WANTED DEAD OR ALIVE: AN INVESTIGATION OF THE IMPACT OF SUDDEN DEATH OF EXECUTIVES IN FAMILY AND NON-FAMILY FIRMS

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ABSTRACT

Despite the strategy literature's focus on the phenomenon of executive succession, the body of studies in this research stream report equivocal results. We focus on 190 succession events triggered by the sudden and unexpected death of an executive to examine the resulting short- and long-term market reactions. Additionally, we investigate the differences in these reactions in family and non-family firms. Finally, we suggest that family firm shareholders' reactions to sudden executive death are even more negative when the executive was highly entrenched. Our findings indicate that sudden executive death negatively impacts firms' market value, and that family firms feel these impacts more acutely. Additionally, we find that sudden executive death in family firms results in more negative stock market reactions when the executive was entrenched. Through these results, we find support for a view of succession as a negative impact on firm performance.

Debating Points:

- Human capital in family firms, better than initially thought?

- Do we have to force publically traded family firms to adopt good governance?

- Succession revisited? How can family firm ensure continued growth?

INTRODUCTION

Executive succession is inevitable in any firm that lives long enough (Friedman & Singh, 1989); consequently, much research has focused on the factors that impact the firm during the succession process. This research has generated rich understanding of presuccession conditions that lead to the succession event (Davidson, Worrell, & Dutia, 1993; Lubatkin, Chung, Rogers, & Owers, 1989) as well as the performance outcomes of voluntary and involuntary executive exit (Beatty & Zajac, 1987; James & Soref, 1981). However, the reasoning behind the effects of many of these conditions is different when the executive dies suddenly (Worrell, Davidson, Chandy, & Garrison, 1986). In contrast to anticipated succession events, neither the board nor the shareholders have presumptive knowledge about succession events generated by sudden executive death, making these unfortunate events unique research opportunities from which to view the impact of certain variables free of confounding factors related to the successor (Combs, Ketchen, Perryman, & Donahue, 2007). Indeed, extant research related to these events has contributed knowledge related to the effects on the relationship between executive death and firm performance of variables such as the composition of the board and the incumbent CEO's power (Combs et al., 2007) as well as the late executive's position (Worrell et al., 1986) and level of effectiveness (Salas, 2010).

Unfortunately, none of these authors has considered the succession process within family firms, in spite of the fact that family firms represent about 40% of the Fortune 500 companies (Gersick, Davis, Hampton, & Lansberg, 1997), one-third of the S&P 500 (Anderson & Reeb, 2003), and even larger proportions of the firms that operate in other countries (Claessens, Djankov, & Lang, 2000; Faccio & Lang, 2002; López de Silanes, La Porta, & Shleifer, 1999). The impact of succession in these firms offers new insight for two reasons. First, family firm

executives are important and inimitable sources of social and human capital that their firms leverage to capture firm performance (Sirmon & Hitt, 2003). Second, because higher levels of family control result in higher levels of entrenchment (Schulze, Lubatkin, Dino, & Buchholtz, 2001), defined as the extent to which an executive attempts to strengthen his or her position through self-serving decision-making (Gomez-Mejia & Wiseman, 1997), executives may have more control in family firms than in non-family firms. For both of these reasons, the sudden and unexpected death of an executive is highly disruptive to a family firm.

We address these gaps in the literature by investigating 190 cases of sudden executive death in both family and non-family firms. We suggest that the effects of sudden executive death on firm performance are more detrimental in family firms than non-family firms. Through an event history analysis of these cases, we also suggest that the deleterious effects last longer in family firms than in non-family firms. Finally, we suggest that increasing levels of the late executive's entrenchment magnify the negative market reactions to sudden executive death in family firms.

In so doing, we contribute to several literatures. First, we add new dimension to the succession literature by examining effects of sudden executive death across a large sample of succession events. To our knowledge, only two key studies have focused on the phenomenon of executive death; Worrell and his colleagues (1986) examined 127 instances of executive death and suggested that sudden executive death has different effects on a firm's market value than does anticipated executive death. Combs and his colleagues (2007) followed that advice in their investigation of the impact of board composition and CEO power on stock market reactions to 73 sudden executive death events. We build upon and extend their research by focusing on 190 succession events initiated by sudden executive death. Second, we contribute to both the strategy

and family firm literatures by suggesting that the family plays an important role in succession events. We could find no other study that has considered the impact of the family during succession events. Finally, we consider the impact of executive entrenchment during these unique succession events. Only one other study (Salas, 2010) has incorporated this variable into an analysis of succession events; his results suggest that shareholders react positively to the removal, even through an unanticipated death, of an entrenched executive under certain circumstances. In contrast, we find that shareholders react negatively to the sudden death of a family firm executive, even if he or she is entrenched. This finding complements the family firm literature by demonstrating the importance of the family.

In the next section, we describe the three literatures that contributed to the development of our model: succession, family firms, and executive entrenchment. Following that, we describe the methods we used to test our hypotheses and describe our findings. Next, we discuss the implications of these tests to theory and practice. Finally, we suggest some encouraging directions for future researchers interested in the effects of sudden executive death.

LITERATURE REVIEW

Succession Events

Much of strategic management literature is built on the premise that executives have a vital influence on the firm's strategic direction (Beatty & Zajac, 1987; Chatterjee, Lubatkin, & Schulze, 1999; Lorange, 1980). Consequently, many scholars have examined the processes and effects of executive succession events (Ballinger & Marcel, 2010; Giambatista, Rowe, & Riaz, 2005; Gabarro, 1987). This succession literature presents evidence of competing theories of executive succession as adaptive events (Salancik & Pfeffer, 1980) that increase firm performance (Guest, 1962; Virany, Tushman, & Romanelli, 1992), disruptive events (Hannan &

Freeman, 1977) that decrease firm performance (Grusky, 1963), or inconsequential events that have no effect on firm performance (Gamson & Scotch, 1964; Pfeffer & Davis-Blake, 1986; Tushman, Virany, & Romanelli, 1985; Zajac, 1990). Each theory received empirical support, suggesting that certain conditions surrounding the event contribute to differences in performance outcomes (Kesner & Sebora, 1994; Reinganum, 1985; Rowe, Cannella, Rankin, & Gorman, 2005).

