IPO BOARDS OF DIRECTORS AND FIRM PERFORMANCE: THRESHOLD FIRMS AND GOVERNANCE THEORY BOUNDARIES

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Abstract

Past research examining the influence of boards of directors on firm performance has acknowledged, but typically failed to account for, the early life cycle stage of the firm. This study analyzes the effectiveness of board structure and behavior on firm performance in the early stages of the life-cycle for start-up IPO firms. Results suggest that the life-cycle of the firm is an important contextual variable to include when determining board effectiveness.

Keywords: Corporate governance, firm life-cycle, IPO

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Introduction

For decades, researchers have studied the effects of boards of directors (BOD) on various firm outcomes, such as strategy, strategic change, social performance and financial performance (Baysinger & Hoskisson, 1990; Dalton, Daily, Ellstrand & Johnson, 1998; Zahra & Pearce, 1989). The purpose of past work has been in part to determine how much value is created for the firm by the structure, process and control of the BOD. While this work has produced mixed results (Donaldson & Davis, 1994), the vast majority of governance research studies have focused primarily on large, well-established Fortune 500 companies. Many scholars acknowledge that examining other arenas, where managerial and board discretion is likely to be higher, may yield a different set of results (Dalton et al, 1998; Johnson, Daily & Ellstrand, 1996). Some speculate that the BODs in small or entrepreneurial firms at the beginning of their life-cycle are likely to differentially impact their firm’s financial performance compared to those in larger well-established firms (Daily & Dalton, 1993; Zahra & Pearce, 1989). Zahra and Pearce (1989), noting a dearth of studies outside of the Fortune 500 samples, call the life-cycle of the firm a critical contingency that should be accounted for when studying the influence of BOD on financial performance.

Recently, to fill this gap in our knowledge, scholars have begun to explore board composition and its relationship to performance at the early stage of a firm’s life cycle (Certo, Daily & Dalton, 2001; Finkle, 1998). Our study continues that effort by exploring company financial and stock performance subsequent to the Initial Public Offering (IPO) stage to clarify boundaries where previously theorized effects of BOD-performance associations are most likely to occur. We examine exclusively those entrepreneurial-type firms that are at the stage of entering IPOs that raised less than $20 million. These threshold firms are defined as firms that are at (or near) the point of transition from entrepreneurial to professional management (Clifford, 1973; Daily & Dalton, 1992). Our research question is whether the composition and process of threshold firms’ boards of directors impact the future financial performance of their firms.

This study has several theoretical and practical implications. We add to the governance literature by enhancing our understanding of how board composition and processes may be differentially effective for early threshold stages of a firm’s life-cycle. Setting boundary conditions for previously theorized effects of corporate governance roles is an important aspect of theory refinement. From a practical standpoint, we challenge those scholars who have suggested various “best approaches” for board selection and board decision-making processes without taking into consideration the key contextual variable of life-cycle stage.

We begin with a brief review of prior research on BOD and financial performance of both large and small firms. Next, we present and test a set of hypotheses using a sample of 150 small-cap threshold firms. We discuss results of the empirical study, and set forth theoretical, empirical, and practical implications.
Governance Theory

Previous researchers have used a number of theoretical lenses to examine the BOD-financial performance relationship, including legalistic, resource dependence, class hegemony and agency theory perspectives, among others (see Johnson, Daily & Ellstrand, 1996 and Zahra & Pearce, 1989 for reviews). The empirical results of these studies have been equivocal. Dalton et al (1998) performed a meta-analysis of the effects of corporate governance on financial performance using 54 previous studies of board composition and 31 studies of board leadership structure and found little evidence of systematic governance/financial performance relationships. Importantly, however, Dalton et al reported that approximately 80% of the sample consisted of large, Fortune 500 firms. They concluded that generalizability of their results beyond large U.S. corporations may be misleading. But the question remains, are existing theories better able to explain the BOD-performance relationships in other settings where discretion may be higher, such as the early life-cycle stage of the firm? Examining the contingent aspect of governance issues may be an important next step towards understanding under what circumstances boards may be most influential.

