making them neither an “insider” or “outsider,” will reduce their motivations to engage in systemic micro-processes and instead use more episodic means of obtaining the social capital. Based on the preceding, the following hypothesis is proposed:

**H2: The relationship between CEO outsiderness and the motivation to undertake institutionalization actions is U-shape conveying that true “inside” and “outside” successor are more motivated to institutionalize than their less “inside” or less “outside” counterparts.**

**IMPLICATIONS FOR THE INSTITUTIONALIZATION OF SOCIAL CAPITAL**

Ultimately, the goal of an organization seeking to institutionalize a Founder-CEO's social capital is to obtain some amount of control over the resources of
interest (Coleman, 1990). These actions can be aimed at achieving interdependence between parties or targeted to promote interaction, ultimately seeking to create a positive shared history among the actors (Naphapiet and Ghoshal, 1999). In seeking to accomplish this institutionalization an individual level, a firm may retain the founder in a non-CEO role, thereby retaining access to his or her mediated relationships by placing him or her in a position of lower formal authority, a long succession process (allowing for the outsider to really integrate into the firm before taking over), or promoting internal candidates. In seeking to institutionalize the founder’s social capital at an organizational level, the firm might engage in actions such as establishing a formal boundary role spanner position, provide stock options for critical internal employees, make equity investments in important external partners, or draw up formal contracts for example. Whether the actions of the firm concentrate on the individual level, the organizational level, or both, inscribing and delegating social capital into organizational structures and routines thereby institutionalizing valuable social resources from the founder to the firm.

A firm undertaking these actions seeks to secure control and/or access to the important social capital in order to institutionalize it. As a result of carrying out these actions, the firm expects to improve its future performance and likelihood of survival. As mentioned above, when considering the institutionalization of founder-ceo social capital, organizations that engage in a more systemic manner (discipline or domination) will take more actions over a longer period of time where other organizations that engage in a more episodic fashion (influence or force) will take fewer more targeted actions. The ability to take such actions is based on treatment
of the outgoing founder ("subject" vs "object") as well as the strategic perspective adopted afterward in regards to the social capital as argued for previously. Having the ability to undertake the micro-institutionalization processes is necessary to capture the founder's social capital. The greater this ability is for the firm, the more likely it will be to accomplish its goal of institutionalizing social capital. This leads to the following hypotheses:

**H3a:** Engaging in more micro-institutionalization processes to obtain the Founder-CEO's social capital will be positively associated with firm performance.

**H3b:** Engaging in more micro-institutionalization processes to obtain the Founder-CEO's social capital will be positively associated with firm survival.

**METHODOLOGY**

**Sample and Data Collection.**

The sample frame for this study included high-growth IT and software companies that had experienced a founder transition. All of these companies were also venture capital backed and received at least one round of financing within the 2000 to 2006 time period. They also had all experienced a definitive outcome (went defunct, acquired, or public) during that time period and had VC and Founder-CEO contact information listed in the VentureXpert database. These VCs, founders and current CEO's of the 750 software firms were contacted and sent the survey. At the time of the survey, of the 750, 11% had gone defunct, 18% went public, and 71% were acquired.
There were a number of steps undertaken to achieve an acceptable response rate. Initially, I carried out a comparative case analysis of two firms that had undergone a Founder-CEO transition and interviewed key personnel involved in the process. These interviews allowed me to become more intimately involved in the details and challenges surrounding the succession event in a young startup. These discussions also helped inform the relevant theories and literatures that were drawn on to appropriately examine the subject of social capital institutionalization. A qualitative pretest of the survey instruments that involved the interviews with venture capitalists, management scholars and top managers was then conducted. These interviews provided feedback to assist in the selection and format of the questions to be included in the final survey. This was extremely useful in ensuring that the final set of questions for the tailored surveys were clear, concise, and accurate. The survey was then administered through an online survey application (Qualtrics) that distributed the survey through email. The invitation email characterized the survey as a study on the governance of young startups being conducted at a leading research university and that a number of venture capitalists and startup executives had been interviewed in the process of creating and refining the survey. To permit a test of inter-rater reliability multiple responses were obtained from ten percent of the companies in the final sample. The responses on key variables to be used in the study were then analyzed. The analysis provided strong evidence that the responses were reliable.

Of the original 750 companies contacted, representatives from 185 companies clicked on the link in one of the two emails and of those 185 companies
represented, 125 companies has usable responses. The respondents typically consisted of lead venture capital investors who had explicit involvement in the founder transition and the founder-CEO who was being asked to step aside and therefore also had explicit involvement in the transition event. In some cases, the successor CEO responded as well and in other case we only had one respondent from an organization. The overall response rate is around 17 percent, which is a high average for the study's target population considering the sensitive nature of the questions and the level of the executives targeted (Wasserman, 2003; Waldman, Ramirez, Gabriel, House, and Puranam, 2001; Finkelstein, 1992; MacMillan, Kulow, & Khoylian, 1988).