One crucial condition that determines the effect of succession on firm performance is the manner in which the succession event is initiated. Specifically, performance outcomes can vary across types of executive exit, which include retirement, voluntary resignation, firing, intra-organizational movement, and death (Gephart, 1978). The first two, retirement and voluntary resignation, are forms of voluntary exit initiated by the executive. Voluntary exit through routine retirement has been shown to be inconsequential to post-succession performance (Friedman & Singh, 1989), perhaps because the exiting executives engaged in succession planning in anticipation of their retirement (Brady, Fulmer, & Hemlich, 1982). Conversely, firing and intra-organizational movement are forms of involuntary exit and are usually events initiated by board of directors following periods of poor firm performance (Furtado & Karan, 1990; McEachern, 1977; Ocasio, 1994). These types of exit have been associated with positive post-succession performance (Davidson et al., 1993; Furtado & Rozeff, 1987; Friedman & Singh, 1989; Weisbach, 1988; Worrell, Davidson, & Glascock, 1993). Voluntary and involuntary exit are conceptually different and their effects on firm performance have been shown to vary, but distinguishing whether an executive left voluntarily or involuntarily is difficult, especially in those cases where resignations are accepted by boards who would otherwise have forced the exit (James & Soref, 1981). In fact, in a study of 230 descriptions of executive turnover events from

The Wall Street Journal, only one executive was reported to have been fired (Warner, Watts, & Wruck, 1988).

In contrast, executive death is less equivocal (Worrell et al., 1986). As a form of involuntary exit, previous theory suggests that executive death would lead to negative performance, but evidence of this claim is mixed. In a sample of large firms, executive death negatively impacted performance, measured as the stock market reaction (Worrell et al., 1986). Likewise, when the executive was the CEO but not the founder of the firm, negative market reactions can be seen following his or her death (Johnson, Magee, Nagarajan, & Newman, 1985). Conversely, stock returns tend to be positive following executive death when the firm names an internal successor (Worrell & Davidson, 1987), perhaps because an internal appointment signals an organizational attempt to maintain normalcy following such a traumatic event. However, across the total samples in each of these studies, no overall effect of executive death on firm performance could be determined. The ambiguity of this relationship may be attributable to the market's anticipation of the executive's death (Worrell et al., 1986); however, few studies have examined sudden executive death. Thus, we hypothesize:

Hypothesis 1: Sudden executive death leads to negative stock market reactions.

Family Firms

The concept of succession is unique in family firms (Yu, Lumpkin, Sorenson, & Brigham, 2012) because of the necessary process of mutual role adjustments between one generation and the next (Handler, 1990). In this regard, succession goes beyond identifying a new top manager by including the intergenerational transfer of power and responsibility (Morris, Williams, Allen, & Avila, 1997) that will impact future generations of family members (Kimhi, 1997). As such, succession can be a source of conflict within family firms (Kellermanns &

Eddleston, 2006; Danes, Zuiker, Kean, & Arbuthnot, 1999) when the overlap of leadership, family, and ownership complicates firm outcomes. Factors that influence family succession events include generativity (Zacher, Schmitt, & Gielnik, 2012), relationships between family members (Morris et al., 1997), firm profitability (Venter, Boshoff, & Maas, 2005) and strategic planning within the firm (Kellermanns & Eddleston, 2006).

In some cases, family succession is a planned event that can be managed (Handler, 1990) to minimize the detrimental impacts on the organization and its members. The presence of a formalized succession plan may dull negative impacts of succession on organizational operations (Motwani, Levenburg, Schwarz, & Blankson, 2006; Sharma, Chrisman, & Chua, 2003); however, not all successions are planned. In the case of sudden executive death, succession plans may not exist or be fully prepared. To our knowledge, the impact of sudden executive death has not been considered yet in the family firm literature, with the exception of a hypothetical case study (Miller, 1998) that describes a CEO dying suddenly without a succession plan in place. This case asks the reader to contemplate the impact of squabbling children from two different marriages, a widow in control of the majority of shares, and the presence of qualified outside board members who would like to succeed the former CEO. Although family members must confront these issues to successfully transition from one generation to the next, no empirical research has looked at the financial impact resulting from the sudden death of an executive. Because family members must simultaneously juggle the roles of mourning for a family member while continuing to operate the family business, this study evaluates the impact of this type of unexpected event on a firm's financial performance and offers the following hypothesis:

> *Hypothesis 2: Sudden executive deaths lead to greater negative stock market*
>
> *reaction for family firms than for non-family firms.*

Additionally, the effects of sudden executive death may last longer for family firms than non-family firms for several reasons. First, family firms have access to unique positive aspects of human capital such as exceptional commitment (Donnelley, 1964; Horton, 1986), deeper affective connections within the organization's network (Horton, 1986), and stores of distinctive tacit knowledge (Sirmon & Hitt, 2003). Second, the family network is an important organizational source of social capital (Arregle, Hitt, Sirmon, & Very, 2007; Bubolz, 2001), which the firm can use to improve internal coordination (Sirmon, Hitt, & Ireland, 2007) and to access external resources (Hitt, Lee, & Yucel, 2002). Finally, family firms often have longer time horizons than non-family firms because of the loyalty created through family ties (James, 1999). Those time horizons extend to the executive tenures within family firms, which can stretch to as much as 40 years (Sirmon & Hitt, 2003; Zellweger, 2008) to facilitate a desire for intra-generational succession (Morris et al., 1997). For all these reasons, we suggest that negative market reactions to sudden executive deaths will last longer in family firms than in non-family firms.

> *Hypothesis 3: Sudden executive deaths lead to longer negative stock market reactions for family firms than for non-family firms.*

Entrenchment

In addition to differences in time horizons, we suggest that the role of entrenchment also impacts the relationship between the sudden death of a family firm executive and the impact on financial performance. Entrenchment is defined as the extent to which the executive attempts to "solidify his/her position over time within the firm and manipulate the board through appointment of members, controlling the agenda, chairing influential committees, and the like" (Gomez-Mejia & Wiseman, 1997: 309). Usually viewed through an agency theory lens, the

phenomenon of entrenchment speaks to the ways in which executives bolster their job security and protect themselves against the threat of termination in response to suboptimal firm performance (Walsh & Seward, 1990). Further, these entrenched executives are more likely to make decisions based on their own self-interest rather than the firm's and thus they often shy away from taking risks designed to grow the firm (Wright, Ferris, Sarin, & Awasthi, 1996). Following this rationale, increasing levels of executive entrenchment have been empirically linked to negative firm-level outcomes, including lower market value (Morck, Shleifer, & Vishny, 1988). In fact, shareholders often view succession events that remove entrenched executives positively, even when the event was initiated by the executive's death (Salas, 2010).

These effects can be viewed differently within family firms for several reasons. First, many firms utilize monitoring mechanisms to ensure that the executive is furthering the organization's goals rather than his or her own self-serving objectives and thereby mitigate the impact of executive entrenchment; however, these can be more difficult to employ in family firms than in non-family firms because of the emotional, rather than rational, ties between the parties (Gomez-Mejia, Nuñez-Nickel, & Gutierrez, 2001). Additionally, decisions made by executives in family firms may receive less scrutiny, raising the possibility of self- or family-serving decision-making, such as nepotism or providing privileges to family members, that may damage the firm's performance (Dunn, 1995; Schulze et al., 2001, 2003) but earn the executive praise from the majority stakeholders, who are often family members. Finally, executives in family firms are typically major shareholders themselves (Sirmon & Hitt, 2003) as well as long-tenured employees and well-connected members of the family's network (Arregle et al., 2007; Lester & Cannella, 2006). Thus, given the considerable decision-making power housed in an entrenched executive as well as the firm and family's emotional connections to the executive,

succession events that remove entrenched family firm executives are likely to be viewed negatively by the shareholders. From the impact that the sudden death of an entrenched executive would have on a family firm because of its effect on multiple roles and relationships, we suggest the following hypothesis:

> *Hypothesis 4: The relationship between sudden executive deaths and negative stock market reactions is moderated by executive entrenchment. Specifically, in family firms, higher executive entrenchment: a) strengthens the negative stock market reaction and b) makes it last longer.*

METHODS

To test these hypotheses, we examine stock market reactions to sudden executive deaths with an event history analysis. Event history provides a rigorous approach to testing market reactions while accounting for both industry and market-wide influences (Brown & Warner, 1985; MacKinlay, 1997), making it particularly well-suited to this study.

