

**“STEWARDS, AGENTS, AND THE FOUNDER DISCOUNT:
EXECUTIVE COMPENSATION IN NEW VENTURES”**

NOAM WASSERMAN

Harvard Business School
Rock Center 210
Cambridge, MA 02163
(617) 495-6215
noam@hbs.edu

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ABSTRACT

Agency theory suggests that the interests of opportunistic, self-interested agents will conflict with those of principals. Stewardship theory suggests instead that executives' interests will be aligned with company interests and executives thus be more intrinsically motivated than predicted by agency theory. This study develops hypotheses regarding the psychological and situational factors that affect the applicability of each theory to executive compensation. Hypotheses are tested using a unique dataset of 1,238 executives from 528 private companies. Results suggest significant differences between founder-stewards and non-founder agents that diminish with company growth, and significant effects of equity ownership and outside rounds of financing.

INTRODUCTION

Since ground-breaking work by Jensen and Meckling (1976), agency theory has been the dominant lens for examining executive compensation. According to agency theory, principals who employ agents to work on their behalf incur agency costs because the interests of principals and agents diverge. Incentive schemes and monitoring are proposed as ways to reduce agency costs (Jensen et al., 1976). Stewardship theory, introduced recently in the management control literature (e.g., Davis, Schoorman, & Donaldson, 1997; Donaldson & Davis, 1991; Lee & O'Neill, 2003), construes principal-agent issues somewhat differently. According to stewardship theory, some executives are likely to pursue organizational interests even when they conflict with the executives' self interest (Donaldson et al., 1991). The theory defines psychological and situational factors that can lead executives to act less like self-interested agents and more like organizational stewards with whom it might be counterproductive for principals to use the mechanisms recommended by agency theory (Lee et al., 2003).

Both theories have implications for executive compensation, which has long been understood to be a determinant of whether an executive continues to work for a company (Barnard, 1938). According to stewardship theory, executives who create an organization and feel a strong sense of attachment to and psychological ownership of it are more likely to behave as stewards. Higher levels of psychic income (Gimeno, Folta, Cooper, & Woo, 1997) should dispose such "organizationally centered" executives (Davis et al., 1997:25) to accept lower cash compensation to continue working in the organization. Agency theory is more likely to describe executives who did not create an organization and organizations that can tie compensation to concrete performance measures. Higher compensation will be required to retain such executives and, in such organizations, should be tied to those performance measures. To the extent that compensation issues help determine whether an executive continues to work for a company

(Barnard, 1938), founder retention is important because founders can exert a significant impact on the operations and performance of the companies they start. “Founder management,” observe Jayaraman et al. (2000:1221), “is positively related to stock performance among smaller and younger firms,” even among Fortune 500 companies (Villalonga & Amit, 2005). On the occasion of a company’s initial public offering, moreover, valuation and return to first-day investors are significantly affected by whether the founder is still CEO (Certo, Covin, Daily, & Dalton, 2001; Certo, Daily, Cannella, & Dalton, 2003).

This study focuses on the interplay between agency and stewardship theories. It is suggested that these two theories are complementary rather than conflicting, and that each is more applicable to executives and situations to which the other theory is less applicable. The theories are examined in the context of new ventures, in which organizational founders and non-founders both work, and in which the situational context is consistent with stewardship theory early in the life of a venture but becomes more consistent with agency theory as the venture matures. The study tests its hypotheses on a unique dataset of 1,238 executives in 528 private new ventures in the information-technology industry and considers the implications of its findings for the understanding of agency, stewardship, and compensation within executive teams.

STEWARDS AND AGENTS IN NEW VENTURES

Both agency theory and stewardship theory are concerned with how principals can increase the likelihood that agents will act to maximize shareholder wealth (Tosi, Brownlee, Silva, & Katz, 2003). But the behavioral premises that underlie the two theories are quite different. As a result, stewardship theory is more relevant in contexts in which agency theory is less relevant, and vice versa (Davis et al., 1997). More specifically, agency theory is concerned with problems caused by separating management from ownership (Berle & Means, 1932; Jensen et al., 1976).

“Principals” are owners who contract with “agent” executives to manage their companies on the principals’ behalf. Principals who employ agents incur agency costs because the interests of the parties diverge (Jensen et al., 1976). Self-interested agents are presumed, when it serves their interests and they are able, to take actions inconsistent with the best interests of the organization’s shareholders. The more divergent the interests of agents and principals, the greater the agency costs. Monitoring and incentive schemes are often used to change agent behavior and reduce agency costs.

Stewardship theory posits that some agents are likely to pursue organizational interests even when such interests are in conflict with the agents’ self interest (Donaldson et al., 1991). “Stewards” are executives employed by principals whose interests tend to be aligned with those of the principals. Stewards are “organizationally centered” executives (Davis et al., 1997) who identify closely with the organization and thus derive higher satisfaction from behaviors that promote the organization’s interests than from self-serving behaviors. In fact, when organizational interests are in conflict with their self interest, stewards are inclined to put the interests of the organization first (Tosi et al., 2003). Psychological and situational factors posited to affect the degree of stewardship behavior include, respectively, whether an executive created the organization and feels a sense of control over its direction, and whether the organization has instituted organizational controls to decrease performance ambiguity (Davis et al., 1997; Ouchi, 1980).

Fama and Jensen (1983) argue that young entrepreneurial firms are a classic instance of the union rather than separation of ownership and control. Because its assumptions are a poor fit with contexts that lack a clear conflict between managerial and shareholder interests (Deckop, Mangel, & Cirka, 1999; Lane, Cannella, & Lubatkin, 1998), agency theory is less applicable to

such firms than to more mature firms. We look to stewardship theory to illuminate the former context.

New ventures provide us with a good arena in which to study the contexts in which each theory applies. With regards to the psychological factors described above, the executives working in new ventures include both founders who should behave more like stewards and non-founders who should act more like agents. With regards to the situational factors described above, young new ventures should be less control-oriented than more mature organizations, making stewardship theory more applicable to young new ventures and agency theory more applicable to mature new ventures.

