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What Effect Do Corporate Governance Characteristics Have on CEO Compensation in a Small Cap Firm?

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Abstract

Extensive research has been conducted to examine the effect that corporate governance structure has on CEO compensation. Past studies have focused primarily on larger corporations have neglected smaller public firms. By shifting focus to small cap firms, this study hopes to find patterns between CEO compensation and specific corporate governance components. These include CEO duality, the presence of a dual founder CEO, and the level of equity ownership held by the CEO. Empirical evidence has suggested that CEO duality and increased ownership equity of a dual founder CEO may significantly impact CEO compensation.

Introduction

Effective corporate governance is a debated topic in the business world. The methods and regulations that are successful at keeping management of publicly traded firms accountable to their shareholders are not always agreed upon unanimously. Is there one right way to ensure corporate governance is carried out in the best interest of corporate owners?

Corporate governance refers to the structure in which firms organize control amongst management, shareholders and directors, with the goal of "helping a company to monitor and assess risk, optimize performance, create value, and provide accountability" (Bennington, 2010). One specific aspect that has received scrutiny over the years is that of CEO duality, or when one person assumes the role of both Chief Executive Officer (CEO) and chairman of the board of directors. CEO duality increases the opportunity for the principal-agent problem. The principal-agent problem arises when shareholders, who are the passive owners of the firm (principals) are reliant on the managers (agents) to run the company. In some cases, the investors and the managers may not share the same goals or interests. This results in conflict if the chairman and the board of directors are not effective in monitoring the CEO to ensure he acts in the best

interest of shareholders. In the presence of CEO duality, this conflict is exacerbated since the CEO is also serving as chairman, and therefore cannot perform his duties as chairman in an objective manner (Schooley, Renner & Allen, 2010; Braun & Sharma, 2007).

One concern of shareholders is that when the CEO holds both positions of power, they may influence their executive compensation by appointing members to the compensation committee who are biased in the CEO's favor. The compensation committee is a subcommittee of the board of directors that examines executive performance and assigns annual executive compensation packages. When there is CEO duality, the principal-agent problem raises doubt as to whether the board's compensation committee (agent) will act responsibly for their shareholders (principals). Given this potential conflict, precautions must be taken to ensure the CEO's self-interest is not prioritized over the investors of the firm. These precautions reflect agency theory, which suggests that managers tend to act selfishly for personal gain.

The counter argument to agency theory is stewardship theory, which is more optimistic about management's ability to behave in a manner that places the firm's well-being and the interests of shareholders above their own personal gain. While it is recognized that a principal-agent problem could occur because shareholders are not directly in control of the firm, it is viewed more as an unavoidable conflict as opposed to a problem conjured by selfish behavior of the agents (Bennington, 2010).

Prior research on CEO duality chiefly examined the compensation of CEOs in very large firms when CEO duality is present, and results measuring the effect of duality on CEO compensation have not been definitive or consistent. The focus of this study shifts to small firms to see whether CEO duality plays a significant role in determining CEO compensation. The small cap firm, as defined by Standard and Poor's, is a U.S. firm publicly traded on the New

York Stock Exchange (NYSE) or Nasdaq with market capitalization between $300 million and $1.4 billion. In addition, these firms must have four consecutive quarters of positive earnings and a public float of at least 50%.

Small publicly held firms are similar to large publicly held firms in that they must follow the same regulations of corporate governance, but they can differ in their executive structure. One main difference is that founders tend to retain leadership in small firms. For this reason, a founder CEO and founder CEO duality could play a role in changing the most effective form of corporate governance in their firm (Daily & Dalton, 1993). Additionally, small firms may have fewer stockholders than large corporations, so the percentage of the firm each investor owns can be significantly larger. Since CEOs usually own stock in their firm, the CEO of a small firm will likely hold a large stake in the company, which may influence their behaviors and in turn, their compensation.

This study focuses on the following question: What effect do corporate governance characteristics have on CEO compensation in small cap firms? Specifically, the research focuses on CEO duality, founder CEO duality and CEO equity ownership. Are the effects of these governance variables the result of selfish management or responsible CEOs?

Literature Review

Agency Theory

Agency theory generally supports the belief that individuals act selfishly. Applied to the governance of a publicly traded firm, agency theory presumes managers are individualistic and self motivated, which may lead to actions that do not fully benefit the shareholders (Ramdani & van Witteloostuijn, 2010; Braun & Sharma, 2007; Davidson et al, 2008; Elsayed, 2007). "According to agency theory, the agent, in this relationship, will be a self-interest optimizer. In

other words, executive managers will make decisions with the aim of optimizing their wealth and/or minimizing their risk at the expense of the shareholders' values" (Elsayed, 2007, p. 1204). For this reason, the board of directors serves as a mechanism to keep CEOs accountable to the owners of the firm (Conyon & Peck, 1998; Elsayed, 2007; Davidson et al, 2008).