The Life-Cycle Contingency and Board Influence on Performance

The needs of firms change as they age suggesting firm life-cycle to be a critical contingency (Jawahar & McLaughlin, 2001). For example, as a firm is getting established in a marketplace, it is important that it develop a favorable reputation that may provide an intangible source of resources to the firm over its lifetime (Zahra & Pearce, 1989). The development of this reputation likely requires a substantially different set of resources and capabilities than would the maintenance of a well-established reputation. Furthermore, threshold firms often require significant capital investment, as well as community support as they build their legitimacy and reputation among their various stakeholders (Suchman, 1995). It is likely that CEOs of threshold firms are less constrained by organizational structures and control than those in well-established firms (Daily & Dalton, 1993; Norburn & Birley, 1988). An important result is that the CEO may be at greater discretion to make a board according to his/her own set of criteria. Indeed, in new start-ups, founder/CEOs have significant influence on who sits on the board (Timmons, 1999). The ability for BODs to influence future financial performance effectively may be a key motivation behind the CEO’s nomination of directors. Indeed, some outsiders may bring a critical element to early board operations that CEOs are likely to not only need, but also to desire. Thus, the types of directors that are selected at the IPO stage of a firm may ultimately influence the firm’s future financial performance.

Some effort has been made to understand the differential impact of BODs on small firms. For example, Daily and Dalton (1993) found that boards of small cap firms are likely to have significantly different board composition than might be evident at larger Fortune 500 firms and that BOD composition/financial performance relationships were found to be more effective for those firms that followed typical board reform adoptions such as separating CEO and BOD roles, and adopting a greater number of outsiders to the board. The mean age of the firms in the Daily and Dalton sample was over 17 years and thus it is unclear whether similar effects might be found for firms at the threshold of going public.

Closer to the empirical examinations made in the present study, several scholars have examined the impact of board composition on IPO pricing (Certo et al, 2001; Finkle, 1998). These scholars found differential impact of board composition on IPO pricing using resource dependence and signaling theories. For example, Certo et al found a negative relationship between board size and IPO underpricing but a positive relationship between board independence and IPO underpricing, suggesting that underwriters may value those inside directors that have familiarity with the firm rather than more independent directors. Finkle (1998) explored biotechnology firms at the IPO stage and found that CEO expertise increased the size of the firm’s IPO, but had no impact on subsequent stock market valuation. Our study extends these efforts by examining additional board roles as well as the board’s association with subsequent financial and stock performance of the firm – key to understanding board effectiveness at this stage. We now turn to that issue. Governance scholars have agreed that several roles and responsibilities of the BOD are particularly important to their effectiveness. These roles can generally be divided into three key responsibilities - service, strategy and control (Zahra & Pearce, 1989). Each of the roles is expected to ultimately influence the company’s performance. The effects of the BOD may be more pronounced at the IPO life-cycle stage of the firm for a number of reasons. First, strong boards at the threshold stage are particularly critical as capital markets and investors assess the firm. Additionally, the management needs of the firm begin to shift from an entrepreneurial style to professional management, and thus board responsibilities play a greater role in managing this change. Finally, at this stage the effects of the board on a new venture are most salient in that firm performance can be assessed in market terms as well as in accounting terms. Hence, it is an ideal time to assess the impact of the board on firm performance.
We will discuss these three main responsibilities and develop hypotheses specific to these roles below.

Service. The service component involves being a boundary spanner with the external environment, finding and obtaining necessary resources, and establishing networks to legitimize the organization and improve its reputation (Zahra & Pearce, 1989). The main theoretical stance taken in regard to this role is resource dependence (Pfeffer & Salancik, 1978). Scholars taking this perspective argue that directors are responsible for providing the firm with critical resources that may not otherwise be obtained. Selecting board members with the power to obtain these resources may be crucial to the firm's survival. Previous research generally supports the central argument of resource dependence for well-established firms (Pfeffer & Salancik, 1978; Zahra & Pearce, 1989). The need for reduced environmental uncertainty may be even greater for threshold firms. These firms are not likely to have established strong reputations in their community or in the broader community that will help them ensure long-term survival. Nor have these threshold firms had the opportunity to develop crucial contacts that will provide access to key scarce resources. Thus, to improve performance, having boundary spanners on the BOD will likely be critical in the IPO life-cycle stage.

