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STAKEHOLDER MANAGEMENT AS A PREDICTOR OF CEO COMPENSATION: MAIN EFFECTS AND INTERACTIONS WITH FINANCIAL PERFORMANCE

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We test the effects of stakeholder management on CEOs' salaries, bonuses, stock options, and total compensation. We also examine the extent to which the interaction of stakeholder management and financial performance determines compensation. Using a longitudinal database of 406 Fortune *1000 firms, our results suggest that stakeholder management is relevant to boards of directors when setting CEO compensation. Specifically, we found a significant, negative main effect of stakeholder management on CEO salaries. Further, we found that stakeholder management typically reduces the rewards CEOs may get for increasing levels of financial performance. In tandem, these results indicate that CEOs may jeopardize their personal wealth by pursuing stakeholder-related initiatives.* Copyright © 2005 John Wiley & Sons, Ltd.

CEO compensation is one of the most widely researched areas in management. Much of this research has focused on determining whether and to what extent CEOs are rewarded for superior organizational performance. Despite this work, empirical support for this relationship has been mixed. In a recent CEO compensation meta-analysis, Tosi *et al*. (2000) reported that financial performance accounted for approximately 5 percent of the variance in CEO compensation, with firm size exerting a much larger influence. As Gomez-Mejia notes: 'The literature on executive pay is rather extensive . . . However . . . it is amazing how little we know about executive pay in spite of the massive volume of empirical work available on this topic' (Gomez-Mejia, 1994: 199). One possible reason for the difficulty in finding a consistent link between organizational performance and CEO compensation may be the field's almost exclusive focus on firms' *financial* performance.

Several calls have been made for researchers to go beyond financial performance and to include additional organizational effectiveness measures when studying strategic management (see Cameron, 1986; Hillman, Keim, and Luce, 2001). One such measure of organizational effectiveness, stakeholder management (SM), has been explored as a possible *outcome* of CEO compensation structure (McGuire, Dow, and Argheyd, 2003), but it has been ignored as a possible *antecedent*. SM deals with the degree to which organizations move beyond their own needs and legal requirements (McWilliams and Siegel, 2001) to satisfy the needs of their various non-shareholding stakeholders such as employees, suppliers, customers, and individuals in the community whose *primary* benefit derived from the company is not from its shareholder returns. We are aware of no studies that have examined the extent to which top executives are compensated for leading their firms to higher levels of SM. Thus, the extent to

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which CEOs are rewarded for pursuing stakeholder management initiatives remains an empirical question. Our goal, then, is to advance the field of strategic management by developing the argument that SM is likely to affect CEO compensation, both as a main effect and as an interaction effect with financial performance. We empirically test these relationships using a sample of 406 *Fortune* 1000 firms and their CEOs.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Prior CEO compensation research has relied implicitly or explicitly on agency theory to frame discussions and empirical tests (Tosi and Gomez-Mejia, 1989). The most essential agency theory component is the principal–agent relationship, whereby the agent (in this case the CEO) conducts business on behalf of the organization's principals (the owners/shareholders). Principals often find it difficult and expensive to monitor agents' actions, resulting in agency-related costs. Agency theory suggests that compensation should be tied to financial performance so that agents are encouraged to simultaneously maximize financial performance and their own wealth (Stroh *et al*., 1996). In the absence of such a compensation structure, executives may favor strategic actions designed to increase firm size and the CEO's own financial rewards, potentially at the cost of profitability and shareholder wealth (Baumol, 1967). When CEO compensation is related to financial performance, agency costs are minimized.

Results from examinations of the firm performance–CEO compensation relationship are surprisingly inconsistent with regard to the strength of the relationship. As Tosi *et al*. (2000) noted, the correlations between firm performance and CEO compensation in prior research have ranged from 0.41 (Belliveau, O'Reilly, and Wade, 1996) to −0.03 (Finkelstein and Boyd, 1998). Therefore, prior research has found that CEO compensation does not always depend on the extent to which CEOs guide their firms to superior financial performance, though the nature of the relationship is generally positive.