Under agency theory, there is the potential for executive management to abuse their position's power for their own gain, which leads to concern regarding the compensation package assigned to the CEO. The CEO may have led the company to a successful year of performance, but their actions may not mirror the values and goals of the shareholders in the long run. Alternatively, the CEO's behavior may not have led to successful short term firm performance, but personal relationships with members of the board and more specifically the compensation committee could lead to inflated compensation with no regard to the wants of the owners. Sapp (2008) addressed the effects of personal relationships between board members and corporate executives and noted that "…Strengthening of the relationship between the board and the CEO may increase [CEO] compensation, but a strengthening of the relationship between the board and the shareholders may decrease it" (p. 713).

Sapp's research study in 2008 examined the relationship between total executive compensation and characteristics of the compensation committee. Data was collected from 416 publicly traded Canadian firms between 2000 and 2005. Sapp's results showed that certain compensation committee characteristics influenced CEO compensation. These characteristics were committee member independence and committee members who serve as CEO at another firm. Since boards of Canadian firms do not have to comply with the Sarbanes-Oxley Act of 2002 (SOX), the requirement that all members of the compensation committee must be independent did not apply to their data for years before or after 2002. Surprisingly, the results

showed an increase in the percentage of independent compensation committee members by one led to a 16.67% increase in compensation, contrary to the expectation that motivated the SOX legislation. An increase in the percentage of compensation committee members who were also CEOs by one percent increased CEO compensation by 7.16% (Sapp, 2008). Agency theory is supported through these results since characteristics of compensation committee members, and their likely relationships with the CEO, impacts CEO compensation and in some cases actually reduces the association between firm performance and CEO compensation.

Sun and Cahan (2009) conducted a study of 812 US firms with compensation committees consisting solely of independent directors in 2001 to see if compensation committee characteristics impacted total cash executive compensation. Their study not only measured the direct impact of committee characteristics on CEO compensation, but also its effects on the relationship between CEO compensation and firm performance. The attributes considered were CEO appointed directors, senior directors, CEO directors, director shareholdings, additional directorships and committee size. A composite of these characteristics was developed to measure the quality of the compensation committee. This composite measure on its own did not yield significant direct effects on compensation, but when interacted with the change in return on equity (ROE), the results were significant. An increase in compensation committee quality strengthened the positive relationship between CEO compensation and firm performance as measured by ROE change. However, their results showed that in high growth firms and firms with net loss, compensation committee quality weakened the positive effect on the relationship between firm performance and CEO compensation. These high and low times in a firm's cycle are when shareholders would likely want to reward or punish, respectively, a CEO based on firm performance. Instead, the quality of the compensation committee interfered with those goals

(Sun & Cahan, 2009). These findings support agency theory by demonstrating that executive compensation is not solely based on whether the CEO aligns their goals and interests with those of the shareholders as demonstrated through firm performance. Rather, characteristics of the agent (compensation committee) can influence CEO compensation, which may not be in the best interest of shareholders (Sapp, 2008).

Stewardship Theory

Stewardship theory offers an alternative view of corporate governance. In contrast to agency theory, stewardship theory asserts that managers left to perform on their own will act responsibly instead of taking advantage of opportunities for personal gain. This theory has a much more optimistic view of executive behavior in corporations (Elsayed, 2007; Daily & Dalton, 1993). One example is that the board of directors is not seen as a tool necessary to monitor selfish CEOs, but instead as a tool to help selfless CEOs effectively achieve their goals to better the firm and profit the shareholders. The board's role is to monitor management actions, advise the CEO, and procure external resources that are vital to build corporate capabilities (Elsayed, 2007). As with agency theory, stewardship theory acknowledges a need for the board to monitor the CEO, although that may be the least emphasized role. Even CEOs who have the interest of shareholders in mind at all times may encounter the principal-agent problem if the owners and the manager disagree on the best way to achieve a goal (Schooley, Renner & Allen, 2010).

Daily and Dalton (1993) noted that the CEO of a small firm is in more immediate contact with members of their firms and operations, and therefore more directly involved in firm outcomes. This differs from the CEO of a larger corporation who is more distant from daily operations when they make decisions, using information that has been passed through many

channels. The CEO of a smaller firm may have more frequent first hand contact with employees, and make decisions based on information gathered straight from those affected by policy decisions. Further, policy changes are shared with employees through more direct methods and can be monitored more closely by the CEO. This distinction in CEO management suggests that the leader of a smaller firm may reflect stewardship theory more so than that of a large firm. As steward of the firm, the CEO acts in a way that maximizes their own utility function to the company (Daily & Dalton, 1993; Braun & Sharma, 2007). Prior research has addressed both stewardship and agency theory, but empirical findings have tended to support agency theory. For this reason, much of the information surrounding the CEO as steward is based on a theoretical rather than empirical framework.

CEO Duality

Agency theory presumes managers will act selfishly, but when the CEO also serves as the chairman of the board of directors, the dual role creates potentially even more corporate governance problems. By filling the roles of operational management and strategic management with the same person, conflicts of interest may arise. "Some agency theorists argue that the dual governance structure allows managers to undermine board power. Under a dual governance structure, the lead manager is the CEO, and this person is also the head of the group that monitors and rewards performance" (Davidson et al, 2008, p. 385). When in a dual role, the CEO, serving as chairman, indirectly sets his own compensation because of his relationship with the board of directors and his role of assigning directors to the compensation committee (Sapp, 2008; Conyon & Peck, 1998). Under agency theory, CEO duality thus grants the individual the opportunity to be self-serving in designing his executive compensation.