Hypothesis 1: The greater the number of service directors on the board of the threshold firm at its IPO stage, the greater the increase in subsequent firm performance.

Strategy. The second responsibility of the board is to help management with strategic decisions. The strategy role of directors includes giving counsel and advice to the CEO, initiating analyses, suggesting alternatives, guiding the articulation of the firm's mission and setting guidelines for implementation of the firm's strategy (Zahra & Pearce, 1989). Scholars emphasizing this role promote the importance of expertise and understanding of firm activities to ensure board effectiveness and improve firm performance. Evidence of the contribution that boards have given well-established companies for the strategy role has been limited (Henke, 1986). However, it is likely that management of threshold firms has a greater need for the expertise and advice of board members than would be necessary for well-established firms. Indeed, Finkle (1998) found that CEO expertise was associated with larger IPO offerings. Directors experienced with the firm’s services/products and customer markets may have a similar impact upon the firm’s future financial performance. Expertise in the industry is likely to be a key characteristic that the CEO is searching for in the IPO stage. Those firms that capitalize on this element of a board's role are likely to have better performance than other firms.

Hypothesis 2: The greater the number of strategy specialists on the board of the threshold firm at its IPO stage, the greater the increase in subsequent firm performance.

The process by which the board operates can be an important element to the effectiveness of the board of threshold firms. One measure of board activity is the number of meetings held by the board over the course of each fiscal year (Vafeas, 1999; Zahra & Pearce, 1989). There are opposing views on the likely benefit of board meetings. One view suggests that board meetings are indeed beneficial to shareholders (Conger, Finegold & Lawler; 1998). Alternatively, Vafeas (1999) found that shareholders place a lower value on firms whose boards meet more frequently. However, he also finds that years with abnormally high meeting frequencies are followed by improvements in operating performance, suggesting that these meetings were effective nonetheless. Companies that have recently been established are much more likely to need significant help from the board in establishing a credible place in the community, developing a favorable reputation, providing and sustaining funding needs, determining growth opportunities, etc. (Reingold, 1999). As such, numerous meetings by the BODs will likely be more effective for the firm’s future performance. Moreover, as noted by Judge and Zeithaml (1992), recent institutional pressures have increased the expectation by stakeholders that BODs become more active in day-to-day activities of the firm. Thus, boards formed under this increased pressure are likely to attend to this issue to a greater extent than older more established boards.

Hypothesis 3: The greater the board activity of the threshold firm at its IPO stage, the greater the increase in subsequent firm performance.

Control. The final responsibility for the BOD is control. Agency theorists contend that the control role of the board is the most critical (Zahra & Pearce, 1989). However, the degree to which this control is influential or important at the IPO stage is still in question. While most empirical studies examining control issues have examined large firms exclusively, some research has examined firms in IPO situations. Beatty and Zajac (1996) argued that agency problems arise in all situations in which there is no single 100-percent owner/entrepreneur who incurs the full cost of his or her actions. Thus, they argue that this life-cycle stage may also be relevant for the control role of the BODs.

From this perspective, directors selected to the board are in a position to control upper management. A board whose membership is independent of management is best suited to control the decisions and activity of upper management. Independence is best gained by appointing outside directors who are neither employees of the firm, nor members of the top management team or past top management
groups (Jones & Goldberg, 1982). Yet outside directors are not necessarily placed on threshold boards by CEO/founders for control, but rather for collaboration, advice, expertise and boundary spanning capabilities. And indeed, venture capitalists are frequently considered to be “insiders” because of their lack of independence with management (Reingold, 1999). In many cases, the firm would likely be unable to reach the threshold stage without the venture capitalist’s financial backing, increasing the power of the venture capitalist to influence executive decision-making. Bertsch of TIAA-CREF indicates, “We would consider a founding venture capitalist to be an insider,” and feels that a “substantial majority” of directors should be outsiders [non-venture capitalists or employees] to avoid conflicts of interests.” (Reingold, 1999: 132). Independence seems to be the critical element that separates insiders from outsiders (Daily et al. 1999; Lorsch, Zelleke & Pick, 2001). While agency theory argues that outside directors in general improve firm performance through their control role, given the life-cycle context of threshold boards, we contend that simply having a larger contingency of outside directors is unlikely to provide the controls that agency theorists expect. Instead, the control function may be best attended to by directors that are independent of management, thus excluding venture capitalists from the “outsider” category.