Additionally, specific characteristics of respondents and non-respondents were compared. Prior research has shown that VC behavior may vary based on the amount of capital invested and the portfolio company's developmental stage (Elango, Fried, Hisrich, & Polonchek, 1995). Therefore, respondents were compared against a sample of non-respondents on these variables. No significant differences were observed.

**Measures.**

A potential problem with survey data is the possibility of a common method or same source bias. In order to ensure that this was not a problem for the analysis, data from VentureXpert was gathered to construct the performance variables. Unlike studies that use public companies as their population of interest, private companies are not required to disclose performance data. This presents a challenge to those researchers interested in this population (Wasserman, 2003). In order to
overcome the challenge of the spotty nature of performance data found in third-party databases such as VentureXpert, two measures of performance were created and then they were tested independently.

**Firm Performance.** The first measure of performance is based on Tobin’s Q (market value/total assets) and is constructed using the last post-round evaluation of the market value of the company and the total amount of money invested in the company. In the IT and software industry, firms do not have a lot of capital wrapped up in physical assets. Most of the value of the company is in the intellectual assets and copyrights associated with the product offerings. As a result, the total amount of capital invested in the company can be a reasonable proxy for the amount of physical assets the firm has used to create an agreed upon market value. In accordance with this logic, a variable labeled valuation by investment (VBI) index was constructed that captures the performance of these different firms relative to one another.

In order to ensure this variable was consistent with other performance variables that have been used previously, mean net sales for the firms over the 7-year time period was also collected and was used as a second measure of performance. The use of sales gathered from archival resources has been established as a highly reliable measure of performance in new ventures (Brush and Vanderwerf, 1992). Since sales data is not always reported consistently for each year (private companies can decided when and whether they will report) the mean value over the 7-year window was taken to ensure net sales figures were usable for
the companies in the final sample. This measure will use a logarithmic transformation to ensure normal distribution of the dependent variable.

**Survival.** The survival variable was coded from the final public status of the company. Companies that went public were coded as having survived while those that went defunct or were acquired were coded as having failed.

**Social Capital Institutionalization.** In order to capture the institutionalization efforts undertaken at a given organization, a list of potential actions was included, that a firm could have used to secure key relationships during the founder’s transition. I compiled a list of all the actions that the out-going and in-coming management undertook in order to ensure that these important founder-relationships were maintained by the organization. I conducted case studies as well as the additional interviews with venture capitalists, founders and successor CEO’s. I utilized the consolidated list of actions mentioned previously and modified them based on internal vs. external relationships. I then used this list in the survey sent to the respondents at the 750 companies.

As part of the interviews and case studies I organized these actions within two theoretically driven process elements (interdependence and interaction). A central theme of these actions is the creation (or reconfirming) of potential interdependence between the parties that were previously mediated by the founder-CEO as well as the facilitation of interaction among the actors. Interdependence and interaction have described as the basis for the relational dimension of social capital development and maintenance as argued for earlier
(Nahaphiet and Ghoshal, 1998; Coleman, 1990). A list of the actions is included in Appendix A at the end of this article.

Respondents indicated which if any of the listed actions were taken. They were also given space to include others that were not on the list provided. The actions on the list and the other actions noted by the respondents were categorized as either internally or externally focused. This allowed for the counting of the number and types of institutionalization efforts employed by an organization during their attempt to appropriate important embedded relationships from the founder. This construct is used as both a dependent and an independent variable. Since this variable is a count variable the square root was taken when it is used in the 2SLS and OLS, according to Cohen, Cohen, West, and Aiken (2003: 526), in order to ensure the variable is better behaved (meaning the data is closer to meeting the assumptions of normality of residuals and homoscedasticity as is required).

**Terms of Exit.** The conditions surrounding a founder’s exit are predicted to play an important role in directly affecting the ability of an organization to institutionalize important relationships of the founder-CEO. There are three dimensions that were captured on the survey that defined a “friendly” transition. These three dimensions are the perceived friendliness, the voluntariness of the exit as well as the involvement of the founder in the selection of the successor CEO. Questions such as: “How amicable was the transition?”, “How involved was the founder in selecting his/her replacement?”, and “To what extent do you think that the founder voluntarily stepped down from the office of CEO?” were asked in order
to capture the three dimensions. These three measures were highly reliable (alpha = .95), so they were combined into one variable.

A second variable that was used to assess the terms of exit was the use of exit compensation. This variable is a dummy variable that allowed the respondent to identify if compensation was provided the founder-CEO as part of the transition. These compensation options were derived from the fieldwork and interviews.

**CEO Outsiderness.** The outsidersness measure was a likert-type scale capturing the degree of organizational tenure and new venture experience ranging from “little to none” to “a large amount.” The use of new venture experience is new to the literature on CEO outsidersness, but holds particular relevance for this research context. Many employees drawn to work for new ventures can become concerned with a successor CEO who lacks new venture experience and might withhold important information and/or resources that can influence the optimal functioning of the firm. This lack of experience could also cause the executive to make decisions that subject a more fragile organization to risks from which it cannot recover if things go badly. These two measures were reliable (alpha = .74), so they were combined into one variable.

