CEO pay fairness as a predictor of stakeholder management

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ABSTRACT

This study examines the relationship between chief executive officer (CEO) pay fairness and future stakeholder management (SM) as well as the effect of the board of directors on this relationship. The results show that CEO pay fairness has an effect on future SM such that when underpaid, CEOs decrease SM and when overpaid, CEOs increase SM. Additionally, the relationship between CEO pay fairness and SM becomes stronger as the ratio of inside directors on the board increases, which suggests that as both management control increases and board diversity decreases, the CEO's control over SM increases. Implications for SM and CEO pay are discussed.

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1. Introduction

For decades, the business press and the academic literature (see Bebchuk and Fried, 2004) have debated the topic of increasing large chief executive officer (CEO) salaries, with a majority of writings calling CEO pay unfair relative to the average worker. For example, in 1990 the ratio of CEO pay to average worker pay was 120:1 (Crystal, 1991) and in 2001, the ratio was over 400:1 (Gerhart and Rynes, 1990). The ratio of CEO pay to average worker pay was 120:1 (Crystal, 1991) and in 2001, the ratio was over 400:1 (Gerhart and Rynes, 1990). The disparity is growing. Some of these writings suggest CEOs are to blame for this unfair compensation relative to their employees, yet some research suggests CEOs may take actions towards fair outcomes for individuals other than themselves (e.g., Ghemawat and Stander, 1992; Wade et al., 2006). In fact, Wade et al. (2006) show that fair, or unfair, CEO pay may influence the CEO's resource allocation decisions towards their subordinates' wages: when CEOs are under- or overpaid, employees are also under- or overpaid. Thus, CEOs may be concerned about issues relating to fairness regarding both their own pay and other individuals with a stake in the firm.

Based on norms of fairness (Phillips and Reichart, 2000), stakeholder theory suggests that firms have relationships with non-shareholding stakeholders and that the firm, through decisions made by the CEO, has a duty to satisfy these stakeholders' needs through stakeholder management (SM) (McWilliams and Siegel, 2001). According to Coombs and Gilley (2005), SM deals with satisfying the needs of non-shareholding stakeholders such as employees, suppliers, customers, and the community whose primary benefit is not derived from firm financial performance. As such, CEOs may be interested in fair outcomes not only through employee wages (Wade et al., 2006), but also through other stakeholder initiatives related to SM. Using an organizational justice theory framework, Aguilera et al. (2007) suggest that a firm's fair treatment of employees affects employees' individual contributions towards SM and thus firm's can increase or decrease their SM initiatives based on the fair or unfair treatment of their employees. CEOs may also react to SM based on their own pay fairness; however, distributive justice, or equity theory, would suggest CEOs' objectives when affecting SM initiatives based on pay fairness may differ when under- or overpaid. In essence, CEOs may react to underpayment by affecting SM initiatives that may lead to future increases in their pay, while overpayment reactions may be towards fairer outcomes for stakeholders and legitimizing the CEO's own high pay.

In this study, I integrate insights from the SM research, which is grounded in stakeholder theory, with insights from the literature on fairness, specifically equity theory, to generate hypotheses linking CEO pay fairness to future SM. Similar to Wade et al. (2006), CEO pay fairness is measured using a wage equation that accounts for industry, firm, and CEO specific differences. I test these hypotheses using a unique panel database from a sample of large publicly traded firms in the United States. Controlling for industry and using time- and firm-level variables, I examine how CEO pay fairness affects future SM. Additionally, I examine the board of directors' influence on the relationship between CEO pay fairness and SM given prior SM research has paid particular attention to the role of the board on SM initiatives (e.g., Coffey and Wang, 1998; Johnson and Greening, 1999). This study makes a contribution to the stakeholder literature by showing that SM is driven, in part, by stakeholder theory's underlying construct, fairness (Phillips and Reichart, 2000), specifically relating to CEO pay. Additionally, this study makes a practical contribution by...
showing that CEOs may not only be concerned about their absolute pay, but also their pay fairness.