**Hypothesis 4:** The greater the ratio of independent directors to total directors of the BOD of the threshold firm at its IPO stage, the greater the increase in subsequent firm performance.

**Methodology**

Firms selected to test the hypotheses of our study were transitioning from start-up stages to their initial public offering in 1993. We specifically examine those entrepreneurial-type firms that are at the stage of entering IPOs that raised less than $20 million (deemed threshold firms, Clifford, 1973; Daily & Dalton, 1992). A sample of 150 firms was randomly selected from Standard and Poor’s Smallcap 600 guide for statistical analysis. Marketing, accounting, industry, and director composition data was collected from proxy reports and Standard and Poor’s Smallcap 600 guide and directory as well as through Primark financial services. Additionally a series of structured interviews with the top executive (founder) of each firm was conducted which provided key data on board of director background and experience.

**Dependent Variables - Firm Performance**

In order to test both market returns as well as accounting returns (Cochran & Wood, 1984; Daily & Dalton, 1993), we used both Market Value and Net Income as suggested by Zahra and Pearce (1989).

We study the influence of board characteristics on the change in both marketing and accounting measures of performance using a two-year lag, considered adequate to capture the impact of the independent variables on the dependent variables. This change measure is based on the suggestions of Zahra and Pearce (1989), who note that static performance measures have been overemphasized in BOD studies, and suggest that the dimension of change should be considered to a greater extent.

**Market Value Change.** The percentage change in market value over a two-year period was calculated by subtracting each firm’s year ending 1995 market value from its initial year ending 1993 market value and dividing by the 1993 value. This performance variable reflects the firm’s market performance over a two-year period.

**Net Income Change.** Most executives interviewed stated that net income is a measure of performance that was meaningful to their firm and was tracked by the board. A performance change score was calculated by dividing the difference between 1995-93 Net Income by 1993 Net Income. Thus the accounting measure was percentage change in net income using a two-year lag.

**Independent Variables**

**Service.** Directors that perform a service role are expected to enhance the company reputation and span boundaries between the firm and its external environment. These directors typically have alliances and networks that can be utilized by the firm. We contend that threshold firms gain this type of service in part by having venture capitalists on their boards. Venture capitalists typically have competencies that ensure that necessary resources become available to the company as needed (Jain, 2001). Most new ventures require networks of venture groups to obtain sufficient funding to grow to the point where an IPO is possible (Berlin, 1998). A venture capitalist often brings a strong understanding of the community resources available and the best means of obtaining these resources to the board (Reingold, 1999). Venture capitalists serving in the role of service directors can be strong assets towards securing critical resources and reducing environmental uncertainty. The measure used was the number of venture capitalists on the board and is labeled Venture Capital Directors.

**Strategy.** Directors who can help the firm strategically are those that have expertise with the firm’s product/service and/or industry. These directors have skills, knowledge and experience that the CEO/founder can tap to improve the competitive position of the firm in its markets. In the structured interviews, top executives were asked how many of their board’s directors had related firm and industry experience. The measure for strategy directors was the ratio of number of executives with related
expertise to the total number of board directors, and is labeled **Percentage Related Directors**.

Additionally, we examined the strategy responsibilities by testing the degree to which the intensity of board activity influenced firm performance measures. Thus, as measured in other studies of board activity, we used a proxy for board activity intensity by the total number of annual, ‘in person’ board meetings as reported in proxy reports (Vafeas, 1999), labeled **Number of Board Meetings**.