**Control Variables.** A number of control variables were used in order to rule out other alternative explanations in this study. Among these variables were prior organizational performance (the number of prior rounds of funds raised – startups that aren’t performing are unable to raise new rounds of funding), functional similarity of the incoming CEO to the founder, VC experience (number of boards, number of years experience), firm size (number of employees to control for the
influence size has on performance), concentration of investors (number of firms invested in the startup) and a period dummy variable (one for outcome events in 2000 when the market was hot). These variables are helpful in producing a conservative test that is in line with much of the succession research that focuses on the large, public firm context.

**Analysis for Hypotheses 1(a&b) & 2.**

In order to test the relationship among exit terms, CEO outsidersness, and the number of institutionalization micro-processes undertaken to capture the founder-CEO’s social capital, ordinary least squares regression was used. For a robustness check, the author ran the regression equations using both a Poisson and - more appropriately according to *goodness of fit* tests that were run- a negative binomial regression on the count variable for the SC institutionalization measure. I obtained similar results and significance levels to the models displayed in the regression tables below and have therefore not included those tables in this manuscript.

**Analysis for Hypothesis 3a&b.**

A potential problem when testing hypotheses related to firm performance is the problem of endogeneity (Hamilton & Nickerson, 2003). In order to overcome the issues of endogeneity, a researcher may employ either a simultaneous equations approach or a structural equation modeling approach in order to isolate the independent effects of the various predictor variables. For the purposes of this study, a structural equation modeling approach is the most appropriate. Further discussion on how the models were specified is included in Appendix B. Finally, I used a logit analysis to test for hypothesis 3b.
RESULTS

Results for Hypotheses 1 through 2. Three separate analyses were run to test the effects of the factors influencing the institutionalization efforts by the organization to capture the founder's social capital. First, all of social capital institutional efforts were used as the dependent variable, then only internal institutional efforts, and finally just the external institutional efforts. For convenience to the reader the correlation matrix of the data has been included in Table 1 below. Table 2 is also included below which displays the analysis for Hypotheses 1(a&b) & 2 as described above.

-------------------------------------INSERT TABLE 1 HERE --------------------------------------

-------------------------------------INSERT TABLE 2 HERE --------------------------------------

Table 2 above provides evidence to support Hypothesis 1a. In model 2, the variable friendly is significant at the .01 level and the coefficient is positive suggesting that the friendlier the transition, the more likely the firm was to engage in multiple actions in order to institutionalize important social capital resources. This is consistent with the theory that argued that the friendlier the transition, the greater the ability, on the part of the firm, and pace to engage in such institutionalization efforts. Being treated like a “subject” rather than an “object” in the succession event appears to be an important determinant of the pace at which a firm can take institutionalization efforts. Model 2 also displays similar findings for Hypothesis 1b that tested the effect that monetary compensation had as part of the exit agreement in influencing the pace, and therefore number of institutionalization efforts undertaken by the firm. This variable is also positive and significant at the
0.05 level confirming that the use of monetary compensation as part of the succession process will allow the founder to feel more like a “subject” rather than an “object” in the process and will therefore allow the firm to engage in more institutionalization actions.

Hypothesis 2 examined the strategic motivations of the firm and concerned the degree to which the successor CEO was more of an outsider vs. and insider in terms of new venture experience and tenure within the organization. In model 2, there is no significant effect that can be seen for the outsiderness variable alone. In model 3, the square term for outsiderness was added consistent with the theorizing that extreme insiders and outsiders would be more motivated to take multiple systemic actions as opposed to incoming CEO’s with some, but limited experience with either the organization or new ventures or both. In line with the arguments provided above, both the squared term and first order term are significant. This result provides support for hypothesis 2 as stated above. As expected, the relationship between CEO outsiderness and the degree to which a firm will undertake institutionalization actions is curvilinear. In Figure 1 below the curvilinear nature of the relationship is depicted. This finding provides evidence that successor CEOs who are either a total outsider or a total insider will make substantial efforts to institutionalize the social capital of the founder. This makes sense since successor CEOs who have a high degree of outsiderness may rely on these systemic institutional processes to aid in the transition efforts more than someone with only moderate outsiderness. As mentioned previously, such moderate outsiderness will lead the successor to believe they can rely on their own
experiences and process history to make the transition alone. Those CEOs who have low levels of outsiderness, would rely on these actions to ensure complete buy-in on the part of employees, suppliers, customers....etc who they already have exposure do.

Model 4 in Table 2 includes only internal SCT institutionalization micro-process actions as the dependent variable and had similar results to Model 3. The outsiderness variable was both significant (.05 level) along with its squared term. Interestingly, the exit compensation variable was only marginally significant suggesting it may not be as important of a factor in the transfer of internal social capital. Friendliness was positive and significant as expected.