Sapp (2008) observed significant results in his study that indicated CEO duality increases total CEO compensation by 25.3%. This information coupled with his results regarding the impact of certain compensation committee characteristics on CEO compensation may indicate that the dual CEO does have more influence on the compensation committee than when the positions of CEO and board chair are separated. In fact, he noted that very few unfavorable compensation packages are ever presented to the dual CEO. This is a preventive measure taken by the compensation committee to avoid any repercussions taken by the CEO serving as chairman (Sun & Cahan, 2009).

In addition to unfairly enhancing their compensation, dual CEOs may use the power of both roles to usurp all facets of decision making. Shareholders therefore may suffer from lack of separation between board control and management decisions (Braun & Sharma, 2007). For example, dual CEOs may use their position as CEO to make decisions that have the ability to boost performance in the short term. Dickins (2010) found these results could effectively increase CEO compensation for the year, but may not create the long term benefits to the corporation or its shareholders of alternative strategic decisions. After reviewing a number of empirical studies on the topic, Dickins asserted that consistent with agency theory, CEO duality is undesirable because it creates the likely condition where there is no one to veto decisions that may be ultimately detrimental to the shareholders (Dickins, 2010). Firms without CEO duality tend to outperform firms with duality because conflicts of interest such as this are avoided (Dickins, 2010).

Conversely, under stewardship theory, CEO duality is perceived to be a favorable aspect of corporate governance. The most commonly cited reason is that one person serving as both CEO and chairman of the board of directors leads to uniform leadership (Daily & Dalton, 1993;

Ramdani & van Witteloostuijn, 2010; Bennington, 2010). Because the CEO is in charge of functional decisions and the chairman is in charge of executive decisions, when the roles are separated, there can be confusion. This is partly due to a time lapse in acquiring information in order to make effective decisions. When the chairman is not the CEO, he likely has to gather research to make decisions regarding operations which can lead to a delay; if the two roles are combined, better informed decisions can be made in a more prompt manner (Daily & Dalton, 1993; Ramdani & van Witteloostuijn, 2010; Dickins, 2010). As stewards of the corporation, dual CEOs have more complete information about both daily activities of the firm as well as the issues of concern to the board of directors. Therefore, CEO duality can be a very strong aid in leading a firm to success (Dickins, 2010).

In many studies conducted on CEO duality's effect on firm performance or CEO compensation, results varied depending on external factors. Factors such as industry, firm environment, psychological attributes of managers or board members can all impact the link between CEO duality and firm performance (Ramdani & van Witteloostuijn, 2010, Elsayed, 2007; Davidson et al, 2008). Ramdani and van Witteloostuijn studied the impact of board independence and CEO duality on firm performance, measured with ROA, in 2010. Their sample consisted of all enterprises listed on the stock exchanges of Indonesia, Malaysia, South Korea and Thailand from 2001-2002. When using a regression with ROA as the dependent variable, CEO duality was found to have a statistically significant impact on firm performance. Firms with CEO duality outperformed (based on return on assets) firms without CEO duality by 1.5%. When the sample was split by industry, CEO duality had a statistically significant and large impact on some industries but little to no impact on others. When the sample was split by firm performance quantiles in a separate regression using CEO compensation as the dependent

variable, similarly varying results occurred. At the median quantile for firm performance, CEO duality was significant and increased CEO compensation by 1%, but had an insignificant impact in some other quantiles. Their findings suggest external factors play a role in determining CEO duality's impact on firm performance, specifically industry characteristics and relative performance levels of the firm (Ramdani & van Witteloostuijn, 2010). If the external industry characteristics are the main cause of effect on CEO compensation, higher pay may be justified, supporting stewardship theory. CEO duality is not necessarily inflating compensation packages; dual CEOs who have effectively helped their firm perform at higher levels deserve higher compensation.

Like Ramdani and van Witteloostuijn, Elsayed (2007) examined the effect of CEO duality on corporate performance. His sample consisted of 92 firms from the Egyptian Capital Market Agency from 2000-2004. When he tested CEO duality's impact on corporate performance, measured by ROA, the results were not statistically significant, although they did indicate a positive relationship. Similar to Ramdani and van Witteloostuijn, he observed that firm performance in certain industries was positively associated with CEO duality (i.e. textiles and clothing, food and beverage, and housing and real estate), and others were negatively associated (i.e. cement) (Elsayed, 2007). His results further support the conclusion that characteristics other than CEO duality, such as industry, can influence CEO duality's impact on compensation.