2. Theory and hypotheses

2.1. Stakeholder theory and stakeholder management

Freeman (1984) suggests that firms have many stakeholder groups beyond just shareholders and, because some stakeholder groups may be strategically important, the firm benefits through relationships with these stakeholder groups. These relationships are generally captured in the form of SM (e.g., McGuire et al., 2003), which according to Jones and Wicks (1999) are strongly influenced by the CEO's decisions. Donaldson and Preston (1995) make the argument that distributive justice, which is based on the fair allocation of resources (Colquitt et al., 2001), should guide decision-making with respect to SM. Addressing stakeholder interests is fair because the firm benefits from the stakeholder's actions and resources and thus the stakeholder should benefit from the firm (Maignan and Ferrell, 2003). For example, the firm benefits from employees' efforts and both the natural environment's and community's resources; thus, the firm's support for charities and the provision of good working conditions and clean air can be seen as an equitable and fair exchange.

Whether or not the interests of stakeholder groups are addressed may depend largely on the decisions of the primary organizational decision maker, the CEO. Prior research examining the antecedents to SM suggests that ownership structure, stakeholder salience, and CEO values may play a role in future SM such that increases in SM may be influenced by powerful stakeholder groups or by the forms of SM that the CEO deems personally valuable (Agle et al., 1999; Johnson and Greening, 1999). Because CEOs also value pay (Fama, 1980), CEOs' decisions, including decisions influencing the firm's engagement in SM, may depend upon their fair, or unfair, pay. Such a view of fairness and CEO decision-making is not accounted for by stakeholder theory, but is accounted for by organizational behavior theories on issues of fairness; for example, equity theory and social comparison theory.

2.2. CEO pay and fairness

According to Finkel (2000), "fairness" implies that rewards are distributed such that the interests of all parties are properly balanced. In the organizational behavior and social psychology literatures fairness plays a primary role in individual perceptions and actions, which may impact employee reactions to SM (Aguilera et al., 2007). Equity theory (Adams, 1965), organizational justice (Colquitt et al., 2001), and social comparison theory (Festinger, 1954) have described the importance of fairness, comparisons with others to determine fairness, and possible reactions to fair or unfair rewards (or punishments). Wade et al. (2006), examining CEO pay fairness, note that there are two underlying assumptions to fairness: 1) the impact of rewards, or punishments, stems from social comparisons; and 2) norms of fairness have a strong impact on an individual's judgment of fairness and reactions to social comparisons, which can influence how individuals distribute rewards (i.e., allocate firm resources) to others.

Research on CEO pay and social comparisons finds that CEOs and boards of directors are aware of the labor market wage rate for CEOs and that both CEOs and boards make pay comparisons with this rate (e.g., Ezzamel and Watson, 1998). Because social comparisons must occur to determine fairness (Sheppard et al., 1992), CEOs are likely to use social comparisons to form judgments of fairness relating to their pay. Using the social comparison processes as the foundation for their studies, Watson et al. (1996) and Wade et al. (2006) examine the impact of over- and underpayment deviations on managerial job satisfaction as well as on subordinate pay and turnover. Both studies suggest that CEOs' decision-making is driven by their fair, or unfair, pay rather than their absolute level of pay. If CEOs are willing to make resource allocation decisions towards subordinates' pay based on the CEO's pay fairness, it is possible that the CEO's pay fairness also may affect their resource allocation decisions towards stakeholders in the form of SM.