Model 5 of Table 2 included only external SCT institutionalization actions as the dependent variable. The results are the same as Models 3-4 for the friendliness variable. Unlike in model 4 however, exit compensation is highly significant (.01). This might suggest that exit compensation is an important variable when seeking to institutionalize external social capital more so than for internal social capital. Outsiderness is only marginally significant and its squared term is not significant at all in this model but this is still in line with the basic premise of H2. Overall, Hypotheses 1a & 1b, and 2 all appear to be supported as predicted.

**Results for Hypothesis 3a&b.** The results of Hypotheses 3a required the use of two-stage least squares regression for the performance variables. Hypothesis 3a stated that the more an organization engaged in the institutionalization of the out-
going Founder-CEO’s social capital, the better performance the company would have moving forward.

--- INSERT TABLE 3 HERE ---

Table 3 displays the results from four different 2SLS models. Models 1 and 2 use the VBI performance measure as their dependent variable and Models 3 and 4 use log net sales as their dependent variable to test Hypothesis 3a. Models 3 and 4 are equivalent to Models 1 and 2.

The results from Models 1 and 2 support Hypothesis 3’s assertion that the institutionalization of a founder’s social capital improves performance outcomes for a firm. Models 3 and 4 produce similar results to models 1 and 2. The relationship between institutionalization efforts and performance was found to be significant (at the .05 level) and positive result for both dependent variables and therefore offers support both Hypothesis 3a assertions as well as the credibility of the use of the VBI index.

Table 4 displays results for the testing of hypothesis 3b. This hypothesis looks at the effect of institutionalization on the likelihood of a positive survival outcome. The results from Model 2 provide support for H3b as the institutionalization variable is positive and significant at the .05 level. Models 3 and 4 test this same hypothesis for internal and external capital. The institutionalization of external social capital is significantly predictive of organizational survival while the institutionalization of internal social capital is only marginally significant.

--- INSERT TABLE 4 HERE ---

DISCUSSION
This study set out to test the idea that a vc-backed firm that effectively manages the process of institutionalization of the founder-CEO’s social capital will lead to increased performance in a very delicate and unstable period in the organization’s history. One of the most prominent results in this study is the discovery that actions taken by the firm to institutionalize a founder’s social capital have organizational level performance implications. This relationship was alluded to many times in various conversations with Founder-CEOs and venture capitalists in the early stages of this research and has been borne out in the empirical investigation. Phrases such as, “replacing founders creates a lot of instability within the company” or “two important issues in any transition are economics and the internal cult,” or “there were concerns internally because he would continue to hang out with his buddies that he had hired” were commonplace and the results speak to the performance implication of not paying adequate attention to the social consequences neglecting a founder’s social capital. All of these comments and empirical findings speak to the often deep and personal relationships that founders have with those inside and outside the organization who have helped make the firm successful up to that point in its history. The conversations the author held with venture capitalists and the empirical results from this study both clearly show that by taking actions targeted to capture and manage a founder’s social capital, a firm increases its likelihood of better performance and survival.

Having discovered the critical role that the institutionalization of social capital plays in new ventures, the other findings (in terms of what enables or impedes a firm to undertake SCT) become increasingly important as well. The two
major constructs of interest—exit terms (affecting ability) and CEO outsidersness (affecting motivation)—were all shown to be important predictors of a firm’s likelihood to undertake the social capital institutionalization actions. All of this provides us with new knowledge of how succession events might affect young organizations undergoing a founder transition. These results additionally provide some evidence that drawing on the succession literature for early stage ventures to gain insight into founder transitions may be appropriate. Future studies could provide additional insight into the relationships that have been discussed already in terms of these succession events and thereby help to clarify the role of transitions and the use of social capital institutionalization in influencing an organization’s performance and survival.

In terms of practical significance, these results provide some prescriptions for what actions organizational leaders can take to overcome the potentially adverse effects of transition events. Not every startup experiences these transition events early on in their lifecycle. For those who do however, understanding what specific actions can be undertaken to assist in retaining valuable relationships from a founder is important. This research has identified 18 specific actions that should be used when conducting a transition of this sort. This research also suggests that the more actions a company takes the better their future performance will be. In other words, just undertaking two or three of these actions will not produce the same dividends as undertaking six, eight or ten of them.

This research is not without its limitations. For example, I did not measure the incoming CEO’s social capital and cannot comment on how positive (or negative)
of an effect it will have. That is a clear limitation of the study. While I believe this is an important research question, it is not the objective of the current manuscript and leaves open the possibility for future exploration on this matter. This paper seeks to understand the actions a firm will undertake to preserve the out-going founder-CEO’s social capital, rather than the positive affect from the in-coming CEO's social capital. This research was also conducted in a high technology environment on companies that experience rapid growth and transitions. While I would expect the overall findings to generalize to other settings that are less growth oriented, future research would need to explore this fact to confirm its generalizability.