A study by Davidson et al (2008) uncovered similar findings. Their sample of 1017 CEO successions from ExecuComp database for the years 1992-1999 reflected the impact on firm performance of change from CEO nonduality to duality. Their empirical evidence pointed to dual governance having benefits as well as costs to shareholders depending on the firm. They

note that in most cases of CEO duality, when the CEO is promoted to hold the position of both CEO and chairman, this promotion is a result of superior leadership as a CEO, which indicates that they are a steward to their shareholders. When this promotion occurs, it is less likely the dual CEO will begin to shirk responsibilities or act selfishly if they have not shown these tendencies in the past. Under these circumstances, CEO duality is beneficial to the shareholders. In contrast, in cases where an executive is hired to fill both positions with no previous employment with the company, the new dual CEO may behave selfishly as an agent or not have enough experience to fill both roles. Under these circumstances, CEO duality is not in the best interests of the shareholders (Davidson et al, 2008).

The debate over the relationship between CEO duality and CEO compensation is an important theme in corporate governance literature. Agency theory does not support CEO duality because the influence on and control of the company and board is enhanced by a single individual serving in both capacities, which may lead to an inappropriate increase in CEO compensation. Stewardship theory supports CEO duality because CEOs have the ability to act with proper motives to lead the company to higher firm performance under strong and unified leadership. Under either theory, the research on CEO duality leads to the first hypothesis of this study:

H1: CEO duality is positively associated with CEO cash compensation.

Founder CEO

A unique aspect of the small firm is that founders are more likely to be actively involved in operations because small firms tend to be in earlier stages of growth. This leads to the potential for founder CEO duality. The issue more specific to a dual founder CEO than a dual non-founder CEO is that of maintaining power. Agency theory supports that CEO founders seek

duality to selfishly prevent the loss of power they would experience if a professional manager were brought into the firm to replace them as CEO. In some instances, the founder CEO may even sacrifice corporate profitability to maintain this power and security, which goes against the best interests of shareholders (Daily & Dalton, 1993). Even if their ultimate goal is not to obtain all roles of power, dual founder CEOs may lose objectivity in making professional decisions since they may be unwilling to stray from their original vision for the firm. If this becomes the case, the dual CEO may begin to make decisions that do not fit the firm's current needs and result in decreased firm performance (Daily & Dalton, 1993; Switzer & Tang, 2009). Daily and Dalton conducted a study in 1993 in which non-founder run firms had a duality rate of less than 50%, but 79% of founder-run firms had CEO duality. The prevalence of founder CEO duality exacerbates the threat of the principal-agent problem, which led Daily and Dalton to recommend separating founder CEO and chairman roles, since in their study, small firms headed by a professional manager as opposed to the founder had higher firm performance (Daily & Dalton, 1993).

Supporters of stewardship theory would disagree with this recommendation. In founder-run firms, a founder CEO has had a hand in the firm from its inception and naturally seeks the best outcome for the entity that was their creation. This goal automatically aligns their interests with those of the shareholders. When founder CEO duality is present, there is less concern that the founder is usurping control for personal gain, and more of an assumption that they want to protect their vision. This vision, it is reasonable to assume, is to build the firm and create long-term success (Switzer & Tang, 2009; Daily & Dalton, 1993; Braun & Sharma, 2007). "The alignment between managers and shareholders is thus secured, so the argument goes, as both parties as well as the organization as a whole stand to benefit from the unity of command and

clear leadership of the dual [founder] executive" (Braun & Sharma, 2007, p. 113). Separating the roles of CEO and chairman hinders the founder executive's autonomy to shape and execute the firm's strategy in some cases (Braun & Sharma, 2007).

Braun and Sharma (2007) focused on CEO duality within family controlled public firms (FCPFs) and the effect it had on firm performance. The sample consisted of the 84 largest US FCPFs using data from 2001-2002. Factors used in the study included nepotism, loyalty and trust of family members and possible complications that could occur from family issues. They divided their sample into FCPFs with duality and FCPFs without duality. In dual FCPFs, the effect of CEO duality on firm performance was statistically insignificant, which led Braun and Sharma to conclude that other characteristics of FCPFs impacted firm performance (Braun & Sharma, 2007). While their empirical findings do not directly support stewardship theory, they do negate agency theory by showing that CEO duality has no significant association with firm performance.

Since CEO duality is hypothesized to be positively associated with CEO compensation, it is expected that founder CEO duality will have a similar impact. Agency theory argues that a dual founder CEO may force their way into as many positions of power as possible and make protectionist decisions. Stewardship theory asserts that the dual founder CEO has purely good incentives because they are personally invested in their vision. In either case, this leads to the next hypothesis:

H2: When a founder serves as dual CEO, the positive association between CEO duality and CEO cash compensation is strengthened.

CEO Equity Ownership

Agency theory acknowledges the potential for conflict stemming from the relative equity holdings of the CEO. One theory is that CEOs need higher equity holdings to be compelled to act in the interest of shareholders. Without being a shareholder themselves, CEOs may not optimize firm performance since their best interest is not at stake. CEO ownership is a safety net that aligns their self interest with shareholder interest (Switzer & Tang, 2009).