Additionally, CEOs may expect benefits from resource allocations towards SM. Equity theory (Adams, 1965) suggests individuals react to under- and overpayment relative to comparison others by attempting to make the situation fairer. When underpaid, research shows that individuals may attempt to increase outcomes (Greenberg, 1993) or reduce inputs (Cowherd and Levine, 1992) to create a fairer situation. With regards to SM, both Coombs and Gilley (2005) and McGuire et al. (2003) show SM is negatively related to CEO pay. Thus, reducing SM is one means of increasing an underpaid CEO's pay. When overpaid, equity research suggests individuals may react with increased effort (Greenberg, 1988). Increasing CEO efforts towards SM may be one means of creating a fairer situation particularly given stakeholder theory's arguments about fair outcomes for stakeholders. Increasing SM, although costly in terms of pay, may both legitimize a CEO's pay as well as provide intrinsic rewards to the CEO and thus the benefits may outweigh the costs. Aguilara et al. (2007) suggest that individuals may be interested in increasing SM for morality-based motives and thus individuals may act in a fair manner for the intrinsic rewards associated with being a fair individual. Turillo et al. (2002) suggest that being fair within and of itself is a reward for some decision-makers and Diekmann et al. (1997) suggest that individuals want to perceive themselves, and be perceived by others, as fair and just. Overpaid CEOs may receive intrinsic benefits from increased SM. Moreover, Bowman and Haire (1975) and McGuire et al. (1988) suggest that SM may indicate management skill and legenbleek et al. (2007) suggests SM may legitimize the firm's actions; thus, an overpaid CEO may seek to increase SM to legitimize both their pay and the firm's actions.

In summary, stakeholder theory recognizes the role of fair outcomes for stakeholders and the important role that CEO decision-making plays in the allocation of resources towards SM (Jones and Wicks, 1999), but stakeholder theoretic research does not account for the role of fairness in the CEO decision-making process towards SM. However, equity theory suggests CEOs may react to unfair pay through SM given decreasing SM may lead to higher pay and thus alleviate underpayment issues and CEO efforts towards increasing SM may both intrinsic rewards and legitimize their high pay and thus alleviate overpayment issues.

Hypothesis 1. There will be a relationship between CEO pay fairness and future SM such that future SM will decrease when CEOs are underpaid and increase when CEOs are overpaid.

2.3. Board of directors as diversity and managerial control

Research on managerial control, specifically in relation to the board of directors (e.g., Westphal and Zajac, 1995), plays a significant role in a CEO's ability to influence both organizational outcomes (Finkelstein, 1992) and their own compensation (Main et al., 1995). Main et al. (1995), for example, show that CEOs with greater control relative to the board of directors (situations where the board has more inside directors) receive higher pay than predicted by traditional economic theories. SM research and theory has also paid particular attention to the board of directors (Freeman, 1984; Wang and Dewhirst, 1992) and suggests diverse boards (boards with more outside directors than inside directors) should attend to issues relating to SM (Johnson and Greening, 1999). However, research on the relationship between boards and SM is mixed. Johnson and Greening (1999) provide evidence that firms with more diverse boards tend to pursue greater SM, which suggests that outside directors are conscious of the needs of the various stakeholders. Similarly, Webb (2004) shows that more outside directors on the
board is associated with higher SM. Yet, Coffey and Wang (1998:1600) argue more outsiders on the board leads to greater diversity, but empirically show that more inside directors relate to higher SM and they conclude that this is “more consistent with the managerial control argument.”

As such, the boards’ role in directly affecting SM is unclear. However, the SM literature clearly argues that more outsiders on boards are associated with more diversity and less managerial control (e.g., Coffey and Wang, 1998; Johnson and Greening, 1999). Thus, boards with more outside directors may pay closer attention to the firm’s SM even if this does not necessarily translate to higher SM. Furthermore, with more outside directors, boards control the resources used for SM, which means CEOs should have less influence over SM. With more inside directors than outside directors, not only is it the CEO who has the control to determine the distribution of resources to SM, but also the board is less likely to pay attention to the firm’s level of SM. With more control and less board diversity the CEO can more easily influence SM according to the CEO’s preferences. If pay fairness motivates CEO decisions to influence SM then the relationship between CEO pay fairness and SM will be stronger when the ratio of inside to outside directors increases.

**Hypothesis 2.** The relationship between CEO pay fairness and future SM will be stronger as insider ratio increases such that future SM decreases when underpaid and increases when overpaid will be stronger as insider ratio increases.