CONCLUSION

This project develops a conceptual and theoretical approach to understanding the micro-processes of institutionalizing a founder-CEO’s social capital to his/her organization. It then empirically tests these ideas and finds support for them. In doing so, this study makes a number of theoretical and empirical contributions. First, it provides new insights that contribute to the social capital literature by identifying a number of factors that enable the institutionalization efforts by drawing on the upper echelons literatures. Recently, Kim and colleagues (2006) recognized the role that past relationships (or lack thereof) and former members can play in adding to or diminishing a group’s social capital resources. What was not present in this discussion of past relationships was how or if these social resources can be held or controlled at the organizational level. The model presented in this study attempts to provide such answers and, in the process, introduces the concept micro-institutionalization of social capital to the
literature. It also has the general implication of demonstrating how social capital can be transferred from the individual level to the organizational or collective level. This notion of cross-level transfer is a fruitful area of research for social capital scholars and this article represents a foundational stepping stone for such future endeavors.

As mentioned previously, institutionalization scholarship has largely focused on the sectoral, field or global level (Powell & Colyvas, 2008). There are a growing number of scholars interested in the micro-foundations of institutionalization and this paper contributes directly to that line of inquiry. First, it draws on recent developments in this literature to provide a foundation for understanding the ability and motivation of firms in taking actions to capture founder CEO social capital through institutionalization processes. Second, it extends the understanding provided by Lawrence, et. al. (2001) in that the institutionalization process of social capital will require the use of agency on the part of the target and so being treated like a “subject” vs an “object” will serve to quicken the pace of institutionalization, not slow it down. The empirical analysis provided evidence in this regard and therefore helps extend our understanding around the temporal dynamics involved in social capital institutionalization.

This research also contributes specifically to the upper echelons literature. First, it explores the effects of succession in early-stage firms. There is a growing number of studies that are now studying succession events in early-stage companies (e.g. Certo, Covin, Daily & Dalton, 2001; Wasserman, 2003; Fischer & Pollock, 2004). Examining succession in a new venture setting promises to yield additional insights
that have not been discovered through past empirical examinations in later-stage contexts. As noted earlier, a founder’s relationships are extremely important for the survival of new ventures, as they contribute a great deal of the firm’s initial social capital (Bamford, Bruton, and Hinson, 2006). This research adds to this growing number of studies gleaning theoretical insight from early-stage succession events (e.g. Hofer and Charan, 1982; Wassermann, 2003; Haveman and Khaire, 2004). This study adds to previous research by specifically examining the ability and motivation of a firm to institutionalize a founder’s social capital as well as how the institutionalization efforts influences the firm’s ongoing performance and survival. No prior work on early-stage succession has looked at this and so the results of this study increases what we know about this particular context as well as extends upper-echelons theory in general. The finding and insight that members of the organization can take actions to institutionalize founder social capital and that by undertaking such action can influence the firm’s performance is important and unique. This finding alone increases our understanding of how a successful succession ought to be carried out in a new venture and may extend to larger company settings as well.

Finally, this study also contributes to the succession literature by looking at “outsiderness” versus just making the inside-outside distinction. The results from this project found that outsiderness does inhibit a successor CEO in his ability to use SCT mechanisms. To the author(s) knowledge, this is the first empirical test of outsiderness in a new ventures context. The findings therefore from this study may
be applicable to large firm studies as well where the succession events occur between two professional CEO’s where the issue of social capital is still relevant.

At its broadest level, this paper seeks to enhance our understanding of the micro-institutionalization of social capital. The concept of social capital has been explored at both the individual and organizational levels in order to better understand how the two are related and how they each influence the future health and survival of an organization. The models in this study provide not only a basis for understanding the means of transferring a founder-CEO’s social capital to the firm level, but they also provide some prescriptions regarding how to think about succession and compensation. This study’s findings further offer a wide range of corporate tools to help secure important resource relationships. Most importantly, this research promises to provide new insights into multi-level theorizing that can aid future research in proposing more dynamic and process-oriented models.
**Acknowledgements:** I would like to thank Tim Pollock, Ted Baker, Don Hambrick, Justin Jansen, Harry Sapienza, Bob Hoskisson, Craig Crossland and Sharon Matusik for their helpful comments on prior versions of this paper. I would also like to thank the Farrell Center (at Penn State University) and Don Hambrick for providing research funds that allowed me to conduct the interviews and visits that aided in my data collection process for this paper.