The ownership equity of the CEO also can affect their behaviors surrounding diversification and risk (Denis, Denis & Sarin, 1999; Eisenmann, 2002). "Agency theory is predicated on the belief that individual economic agents choose actions that maximize their personal utility" (Denis, Denis & Sarin, 1999, p. 1072). In some cases, the CEO may see their stock ownership in the firm as just a minor component of their overall stock portfolio. When they hold this view, it can change the level of risk they are willing to take on behalf of the company. Diversification and risk may positively impact the firm's stock valuation, which would benefit shareholders. However, CEOs may be willing to take a higher risk than shareholders would support because even a resulting failure may not hurt the CEO's diversified stock portfolio if the level of equity owned in the firm is not significant. Thus, under agency theory, CEOs should have higher stock ownership of the firm to ensure their risk decisions are made responsibly (Eisenmann, 2002).

According to stewardship theory, CEOs of smaller firms are likely to own a larger share of the company. Unlike the rest of the firm's shareholders who could own smaller stakes in the firm as part of a large diversified stock portfolio, the founder CEO's portfolio may be dominated by the firm they manage. This means that the success or failure of the firm has the largest impact on their personal investing activity. According to agency theory, this situation encourages selfish CEO behavior. However, stewardship theory supports that it is not a risk if CEOs hold

larger percentage ownership of the company since their actions naturally reflect the perspective and goals of the shareholders. While successful decisions will monetarily reward the CEO, that outcome is secondary to helping the firm as a whole (Cordeiro & Veliyath, 2003; Anderson & Reeb, 2003).

Cordeiro and Veliyath (2003) performed a study in 2003 to measure determinants of total CEO compensation. The sample consisted of compensation data of 222 Fortune 1000 firms from the years 1992-1995. The main focus was on how a CEO's risk taking behavior affected their compensation. Diversification was found to be statistically significant and increased CEO compensation by 1.2%. This finding supported their hypothesis that successful risk behavior would result in positive returns for the CEO through compensation. They also noted that compensation committees monitoring the CEO were more comfortable with CEOs taking risks when the CEO had higher equity ownership. The CEO's level of capital ownership in the firm meant that they would take risk only when they firmly believed it would have the best results and benefit shareholders (Cordeiro & Veliyath, 2003; Anderson & Reeb, 2003). The theories behind CEO equity ownership are difficult to quantify because it is impossible to measure what actions are taken on behalf of all shareholders and what actions are taken on behalf of the individual CEO's stake in the firm, but some findings point towards the CEO acting with responsibility to the firm. It is more reasonable to conclude that providing CEOs with equity ownership is a measure supported by agency theory to reduce the risk of selfish actions.

The higher stake a CEO owns in a firm puts them in closer alignment with shareholders. When either CEO duality or founder CEO duality is introduced, the relationship between equity holdings and CEO compensation increases in strength. This natural alignment leads to the third set of hypotheses:

$H3_a$: Equity holdings of a dual CEO weakens the positive association between CEO duality and CEO cash compensation.

$H3_b$: Equity holdings of a founder CEO with duality weakens the positive association between CEO duality and CEO cash compensation.

Data Collection

The sample consists of 100 US firms found on the S&P 600 Small Cap Index from 2010. Data was collected on each firm's 2007 and 2008 financial and corporate governance information. During 2008, the economy entered an economic recession. For this reason, 2008 compensation was used because it reflects the 2007 financial performance of firms during the 2007 fiscal year, a period without the turbulent economic effects. Financial variables were found using Mergent Online and the individual company financial statements. Information related to corporate governance and compensation committee members was found within the firm's proxy statements and Forbes' executive biographies.

The list of 600 small cap firms was randomized so that a random sample could be collected. Certain firms were excluded throughout the process based on characteristics that may compromise the results. For example, financial and public service companies were excluded due to the regulations within those industries. Firms using a fiscal year other than a calendar year were also excluded to ensure data reflects the same conditions in the economic environment. Any company that experienced a change in CEO or CEO duality between 2007 and 2008 was excluded because of the inconsistency in leadership. There were other miscellaneous exclusions such as a change in the members of the compensation committee. These exclusions are presented in Table 1.

Standard Empirical Models

Model 1 is used to test hypothesis H1:

$$\text{Log(CEO Compensation)} = \beta_0 + \beta_1\text{CEO Duality} + \beta_2\text{CEO Ownership Equity} + \beta_3[\text{Compensation Committee Characteristics}] + \beta_4\text{ROA} + \beta_5\text{Sales} + \beta_6\text{Industry}$$

Model 2, which adds the variable FounderCEO to Model 1, and is used to test hypothesis H2:

$$\text{Log(CEO Compensation)} = \beta_0 + \beta_1\text{CEO Duality} + \beta_2\text{Founder CEO} + \beta_3\text{CEO Ownership Equity} + \beta_4[\text{Compensation Committee Characteristics}] + \beta_5\text{ROA} + \beta_6\text{Sales} + \beta_7\text{Industry}$$