Sample

Following Cannella and Hambrick (1993), we define executives as CEOs, Presidents, and/or Chairmen of the Boards. To identify deaths of such executives, we began with an original sample of 55 sudden executive deaths (Etebari, Horrigan, & Landwehr, 1987) that occurred during the years 1972-1982. To ensure that our sample was composed of sudden deaths, we eliminated three deaths that were preceded by periods of illness (Salas, 2010); thus, our final sample for the 1972-1982 period was 52 sudden executive deaths. To update the data, we identified 269 executive deaths between 1983-2003 from search in Wall Street Journal Index, New York Times, Washington Post, ancestry.com, and legacy.com (Salas, 2010) using the search terms: "heart attack," "stroke," "accident," "sudden," "unexpected," and "suddenly,"

along with "chief executive," "CEO," "president," and "chairman." Of the 269 deaths identified

in this search, we eliminated 108 from our sample because either the executive suffered from a

terminal illness or was hospitalized prior to death. Overall, we were able to identify 213 sudden

executive deaths between the years 1972 and 2003.

In order to compare the short- and long-term effects of executive deaths, we used stock-

market reaction data from The Center for Research in Security Prices (CRSP) and

COMPUSTAT data, respectively. To address the immediate impact of sudden executive death on

firm value, we matched the firms where the executives were employed with the CRSP data.

After eliminating 23 firms because of missing data, our final sample size for measuring short-

term market reaction was 190 sudden executive deaths.

Measures

Short-term Stock Market Reaction.

The first outcome variable in our analysis is the stock market reaction to sudden

executive death. Specifically, we use the abnormal returns, which are stock market returns that

have been adjusted for overall market factors. We estimate abnormal returns on both the day of

and the day before each executive's death. We use a market model estimate for performance

(Brown & Warner, 1985). The market model proposes a linear relationship between the return on

a stock and return on the market portfolio over a period of time. Specifically,

$$r_{it} = \propto_i + \beta_i r_{mt} + \varepsilon_{it} \dots\dots(1)$$

in which r_{it} is the return of the stock i on day t; r_{mt} is the return of the market portfolio on day

t; $\propto_i$ is the intercept of the relationship of stock i; β_i is the slope of the relationship for stock i;

and ε_{it} is the error term for stock i on day 0. Additionally, $\beta_i r_{mt}$ is the return on stock i on day t

that is a result of market-wide movements, and ε_{it} captures the part of the return that explains the

impact of firm-specific events on day t. For each of the 190 firms related to executive death, we estimate $\hat{\alpha}_i$ and $\hat{\beta}_i$ using OLS regression over 200 days, with an equally weighted CRSP index as a proxy for market portfolio. For each firm, the estimation period ends ten trading days before the date of executive death. A minimum of 40 return procedures are required in the estimation period. The abnormal return for stock i on day t from market model is:

$$AR_{it} = r_{it} - \hat{\alpha}_i + \hat{\beta}_i r_{mt} \quad ......(2)$$

in which r_{it} is the actual return on stock i on day t. For each sample firm, we estimate the abnormal returns on the day of the announcement and the day before the announcement and add those together to determine the two-day abnormal return.

To ensure that our results were not skewed by a priori information leaks related to possible executive death, we calculated abnormal returns 20 days before the death and 20 days after the death. Based on Sanders and Robbins (1991), we used EGLS Z-stat to test the null hypotheses that abnormal return is zero after controlling for cross-sectional heteroskedasticity and serial correlation. EGLS Z-stat is the GLS test statistic that is robust to cross-sectional and serial correlation. The abnormal returns on day of return (EGLS Z-stat: 1.783) and the day following the event (EGLS Z-stat: 2.662) were significant. Abnormal returns are insignificant before the event (highest EGLS Z-stat was 1.057; on seven days before the announcement), suggesting that leakage of death announcement is unlikely. Overall, our measure of abnormal returns seems to be statistically related to executive death.

Long-Term Stock Market Reaction.

To measure long-term stock market reaction, we use the buy-hold abnormal returns (BHAR) 36 months after the executive's death using the following equation:

$$BHAR_{iT} = \prod_{t=1}^{T}(1 + AR_{it}) - 1 \quad (3)$$

in which AR_{it} is the abnormal return from equation (2).

Family firms.

In recent years, the family firm literature has increasingly focused on: (a) extent of control, proxied as equity ownership and (b) degree of involvement in day-to-day activities. As the levels of control and involvement increase in a family firm, more and more family-firm behavior is manifested in its strategic behavior. We start by identifying family and non-family firms. Although no clear definition of a family firm has been established (Chrisman, Chua, & Sharma, 2005; Dyer, 2003; Westhead & Cowling, 1998), we used the criterion suggested by Anderson and Reeb (2004) to classify family and non-family firms by examining proxy statements, 10-K reports, S-K regulation filings, and Ancestry.com for specific details of the identified firms. Two independent coders classified the firms as family or non-family firms according to: (a) the percentage of family ownership ($\geq$10%); (b) whether the firm is a founder-controlled firm; (c) whether the CEO is a family member; (d) whether the firm was a later-generation controlled firm at the time of the executive's death; and (e) the number of family members in the TMT, which we defined as any executive above the Vice President level of the firm's hierarchy (e.g., Michel & Hambrick, 1992). The lowest inter-rater reliability across any of these dimensions was 0.86. Any discrepancies in coding were resolved through discussion with a third researcher in the family business research area. A firm is classified as a family firm if equity ownership is 10% or higher and at least one family member is present in the TMT. This resulted in a sample of 84 family firms and 106 non-family firms. Further, the family firm measure is a censored variable where non-family firms have a value of zero if the block holders have less than 10% of the equity. As later generations of the family begin to exert control in the firm, and as the number of family members involved in the firm increases, family firms are more

likely to exhibit increasing amounts of family firm type strategic behavior. We develop a formative construct using the four indicators for family firms. Based on Jarvis, MacKenzie, and Podsakoff's (2003) methods for assessing validity of a formative measure, the content validity of family firms is supported through recent work that has increasingly used the multiple measures to identify family firms. Second, the lowest item weight was 0.717 (t-value = 2.778) for 'whether firm is founder controlled,' and highest variance inflation factor was 1.938 for 'generation of controlling firm.' The items also had high internal correlation and low correlation with other measures.