Common to both theories is the notion that executive compensation is a powerful lever for influencing agent behavior. Boards of directors control the compensation as well as hiring and firing of top-level executives (Fama et al., 1983; Lorsch, 1989) and one of the board's most important roles is setting compensation to align executive interests with those of the shareholders (Jensen & Murphy, 1990b). Cash compensation is directly controlled by boards of directors (Fama et al., 1983) and is therefore the component most affected by variables of interest to studies that examine the interaction between boards and senior executives (Carpenter & Wade, 2002). This is particularly true of new ventures, where boards rarely issue new equity to executives working in the venture (Sahlman, Stevenson, Roberts, & Bhide, 1999) but reassess compensation regularly. Thus cash compensation provides the best test of this study's hypotheses and is the main focus of this paper. However, equity issues also play an important role in the paper. According to both agency and stewardship theories, the amount of equity held by an executive should have a strong impact on that executive's compensation. Thus, this paper's second hypothesis focuses on equity holdings. In addition, even though the percentage

of equity owned by the executive is the best variable to use in studies that focus on the compensation implications of equity ownership (Jensen et al., 1990b), in robustness tests of the core models, this study also uses an estimate of the current value of those equity holdings.¹

Attention to the motivations of executives might enable boards to reduce the compensation needed to retain or motivate particular executives. Specifically, boards should compensate stewards and agents differently. Executives inclined to behave as stewards are likely to be willing to accept less compensation than executives at the same level who are motivated by agency considerations. Furthermore, the challenges of determining executive compensation are exacerbated in situations where the organization lacks organizational controls and performance metrics to which it can tie compensation. At the intersection between the psychological and the situational, stewards in stewardship situations (here, founders in pre-controls ventures) should receive the least compensation, while agents in agency situations (non-founders in companies with organizational controls) should receive the most compensation. Hypotheses detailing how these factors affect executive compensation in new ventures are summarized in Figure 1.

Insert Figure 1 about here

Psychological Factors

The biggest difference between stewardship theory and agency theory lies in their divergent views of executive identification and motivation (Davis et al., 1997). According to

¹ It should be noted that such estimates of the value of executive equity holdings are relatively uncertain even in studies of public-company compensation (Hall & Murphy, 2002). In the private companies that are the focus of this study, the additional complications of illiquid company equity (Hertzel & Smith, 1993), long vesting terms and lack of executive diversification (Hall et al., 2002), high uncertainty whether the equity value will ever be realized (i.e., that the company will have a successful “exit”), and inability to assign that equity value to the specific year that is of interest, make it even harder to rely on equity-value estimates as a core variable (Kahl, Liu, Longstaff, & Page, 2003). Thus, even though many compensation studies should examine “total compensation” (cash compensation plus the value of equity compensation received annually) for the executives of interest (e.g., Baker, 1987), for both theoretical and empirical reasons cash compensation is the core dependent variable used in this study.

stewardship theory, identification resulting from tight alignment between the values of executives and the values of their organizations (Deckop et al., 1999) leads executives to make decisions that are in their organizations' interests. Similarly, executives with high levels of intrinsic motivation will gain more intrinsic rewards from their work (Davis et al., 1997). From a compensation perspective, boards should be able to pay less cash compensation to executives who have higher levels of identification and intrinsic rewards.

The foremost way that people develop strong organizational identification is by creating the organization, a classic example being entrepreneurs and the companies they found (Pierce, Kostova, & Dirks, 2001). Thus, compared to non-founders, founders have stronger attachment (Dobrev & Barnett, 2005; Jayaraman et al., 2000; Zaleznik & Kets de Vries, 1975) and commitment (Carroll, 1984) to their ventures. Founders view their companies as extensions of themselves (Handler, 1990; Levinson, 1971), some to such an extent that there is a "merging of individual ego and the corporation, thus melding individual self-esteem with corporate prestige" (Donaldson et al., 1991:51). That executives who create and identify closely with an organization and are motivated by intrinsic rewards are more likely to behave as stewards than self-interested agents (Arthurs & Busenitz, 2003; Mael & Ashforth, 1992) has prompted Nelson (2003:710) to suggest that founders' extraordinary commitment amounts to an "anti-agency cost" to their organizations.

This can be both a benefit and a detriment to founders. The benefits include higher levels of psychic income (Gimeno et al., 1997), greater personal satisfaction (Evans & Leighton, 1989), and more non-pecuniary benefits (Hamilton, 2000; Moskowitz & Vissing-Jorgensen, 2002) than non-founders. As a result, founders might be expected to voluntarily accept less cash compensation, especially when doing so can help their ventures during their "cash poor" early

stages of growth. However, high levels of organizational identification can also come with costs (Mael et al., 1992). Strong attachment to their firms, to the extent that it renders less credible threats to leave, leaves founders in much the same circumstance as faculty members whose organizational commitment causes them to accept below-market salaries in order to continue to work in their present organizations (Pfeffer & Langton, 1993). Thus, founders may also involuntarily have to accept lower compensation.

Because the non-founding hires recruited by boards to bring needed skills to a venture tend to be extrinsically motivated and to identify less closely with the organization, agency theory is more likely to apply to them (Donaldson et al., 1991). According to O'Reilly and Chatman (1986:497), new executive hires “base their commitment on compliance, exchanging behavior for extrinsic rewards.” Employees who lack such organizational attachment should be more driven by market forces (Guth & MacMillan, 1986) and should demand higher levels of compensation than executives who are intrinsically motivated. In summary, founders can be viewed as stewards who, because they identify closely with and gain non-material rewards from their ventures, are likely to accept less cash compensation than non-founders who are more properly viewed as the agents of agency theory. The result should be a “founder discount” regarding cash compensation.

Hypothesis 1: Cash compensation will be lower for founders than for non-founders.

Equity holdings play a central role in both stewardship theory and agency theory in ways that might be mutually reinforcing. Executives’ “psychological ownership” of an organization, whether founded by them or not, can be strongly influenced by their equity ownership (Arthurs et al., 2003). The more equity they own the more executives’ identities are tied to their organizations and the more steward-like they are likely to behave (Pierce et al., 2001). To the

extent that higher levels of psychological attachment reduce turnover (O'Reilly et al., 1986), employee retention becomes less a concern for boards. Thus, stewardship theory suggests that boards should be able to pay less cash compensation to executives who own more equity. From an agency theory perspective it has been posited that greater equity holdings can reduce agency problems (Jensen et al., 1976) by acting as substitute governance mechanisms (Rediker & Seth, 1995) that induce executives to accept lower compensation. Furthermore, the process of detaching ownership from management control is closely related to the percentage of equity held by executives (Fogelberg, 1980); executives who own a majority of the equity are expected to act consistently with stewardship theory, executives with low levels of ownership to act consistently with agency theory (Fox & Hamilton, 1994). It follows that executives who hold less equity will have lower levels of psychological ownership and expect higher compensation.