Model 3, which adds interaction terms (ITEquityDuality and ITEquityFounder) to Model 2, is used to test hypotheses $H3_a$ and $H3_b$:

$$\text{Log(CEO Compensation)} = \beta_0 + \beta_1\text{CEO Duality} + \beta_2\text{Founder CEO} + \beta_3\text{CEO Ownership Equity} + \beta_4\text{ITEquityDuality} + \beta_5\text{ITEquityFounder} + \beta_6[\text{Compensation Committee Characteristics}] + \beta_7\text{ROA} + \beta_8\text{Sales} + \beta_9\text{Industry}$$

Variables

Dependent Variable

The dependent variable is the log of 2008 CEO cash compensation, which reflects the reward for firm performance in the 2007 calendar year. Cash compensation is seen as a reflection of CEO's past performance, which makes it the most appropriate measure. Stock options and incentive compensation is viewed more as a reward for future performance (Sun & Cahan, 2009). The variable is logged to adjust for the likely variance in level of compensation. CEO cash compensation was found on the companies' proxy statement.

Independent Variables

CEO duality is a dummy variable which assigns a one to firms with CEO duality and a zero to firms that separate the roles of CEO and chairman of the board. This variable is expected to have a positive sign indicating CEO duality leads to increased cash compensation. Information regarding CEO duality was found in each company's 2007 proxy statement.

Founder CEO accounts for firms that have filled their CEO position with the founder of the company. Daily and Dalton's (2009) belief that the presence of founder CEOs could have a positive or negative effect on the company means that this variable could also have a positive or negative impact on CEO compensation. However, the literature seems to support stewardship theory more than agency theory in the matter of founder CEOs, and therefore the variable founder CEO is expected to have a positive sign. This information was also found in each company's 2007 proxy statement.

CEO Ownership Equity represents the percentage of outstanding common stock held by the CEO at the end of 2007. Based on the findings of Eisenmann (2002), a CEO with a higher stake in the company will be more likely to take risks and innovate. This innovative behavior will not only lead to higher firm performance, but will also increase the reputation of the CEO. By taking initiative, and hopefully increasing firm performance, the compensation committee will be more compelled to reward the CEO with higher compensation. Information for this variable was found in each company's 2007 proxy statement and annual report.

Compensation Committee Characteristics

CEO compensation is ultimately determined by the compensation committee, so prior research has focused on the quality of the committee to see if certain committee attributes affect CEO compensation. Prior research has helped to develop the control variables used in this study

and determine the expected signs of each variable. With the exception of some supplemental data, information about committee characteristics was found in each company's 2007 proxy statement.

Other Directorships is the average number of board directorships each compensation committee member holds outside of the firm. According to Sun & Cahan (2009), the number of other directorships held could indicate that the directors are too busy to appropriately monitor the CEO. Conyon and Peck (1998) observed that CEO compensation tended to increase within companies when board members held a high level of outside directorships. Therefore, it can be expected that an increase in average other directorships may lead to a decrease in attentiveness by the committee, and therefore lead to increased CEO compensation. This information was found within the biographies disclosed in each company's 2007 proxy statement and on Forbes executive biographies.

Committee Size is the number of members serving on the compensation committee in 2007. The hypothesized sign on this variable is positive since more committee members may lead to more chaos and less effective monitoring of the CEO (Sun & Cahan, 2009; Conyon & Peck, 1998).

Number of meetings represents the amount of times the compensation committee met during 2007. This variable is expected to have a negative sign. More frequent meetings will result in closer monitoring of the CEO, keeping the CEO more accountable. Thus compensation is likely to be more appropriately aligned with firm performance (Sun & Cahan, 2009; Switzer & Tang, 2009).

Committee Member Duality represents the proportion of compensation committee members with prior or current CEO duality. If a committee member has served in the position of

CEO, they may feel a level of camaraderie that may bias their decision making on CEO compensation. In addition, if they have CEO duality experience, they may also understand the responsibilities of holding both positions and empathize with the dual CEO, leading to bias favoring the compensation awarded to a CEO with duality (Sun & Cahan, 2009; Conyon & Peck, 1998). Forbes biographies and the company's 2007 proxy statement were used to gather this data.

Financial Performance

Return on Assets (ROA) is used to measure 2007 financial performance of the firm. This measure should have a positive effect on CEO compensation because a higher level of firm financial performance tends to reflect positive performance of the CEO. The ROA for each company was found on Mergent Online.

Additional Control Variables

The sales variable is used as a proxy for size of the firm. Relatively larger firms will have larger sales figures than smaller firms. Sales will likely have a positive sign because larger firms tend to provide CEOs with larger compensation packages. This value was found on each company's 2007 annual report.

Industry is a dummy variable that represents each firm's industry classification. This variable controls for economic fluctuations in different sectors of the economy. The Standard Industrial Classification (SIC) code number was found on Mergent Online. As observed in other studies (Sun & Cahan, 2009; Ramdani & van Witteloostuijn, 2010; Elsayed, 2007), industry differences can impact firm performance and CEO compensation. Table 2 shows the breakdown of industry within the dataset.