Entrenchment

To measure the degree of entrenchment, we created a formative construct in line with Schulze and colleagues (2003). Drawing on Salas (2010), we use eight indicators for entrenchment (weight and t-statistics for formative constructs are in): (a) executive age [0.527, t-stat=2.407]; (b) executive tenure [0.771, t-stat=2.237]; (c) the firm's alpha [-0.724, t-stat=3.228]; (d) the number of outsiders on the board [-0.783, t-stat=2.909]; (e) board size [0.689, t-stat=4.658]; (f) whether or not the board is staggered [-0.623, t-stat=2.679]; (g) executive stock ownership [0.823, t-stat=2.779]; and (h) takeover targets before death [-0.637, t-stat=2.963]. Age and tenure of the executives are at the time of the death. Alpha of the firm is the intercept of the market model regression for three years before death. Lower alpha indicates lower firm risk, and hence greater possibility of entrenchment. A dummy variable is used to measure whether or not the board is staggered, meaning that directors are divided into three groups and come up for reelection one group at a time; thus, shareholders are unable to replace a staggered board in its entirety at any one meeting. Executive stock ownership is the percentage of stock owned before

death and takeover attempts before death is a dummy variable that is a proxy for effects of market for corporate control.

To establish validity of entrenchment as a formative construct we follow guidelines from Jarvis and colleagues (2003). The content validity of entrenchment is based on extant literature that has consistently proposed one or more of the indicators of entrenchment. To establish parsimony, item weights reported above consistent with direction of entrenchment, and are significant. Variance inflation factors (VIF) are below the cutoff on 10, and the highest VIF was 2.437. We examined the factor structure by developing construct based on weighted scores, and assessed correlations among items and construct score to examine discriminant validity (Diamantopoulos & Siguaw, 2006; Petter, Straub, & Rai, 2007). The correlation among items was stronger with construct scores than with other measures. We use unit means of each item to measure construct scores.

Control Variables

Based on Keats and Hitt (1988), we create annual measures of environmental dynamism, complexity, and munificence. All data for this measure was drawn from COMPUSTAT using 4-digit SIC codes. Munificence is an average of regression coefficients of a given industry's net sales and operating income over a five-year period. Dynamism is the average of standard errors of the regression slopes for the two munificence regression equations. Complexity is operationalized by regressing the terminal-year (i.e. year five) market shares of the firms in a given industry on these firms' initial-year (i.e. year one) market shares. To make logical interpretation of complexity measure, we multiplied the measure by -1 to indicate higher values at higher levels of complexity (Heeley, Covin, & King, 2006).

We use a mean of firm size based on a natural log of assets in US dollars in the year 2000 reported over 12 quarters prior to executive death. Firm age is represented in years as the period between the establishment of the firm and the sudden executive death. Next, we control for the 12-quarter mean of unsystematic return and unsystematic risk. Unsystematic return is the beta of the first-stage cross-sectional regressions (annual stock returns) that use industry median returns to predict firm stock returns. Unsystematic risk is a 12-quarter mean of the residuals from regressions used to measure unsystematic return.

RESULTS

Table 1 reports the means, standard deviations, and correlations for the sample of 190 firms experiencing sudden executive deaths. As preliminary evidence, family ownership is negatively related to CAR (short-term) (r=-0.151, p<0.01) and 3-year BHAR (long-term) (r=-0.131, p<0.05).

Insert Table 1, 2, 3 and Figure 1, 2, 3, and 4 about here

Our findings suggest that sudden executive death lead to negative stock mark reactions, thus supporting Hypothesis 1. Hypothesis 2 proposed that sudden executive death leads to greater negative stock market reaction for family firms (Table 2, β= -0.034, p<0.05). Similarly, sudden executive death leads to greater negative long-term reaction for family firms than for non-family firms (Table 3, β= -0.029, p<0.05), supporting Hypothesis 3. Finally, Hypotheses 4 (a) and (b) proposed that the negative reaction would be stronger in family firms both for the short-term (Table 2, β= 0.028, p<0.05) and the long-term (Table 3, β= 0.018, p<0.05). As shown in Figures 1(a) and (b), in family firms with high entrenchment, the short- and long-term stock market reaction is positive.

Post-hoc Analysis

In addition to the above analyses, we assess changes in unsystematic risk and unsystematic return before and after sudden executive death (Figure 2). Using the difference-in-difference regressions, our inferences are consistent with the hypotheses. In Figure 2(a), as expected, family firms have a lower unsystematic return than non-family firms. As family firms are less likely to have human capital and risk motivation to exploit opportunities, they realize lower unsystematic risk. Similarly, as shown in Figure 2(b), family firms also have lower unsystematic risk. However, after sudden executive death, family firms experience a decline in returns (Figure 2(a)) and an increase in unsystematic risk (Figure 2(b)).

In Figures 3(a) and 3(b), we assess differences in unsystematic risk before and after sudden executive death based on levels of entrenchment between 1 and -1 standard deviations. Although unsystematic risk increases after executive death for both family and non-family firms, the increase is much higher for family firms. Similarly, the decline in returns is much higher for entrenched family firms (Figure 4(a)) than entrenched non-family firms (Figure 4(b)). In the next section, we discuss some of the implications of these findings.

DISCUSSION

This study examines impacts of sudden executive death under several conditions, including family firms and entrenchment. Our results indicate that the effects of sudden executive death were more profound and lasted longer in family firms than in non-family firms. Additionally, when those executives were entrenched, their sudden deaths led to more negative responses that also lasted longer than did the effects following sudden deaths of non-entrenched executives. These results offer several theoretical and practical implications.

First, we find support for a view of succession as organizationally disruptive events. Although succession events have been found to be adaptive (Salancik & Pfeffer, 1980) or

inconsequential (Lieberson & O'Connor, 1972), identifying the causes of succession allows a more granular understanding of its effects. By specifically examining succession events that are both unintentional and unanticipated, we are able to capture that granularity and explore the impact of certain conditions surrounding on shareholder responses. Additionally, share price reactions to sudden executive death represent perceptions of the firm's value without the executive, which permits an investigation of the executive's organizational impact without the added noise of expectations surrounding the successor (Combs et al., 2007). Our findings show that the sudden death of an executive leads to negative shareholder response and help to explain mixed or insignificant findings related to the impact of an executive's death on the firm (e.g., Worrell et al., 1986; Worrell & Davidson, 1987).