Prior CEO compensation research has focused, however, almost entirely on the financial component of firm performance when assessing the firm performance–CEO compensation relationship. Given the many recent corporate scandals that have rocked Wall Street, it is evident that organizations focusing on financial performance at the expense of other organizational effectiveness measures run the risk of long-run declines in their ability to achieve a competitive advantage. Nevertheless, management research has thus far largely ignored the extent to which executive compensation systems are structured such that CEOs are given incentives to go beyond financial performance in their decision making.

Stakeholder–agency theory and CEO compensation

While most prior CEO compensation studies have been founded on agency theory, stakeholder–agency theory provides a useful foundation for the study of the effects of SM on CEO compensation. Hill and Jones (1992) developed a view of the agent–principal relationship based on Jensen and Meckling's (1976) notion that the relationship between managers and stockholders is just one of a series of relationships that form the modern corporation. Particularly relevant here are the unique relationships between managers and the firm's stakeholders that form the basis of stakeholder–agency theory. Stakeholders are defined here as those groups or individuals who can affect or are affected by firm's actions (Freeman, 1984). This stakeholder definition is inclusive in nature and covers a broad variety of individuals, groups, and entities, such as shareholders, employees, customers, suppliers, the community, and the natural environment.

CEOs have direct control over firm-level decisions that directly impact all stakeholder groups. Clearly, SM is an important component of organizational effectiveness, and it is affected by decisions made at the very top of the organization (Jones and Wicks, 1999). Due to this unique relationship, CEOs can be viewed as stakeholders' agents, not just shareholders' agents (Hill and Jones, 1992). As agents for all the firm's stakeholders, CEOs' actions are monitored and influenced by the presence of representatives on the board of directors (Harrison, 1987; Luoma and Goodstein, 1999). A stakeholder–agency view would suggest that stakeholder-monitors consider organizational effectiveness to be enhanced when organizations meet the needs of a wide variety of stakeholders

(Jawahar and McLaughlin, 2001; Jones, 1995), including both shareholders and non-shareholders.

Following prior research in the area (Hillman and Keim, 2001), we examine the firm's stakeholder management-related performance with regard to employees (including diversity initiatives), customers (product safety/quality), the natural environment, the community, and suppliers (to the extent that certain diversity initiatives are directed toward suppliers). We contend that the board of directors compensates CEOs for maximizing value for these stakeholders because, in doing so, such CEOs are enhancing the firm's overall effectiveness. Prior research has clearly suggested that incentives should be structured so that organizational performance is a key determinant of executive compensation (Tosi *et al*., 2000). This alignment has been theorized to be critical to maximizing long-run firm performance, but the focus of prior research has been almost exclusively on financial performance. It seems reasonable to suggest, however, that boards of directors recognize the value of effective stakeholder management and seek to design executive compensation systems such that CEOs are rewarded for maximizing stakeholder value. Thus:

Hypothesis 1: Stakeholder management (SM) will have a positive effect on CEO compensation levels.

Interactions between SM and financial performance

Prior research has consistently suggested that the firm's long-run survival depends on its ability to satisfy the needs of its various stakeholders (Clarkson, 1995), beyond just shareholding stakeholders. Organizations maximize their effectiveness when their various stakeholders attain maximum value from the firm (Donaldson and Preston, 1995). Furthermore, by attending to the needs of the organization's various stakeholders, corporate executives increase the firm's performance relative to the desires of a broad base of constituents, while at the same time having fewer resources to devote to self-centered decisions (Hill and Jones, 1992). This suggests that CEOs may benefit their organizations by pursuing stakeholder-related initiatives designed to add value for multiple stakeholder groups.

Empirical research generally supports this conclusion. For instance, Hillman and Keim (2001) found a positive relationship between stakeholder management and shareholder value creation. Ogden and Watson (1999) reported that enhancing customer service levels negatively affects short-run accounting returns but significantly enhances share price. In addition, Berman *et al*. (1999) concluded that customer-related and employee-related enhancements positively affected return on assets. Finally, Waddock and Graves (1997) noted that corporate social responsibility was positively related to accounting returns.