### 3. Methods

#### 3.1. Sample and analysis

To test the hypotheses, I followed a multi-step process. First, I estimate CEO pay fairness (explained later in the methods). Second, I lag the data to test the effects of CEO pay fairness on future SM. The initial sample, which is used to determine CEO pay fairness, consists of an unbalanced panel design with over 1000 observations from over 200 CEOs of U.S. publicly traded corporations from 19 industries for the time period of 1991–1999. Turnover and merger events led to an unbalanced panel design with the number of observations for the CEOs varying between 3 and 9 years. The SM data are obtained from Kinder, Lydenberg, Domini, and Company (KLD) database and accounting data are obtained from Compustat. Human capital data are collected from Execucomp and Compact Disclosure as well as hand collected from proxy statements, 10-Ks, annual reports, and the Dun and Bradstreet Reference Book of Corporate Management. Similar to prior studies that have examined the relationship between CEO pay and SM (e.g., Coombs and Gilley, 2005), a 1-year lag is used in the tests of the hypotheses. After lagging the initial data and accounting for missing data, the final sample used to test the hypotheses included a total of 835 observations between 194 CEOs. To ensure there was no bias between the dropped CEOs and those in the final sample, an independent samples t-test was performed to compare the groups on CEO pay fairness, which showed no differences between the groups. All financial and CEO pay data is adjusted to 1990 dollars using the consumer price index.

Because my data is in the form of a panel design with repeated observations on CEOs who are nested in industries the independence assumption is violated, which makes the use of standard regression techniques inappropriate for this analysis. Also, since my data is in the form of repeated observations on CEOs nested in industries, the data requires an estimation technique that accounts for time-varying factors, firm-level factors, and industry-level factors in the tests of the hypotheses. For these reasons, I use Hierarchical Linear Modeling (HLM) to estimate models in which I test the hypotheses. HLM estimation explicitly accounts for the within- and between-firm components as well as the within- and between-industry components simultaneously and, thus, minimizes potential biases imposed by the violation of independence presented by repeated observations for the same firm and industry (Raudenbush and Bryk, 2002). HLM also effectively controls for industry effects by partitioning out the variance across industries into its own level of analysis in the estimation and thus the inclusion of industries dummies is unnecessary.

#### 3.2. Dependent variables

I obtained the SM measure from the KLD database. The KLD database includes observations for all firms on the Standard and Poor’s 500 and over 150 firms in the Domini Social Index. Additionally, the SM variable found in the KLD database has been commonly used for research on SM (e.g., McGuire et al., 2003; Hillman and Keim, 2001).

Following prior SM research, five dimensions of SM are used in this study: community relations, employee relations, diversity issues, environmental impact, and customer relations. Each form of SM has a varying number of strengths and concerns. KLD uses a binary system to rate each individual strength and concern on all the varying forms of SM. A rating of “1” indicates the firm has a presence on that specific strength or concern and a rating of “0” indicates the absence of the firm’s presence in that area. Since prior research has not determined a ranking of importance concerning stakeholder issues, in fact, Mitchell et al. (1997) suggests such a determination cannot be made, it may be difficult to determine the form of SM a CEO may affect based on their fair, or unfair, pay. Thus, similar to Hillman and Keim (2001), a single SM measure is developed, stakeholder management, by aggregating firm strengths and concerns separately and then subtracting concerns from strengths. Positive scores suggest the firm has more strengths than weaknesses on overall SM and thus higher scores indicate higher firm performance. Negative scores suggest the firm is rated as having more weaknesses than strengths on overall SM. Since CEOs are likely to determine whether their own outcomes are fair based on comparisons (Wade et al., 2006; Watson et al., 1996), CEOs will likely determine fair outcomes for stakeholders through comparisons with firms in their industry and thus the industry mean for SM is subtracted or added (depending upon the sign).