Second, the findings reported here suggest that the family is an important context to consider in strategic management research. Extant strategic management literature largely ignores the presence of family firms (Litz, 1997), despite the overwhelming prevalence of family-owned and operated firms (Anderson & Reeb, 2003; Neubauer & Lank, 1998; Villalonga & Amit, 2006). In this study, we find that family ownership is an important variable in the succession process; family firms are more negatively impacted by succession events initiated by sudden executive death than are non-family firms. Additionally, those negative effects last longer for family firms than for non-family firms. This adds to a growing body of literature that looks specifically at the resources available to a family firm, such as human (Sirmon & Hitt, 2003) and social capital (Arregle et al., 2007; Bubolz, 2001) and longer time horizons (Zellweger, 2008); however, when a family firm executive dies suddenly, those same unique resources can become liabilities. Although sudden death events are negative for any firm, our results show that family firms have a harder time recovering from the unexpected loss of an executive, perhaps because

shareholders fear that these events signal the loss of vital and inimitable tacit knowledge as well as intra- and inter-firm connections.

Third, the study of entrenchment has generally suggested a negative connotation for entrenchment and encouraged preventative measures. In fact, some scholars have suggested that dismissal by the board is the ultimate sanction for this kind of behavior (James & Soref, 1981) and have warned that executives who resist preventative measures, such as outside-dominated boards, should be viewed cautiously (Combs et al., 2007). Family firm research also warns against the dangers of executive entrenchment, which may be more likely in family firms because of a higher potential for "biased judgments about the appropriateness of executive decisions" (Gomez-Mejia et al., 2001: 84). For all these reasons, the expectation is that shareholders will positively react to the removal, even through death, of an entrenched executive (Salas, 2010). In contrast, our study finds that the market reaction following sudden entrenched executive death is negative in family firms, perhaps because of the many roles occupied by executives in family firms.

Additionally, these findings offer several suggestions for managerial practice. Foremost, these findings highlight the importance of succession planning, even when executives are not expected to leave the firm. Family firms were most impacted by sudden executive death in our sample, indicating that succession planning is particularly important in these firms. Also, these effects take longer to dissipate in family firms than in non-family firms, perhaps because of unique resources, such as tacit knowledge and relationships within and outside of the firm, held by family firm executives. Because the unexpected loss of these resources impacts the market value of family firms for longer periods of time, managers hoping to recapture stock market performance should quickly and publicly address the firm's plans to regain lost resources.

Finally, our findings indicate that when heavily entrenched executives die suddenly, negative stock market reactions to their deaths are strengthened. This suggests that boards of directors and firm owners should carefully monitor executives to ensure that their decisions are in line with the firm's growth and performance objectives.

Boundary Conditions and Future Research

This study has several boundary conditions that suggest promising avenues for future research. First, many studies of succession have examined characteristics of the successor, such as whether or not the successor was an employee of the firm before the succession event (e.g., Datta & Guthrie, 1994). Although sudden executive death provides a clearer lens to study variables that shape performance following succession announcements (Combs et al., 2007; Salas, 2010), consideration of whether sudden executive deaths influence the appointment of an inside or outside successor, as well as how shareholders react to those appointments, could prove fruitful for theory and practice. Further, presuccession performance has been connected to voluntary and involuntary decisions about succession (Friedman & Singh, 1989). Future researchers may want to consider the effects of presuccession performance on the market reaction following sudden executive death. Also, this question may be interesting to future studies that investigate executive entrenchment. Researchers may find that presuccession performance impacts whether stockholders view executive entrenchment as positive or negative, which may impact their impression of the firm's value following sudden executive death.

Conclusions

The ubiquity of executive succession highlights the importance of understanding the impact of firm and executive characteristics on short- and long-term firm performance. Although firms cannot predict sudden executive death, they may be able to mitigate negative outcomes by

knowing more about characteristics of the succession process; thus, exploring the effects of these

events and characteristics offers new and valuable insight to researchers and practioners alike.

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TABLE 1

Means, Standard Deviations, and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Environmental Dynamism	0.804	0.835	1										
2. Environmental Complexity	-0.617	0.824	0.146	1									
3. Environmental Munificence	0.302	0.173	-0.105	-0.059	1								
4. Firm Size	24.411	11.347	-0.155	-0.136	0.061	1							
5. Firm Age	17.907	14.326	-0.103	0.039	0.176	0.163	1						
6. Unsystematic Risk	0.531	0.424	0.428	0.124	0.070	-0.117	-0.178	1					
7. Unsystematic Return	0.132	0.348	-0.207	0.098	0.165	-0.048	-0.159	0.517	1				
8. Entrenchment	0.714	0.172	-0.168	0.158	0.131	0.171	0.440	0.219	-0.266	1			
9. Family Ownership	0.537	0.107	-0.080	0.134	0.104	0.068	0.177	-0.295	-0.223	0.355	1		
10. CAR [-1, 0]	-0.076	0.048	-0.126	-0.155	0.129	0.109	0.167	0.172	0.332	-0.246	-0.151	1	
11. 3-year BHAR	-0.054	0.173	-0.170	-0.167	0.165	0.136	0.084	0.193	0.239	-0.295	-0.131	0.405	1

Notes.
N=190.
All correlations at or above |0.101| are significant at 0.05 or below (two-tailed)
All correlations at or above |0.143| are significant at 0.01 or below (two-tailed)

TABLE 2
OLS Regression for Short-term Reaction

	CAR$_t$ [-1,0]			
	Model 1: Controls	Model 2: Family Firm Direct Effects	Model 3: Entrenchment Effects	Model 4: Moderation Effects
Family Firm		-0.034*	-0.031*	-0.029*
Entrenchment			-0.053 *	-0.052*
Entrenchment × Percentage of family ownership				-0.028*
Environmental Dynamism	-0.148**	-0.143**	-0.139**	-0.141**
Environmental Complexity	-0.071	-0.037	-0.086	-0.082
Environmental Munificence	0.016	0.051	0.138	0.055
Firm Size	0.019	-0.005	0.082	0.042
Firm Age	0.031	0.006	0.052	0.073
Unsystematic Risk	0.104**	0.108**	0.193**	0.181**
Unsystematic Return	0.126**	0.217**	0.311**	0.253**
Intercept	-0.019***	-0.019***	-0.017***	-0.018***
N	190	190	190	190
Adjusted-R^2	0.169	0.216	0.257	0.298
F-stat	13.146 (7)	19.724 (8)	26.083 (9)	31.438 (10)
ΔAdjusted-R^2		0.047	0.047	0.041
ΔF-stat		6.578 (1)***	6.359 (1)***	5.355 (1)***