**REFERENCES**


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Capital</td>
<td>1.68</td>
<td>1.30</td>
<td>1.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal SC</td>
<td>1.34</td>
<td>1.05</td>
<td>0.98</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External SC</td>
<td>0.95</td>
<td>0.84</td>
<td>0.91</td>
<td>0.82</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO Outsider</td>
<td>-0.24</td>
<td>-0.23</td>
<td>-0.27</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Func. Similarity</td>
<td>0.58</td>
<td>0.50</td>
<td>0.02</td>
<td>0.03</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendly</td>
<td>0.99</td>
<td>1.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit Comp.</td>
<td>0.21</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC Exp. Yrs.</td>
<td>9.05</td>
<td>9.30</td>
<td>0.25</td>
<td>0.21</td>
<td>0.26</td>
<td>-0.27</td>
<td>-0.11</td>
<td>0.29</td>
<td>0.14</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC Exp. Trans.</td>
<td>6.20</td>
<td>10.99</td>
<td>0.35</td>
<td>0.37</td>
<td>0.11</td>
<td>0.00</td>
<td>0.08</td>
<td>0.04</td>
<td>0.43</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Num. Rnds.</td>
<td>4.10</td>
<td>2.43</td>
<td>0.02</td>
<td>0.01</td>
<td>0.09</td>
<td>-0.08</td>
<td>-0.15</td>
<td>0.10</td>
<td>0.18</td>
<td>0.04</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Control</td>
<td>0.03</td>
<td>0.18</td>
<td>10.80</td>
<td>10.88</td>
<td>0.30</td>
<td>0.39</td>
<td>0.09</td>
<td>0.27</td>
<td>0.04</td>
<td>0.04</td>
<td>0.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Num. Firms. Inv</td>
<td>5.87</td>
<td>3.76</td>
<td>-0.02</td>
<td>-0.04</td>
<td>0.81</td>
<td>-0.19</td>
<td>-0.15</td>
<td>0.15</td>
<td>0.19</td>
<td>0.05</td>
<td>0.72</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Num. Emps.</td>
<td>60.22</td>
<td>42.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC Exp. Brds.</td>
<td>11.71</td>
<td>15.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC Resp.</td>
<td>0.75</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Functional Similarity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total SCT(sqrt)</td>
<td>-0.527*</td>
<td>-0.481*</td>
<td>-0.620*</td>
<td>-0.479*</td>
<td>-0.333*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2.25)</td>
<td>(2.04)</td>
<td>(2.57)</td>
<td>(2.40)</td>
<td>(2.15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal SCT(sqrt)</td>
<td>0.027+</td>
<td>0.013</td>
<td>0.017</td>
<td>0.010</td>
<td>0.011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VC Experience - Years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Transitions</td>
<td>0.009</td>
<td>0.012</td>
<td>0.012</td>
<td>0.010</td>
<td>0.007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1.92)</td>
<td>(0.97)</td>
<td>(1.30)</td>
<td>(0.94)</td>
<td>(1.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Rounds Company Rcvd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Transitions</td>
<td>-0.025</td>
<td>-0.048</td>
<td>-0.031</td>
<td>-0.034</td>
<td>-0.002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.53)</td>
<td>(1.08)</td>
<td>(0.72)</td>
<td>(0.94)</td>
<td>(0.07)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome Event in 2000</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendly Index</td>
<td>0.208</td>
<td>0.435</td>
<td>0.681</td>
<td>0.441</td>
<td>0.404</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.32)</td>
<td>(0.73)</td>
<td>(1.14)</td>
<td>(0.89)</td>
<td>(1.06)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit Compensation</td>
<td>0.353**</td>
<td>0.437**</td>
<td>0.374**</td>
<td>0.204**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3.32)</td>
<td>(3.91)</td>
<td>(4.03)</td>
<td>(2.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO Outsiderness</td>
<td>0.186</td>
<td>0.903*</td>
<td>0.743*</td>
<td>0.403+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1.99)</td>
<td>(2.37)</td>
<td>(1.76)</td>
<td>(3.18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO Outsiderness (SQR)</td>
<td>0.196*</td>
<td>0.161*</td>
<td>0.092</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1.52)</td>
<td>(2.53)</td>
<td>(2.51)</td>
<td>(1.76)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>1.775**</td>
<td>1.663**</td>
<td>1.753**</td>
<td>1.467**</td>
<td>0.851**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6.08)</td>
<td>(5.62)</td>
<td>(5.96)</td>
<td>(6.01)</td>
<td>(4.50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>R-squared</strong></td>
<td>0.10</td>
<td>0.29</td>
<td>0.32</td>
<td>0.28</td>
<td>0.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Absolute value of t statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