Hypothesis 2: Executive equity holdings will be inversely related to cash compensation.

Situational Factors and Psychological-Situational Interactions

Situational factors also influence the degree of agency versus stewardship (Davis et al., 1997; Fama et al., 1983). The central situational factor affecting an organization's management philosophy and culture is the degree to which formal control mechanisms have been adopted (Davis et al., 1997). Stewardship theory is more applicable to organizations in which the lack of controls fosters trust as the basis for collective work and promotes high levels of intrinsic motivation. However, the degree of organizational control, and hence the degree of stewardship, is expected to change over the life of a venture, especially as the venture adds employees and raises new rounds of outside financing. The hypotheses below examine how these situational factors should affect cash compensation, and how they might interact with the psychological issues examined above.

As a new organization grows and the division of labor deepens, its structure becomes more formalized and professionalized (Blau, 1970; Blau & Scott, 1962; Hellman & Puri, 2002). Roles become more defined, coordination becomes more formal, and controls are instituted to facilitate organizational activities. Agency theory is more likely to apply in organizations that have adopted control mechanisms to reduce risk and increase predictability (Davis et al., 1997). Thus, with the lower levels of intrinsic motivation that result in these larger organizations, we expect cash compensation to increase with size, even after controlling for the additional financial resources that larger organizations may have.

Although these situational changes should affect all executives in new ventures, they are expected to affect founders disproportionately. Founders play the central role in starting new ventures, controlling all key decisions regarding their direction. Self determination and intrinsic motivation thus predominate in these early stages of organizational growth. Stewardship motivation is highly dependent on the steward's maintaining a feeling of self determination (Manz, 1986), but changes in the overall organizational environment can lower intrinsic motivation (Amabile, 1993). More specifically, founders' intrinsic motivation is expected to diminish as psychological ownership wanes in the face of increased formalization and reduced familiarity with all parts of the expanding organization (Pierce et al., 2001). With company growth, founders are often forced to share influence over their companies' direction, which can cause them to begin to exhibit lower levels of commitment (Dobrev et al., 2005:435). A lower degree of psychological ownership increases the likelihood that executives will pursue individual self interest over the interests of the overall organization (Guth et al., 1986), increases the degree to which they are likely to behave as agents generally, and reduces the likelihood that they will

accept lower compensation (Davis et al., 1997). We thus expect there to be a smaller “founder discount” in larger companies.

Hypothesis 3: Cash compensation will be higher in larger firms.

Hypothesis 4: The difference between founders’ and non-founders’ cash compensation will be narrower in larger firms.

Stewardship situations match clan contexts in which performance ambiguity is high (Ouchi, 1980). That young ventures, like clans, lack concrete performance metrics makes it difficult for boards to judge progress towards core organizational goals (Gersick, 1994). Given this, new ventures tend to be situationally less consistent with agency theory (Fama et al., 1983) and more consistent with stewardship theory (Davis et al., 1997), promoting high levels of trust and goal congruence.

However, capital constraints drive new ventures to outside investors (Gompers & Lerner, 2001) who reduce their own investing uncertainty by staging their capital investments across multiple “rounds” months or years apart (Gompers, 1995). Just as customers can push ventures to be more accountable and reliable (Hannan & Freeman, 1984), new investors impose contractual requirements that can alter the situational contexts of new ventures (Gompers, 1995), in an even more direct way. Each round of investment can bring new contractual requirements that decrease performance ambiguity, enabling performance evaluation to be based on “explicit, verifiable measures [that can] withstand the scrutiny of contractual relations” (Ouchi, 1980:137). These increased controls cause the organization to become more depersonalized and less facilitative of stewardship behaviors, for when principals institute controls, stewards lose intangible rewards, “have less desire to behave as stewards,” and demand higher compensation (Davis et al., 1997:39-40). Having better controls should also reduce organizational risk for the principals, making them more willing to increase cash compensation. Thus, as each new round

of financing is completed, a new venture's situation should become less consistent with stewardship theory and more consistent with agency theory, and the level of cash compensation should increase, even after controlling for the additional capital raised in the new round of financing. Once again, however, given their higher levels of early attachment to and identification with their ventures, founders are expected to be disproportionately affected by the raising of new rounds of financing.

Hypothesis 5: The number of rounds of financing raised by the company will be positively related to cash compensation.

Hypothesis 6: The difference between founders' and non-founders' cash compensation will be narrower in firms that have raised more rounds of financing.

METHODS

Founders, a central focus of this study's hypotheses, are largely absent from past research on executive compensation. Privately-held companies being extremely secretive about executive compensation (Jensen & Murphy, 1990a), past research has focused on public companies, the founders of which rarely still number among the members of the top management team. Even Beatty and Zajac's (1994) seminal "young company" study of compensation in newly-public companies did not include founders. Researchers who have tried to examine founder compensation (e.g., Deckop, 1988; Henderson & Fredrickson, 1996) in the context of large companies have discovered that founders made up less than ten percent of the executives in their datasets, precluding definitive founder-related conclusions.

To get around this problem, the data used in this study are from a private-company compensation survey conducted annually by three national professional services firms: Ernst & Young (an accounting firm), Hale and Dorr (a law firm), and J. Robert Scott (an executive search firm). The survey instrument was designed, developed, and tested by the author with the

assistance of the three professional services firms. Each year these firms compile a list of American private technology companies that draws from the membership lists of regional and state-wide technology councils, the VentureOne database of companies that have raised venture capital, the firms' own client lists, and recommendations by private-company investors. The CEOs and CFOs of these companies are then mailed invitations to participate, with the expectation that a single senior executive will complete the entire survey for each company. The principal inducement is the promise of a free copy of an unabridged, published Compensation Report, which is not available to non-participants. Survey questions cover company founding, dates on which key product development milestones were passed, financing history, backgrounds of the members of the top management team, executive compensation, and the composition of the board of directors. The survey instrument for the year 2000 survey was pilot tested with ten companies before invitations were mailed to the full list of potential participants. Since 2000 the survey has been conducted online so that responses could be validated as they were entered.