#### 3.3. Independent variables

Similar to Wade et al. (2006), I use the following CEO wage equation to determine pay fairness:

\[
\text{Log}(\text{CEO Total Pay}) = \beta_1 \ast \text{Experience} + \beta_2 \ast \text{CEO age} + \beta_3 \ast \text{CEO tenure} + \beta_4 \ast \text{Inside CEO} + \beta_5 \ast \text{Firm Size} + \beta_6 \ast \text{Firm Performance (ROA)} + \beta_7 \ast \text{Outsider Ratio} + \beta_8 \ast \text{Duality} + \beta_9 \ast \text{Manager-controlled} + \beta_{10} \ast \text{Owner-managed}.
\]

Year dummies were included for 1992, 1993, 1994, 1995, 1996, 1997, 1998, and 1999 (1991 was the omitted reference year). I used a fixed effects regression to estimate this wage equation because the use of a fixed effects model is equivalent to adding a dummy variable for each industry and thus controls for unmeasured differences across industries that may explain pay differences between CEOs. CEO pay fairness, is defined as the residuals from the CEO pay equation in any given year t. If the CEO receives a positive residual then that CEO is overpaid because the CEO’s actual total pay is greater than their predicted total pay. A negative residual suggests underpayment because the CEO’s actual pay is less than their predicted pay.

CEO total pay consists of salary, annual bonus, stock options, deferred pay, fringe benefits, and pension accruals. I valued Stock options using the Black–Scholes pricing method. Using the log of compensation minimizes heteroskedasticity. Outsider ratio and duality are included as they may determine CEO pay (Main et al., 1995). Ownership structure (e.g., manager-controlled, etc.) is included given Hambrick and Finkelstein (1995) suggest ownership structure may determine CEO pay. Human capital variables such as experience (i.e., prior position), inside CEO (whether CEO was an
inside promotion), CEO age, and CEO tenure are included given these factors may influence pay.

Following Coffee and Wang (1998), insider ratio is used as a board diversity/managerial control measure. Insider ratio is calculated as the number of inside directors divided by the total number of directors. The greater the ratio of inside directors compared to outside directors on the board of the directors, the less diverse the board and the greater the managerial control.

### 3.4. Control variables

Current SM (i.e., stakeholder management), log CEO cash pay, firm financial performance (return on assets [ROA]), firm size, resource availability, CEO duality, and Real GDP are entered to control for their possible effects on future SM.

### Table 2

Results to determine CEO pay fairness.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Log(CEO total pay)</th>
<th>Intercept</th>
<th>Experience</th>
<th>CEO age</th>
<th>CEO tenure</th>
<th>Inside CEO</th>
<th>Firm size</th>
<th>Return on assets</th>
<th>Outsider ratio</th>
<th>CEO duality</th>
<th>Manager-controlled</th>
<th>Owner-managed</th>
<th>Real GDP</th>
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<tr>
<td></td>
<td></td>
<td>0.02</td>
<td>2.53</td>
<td>1.00</td>
<td>0.11</td>
<td>0.03</td>
<td>2.53</td>
<td>(−0.10)</td>
<td>(0.06)</td>
<td>(0.15)</td>
<td>(0.15)</td>
<td>(0.15)</td>
<td>520.08</td>
</tr>
</tbody>
</table>