TABLE 3
OLS Regression for Long-term outcomes

	3-year BHAR			
	Model 1: Controls	Model 2: Family Firm Direct Effects	Model 3: Entrenchment Effects	Model 4: Moderation Effects
Family Firm		-0.029*	-0.027*	-0.025*
Entrenchment			-0.046 *	-0.044*
Entrenchment × Percentage of family ownership				-0.018*
Environmental Dynamism	-0.184**	-0.176**	-0.157**	-0.141**
Environmental Complexity	-0.113	-0.174	-0.115	-0.103
Environmental Munificence	0.106	0.152	0.071	0.075
Firm Size	0.008	0.034	-0.027	-0.029
Firm Age	0.021	0.037	0.113	0.205
Unsystematic Risk	0.146**	0.138**	0.124**	0.129**
Unsystematic Return	0.191**	0.151**	0.148**	0.145**
Intercept	-0.016***	-0.015***	-0.015***	-0.014***
N	190	190	190	190
Adjusted-R^2	0.143	0.196	0.234	0.279
F-stat	14.631 (7)	19.811(8)	25.126 (9)	29.851 (10)
ΔAdjusted-R^2		0.053	0.038	0.045
ΔF-stat		5.180 (1)***	5.315 (1)***	4.725 (1)***

Notes.
N=190.
*p<0.05; **p<0.01; ***p<0.001

FIGURE 1
Moderation effects of entrenchment

Figure 1(a): Moderation effects of entrenchment on short-term stock market reaction.
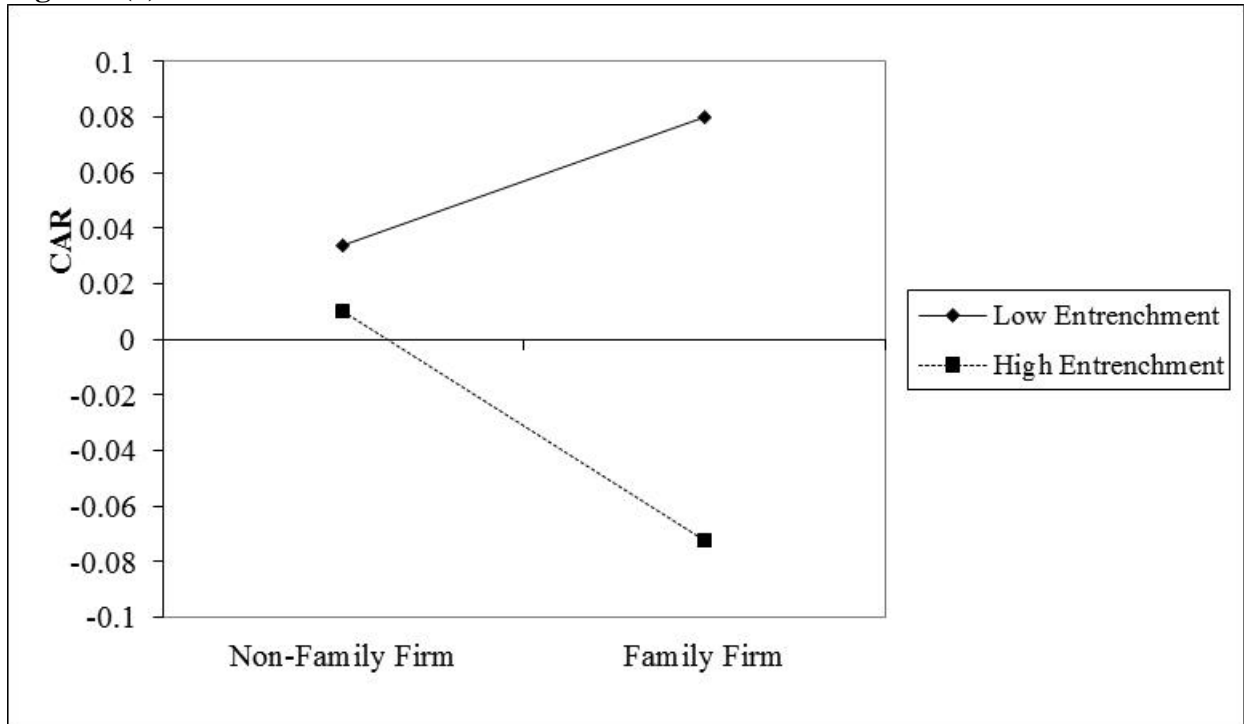