The dataset includes data from 2000, 2001, and 2002 to reduce the chance that the results are sensitive to the year in which the data were collected, while controlling for the year of collection. The 20% response rate across the three years of the survey is relatively high considering the sensitivity of the questions and level of executives targeted (Finkelstein, 1992; Waldman, Ramirez, House, & Puranam, 2001). To test the representativeness of the responses respondents were compared to non-respondents with regard to geographic distribution, industry segment, and stage of company development (the data available for non-respondents). No statistically significant differences were observed between respondents and non-respondents on these dimensions. Across the full dataset 31% of companies are based in California, 18% in Massachusetts. Median company age is 39 months, with 25th and 75th percentiles of 25 and 59

months, respectively, median number of employees 54, with 25th and 75th percentiles of 27 and 100 employees, respectively. Further summary data are presented in Table 1.

Insert Table 1 about here

The full dataset includes 528 private technology companies. Of the 1,238 executives in the dataset 40% are CEOs and 41% are founders. Fewer than five percent of the companies participated in more than one annual survey, precluding an examination of compensation changes in the same companies over time. (The low rate of repeat survey participation is not surprising given the high rate of failure among young companies in this industry, demands on the time of the CEOs and CFOs of these companies, and the exclusion of companies that have gone public, among other factors.) To ensure that repeat respondents did not introduce autocorrelation problems all core models were rerun excluding the repeat respondents; no differences were found. The data average 2.3 executives per company. To adjust for companies that have more than one executive in the dataset and therefore have within-cluster correlations, clustered regressions with robust standard errors (Froot, 1989; Williams, 2000) were used.

Dependent Variable

The main dependent variable is each executive's cash compensation, which comprises both salary and bonus (e.g., Henderson & Fredrickson, 2001). Auxiliary models were run using a salary-only dependent variable consistent with Barkema and Pennings (1998) and Bloom (1999), who measured salary "exclusive of any performance incentives" (Bloom, 1999:30). The salary-only and salary-plus-bonus variables were highly correlated ($r=.88$) and the auxiliary results matched those from the main models, as shown below.²

² Consistent with the analyses of public-company compensation in Core et al. (1999), it would have been desirable to be able to perform further robustness tests using a third dependent variable that added the current value of the

Independent Variables

A dummy variable was used to indicate whether an executive was a founder of the company. The percentage of company equity held by the executive was used to assess the impact of equity holdings (Jensen et al., 1990b), but an auxiliary analysis also assessed whether the non-equity results were robust to the use of an estimate of the value of the executive's equity holdings, described below. For the hypotheses regarding company size and changes in the "founder discount," company size was estimated using the number of employees and an interaction variable was computed by multiplying the founder dummy by the number of employees in the company. For the hypotheses regarding rounds of financing and changes in the founder discount, a variable indicated the number of rounds of financing (i.e., separate private placements) completed and an interaction variable was computed by multiplying the founder dummy by the number of rounds raised.

An alternative explanation for some of the hypotheses is that compensation is affected by differences in executives' human capital. Evans and Leighton's (1989) finding that education has greater returns in self-employment than in wage work, for example, suggests an important role for human capital in entrepreneurial sector executives. Following past studies (e.g., Gimeno et al., 1997) that measured entrepreneurs' human capital using the constructs of formal education and prior work experience, the models control for each executive's educational degrees (bachelor's, M.B.A., non-M.B.A. master's, J.D., and Ph.D.) and years of prior experience.

Other alternative explanations include executives' varying levels of power and influence over the compensation-setting process. Tenure (in months) was used to control for the

executive's equity holdings to the executive's cash compensation. However, the already-existing problems associated with valuing stock-based compensation in liquid public companies (Core et al., 1999; Hall et al., 2002) are exacerbated in private companies where executives hold non-liquid securities that have a high chance of never paying off (Hertzel et al., 1993; Kahl et al., 2003). This precluded the computation of reliable equity values that could be combined with cash compensation in a single dependent variable.

possibility that executives with longer tenure might exert more influence over their compensation than managers with shorter tenure. Executives who were hired due to a tie to a venture capitalist on the board of directors (Sahlman & Gorman, 1986) may also command more compensation, so a dummy variable controlled for such a tie. Executives who are themselves members of their companies' boards of directors might be more powerful given the prestige of serving on boards (Finkelstein, 1992), the fact that they may perform more duties for their companies than do peers who do not also serve on the board (Cyert, Kang, & Kumar, 2002), and that they might be expected to be able to influence their compensation by developing social ties with the other board members who determine compensation (Main, O'Reilly, & Wade, 1995). The models consequently include a control for whether executives also serve on their companies' boards of directors. A common finding in large-company studies being that CEOs' cash compensation substantially exceeds that of those who work for them (e.g., Lambert, Larcker, & Weigelt, 1993; Lazear & Rosen, 1981), the models also control for whether each executive was a CEO or a direct subordinate reporting to the CEO. The final executive-level control is for whether an executive's cash compensation includes only salary or salary and bonus, bonuses being more contingent than salary and representing a different mix of pay (e.g., Core et al., 1999).

At the company level, receiving revenues from customers and raising successive rounds of financing augment the resources available to pay compensation, so the models include controls for company revenues and amount of capital raised in the most recent round of financing. Company age was also included, given that an organization's ability to survive is tightly linked to its age (Hannan, 1998). From a stewardship perspective, losing control of board decision making can decrease the sense of control over the company, and may heighten the apparent conflict between shareholders and managers. Therefore, the models include a dichotomous

threshold variable (Gimeno et al., 1997) that indicates whether outsiders controlled more than 50% of a company's board. Dummy variables captured company business segment and, as proxies for the broader market conditions that existed at the time of each survey, dummy variables also indicated whether the company's data was collected in 2000, 2001, or 2002.

As mentioned above, although Hypothesis 2 is concerned with the impact that percentage of equity holdings should have on an executive's psychological ownership, it is possible that the *value* of the executive's equity holdings might also have an important impact on this study's other hypotheses. To construct an alternative equity-holding variable that estimates the current value of an executive's equity holdings, the percentage of equity held by the executive was multiplied by the company's private-market valuation following the most recent round of financing. However, given the problems described above regarding the computation of reliable equity values in these companies, the results from this auxiliary model should be interpreted cautiously. In addition, the 2000 dataset was missing valuation data for almost one-quarter of its companies (a problem fixed in the 2001 and 2002 surveys), resulting in fewer observations in the auxiliary model.

RESULTS

Table 1 presents the means and standard deviations of the core variables in the models and the correlations among those variables. The possibility of collinearity among the variables was checked in two ways. First, variance-inflation-factor analysis (Belsley, Kuh, & Welsch, 1980; Mansfield & Helms, 1982; Neter, Wasserman, & Kutner, 1989) found no variables with VIF scores of more than 10 (the highest score was 4.34), indicating no problems. Second, factor analysis suggested additional testing of two pairs of variables: the CEO and board-member dummies, and the months-since-hired and company-age variables. In models in which one of

each pair was dropped, the significance of the remaining variable increased rather than decreased, reinforcing the robustness of the results.