### Table 3

HLM results for the tests of the hypotheses.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Stakeholder management, (t_{-1})</th>
<th>(t_{2}^{*})</th>
<th>(t_{3}^{**})</th>
<th>(t_{4}^{***})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intercept</td>
<td>Log CEO cash pay</td>
<td>Resource availability</td>
<td>Return on assets</td>
</tr>
<tr>
<td></td>
<td>0.21 (^{*})</td>
<td>−0.06</td>
<td>0.26</td>
<td>0.28</td>
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<tr>
<td></td>
<td>(0.10)</td>
<td>(0.16)</td>
<td>(0.16)</td>
<td>(0.41)</td>
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<tr>
<td></td>
<td>Log CEO cash pay</td>
<td>−0.06</td>
<td>0.26</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.16)</td>
<td>(0.16)</td>
<td>(0.41)</td>
</tr>
<tr>
<td></td>
<td>Resource availability</td>
<td>0.26</td>
<td>0.27</td>
<td>0.27</td>
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<tr>
<td></td>
<td>(0.15)</td>
<td>(0.16)</td>
<td>(0.16)</td>
<td>(0.40)</td>
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<tr>
<td></td>
<td>Return on assets</td>
<td>0.28</td>
<td>0.27</td>
<td>0.24</td>
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<tr>
<td></td>
<td>(0.41)</td>
<td>(0.40)</td>
<td>(0.40)</td>
<td>(0.40)</td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
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<td>0.06</td>
<td>0.06</td>
</tr>
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<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td></td>
<td>Stakeholder management</td>
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<td>(0.30)</td>
<td>(0.31)</td>
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<td>(0.58)</td>
<td>(0.60)</td>
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<td>Manager-controlled</td>
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<td>0.02</td>
<td>0.02</td>
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<tr>
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<td>(0.16)</td>
<td>(0.16)</td>
<td>(0.15)</td>
<td>(0.13)</td>
</tr>
<tr>
<td></td>
<td>Owner-managed</td>
<td>−0.20</td>
<td>−0.23(^{*})</td>
<td>−0.21</td>
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<tr>
<td></td>
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<td>(0.12)</td>
<td>(0.13)</td>
<td>(0.13)</td>
</tr>
<tr>
<td></td>
<td>Real GDP</td>
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<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td></td>
<td>CEO duality</td>
<td>−0.25(^{*})</td>
<td>−0.25(^{**})</td>
<td>−0.25(^{**})</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.09)</td>
</tr>
<tr>
<td></td>
<td>Insider ratio</td>
<td>0.65(^{*})</td>
<td>0.67(^{**})</td>
<td>0.67(^{**})</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td>(0.17)</td>
<td>(0.17)</td>
<td>(0.17)</td>
</tr>
<tr>
<td></td>
<td>CEO pay fairness</td>
<td>0.18(^{**})</td>
<td>0.15(^{**})</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.15)</td>
</tr>
<tr>
<td></td>
<td>CEO pay fairness, \times insider ratio</td>
<td>0.91(^{*})</td>
<td>0.93(^{**})</td>
<td>0.93(^{**})</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
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<tr>
<td></td>
<td>CEO pay fairness, \times CEO duality</td>
<td>0.09</td>
<td>0.12</td>
<td>0.12</td>
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<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
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</tbody>
</table>

\(\chi^2\) 537.91** 547.92** 547.93** 549.75**

Robust standard errors shown in parentheses. Variance attributed to industry differences is explicitly modeled using HLM and thus the results of the analyses do not include industry labels.

\(^{*}\)\(p<.01\); \(^{**}\)\(p<.05\); \(^{***}\)\(p<.01\). Two-tailed tests.

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Johnson and Greening (1999) suggest that ownership may affect SM and thus I control for three forms of ownership. The first is ownership structure with respect to the CEO. Similar to Tosi and Gomez-Mejia (1989), I use a 5% equity-holding threshold based on common stock to sort the organizations into three categories and use dummy variables to define these categories: 1) manager-controlled firms, where there are no 5% owners; 2) owner-managed firms, where the CEO owns at least 5%; and 3) owner-controlled firms, where at least one equity holder, who is not the CEO, owns at least 5%. Owner-controlled firms are omitted reference category. Institutional equity and Top management team equity (TMT equity) are the second and third forms of ownership added as controls.

Hoffman (1999) suggests some industries may self-regulate for SM and thus industry is accounted for in the estimation procedure when testing the hypotheses and is categorized by two-digit SIC code.

4. Results

Table 1 displays the descriptive statistics for the variables used to test the hypotheses.

Table 2 displays the fixed effects regression coefficients and standard errors for the wage equation used to determine CEO pay fairness. In general, the findings are consistent with previous research using this technique to determine pay fairness (e.g., Wade et al., 2006).