Figure 1(b): Moderation effects of entrenchment on long-term stock market reaction.
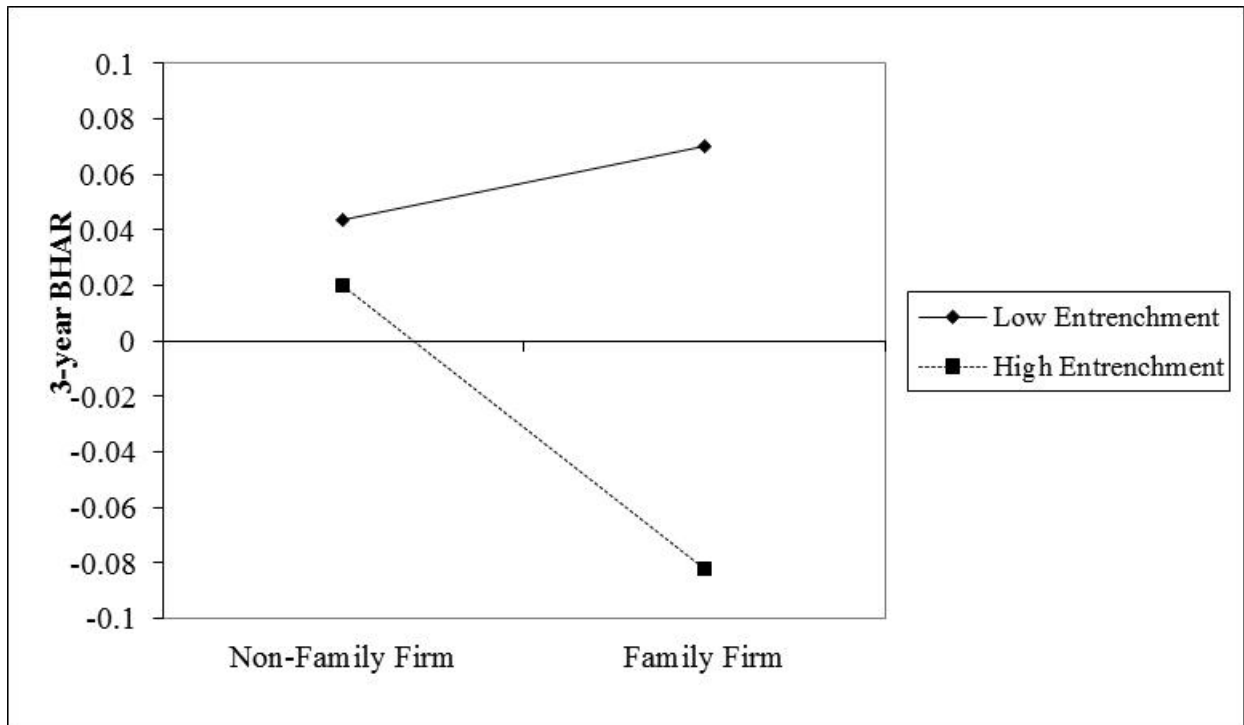
FIGURE 2
Unsystematic Return and Unsystematic Risk
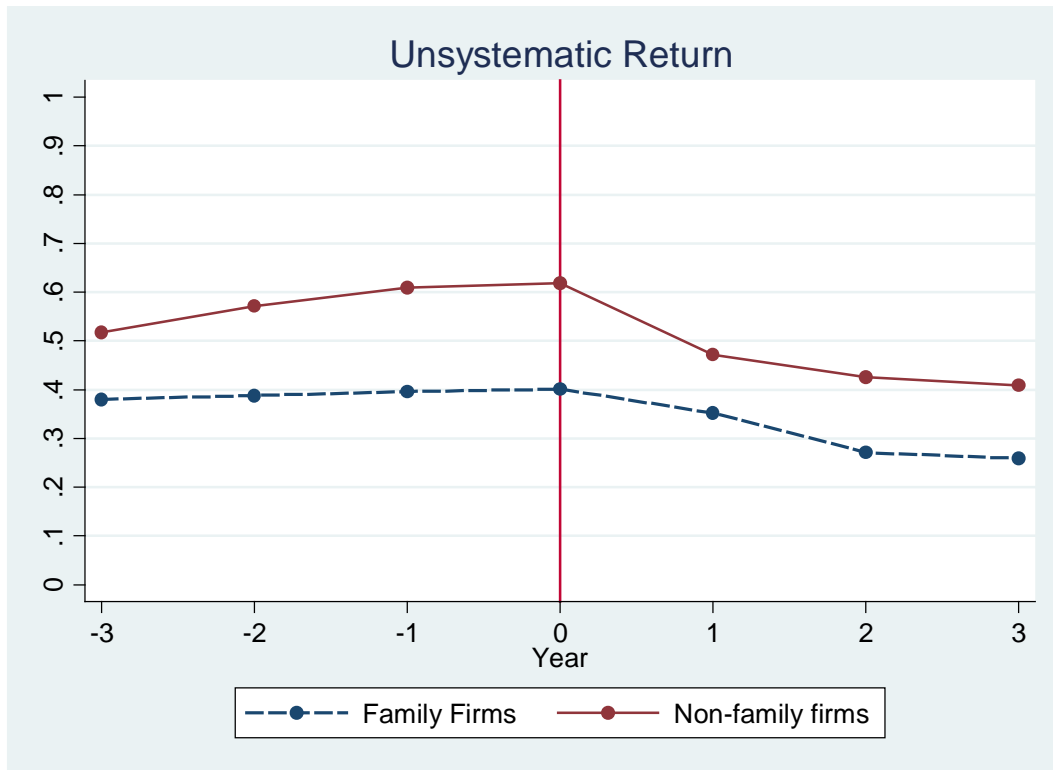**Figure 2(a):** Unsystematic Return over time
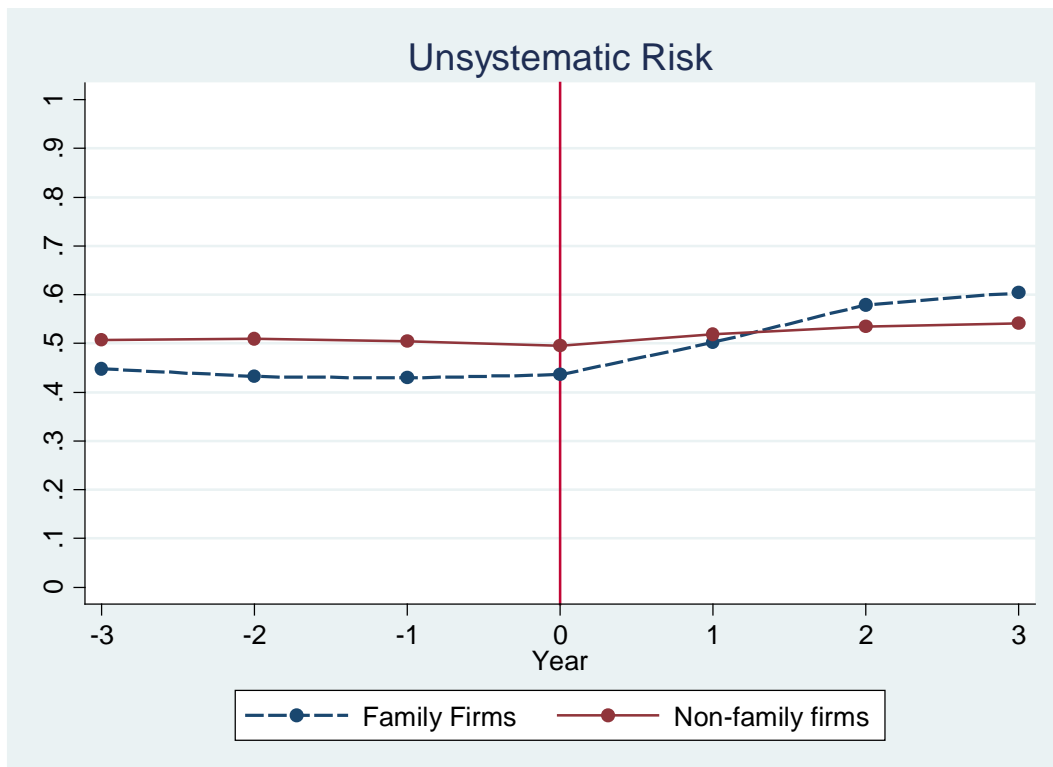

Figure 2(b): Unsystematic Risk over time

FIGURE 3
Unsystematic Risk and Entrenchment.
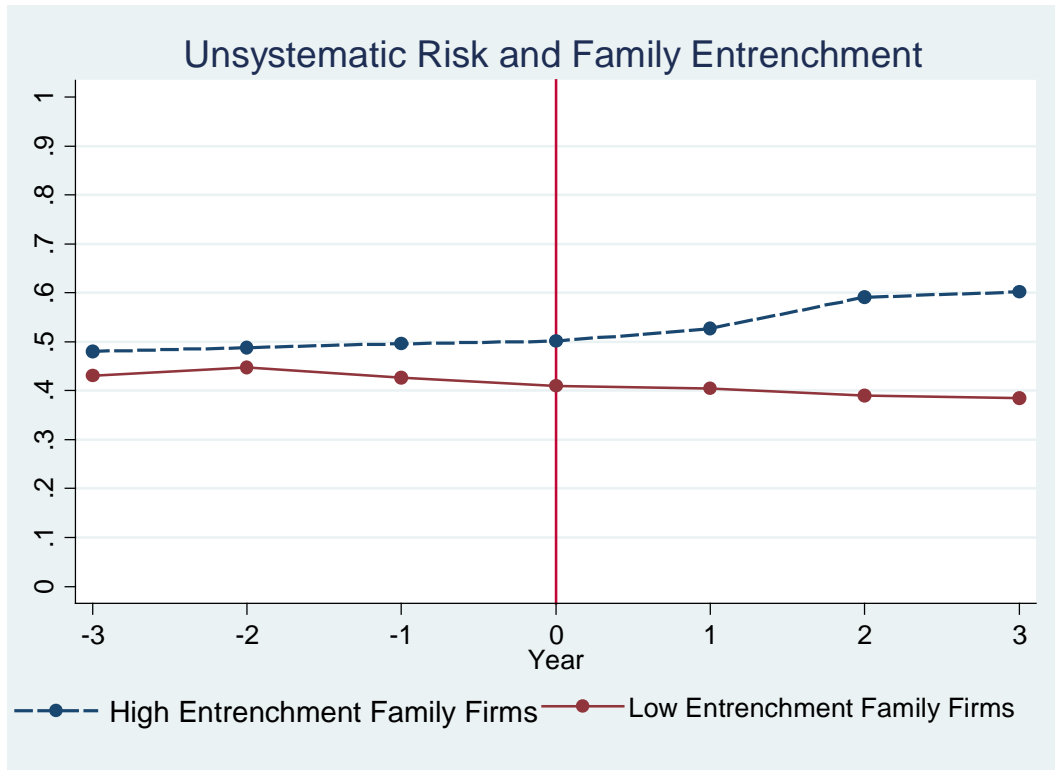Figure 3(a): Unsystematic Risk – Family Entrenchment