Given the centrality of founder status to the hypotheses, Table 2 presents separate means and standard deviations for founders and non-founders. Founders were much more likely to be CEOs (57% of founders and 29% of non-founders were CEOs) and averaged fewer years of prior work experience. A lower percentage of founders had M.B.A. degrees, a higher percentage Ph.D. degrees.

Insert Table 2 about here

Nested OLS regression models, fixed-effects models, and auxiliary analyses employing alternate forms of the dependent and independent variables were used to test the hypotheses. Table 3 presents the core models. Model 1 shows the baseline results of regressing compensation on the control variables. Model 2 is the full model used to test the hypotheses. Model 3 uses company fixed-effects to assess whether Model 2 is missing key company-level differences that might affect its results. The dependent variable, being normally distributed, was not transformed, consistent with other compensation studies in which this was the case (e.g., Carpenter, 2000).

Insert Table 3 about here

Many of the controls in the baseline model were significant. With respect to human-capital controls, years of prior work experience was highly significant at the $p < .005$ level, each year of additional experience resulting in almost \$2,000 in additional compensation. Other very significant controls at the individual-executive level included being hired due to a tie to a venture capitalist ($p < .01$) and bonus eligibility ($p < .005$). At the company level, very significant variables

included dollars raised in the most recent round of financing ($p < .005$) and whether outsiders controlled the board of directors ($p < .01$), both with positive coefficients. The adjusted- R^2 of Model 1 is .329 and the overall model is highly significant.

Using Model 2 to examine the hypotheses we find that founders received \$25,000 less than non-founders ($p < .01$), supporting H1. A significant ($p < .05$) negative relationship was observed between executives' equity and compensation, supporting H2. Consistent with H3, cash compensation increases significantly (at $p < .005$) with increases in the number of employees. Furthermore, supporting H4, the positive and significant ($p < .05$) coefficient on the Founder X Employees interaction term suggests that the founder discount decreases with company size. This interaction term is graphed in Figure 2. With each round of financing (H5), compensation increased by \$5,000 ($p < .05$), even after controlling for the amount of money raised in the most recent previous round (significant at $p < .05$) and company revenues ($p < .10$). Hypothesis 6, that founders will be disproportionately affected by the raising of new rounds of financing, is not supported. The adjusted- R^2 of Model 2 is .441, significantly higher than in the baseline model.

Insert Figure 2 about here

Model 3 uses company fixed-effects to assess whether Model 2 was affected by missing variables at the company level. Because they are constant within each company's top management team (TMT), the company-level independent variables from Model 2 could not be tested in the fixed-effects model. In Model 3, however, the executive-level factors were again very significant ($p < .05$), with founders making \$24,000 less than non-founders and a negative relationship between equity percentage and cash compensation, and the significance of the two interaction terms matches the results in Model 2.

In summary, H1 (founders receive less compensation than non-founders) is strongly supported, even after controlling for differences in formal positions and executive backgrounds. H2, which posits a negative relationship between equity percentage and compensation, is strongly supported. Cash compensation increases with company size (H3), and the founder discount (H4) diminishes with company size. Compensation increases with rounds of financing (supporting H5), even after controlling for the additional capital raised and from increasing company revenues. However, Hypothesis 6, that this increase is higher for founders than for non-founders, is not supported.

As shown in Model 1 of Table 4, an alternate form of equity holdings was tested using an estimate of the current value of an executive's equity. The non-equity hypotheses were all supported again in this model, with the founder discount even greater (cash compensation is \$35,000 lower for founders than for non-founders) and more significant ($p < .005$). Interestingly, though, the coefficient on the alternative equity-value variable itself is positive in this model instead of negative. Another auxiliary analysis that examined whether the results changed when using a salary-only dependent variable (Model 2 of Table 4) yielded nearly identical results as in the core Model 2 in Table 3, consistent with past studies (e.g., Core et al., 1999) that had similar results for salary, salary-plus-bonus, and total-compensation dependent variables.

DISCUSSION

This study has examined the psychological and situational factors that affect the applicability of agency and stewardship theories to executives in new ventures. Psychologically, founders should act more like stewards and non-founders more like agents, and executives who own a higher percentage of equity should earn less compensation, consistent with both stewardship and agency theories. Hypotheses applying these theoretical predictions to executive

compensation within new-venture teams were strongly supported. Situationally, the results also supported the hypotheses that compensation for all executives increases with company size and with the raising of new rounds of financing, but that founder compensation is affected disproportionately by company size, thus decreasing the founder discount in larger companies.

Stewardship theory helps us understand why founders might be more willing than non-founders to accept lower compensation. Founders are more intrinsically motivated than non-founders and derive more non-monetary benefits from working in the companies they started. It might be said that “founders pay to be founders” much as wine hobbyists accept lower profits to maximize their non-financial benefits as owners of wineries (Morton & Podolny, 2002). “The founder CEO,” remarked one venture capitalist, “benefits from ‘soft’ compensation such as greater psychic rewards that a non-founding CEO will never be able to get” (Borchers, 2004).

A potential downside is that strong feelings of stewardship might leave founders vulnerable to boards’ *imposition* of lower compensation. Founders’ strong attachment to the companies they start might compromise the credibility of threats to leave if their compensation demands are not met, resulting in a founder discount. One founder who complained that his board was not taking seriously his threat to leave if he did not get a raise observed that a non-founder could more convincingly make this threat (Rosen, 2004). More generally, even executives who are not founders might find that strong attachment to their companies leaves them in a less powerful negotiating position relative to executives who are not perceived to have such attachment. However, as the level of attachment decreases with company growth, boards must adjust by reducing the founder discount, as they indeed seem to do in the technology-based new ventures that are the subjects of this study.

One implication of these findings is that it is possible for private-company CEOs to receive less compensation than do their direct subordinates, a circumstance not found in public companies in which CEOs are much more powerful, and thus earn far more, than their direct subordinates. In the new ventures that are the focus of this study, instances are found of CEOs who are founders earning less than the CTOs or CFOs who report to them. In fact, in the study dataset, of 290 CEOs who were founders, 77 (27%) made less than at least one of their direct subordinates and another 69 (24%) were paid the same amount as a direct subordinate. Future field research could explore the extent to which lower founder compensation is voluntarily accepted or is imposed on founders by boards.