**Control.** One common way of assessing board control over the firm is with the ratio of outside directors to the total number of board directors (Daily, Johnson & Dalton, 1999; Pearce & Zahra, 1992). Independent outside directors are herein defined as those directors who are not employees of the firm and are considered to be independent of management, thus reducing conflicts of interest (Daily et al, 1999). Outside directors are thought to bring objectivity to critical organizational decisions and ensure that shareholder wealth and vision for the firm are protected. Thus, we measure control with the variable labeled **Percentage Independent Outside Directors**, including only outsiders considered to be independent of management (thus excluding venture capitalists and insider employees).

**Control Variables**

Controls were selected to ensure that the variance accounted for in hypothesis testing could be attributed to the board and not other firm and industry factors. The **Log of Sales** was used as a control for firm size. Because multiple industries were examined, industry was controlled using a measure of **Average Industry Net Income**. Similar control measures have been used in other studies examining board variables (Judge & Zeithaml, 1992).

**Data Analysis**

A final sample of 134 (89% of the sample of 150 start-ups contacted) provided the information needed for statistical testing. The average board in our sample had 6 directors, 58.39% outside directors and met 5.79 times during the year. Threshold firms within our sample came from 80 different four-digit SIC codes. See Table 1 for a summary of means, standard deviations and correlations. [See appendices, Table 1].

Ordinary Least Squares (OLS) multiple regression was used for hypothesis testing. The two dependent variables of interest for performance were the percent change in Market Value from 1993 to 1995 as well as the percentage increase in Net Income from 1993-1995 (Table 2). We entered each set of hypothesized variables into the model according to their theorized impact on the level of firm performance (service, strategy and control). In each regression model, we include two control variables, firm size and industry profitability. We report standardized coefficients and one-tailed tests. We then present a full model including all variables. Below we will describe the results of our tests on the service, strategy, and control hypotheses as well as those of the full model. [See appendices, Table 2].

**Results**

The first hypothesis examined the effect of venture capital directors on firm performance. It was hypothesized that the networking and boundary spanning function of service directors would significantly increase the performance of the firm. There was a range of zero to four venture capital directors on the boards in our sample with an average of .81. This suggests that most boards in our sample had at least one service director. Venture capital directors were significantly positively related to both performance measures (β = .357, p < .001, for market value, and β = .198, p < .05 for net income). This result supports the first hypothesis, that service directors are associated with an increase in firm performance both from a market as well as an accounting perspective.

Hypothesis 2 examined whether directors with related experience with the products or services of the firm explained the variance in firm performance. As predicted, we found that these strategy directors had a positive relationship to both market value change (β = .266, p < .05 and net income change (β = .277, p < .05), thus supporting hypothesis 2. Hypothesis 3 argued that the activity level of the board affects firm performance. Board activity showed no support of Hypothesis 3 with market value change and modest support with the change in net income (β = .165, p < .10). Thus, there is some limited, but mixed support for Hypothesis 3.

Hypothesis 4 posits a positive relationship between the percentage of independent outsider directors to firm performance. In this case, this ratio was not found to be significant when used to explain changes in market value, and was found to be negative and significant, in the opposite of the predicted direction, for net income (β = -.184, p < .05), giving no support to Hypothesis 4. That is, independent outside directors did not have the positive influence on firm performance as expected by agency theory predictions. In order to determine whether our results were due to the unique nature of the venture capitalists on the board (i.e., considered to be non-independent), we ran a post hoc regression analysis to compare total outsiders (including venture capitalists) with total directors. Our results showed that this measure of total outsiders failed to explain a significant amount of the variance in net income change. It did, however, explain a significant amount of the variance in market value change (β = .186, p < .05). If venture capitalists are considered outside directors their influence was
enough to change the relationship from significantly negative to significantly positive. Thus the venture capitalists significantly influenced financial performance (as found in hypothesis 1) above and beyond that of the other outside board members.

The full models are reported for both market value change and net income change as well. These full models had R-squared values of .154 and .118 respectively. The variables in the full model had similar results to those in the separate regression equations with only two exceptions. Specifically, in the full model for net income, the number of venture capitalists as well as the independent outsiders is each no longer significantly associated with net income change. Instead, it appears that the strategy variables exhibit the greatest influence over net income. The implications of these exceptions are discussed below.