Interaction Terms

ITEquityDuality is an interaction term that multiplies CEO ownership equity by CEO duality. The sign on this variable is expected to be positive to increase the impact CEO duality has on CEO compensation.

ITEquityFounder is an interaction term that multiplies CEO ownership equity by CEO founder. The sign on this variable is also expected to be positive to increase the impact founder CEO duality has on CEO compensation.

Descriptive Statistics

Table 3 displays summary statistics of the sample. 2008 cash salary of the 100 CEOs ranged from $225,000 to $1,106,000. The average CEO cash salary in 2008 based on 2007 performance was $587,478. Within the sample, 55% of CEOs also served as chairman of the board for the firm. Founders served as CEO in 11% of the firms sampled, with all 11 serving as a dual (founder) CEO. The ownership equity of all CEOs ranged from 0-54.32%, with an average of 4.25%. When looking at the dispersion of ownership equity amongst just the founder CEOs, the range was .84-34.18% with an average of 8.93%. These statistics support the assumption that founder CEOs tend to have CEO duality in their firms and that they likely hold a greater level of stock in their firm.

After gathering the summary statistics for the sample, the models for the study were tested using SAS regression analysis software. As seen in Table 4, the standard empirical models do not support the first two hypotheses. In Models 1 and 2, CEO duality is insignificant with t-statistics of 1.31 and 1.59, respectively. However, Model 1 demonstrated that sales (t-stat = 3.89), compensation committee size (t-stat = 2.20), and number of 2007 compensation committee meetings (t-stat = 3.17) were significant variables. With regard to sales, although the

coefficient is positive, the magnitude is very small, making the impact on compensation effectively immaterial. An additional member on the compensation committee increased CEO compensation by 6.93% and an additional meeting within the year increased CEO compensation by 2.75%. The mining industry, relative to the benchmark, service industry, had a t-statistic of -1.94, making it significant at the 10% confidence level. CEOs of mining firms were compensated 25.28% less than CEOs within the service industry.

In Model 2, the variable for Founder CEO was added to examine its ability to strengthen the relationship between CEO duality and CEO compensation. With a t-statistic of -1.13, this variable is also insignificant. This does not support H_2 because the presence of a founder CEO does not significantly strengthen the positive relationship between CEO duality and CEO compensation. Once again, sales (t-stat = 3.72), compensation committee size (t-stat = 2.27) and compensation committee meetings (t-stat = 3.33) were significant in this model. Likewise, in this model, the effect of sales on compensation was statistically significant but effectively immaterial. An increase in compensation committee size by one member resulted in a 7.16% increase in CEO compensation and an additional compensation committee meeting resulted in a 2.93% increase in CEO compensation. Mining was once again significant relative to the service industry with a t-statistic of -2.01. The results showed that CEOs in the mining industry received compensation 26.21% lower than the compensations of CEOs in the service industry.

The results of Model 3 are displayed in Table 5. Once again, CEO duality and founder CEO duality are insignificant. The other variables of interest, the interaction terms ITEquityDuality and ITEquityFounder, seem at first glance to be significant with t-statistics of 1.86 and -2.55, respectively. Unfortunately, when F-tests were run on the variables to determine if they were jointly significant, neither interaction term is valid. Therefore, the third model does

not support Hypotheses 3_a or 3_b. Sales (t-stat = 4.02), compensation committee size (t-stat = 2.86), and 2007 compensation committee meetings (t-stat = 3.78) are all significant in the third model as well. The impacts of these variables are similar to those in Models 1 and 2.

All models were tested for heteroskedasticity using the White's Chi Square test and variance inflation factors were run to ensure multicollinearity was not an issue. All three models were free of both heteroskedasticity and multicollinearity.

Conclusions

Ultimately, the variables of interest for this study were not shown to have a significant impact on CEO compensation or the relationship between CEO duality and CEO compensation. Variables that were significant in all three models were sales, compensation committee size, compensation committee meetings and the mining industry. Like many previous research studies done on the topic, the empirical evidence from this study does not support agency theory or stewardship theory related to CEO duality, but does empirically suggest that other factors may play a role in determining CEO compensation.

The significance of sales indicates that size of the firm will increase CEO compensation, even though it is by a very small amount. Compensation committee size and committee meetings may signify that compensation committee characteristics play a larger role in determining CEO compensation than the presence of a founder or CEO duality. Committee size increased compensation, which was the expected effect of the variable. This supports that a larger committee may not effectively monitor CEO performance due to a higher level of difficulty in making unanimous decisions among so many individuals. Committee meetings also had a positive sign, which was not expected. This indicates that, contrary to expectations, more meetings throughout the year may be excessive and limit the efficiency of the committee to

monitor the CEO. This could be a result of questioning previously made decisions or there could be a relationship between larger committee size and committee meeting frequency. It is possible that if the committee is larger, they will need more meetings to come to a decision. The significance of the mining industry in all three models and of the retail trade industry in the third model supports what previous studies have found; factors related to different industries may cause variability in the compensation of CEOs.