This finding suggests that there are important ways in which the results presented here conflict with what might be expected from a power perspective. Founders, for example, might be expected to be more powerful than non-founders because they have longer tenure (Fisher & Govindarajan, 1992) and higher levels of prestige power (Finkelstein, 1992; Zaleznik et al., 1975), are difficult to replace (Hickson, Hinings, Lee, Schneck, & Pennings, 1971), exert more influence over the choice of outside board members (Main et al., 1995), and often possess an overpowering leadership style (Zaleznik et al., 1975). This power might reasonably be expected to translate into leverage over their companies' compensation processes and the ability to command higher compensation (Combs & Skill, 2003). But despite these power advantages founders tend to receive substantially less compensation than non-founders.

The marked difference between founder and non-founder compensation also emphasizes a need for future researchers to consider the possible impact that the presence of founders might have on their results. Academic studies (e.g., Finkelstein, 1992) have used founder status as an indicator of greater executive power. In fact, such status might have an effect opposite the one

intended inasmuch as this study suggests that founders may be hampered in their ability to influence key decisions. Moreover, the presence of founders could skew the results of studies that ignore founder issues. Beatty and Zajac (1994), for example, found that executives' equity holdings are lower in higher-risk than in lower-risk companies. A possible alternative explanation is that this difference reflects a different mix of founders versus non-founders: higher risk companies might have higher rates of founder turnover and thus more non-founders on their TMTs. Differences in equity holdings might thus be a function of differences in the preponderance of founders, whose equity holdings tend to be higher than those of non-founders.

The findings regarding equity holdings might also conflict with what might be expected from a power perspective. This study found a strong inverse relationship between compensation and the percentage of equity owned by an executive, consistent with the hypothesized impact of equity holdings on psychological ownership. This finding is also consistent with recent empirical studies in large companies (e.g., Core et al., 1999; Cyert et al., 2002). However, it conflicts with arguments that higher equity percentages should afford executives more ownership power (Finkelstein, 1992) and enable them to increase their own compensation (Allen & Panian, 1982). "Executives who own significant portions of their firms," observe Finkelstein and Hambrick (1989:124), "are likely to control not only operating decisions but board decisions as well. Such executives would thus be in a position to essentially set their own compensation." In this study, auxiliary analyses suggested a positive linkage between compensation and the value of executive equity holdings. Given the problems described earlier with calculating reliable estimates of the value of executive equity holdings in private companies, this result should be interpreted cautiously. However, future research could benefit both from improved approaches to valuing such equity and from further exploration of this difference in equity results.

Situationally, Gersick (1994) examined the transformation of new ventures from companies that have to deal with ambiguous feedback from uncertain or “noisy” environments into companies in which performance ambiguity is much lower, and Davis et al. (1997) highlight how the controls instituted in that process can affect stewardship behaviors. The results of this study suggest that such situational changes also have important implications for compensation. As controls are instituted to reduce performance ambiguity, they also reduce the clan-like characteristics of new ventures in ways that require boards to increase executive compensation. In contrast to results reported above that conflicted with what might be expected from a power perspective, these findings are consistent with predictions derived from power-based resource dependency theory inasmuch as company growth and the raising of new rounds of financing should increase executives’ power by proving that they can cope with their companies’ critical contingencies (e.g., Hickson et al., 1971; Pfeffer & Salancik, 1978). The link between the institution of controls and compensation can also shed light on the evolution of agency issues in these firms. Agency costs, save when the founder maintains ownership of all of the company’s equity, increase as outsiders invest. Investors’ ability to monitor founders increases as controls increase, reducing the potential impact of misaligned incentives but also requiring them to increase executive compensation. Although changes in company size and financing rounds affected all executives, the size-related changes affected founders disproportionately. Future research could explore why founders were affected more by changes in size than by financing rounds.

It is important to emphasize that this study focused on private technology companies. Although such companies constitute a substantial portion of new ventures, and although single-industry studies of technology firms (e.g., Eisenhardt, 1989; Virany, Tushman, & Romanelli,

1992) do provide greater internal validity, future research could shed light on whether the use of these companies might have introduced patterns that do not exist in other industries. In addition, the quantitative models used in the present study controlled for differences across executives in prior work experience, educational backgrounds, board membership, and ties to VCs. Future research could explore whether entrepreneurial managers differ in other ways that might affect their compensation. Are first-time founders, for example, more attached than “serial” founders to the companies they start? Are co-founders less attached than solo founders to their companies? Situationally, do changes in corporate governance (e.g., ownership or board structure), environmental contingencies, or corporate strategies (e.g., increases in diversification) shift the mix of agency versus stewardship in ways that affect pay differences?

In closing, we have developed a wealth of knowledge about compensation in public companies, much of it by examining executive compensation from an agency perspective. Recent work (e.g., Bloom & Milkovich, 1996; Daily, Dalton, & Cannella, 2003; Davis et al., 1997) that has begun to question this focus on agency theory has suggested that our picture of executive compensation could be enriched by integrating stewardship theory and other perspectives, as has been done in this study. New ventures provide us with an excellent context in which to study the interplay between agency theory and stewardship theory. More generally, new ventures should also provide other important research benefits. In contrast to large companies in which the dynamics have evolved over many years and activities in one part can significantly affect other parts, young companies provide simpler environments to study. The understanding of organizational issues that emerges from such study can yield insights into broader issues that have been hard to uncover in large, complex organizations. Ensley et al. (2002:381) argued recently that: “While the bulk of TMT research has been conducted on

existing large firms ... the richest and most interesting studies of TMTs are likely to involve new ventures.” Moreover, to comprehend the existing structures of larger organizations we must first understand the processes that created and developed these structures when the organizations were still small (Aldrich, 1999). To conduct research in private companies requires gaining access to scarce data and understanding idiosyncratic characteristics such as the presence of company founders and the dramatic changes introduced by company growth. Surmounting these challenges in order to study the evolution of executive compensation throughout company growth and development should yield deep insights that broaden our understanding of agency, stewardship, and organizational issues throughout all stages of company evolution.