**Discussion and Implications**

In this research we have tried to determine how the IPO stage of the firm contributes to our understanding of boundary conditions for corporate governance research. Our research examined whether the match between board attributes within the context of threshold firms affected firm performance. We found that service directors who span resource market boundaries as well as strategy directors who have related firm specific expertise influence both the market value and the net income of the threshold firm. However, we had mixed evidence as to whether threshold firms whose executives have more meetings with their boards (strategy process) have significantly higher performance than those that do not. Specifically, the number of meetings was modestly significant using an accounting performance measure but failed to explain a significant amount of market performance change suggesting perhaps that shareholders view threshold BOD meetings as being similarly ineffective as those of larger firm BOD meetings (Vafeas, 1999).

**Control** through the use of independent outside directors as prescribed by agency theory failed to improve either the market value or net income of the threshold firm. Indeed, independent board members had a negative and significant association with firm performance from an accounting perspective while they had no effect on market performance. Certo et al (2001) found that greater proportions of outside directors were positively associated with IPO underpricing suggesting that oversight of firm management may be considered by underwriters to be less critical in the IPO context. Consistent with Certo et al’s findings, our study adds further evidence that this consideration may be valid.

In addition, our complete model demonstrates the effect different types of directors have on different aspects of firm performance. Venture capitalist directors explain the variance in market performance to the greatest extent and directors with related business experience explain the variance in net income to the greatest extent. Venture capitalists appear to bring market understanding and boundary spanning competencies to the firm translating into improved market performance at the IPO stage. Directors with related business experience bring tacit operational knowledge and mentoring experience that help the firm’s efficiency, effectiveness and ultimately, accounting performance at the IPO stage. Thus, based on our analysis of these threshold firms, there is some evidence confirming the proposition that the match between board form, function and context, and in particular, life-cycle, has merit (Zahra & Pearce, 1989). While we found evidence that independent outsiders actually may have harmed the effectiveness of firms at this stage of the life-cycle, other studies of outsiders of large companies have found similar negative effects (Rechner & Dalton, 1988; Chaganti, Mahajan & Sharma, 1985). These studies suggest that outsiders play only a minimalist role, refraining from active initiative-taking, reacting to managerial proposals and not exercising incisive questioning of management. In contrast, Daily and Dalton (1993) found a positive relationship between outsider ratio and firm performance for small firms (Their measure of outsiders included everyone not employed by the firm and thus may have included individuals who were not truly independent). Even so, as Daily and Dalton speculate, it is likely that the service and resource functions of those independent board members may be more critical to the small firm than the control functions. Indeed, why independent outsiders at the threshold stage are similarly ineffective to those outsiders in larger firms may be partially explained not by their lack of initiative- taking or incisive questioning, but instead by the differential boundary spanning and resource acquisition needs of the firm at this stage. Perhaps, as Certo et al (2001) suggest, the threshold stage of the firm is an arena in which the control function of the board is unnecessary. Indeed, at this stage of a firm’s life cycle, ownership may not yet be dispersed enough to require the need for management oversight prescribed to older, more established firms (Jensen & Meckling, 1976). This standard application of agency theory does not seem to apply to the threshold context. Thus, the IPO stage may demonstrate an important boundary condition to agency theory. From a practical standpoint, one must begin to question the value of independent outside board members if empirical evidence continues to mount that outsiders do not offer the improvements in firm performance that agency theorists would expect. Agency prescriptions have found a strong following within the business world. Institutional investors are successfully encouraging underperforming companies to improve their boards by
making them more independent of management through an increase in the representation of outside directors (Pearce & Zahra, 1992). And yet this control reform seems to have no bounds. Is control a necessary role for BODs in the IPO stage? Our results suggest that it may not be – at least not in our traditional understanding. However, we did find evidence that some outside directors who are not truly independent of the firm - venture capitalists, seem to add boundary spanning capabilities and knowledge that can be used by firm executives – specifically, it appears that venture capitalists are critical to the success of these threshold organizations. Our results suggest that it is not just outsiders in general, but the specific type of outsider, that matters when predicting performance. Collaboration efforts, not control, *per se*, seem to affect firm performance at the IPO stage of the life-cycle. Both theoretical and empirical studies in the future should attend to finer grained measures of outsiders versus insiders to understand the true implications of certain board members on firm performance. There are limitations to this study design that should be addressed. Causality is always a problem in governance research. We attempted to overcome this problem by using a change measure with a two-year performance lag. Shorter performance lags may not reflect the firm’s long-term performance but simply reflect the speculation and hype of the market. Additionally, our study only examined a limited number of roles that BODs serve. Future research should examine how important other characteristics of board members are to firm performance. For example, the prestige of board members may substantially influence not only market measures of performance but operating performance as well in the form of increased business while threshold firms are trying to establish their place in the market. These, as well as other characteristics, may prove to be differentially effective for firms at the early life-cycle stage and should be examined in future studies.