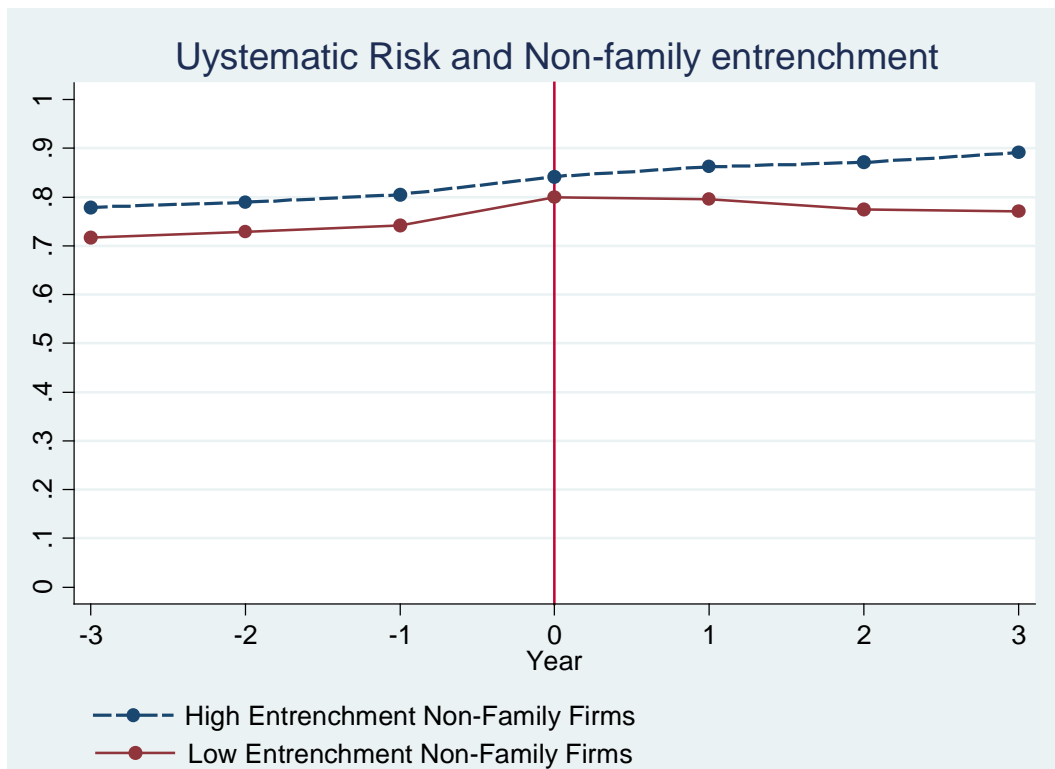Figure 3(a): Unsystematic Risk – Non-family Entrenchment

FIGURE 4
Unsystematic Return and Entrenchment.
Figure 4(a): Unsystematic Return and Family Entrenchment
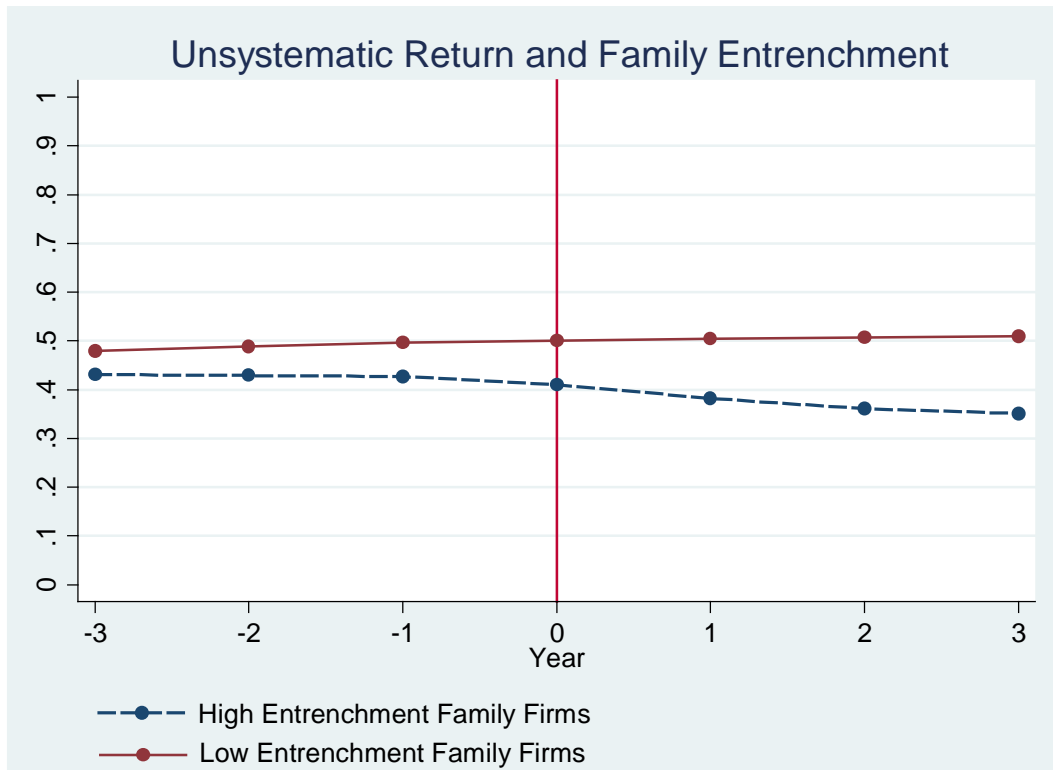

Unsystematic Return and Family Entrenchment

Figure 4(b): Unsystematic Return and Non-family firm Entrenchment

Unsystematic Return and Non-family entrenchment