FIGURE 1
Summary of Hypotheses



Founder	H1	Non-founder
Own larger percentage of equity	H2	Own smaller percentage of equity
Smaller organization	H3	Larger organization
Founder vs. Non-founder in smaller organization	H4	Founder vs. Non-founder in larger org.
Fewer rounds of outside financing	H5	More rounds of outside financing
Founder vs. non-founder with fewer rounds raised	H6	Founder vs. non-founder with more rounds raised

----->
 More cash compensation

TABLE 1
Summary Data and Correlation Table

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1.Cash compensation (\$000)	188.2	104.3																			
2.Founder?	41%	0.5	-0.09																		
3.Exec. hired via tie to VC	13%	0.3	0.11	-0.20																	
4.% equity held by executive	27.9	21.1	-0.23	0.19	-0.16																
5.Years of prior experience	15.2	8.3	0.19	-0.21	0.18	-0.17															
6.Months since hired	33.9	34.6	0.00	0.29	-0.11	0.23	-0.13														
7.BA/BS degree	76%	0.4	-0.02	-0.03	0.03	-0.01	0.03	-0.01													
8.MA/MS degree	24%	0.4	0.03	0.10	-0.04	0.01	-0.03	0.04	-0.05												
9.JD degree	2%	0.1	0.01	0.05	0.01	0.02	0.02	-0.03	0.02	-0.02											
10.MBA degree	32%	0.5	0.04	-0.12	0.11	-0.07	0.06	-0.09	0.04	-0.20	-0.05										
11.PhD degree	8%	0.3	-0.01	0.17	-0.01	-0.04	0.03	0.04	-0.10	0.14	-0.05	-0.15									
12.Position = CEO	40%	0.5	0.27	0.28	0.07	-0.02	0.17	0.13	0.01	0.03	0.11	0.06	-0.04								
13.Completed product dev.	0.8	0.4	-0.06	0.08	0.08	-0.02	0.04	-0.12	-0.05	0.09	-0.02	-0.07	0.13	0.02							
14.Company revenues (\$M)	0.8	3.9	-0.01	-0.04	-0.02	0.00	0.01	-0.01	-0.06	-0.06	-0.08	0.05	0.00	-0.01	-0.06						
15.# rounds of financing	2.6	1.4	0.16	-0.14	0.04	-0.32	0.06	0.05	0.00	-0.03	0.03	0.03	-0.04	-0.03	-0.15	0.00					
16.Dollars raised last rd (\$M)	16.7	47.6	0.04	-0.08	0.01	-0.06	-0.03	-0.03	-0.07	0.00	-0.01	0.06	-0.02	-0.03	-0.03	-0.02	0.04				
17.Member of board	49%	0.5	0.19	0.46	0.03	0.06	0.08	0.22	0.01	0.08	0.07	-0.01	0.10	0.73	0.03	-0.01	-0.08	-0.06			
18.Outsiders control board?	85%	0.4	0.11	-0.08	0.04	-0.23	0.04	0.01	-0.01	0.02	-0.03	0.02	-0.02	0.00	0.00	0.05	0.23	-0.04	-0.09		
19.Number of employees	77.8	82.0	0.27	-0.12	0.08	-0.19	0.06	0.00	-0.12	-0.03	0.00	0.00	-0.08	-0.03	-0.16	-0.03	0.32	0.10	-0.10	0.11	
20.Company age (months)	55.6	51.3	0.04	-0.13	-0.01	0.16	0.05	0.62	0.03	-0.01	-0.03	-0.01	-0.05	0.00	-0.20	-0.02	0.14	-0.01	0.02	0.02	0.03

(obs=1,238)

TABLE 2
Means and Standard Deviations, Founders Vs. Non-Founders

	Founders (N=508)		Non-Founders (N=730)	
	Mean	Std.Dev	Mean	Std.Dev
Cash compensation	177.3	82.7	195.7	116.4
% equity held by executive	32.9	21.5	24.5	20.2
Years of prior experience	13.3	8.0	16.6	8.2
Months since hired	45.7	41.5	25.6	26.0
BA/BS degree	75%	0.4	77%	0.4
MA/MS degree	29%	0.5	20%	0.4
JD degree	3%	0.2	2%	0.1
MBA degree	26%	0.4	36%	0.5
PhD degree	14%	0.3	4%	0.2
Position = CEO	57%	0.5	29%	0.5
Member of board of directors	77%	0.4	30%	0.5

TABLE 3
Core Regression Models

Dependent variable: Executive's salary-plus-bonus in current year (\$000)

	Model 1: Baseline		Model 2: Full model		Model 3: Fixed effects
	Coef. (SE)		Coef. (SE)		Coef. (SE)
<i>Control Variables</i>					
Human Capital					
Years of prior experience	1.725 (0.301) ****		1.093 (0.261) ****		0.783 (0.319) **
Months since hired	-0.152 (0.098)		-0.180 (0.097) *		-0.185 (0.128)
BA/BS degree	-3.921 (5.449)		-3.539 (5.147)		-2.221 (6.716)
MA/MS degree	2.928 (4.733)		4.196 (4.374)		2.624 (4.749)
JD degree	-6.495 (12.165)		-3.181 (11.127)		-5.309 (12.728)
MBA degree	-0.976 (4.295)		-2.504 (4.117)		-1.501 (4.379)
PhD degree	13.687 (7.948) *		18.231 (6.994) ***		18.422 (7.401) **
Executive hired via tie to VC (D)	16.429 (6.107) ***		6.212 (5.774)		5.594 (6.007)
Member of board of directors (D)	9.929 (5.178) *		25.010 (5.713) ****		29.068 (6.453) ****
Eligible for bonus (D)	52.171 (4.712) ****		44.669 (4.248) ****		50.378 (7.070) ****
CEO dummy	45.470 (5.297) ****		44.593 (5.295) ****		42.251 (5.602) ****
Company Status					
Revenues in current year (\$M)	0.297 (0.584)		0.689 (0.397) *		
Dollars raised in last round (\$M)	1.035 (0.264) ****		0.468 (0.228) **		
Outsiders control the board? (D)	18.479 (6.993) ***		10.522 (5.745) *		
Company age in months (L)	5.325 (4.225)		-10.011 (4.108) **		
Industry Segments (D)					
Software	(dropped)		(dropped)		
Communications	-13.035 (6.327) **		-16.528 (5.878) ***		
Computer HW/Semi/Electronics	1.971 (9.276)		-4.975 (8.975)		
IT Svcs./Consulting/Sys. Integ.	-7.337 (9.590)		-8.760 (8.579)		
Content/Info Provider	3.761 (10.458)		-1.909 (8.852)		
Other segment	20.269 (13.014)		13.059 (11.090)		
Year					
Year 2000	(dropped)		(dropped)		
Year 2001	-3.784 (7.112)		19.402 (6.332) ****		
Year 2002	-16.220 (7.112) **		14.916 (6.884) **		
<i>Hypotheses</i>					
H1: Founder dummy			-25.261 (9.691) ***		-23.964 (9.368) **
H2: % equity held by executive (L)			-5.709 (2.835) **		-5.210 (2.080) **
H3: Number of employees (L)			28.606 (3.448) ****		
H4: Founder-X-Employees interaction			0.307 (0.134) **		0.298 (0.122) **
H5: Number of rounds of financing			6.340 (2.795) **		
H6: Founder-X-Rounds interaction			-3.254 (3.448)		-0.841 (2.777)
Company dummies					
Constant	69.619 (16.564) ****		28.691 (22.040)		(528 dummies)