Table 3 provides the results of the hypothesis tests using HLM as the statistical analytic technique. The coefficients are analogous to beta weights in traditional regression analyses. I estimate 3 models to test the hypotheses. Model 1 includes the control variables and insider ratio. Model 2 includes the variables in Model 1 plus CEO pay fairness to test Hypothesis 1. Model 3 includes the variables in Model 2 plus the interaction term to test Hypothesis 2. The measure of model fit is reported in the form of a likelihood ratio (LR) test comparing the more complex models to their respective fully unconditional model with no predictors (Raudenbush and Bryk, 2002). As displayed in Table 3, all the models are significant.

Model 2 in Table 3 shows the results of the analysis used to test Hypothesis 1, which proposes a relationship between CEO pay fairness and future SM. The Model shows that CEO pay fairness is related to SM (p < .05). The positive relationship is consistent with Hypothesis 1, when CEOs are underpaid, future SM decreases and when CEOs are overpaid, future SM increases.

Model 3 in Table 3 shows the results of the analysis used to test Hypothesis 2. Hypothesis 2 proposes that the relationship between CEO pay fairness and SM will be stronger as insider ratio increases.

Consistent with Hypothesis 2, the direct relationship between CEO pay fairness and SM remains positive and significant (p < .10), which suggests that future SM decreases when the CEO is underpaid and future SM increases when the CEO is overpaid, and the relationship between CEO pay fairness and SM is stronger when there are more insiders on the board (p < .05). Also, Fig. 1 shows that the slope of the relationship between SM and CEO pay fairness is stronger when there are more insiders than outsiders on the board of directors. Thus, when there are more insiders than outsiders on the board of directors there are greater decreases to future SM when CEOs are underpaid and there are greater increases to future SM when CEOs are overpaid.

5. Discussion

The purpose of this study was to examine the role of fairness in the relationship between CEO pay and SM. The results provide evidence that, consistent with stakeholder theory, future SM may be determined by fairness. The study shows that when a CEO is overpaid, SM increases. Unfortunately, when a CEO is underpaid, SM decreases. Consistent with Wade et al.’s (2006) results, which suggest that CEOs may use their control over firm resources to enrich their subordinates and thus create a fairer compensation structure relative to the CEO’s own over- or underpayment, this study shows that CEOs may influence SM in ways that reflect the CEO’s own over- or underpayment. However, these outcomes are likely driven by future pay increases related SM decreases (e.g., Coombs and Gilley, 2005) or intrinsic rewards (e.g., Diekmann et al., 1997) and legitimization of pay (e.g., McGuire et al., 1988) related to SM increases.

The current results also suggest that as the insider ratio of the board of directors increases (i.e., as managerial control increases and board diversity decreases), the relationship between CEO pay fairness and future SM is stronger. Fig. 1 shows that when more outsiders are on the board than insiders overpaid CEOs increase SM less and underpaid CEOs decrease SM less, which is consistent with prior research that suggests more diverse boards may pay closer attention to SM (Johnson and Greening, 1999) and that stronger boards may control the resources provided to SM (Coffey and Wang, 1998; Webb, 2004). However, because prior research is mixed as to whether it is managerial control or board diversity that affects SM, I perform a post hoc analysis examining the effect of CEO duality on the relationship between CEO pay fairness and SM. Model 4 in Table 3 (the post hoc model) shows that duality does not affect the relationship between CEO pay fairness and SM. Duality is a measure of managerial control and not diversity and thus Model 4 suggests that the significant effects found in the insider ratio interaction cannot be completely attributed to just managerial control. In the least, board diversity related to board ratio plays an important role in SM. Future research should attempt to develop a better understanding of board diversity’s role in SM.

This study has implications for CEO compensation and SM. Bebchuk and Fried (2004) suggest that the nature of the market leads to continuing increases in CEO pay (i.e., a “ratchet effect”). The current study suggests that firms that do not keep up with the increasing market rate of CEO pay may face decreased SM. However, there would also be effects if the market was “ratcheting” down. Essentially, CEO pay fairness changes when the market goes up or down. Ezzamel and Watson (1998) suggest that firms should minimize pay deviations from the CEO labor market rate or risk CEO motivational and retention problems. Deviations can be caused by both increases and decreases in the market. Unfortunately, the CEO market for pay is one that seems to continue to increase (Bebchuk and Fried, 2004), whether rationally or not. The results of this study suggest that compensation committees should concern themselves with CEO pay fairness if they are concerned with influencing SM.