---

**TABLE 3**
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm Performance</strong></td>
<td>0.059</td>
<td>0.075+</td>
<td>0.058</td>
<td>0.027</td>
<td>0.161</td>
</tr>
<tr>
<td><strong>Net Sales (log)</strong></td>
<td>(1.59)</td>
<td>(1.76)</td>
<td>(1.36)</td>
<td>(0.46)</td>
<td>(1.08)</td>
</tr>
<tr>
<td><strong>VC Experience - Years</strong></td>
<td>-0.002</td>
<td>-0.027</td>
<td>-0.022</td>
<td>0.034</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(1.52)</td>
<td>(1.27)</td>
<td>(1.40)</td>
<td></td>
</tr>
<tr>
<td><strong>Number of Employees</strong></td>
<td>-0.002</td>
<td>-0.002</td>
<td>-0.002</td>
<td>0.003</td>
<td>0.019*</td>
</tr>
<tr>
<td></td>
<td>(0.81)</td>
<td>(0.81)</td>
<td>(0.93)</td>
<td>(0.85)</td>
<td>(2.11)</td>
</tr>
<tr>
<td><strong>VC Dummy</strong></td>
<td>0.199</td>
<td>0.609+</td>
<td>0.558</td>
<td>-0.340</td>
<td>0.792</td>
</tr>
<tr>
<td></td>
<td>(0.68)</td>
<td>(1.69)</td>
<td>(1.58)</td>
<td>(0.71)</td>
<td>(0.86)</td>
</tr>
<tr>
<td><strong>No. of Rounds Company Rcvd</strong></td>
<td>-0.006</td>
<td>-0.025</td>
<td>0.380*</td>
<td>0.020</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td>(0.39)</td>
<td>(2.09)</td>
<td>(0.23)</td>
<td>(0.30)</td>
</tr>
<tr>
<td><strong>Outcome Event in 2000</strong></td>
<td>-1.970</td>
<td>-0.974</td>
<td>-1.001+</td>
<td>0.724</td>
<td>4.338*</td>
</tr>
<tr>
<td></td>
<td>(1.49)</td>
<td>(1.60)</td>
<td>(1.67)</td>
<td>(0.83)</td>
<td>(2.04)</td>
</tr>
<tr>
<td><strong>Total SCT(sqrt)</strong></td>
<td>0.374*</td>
<td>0.408*</td>
<td>1.056*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.21)</td>
<td>(2.39)</td>
<td>(2.25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Rounds (SQR)</strong></td>
<td>-0.040*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.36)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.235</td>
<td>0.063</td>
<td>-0.627</td>
<td>0.945*</td>
<td>-0.355</td>
</tr>
<tr>
<td></td>
<td>(0.79)</td>
<td>(0.14)</td>
<td>(1.12)</td>
<td>(2.23)</td>
<td>(0.26)</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

Absolute value of z statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

**TABLE 4**
<table>
<thead>
<tr>
<th>VC Experience - Years</th>
<th>1.030</th>
<th>1.025</th>
<th>1.029</th>
<th>1.020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.44)</td>
<td>(0.35)</td>
<td>(0.41)</td>
<td>(0.28)</td>
</tr>
<tr>
<td>VC Total Transitions</td>
<td>1.042</td>
<td>1.042</td>
<td>1.043</td>
<td>1.040</td>
</tr>
<tr>
<td></td>
<td>(1.57)</td>
<td>(1.55)</td>
<td>(1.59)</td>
<td>(1.49)</td>
</tr>
<tr>
<td>No. of Rounds Company Rcvd</td>
<td>1.002</td>
<td>0.958</td>
<td>0.978</td>
<td>0.941</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.26)</td>
<td>(0.13)</td>
<td>(0.36)</td>
</tr>
<tr>
<td>No. of Firms Invested in Company</td>
<td>1.021</td>
<td>1.040</td>
<td>1.034</td>
<td>1.043</td>
</tr>
<tr>
<td></td>
<td>(0.20)</td>
<td>(0.37)</td>
<td>(0.31)</td>
<td>(0.39)</td>
</tr>
<tr>
<td>Number of Employees</td>
<td>1.011+</td>
<td>1.011+</td>
<td>1.011+</td>
<td>1.011+</td>
</tr>
<tr>
<td></td>
<td>(1.79)</td>
<td>(1.82)</td>
<td>(1.83)</td>
<td>(1.81)</td>
</tr>
<tr>
<td>VC Total Boards</td>
<td>0.931</td>
<td>0.925</td>
<td>0.924</td>
<td>0.926</td>
</tr>
<tr>
<td></td>
<td>(1.15)</td>
<td>(1.21)</td>
<td>(1.25)</td>
<td>(1.16)</td>
</tr>
<tr>
<td>Total SCT</td>
<td>1.144*</td>
<td>1.144*</td>
<td>1.144*</td>
<td>1.144*</td>
</tr>
<tr>
<td></td>
<td>(2.00)</td>
<td>(2.00)</td>
<td>(2.00)</td>
<td>(2.00)</td>
</tr>
<tr>
<td>External SCT</td>
<td></td>
<td>1.385*</td>
<td>1.385*</td>
<td>1.385*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.05)</td>
<td>(2.05)</td>
<td>(2.05)</td>
</tr>
<tr>
<td>Internal SCT</td>
<td></td>
<td>1.203+</td>
<td>1.203+</td>
<td>1.203+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.80)</td>
<td>(1.80)</td>
<td>(1.80)</td>
</tr>
<tr>
<td>Observations</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
</tr>
</tbody>
</table>

Absolute value of z statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

FIGURE 1
APPENDIX A

Actions identified and subsequently surveyed on organized by interdependence and interaction.