N = 1235 (535 clusters)

N = 1218 (528 clusters)

N = 1218

Prob > F = 0.000

Prob > F = 0.000

Prob > F = 0.000

R-squared = 0.329

R-squared = 0.441

R-squared = 0.808

* p<.10
** p<.05
*** p<.01
**** p<.005

(L) = log

(D) = dummy

FIGURE 2

**Graph of Founder-X-Employees Interaction Term
from Model 2 in Table 3**

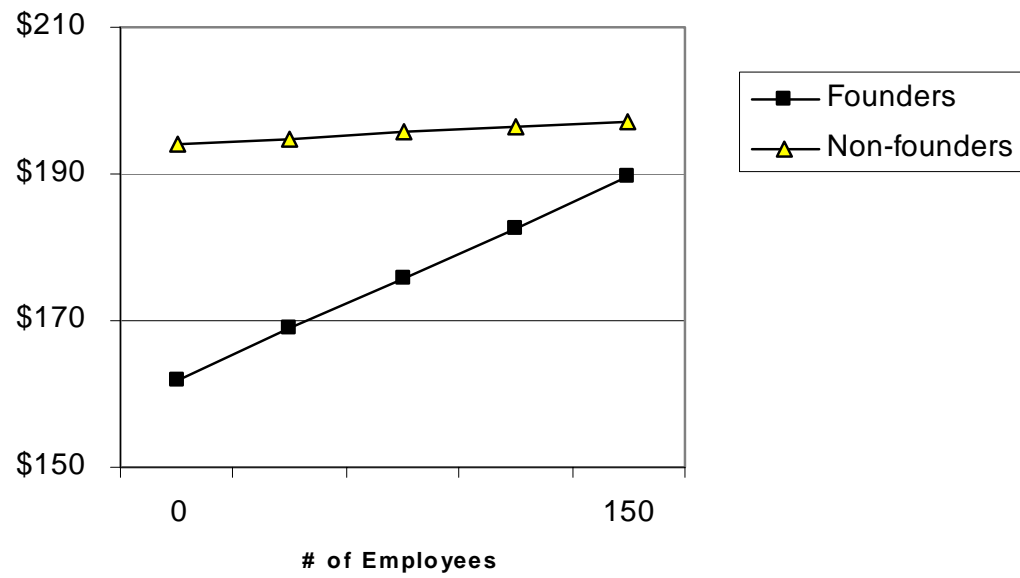


TABLE 4
Core Model from Table 3, Using Equity-Value as I.V. and Salary as D.V.

	Model 1: Equity value as IV		Model 2: Salary as DV	
	DV: Salary plus bonus		DV: Salary	
	Coef. (SE)		Coef. (SE)	
<i>Control Variables</i>				
Human Capital				
Years of prior experience	1.149 (0.271)	****	0.941 (0.191)	****
Months since hired	-0.214 (0.103)	**	-0.195 (0.061)	****
BA/BS degree	-2.929 (5.381)		-0.826 (3.380)	
MA/MS degree	1.913 (4.385)		3.967 (2.848)	
JD degree	-2.579 (10.594)		6.154 (8.846)	
MBA degree	-1.765 (4.389)		0.092 (2.823)	
PhD degree	15.922 (6.993)	**	15.747 (5.211)	****
Executive hired via tie to VC (D)	3.947 (6.034)		6.464 (3.603)	*
Member of board of directors (D)	16.076 (5.695)	***	15.887 (3.738)	****
Eligible for bonus (D)	47.522 (4.210)	****	8.525 (2.992)	***
CEO dummy	37.569 (5.252)	****	31.359 (3.498)	****
Company Status				
Revenues in current year (\$M)	0.628 (0.370)	*	0.703 (0.274)	**
Dollars raised in last round (\$M)	0.035 (0.214)		0.305 (0.148)	**
Outsiders control the board? (D)	10.796 (6.158)	*	9.474 (4.265)	**
Company age in months (L)	-14.242 (5.068)	***	-4.853 (2.978)	
Segment Dummies				
Software	(dropped)		(dropped)	
Communications	-14.744 (5.759)	**	-7.754 (3.995)	*
Computer HW/Semic./Electronics	-3.587 (9.427)		-6.199 (5.959)	
IT Svcs./Consulting/Sys. Integ.	0.743 (8.836)		-3.776 (5.578)	
Content/Info Provider	-0.348 (8.894)		1.618 (5.814)	
Other segment	7.780 (14.133)		9.712 (6.910)	
Year 2000	(dropped)		(dropped)	
Year 2001	21.381 (6.658)	****	17.246 (4.409)	****
Year 2002	20.187 (7.352)	***	18.040 (5.172)	****
Hypotheses				
H1: Founder dummy	-35.121 (11.146)	****	-13.844 (6.866)	**
H2: Exec's equity value (% held X Co. val'n)	9.095 (1.567)	****		
H2: % equity held by executive (L)			-4.733 (2.109)	**
H3: Number of employees (L)	29.006 (3.216)	****	19.239 (2.282)	****
H4: Founder-X-Employees interaction	0.308 (0.143)	**	0.255 (0.107)	**
H5: Number of rounds of financing	7.950 (3.152)	**	3.654 (1.355)	***
H6: Founder-X-Rounds interaction	-3.790 (3.859)		-2.810 (2.029)	
Constant	-6.199 (21.058)		49.211 (14.999)	****
	N = 1107 (506 clusters)		N = 1218 (528 clusters)	
	Prob > F = 0.000		Prob > F = 0.000	
	R-squared = 0.458		R-squared = 0.399	

* p<.10
 ** p<.05
 *** p<.01
 **** p<.005

(L) = log
 (D) = dummy

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