These findings do not suggest that the overpayment of CEOs is positive for the firm as a whole. Although some research shows that corporate social responsibility is positively related to financial firm

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performance (e.g., Kassinis and Vafeas, 2009; Menguc and Ozanne, 2005), overpaying CEOs may have negative firm financial performance consequences; for example, overpaying the CEO, which seems to lead to the overpayment of subordinates (Wade et al., 2006), is costly. Instead, these findings suggest that paying the labor market rate for a CEO’s services may be the best outcome given underpaying CEOs seems to have negative consequences for SM, which could affect future profits through negative media attention, loss of reputation, and/or costly fines (Johnson and Greening, 1999).

There are limitations to be kept in mind when evaluating these results. First, the use of a CEO wage equation is a common means of determining CEO pay fairness (i.e., under- and overpayment); however, as with all studies that use a wage equation to determine fair pay (e.g., Carpenter and Sanders, 2002; Wade et al., 2006; Watson et al., 1996), I cannot conclude that CEOs make similar determinations (i.e., that pay equation accurately captures a CEO's cognitions of fairness). Directly surveying the CEO is the only means to determine whether the CEO perceives a fair, or unfair, situation and the only means by which the determination of CEO comparison groups can be made with certainty; such data is difficult to obtain. Ante and Smith (1986) suggest firms in the same industry face similar economic conditions and risk and March (1994) suggests that bounded rationality limits the information gathering capability of decision-makers; thus, CEOs are likely to make within industry comparisons on reasonably transparent variables when making decisions for the firm. It would not be unrealistic to believe they would make similar comparisons with respect to their own level of pay. Also, when determining whether a situation is cognitively fair or unfair, Festinger (1957: 10) states:

“...we want to emphasize the single most important determinant of the content of these elements [elements of cognition], namely, reality. These elements of cognition are responsive to reality. By and large they mirror, or map, reality.”

The CEO wage equation accounts for human capital, firm performance and size, and industry, all of which are elements that are expected to determine CEO pay fairness.

Second, Aguilera et al. (2007), when tying organizational justice principles to employees and SM, note that organizational justice is a complex model consisting of distributive justice (i.e., equity theory), procedural justice, and interactional justice. Related to the first limitation, I cannot conclude that CEOs recognize procedural or interactional justice issues; however, if the CEO wage equation accurately captures the under- and overpayment of CEOs, it may reflect a lack of procedural justice. If CEOs expect to be paid a fair wage for their services (accounting for industry, firm, and human capital factors) and they actually face under- or overpayment, then the compensation committees’ procedure generated that outcome. Unfortunately, the study does not capture interactional justice; however, it would be difficult to believe that CEOs receive poor interpersonal treatment from the compensation committee.

Third, although the study includes controls for ownership, controls for CEO values and stakeholder salience towards SM were not included. Agle et al. (1999) found that CEO values may affect the CEO’s reaction to SM. Alvarez-Gil et al. (2007) suggest the salience of stakeholders may affect SM. Future research might examine the possible moderating affects of CEO values and stakeholder salience on the relationship between CEO pay and SM. It may be that overpaying CEOs will lead to greater increases in areas that the CEO deems valuable or where stakeholders are more powerful and underpaying CEOs may lead to greater decreases in areas that the CEO deems less valuable or where stakeholders are less powerful.

Finally, as with all studies that use the KLD database, the sample consists only of large publicly held companies in the United States. Thus, it is unclear whether these results generalize to executives in smaller public, private, non-profit, or international firms. For example, Brammer et al. (2006) provide evidence that SM strategies differ based on geography. Other sources of SM data exist and, although they have their own limitations (Etzioni, 2007), future research may attempt replicated these relationships with those data sources.

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