Interdependence

- Externally Focused
  - Retention of the founder in a different organizational capacity
  - Creation of formal position to manage supplier/customer relationships
  - Equity investment in key supplier/customer organizations
  - Promotion of current organization member to act as a liaison to the supplier/customer
  - Hiring of an external individual to act as a liaison to the supplier/customer

- Internally Focused
  - Retention of the founder in a different organizational capacity
  - Creation of formal role to manage employee relationships
  - Increased compensations for key employees in the organization
  - Offering of retention bonuses for key employees in the organization
  - Promotion of key employees within the company

Interaction

- Externally Focused
  - Face-to-face formal (work-related) meetings with supplier/customer(s) by the incoming CEO
  - Face-to-face informal (non-work related, such as breakfasts, dinners, golf outings, etc.) meetings with supplier/customer(s) by the incoming CEO
  - Face-to-face formal (work-related) meetings with supplier/customer(s) by the incoming CEO and founder together
  - Face-to-face informal (non-work related) meetings with supplier/customer(s) by the incoming CEO and founder together

- Internally Focused
  - Face-to-face formal meetings with key employee(s) by the incoming CEO
  - Face-to-face informal meetings with key employee(s) by the incoming CEO
  - Face-to-face formal meetings with key employee(s) by the incoming CEO and founder together
  - Face-to-face informal meetings with key employee(s) by the incoming CEO and founder together
APPENDIX B

In order to test the relationships among the variables mentioned previously, the author specified a firm performance equation for VBI, and then use instruments to solve for the endogeneity of the use of social capital transfer mechanisms. These equations are listed below:

EQ1: Firm performance
\[ VBI = \beta_0 + \beta_1SCT + \beta_2FT + \delta_1 + \mu_1 + \epsilon_1 \]

EQ2: Social Capital Institutionalization
\[ SCT = \theta_0 + \theta_1 Z1 + \theta_2FT + \delta_2 + \mu_2 + \epsilon_2 \]

The dependent variable in Equation 1 is the performance measure for the firm (either VBI or median sales) and the dependent variable in Equation 2 is the use of social capital transfer actions. Firm performance is given by VBI; FT is a dummy variable denoting whether or not a founder transition occurred; \( \beta_1 \) and \( \beta_2 \) are the regression coefficients; \( \delta_1 \) and \( \delta_2 \) are the firm controls (firm size, firm maturity, presence of Founder-CEO); and \( \mu_1 \) and \( \mu_2 \) are the VC controls (concentration of investors, VC experience). \( \epsilon_1 \) and \( \epsilon_2 \) are the error terms, which are thought to be correlated with SCT because the use of social capital transfer mechanisms is endogenous and related to the occurrence of a founder transition. Therefore an instrumental variables technique was used to create new a new dependent variable that does not violate OLS regression’s recursivity assumption.

In equation 2 SCT is endogenous and related to the occurrence of a founder transition and to the exogenous instrumental variables of Z1 (outsiderness, functional background similarity, terms of exit). The two-stage least squares (2SLS) regression satisfies the rank and order conditions for model identification (see Greene 1997). To ensure that the error term \( \epsilon_1 \) is uncorrelated with the instrumental variables the author(s) conducted a Hansen-Sargan test for the validity of instruments. The null hypothesis is that the instruments are valid instruments—that is, uncorrelated with the error (see Chapter 8 in Baum, 2006). Under the null, the test statistic is distributed as chi-squared in the number of over-identifying restrictions. Rejection of the null casts a doubt on the validity of the instruments. The Hansen-Sargan statistic was not significant (.90), providing evidence that the model has been identified correctly. Another potential problem in 2SLS regression is that if any of the exogenous variables can predict the squared residuals, the errors are conditionally heteroskedastic. In order to test for this, the Pagan-Hall test statistic was run. While the Pagan-Hall is not yet widely used, it is seen as superior because it is robust to the presence of heteroskedasticity elsewhere in a system of simultaneous equations and to non-normal distributed disturbances (Baum, 2006). Similar to the Hansen-Sargan, rejection of the null would signal a problem with the model. The Pagan-Hall statistic for the model was not significant (.68) using fitted values, which indicates that the models did not have problems with heteroskedasticity.

For the purposes of this study, SEM (specifically 2SLS) appears to be the appropriate statistical technique as it allows for selected endogenous variables to be both independent and dependent simultaneously. This method also allows the researcher to control for a “method factor” that accounts for different methods in which data was collected (in the case survey vs. database, etc.). Additionally, two separate OLS regressions manually were run, performing a two-stage analysis, and found no differences among the results from the 2SLS regression. A three stage least squares (3SLS) was run with additional exogenous added to predict the occurrence of a founder transition. Unfortunately, these models failed the Hansen-Sargan test, indicating that the model was over-identified and was not appropriate.