Limitations of the Study

As with any project with a due date, time is always a limitation. The sample size of 100 firms for this study is relatively small. With more time, the sample could have been expanded to include more firms. However, the S&P 600 Small Cap Index does only include 600 firms and in order to gather a sample of 100 firms, 216 firms were excluded. This puts a limitation on how large of a sample could be collected from this index. For this reason, in order to create a data set of even 300 firms, a new definition of small firm would need to be developed and a new source of small firms would need to be utilized.

Additionally, incorporating an interaction between CEO duality and firm performance (through the measurement of ROA) could help to put in perspective how much the dual CEO is being compensated based on actual firm performance. This interaction was included in the models, but proved to be jointly insignificant and was therefore removed from the final analysis. With more time, a new model could be created that may result in this variable being significant, possibly with a larger sample size.

Omission of variables is always a limitation in empirical analysis. There could be a key characteristic of CEOs in small firms other than duality, founder duality and equity holdings that could more appropriately measure variability in cash compensation. There could also be

compensation committee characteristics in addition to those included in this study, or factors other than those related to the CEO and compensation committee that could relate to CEO compensation.

Lastly, the dependent variable could be a limitation. CEO cash compensation was used in this study, but there are other forms of CEO compensation, such as cash bonuses and the value of equity securities.

Implications for the Future

Future studies may develop a different definition for a small firm, and could expand the sample of firms based on that definition. These steps could create significance amongst the variables of interest. Further, dividing a larger sample by industry or performance level might provide useful information.

The significant results of this study draw attention to compensation committee characteristics. This research could be the springboard for a very different study that focuses on the compensation committee of small firms, or more specifically of founder-run firms.

Table 1

Reason For Exclusion	Number of Firms
Non-Calendar Fiscal Year End	122
Industry Exclusion	71
Miscellaneous Exclusion	23
Total	216

Table 2

Industry	Number of Firms
Mining	7
Manufacturing	47
Communications	10
Retail Trade	12
Service	24
Total	100

Table 3

Summary Statistics			
	Mean	Maximum	Minimum
2008 Cash Salary	$587,477.86	$1,106,000	$225,000
CEO Duality	**0.55**	-	-
Founder CEO	**0.11**	-	-
CEO Ownership Equity (%)	**4.25**	**54.32**	-
Ownership Equity (%) of Founder CEOs	**8.93**	**34.18**	**0.84**
Compensation Committee Characteristics			
Average Other Directorships	2.09	4.50	0.50
Committee Size	3.42	8.00	2.00
Number of Meetings in 2007	5.74	24.00	1.00
Committee Member Duality	0.84	4.00	-
Financial Performance			
ROA (%)	7.80	69.55	(26.66)
Additional Control Variable			
Sales (In Thousands)	$2,211,751.74	$123,818,643	$14,024

Table 4

Variable	Model 1			Model 2		
	Coefficient	*T-Statistic*		*Coefficient*	*T-Statistic*	
Intercept	12.76746	83.28		12.76276	83.35	
CEO Duality	**0.08524**	**1.31**		**0.10813**	**1.59**	
Founder CEO Duality	-	-		**-0.12030**	**-1.13**	
Equity Interest	**-0.00505**	**-1.37**		**-0.00461**	**-1.25**	
ROA	0.00322	1.20		0.00309	1.15	
Sales	7.6E-08	3.89	***	7.4E-08	3.72	***
Average Other Directorships (CC)	-0.00637	-0.21		-0.00597	-0.19	
CC Size	0.06926	2.20	**	0.07160	2.27	**
CC Meetings	0.02748	3.17	***	0.02930	3.33	***
CEO CC Members	0.00107	0.03		-0.00644	-0.20	
Mining	-0.25278	-1.94	*	-0.26208	-2.01	**
Manufacturing	-0.00278	-0.04		-0.00399	-0.05	
Communication	-0.09610	-0.83		-0.10122	-0.88	
Retail Trade	-0.19241	-1.60		-0.18715	-1.56	
R^2	0.3513			0.3609		
Adjusted R^2	0.2619			0.2643		
*** = significant at .01 ** = significant at .05 * = significant at .1						

Table 5

Variable	Model 3		
	Coefficient	*T-Statistic*	
Intercept	12.72076	85.34	
CEO Duality	**0.05036**	**0.71**	
Founder CEO Duality	**0.04468**	**0.36**	
Equity Interest	**-0.01117**	**-1.66**	
ITEquity*CEO Duality	**1.55939**	**1.86**	*
ITEquity*Founder CEO Duality	**-2.43208**	**-2.55**	**
ROA	0.00315	1.21	
Sales	7.8E-08	4.02	***
Average Other Directorships (CC)	-0.00203	-0.07	
CC Size	0.08972	2.86	***
CC Meetings	0.03278	3.78	***
CEO CC Members	-0.02492	-0.78	
Mining	-0.27280	-2.16	**
Manufacturing	-0.01552	-0.20	
Communication	-0.10747	-0.96	
Retail Trade	-0.21906	-1.88	*
R^2	0.4147		
Adjusted R^2	0.3101		
*** = significant at .01 ** = significant at .05 * = signifcant at .1			

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