**Conclusion**

This research supports the notion that the life-cycle of the firm is an important contingency supporting Zahra and Pearce’s (1989) argument that context matters in governance research. This research is one of very few empirical investigations of threshold firms at the IPO stage of the life-cycle. Our study reveals several things about organizational governance that should influence future research. First, we find support for the proposal that successful board structure and process is context dependent. The performance of threshold firms is explained to some degree by the service and strategy attributes of skilled directors. Board control of executives through the use of independent directors does not seem to explain the performance of threshold firms. Firms in the IPO stage of their life-cycle appear to need a more collaborative board that provides expert advice and bridges organizational boundaries than more mature organizations. We add our results to others that have concluded that a ‘one-best-way’ theory to organizational governance is incorrect (Donaldson & Davis, 1991). The correct governance structure and process is contingent upon the conditions of the firm. The mixed results that currently abound may be due to the homogenization of very different governance needs regardless of the context studied (Daily et al., 1999). Future research should further develop contingency frameworks to advance the governance literature in constructive ways.

**References**


### Appendices

**Table 1.** Means, Standard Deviations & Correlations

<table>
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<tr>
<th>Variables</th>
<th>Means</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>1 Percent increase market value 93-95</td>
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<td>2 Percent net income change 93 to 95</td>
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<td>3.351</td>
<td>.220</td>
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<td>3 Venture Capitalist Directors</td>
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<td>1.037</td>
<td>.339</td>
<td>.177</td>
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<td>4 Percentage Independent Outside Directors</td>
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<td>.206</td>
<td>-.118</td>
<td>-.169</td>
<td>-.493</td>
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<td>.179</td>
<td>.280</td>
<td>.264</td>
<td>.374</td>
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<td>.070</td>
<td>.227</td>
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*p<.05 for all r>.14; p<.01 for all r>.18.

**Table 2.** OLS Regressions: Percentage Change in Market Value 1993-1995; Percentage Change in Net Income 1993-1995

<table>
<thead>
<tr>
<th>Variables</th>
<th>Service</th>
<th>Strategy</th>
<th>Control</th>
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<td>Constant</td>
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<td>.116</td>
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<td>.124</td>
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<td>-.041</td>
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<td>Industry Net Income</td>
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<td>-.073</td>
<td>-.042</td>
<td>-.075</td>
<td>-.055</td>
<td>-.097</td>
<td>-.065</td>
<td>-.062</td>
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<tr>
<td>Venture Capitalist Directors</td>
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<td>.057</td>
<td>.357***</td>
<td>.361**</td>
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<td>Percentage Related Director</td>
<td>(.332)</td>
<td>(.333)</td>
<td>(.242)</td>
<td>(.331)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Board Meetings</td>
<td>.165*</td>
<td>.263*</td>
<td>.266*</td>
<td>.164+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage Independent Outside Directors</td>
<td>-.184*</td>
<td>.018</td>
<td>-.016</td>
<td>-.069</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared</td>
<td>.038</td>
<td>.116</td>
<td>.035</td>
<td>.118</td>
<td>.131</td>
<td>.080</td>
<td>.023</td>
<td>.154</td>
</tr>
</tbody>
</table>

Standardized coefficients reported. Standard errors are in parentheses.

+ p < .10 ;* p < .05; ** p < .01; *** p < .001