Boards of directors have generally based CEO compensation partially on the organization's financial performance, although the extent to which compensation is based on performance varies from study to study and from firm to firm. One potential reason that firm performance has been found to marginally affect CEO compensation is that researchers have ignored the complex interrelationships between different types of organizational performance, choosing instead to focus only on financial outcomes. Although SM and financial performance are unique dimensions of organizational performance, they are complementary in nature and should both affect CEO compensation. In their study of corporate governance and social responsibility, Johnson and Greening (1999) concluded that their findings highlighted the need for directors to be concerned with both stakeholders' social goals and stockholders' profit goals. We believe directors' concerns for both stakeholders' social goals and stockholders' profit goals may take the form of an interaction effect with regard to their influence on CEO compensation. We contend that the extent to which financial performance affects CEO compensation is partly based on the firm's stakeholder-related performance, and vice versa. For example, regardless of how highly an organization may perform on financial criteria, those CEOs not meeting non-shareholding stakeholders' needs may see their compensation adversely affected. The reverse may also be the case: CEOs meeting the needs of their non-shareholding stakeholders, but achieving disappointing financial performance, may not be rewarded for their superior leadership on stakeholder-related initiatives. CEOs simultaneously achieving superior financial and stakeholder performance would be compensated most highly. Thus, the effects of financial performance on CEO compensation may be contingent on SM, and vice versa. In other words, firm performance is clearly a multidimensional construct, and CEOs performing

well simultaneously on multiple dimensions will be most highly compensated.

Hypothesis 2: Stakeholder management and financial performance interact to predict CEO compensation levels, such that CEOs simultaneously achieving higher levels of both will be the most highly compensated.

RESEARCH METHOD

Sample and data collection

To test these hypotheses, we collected SM data from the Kinder, Lydenberg, Domini, and Company (KLD) database. KLD's data have been widely used in empirical studies in premier management journals over the past several years (see Agle, Mitchell, and Sonnenfeld, 1999; Berman *et al*., 1999; Graves and Waddock, 1994; Hillman and Keim, 2001; Johnson and Greening, 1999; Turban and Greening, 1996; Waddock and Graves, 1997). These are considered to be the most comprehensive and prominent data on SM. Analysts at KLD, a social equity fund advisor, collected KLD's stakeholder management data. The database includes all firms on the Standard and Poor's 500, as well as approximately 150 firms included in the Domini Social Index.

Firm financial performance data and data for firm-level control variables were taken from the Compustat database, while CEO compensation and characteristics data were drawn from the Execucomp database. Although it is uncertain as to exactly how long it takes SM to affect CEO compensation, we believe that a 1-year lag is appropriate here. The choice of the appropriate lag presented an interesting challenge, in particular because we are aware of no studies that specifically address the matter. However, given that CEO compensation is determined annually and is generally based on the firm's performance over the prior year, a 1-year lag seems the appropriate choice. Indeed, prior research examining the antecedents of CEO compensation has followed a 1-year lag approach (e.g., Balkin, Markman and Gomez-Mejia, 2000). Although a 1-year lag, coupled with our longitudinal research design, provides some assurance that reverse causality is not significantly affecting our results (Benner and Tushman, 2002), we followed the process outlined by Hillman and Keim (2001) and found little evidence of a recursive relationship in a series of additional analyses designed specifically to test for reverse causality. Data were available for 406 firms and their CEOs. Firms in the sample represented a total of 47 2-digit SIC code industries and had average 1999 sales of approximately $11 billion.

Estimation methods

An unbalanced panel data set relating to a sample of firms for the period 1995–2001 is analyzed. As both firm-specific and time-specific effects are likely to be present, a panel estimation procedure is used (Chamberlain, 1982) including a White heteroskedasticity-consistent variance–covariance matrix (White, 1980). While a fixed-effects specification is a more conservative approach (Greene, 1995), the analyses include industry control variables that are invariant over time and therefore necessitate the use of random-effects models (Greene, 1995; Sanders, 2001). The firm is the primary stratification variable, so that there is a 406-item unbalanced panel, with a time series of between three and seven observations in each stratum. There are a total of 2297 observations in the panel. Year dummy variables were included to eliminate year-specific heterogeneity (Bergh, 1993).

Measures

Dependent variables

Our primary dependent variables were the different categories of CEO compensation, including salary, bonus, stock options granted value, and total compensation. Stock options were valued using the Black–Scholes options pricing model. The average CEO in our study had total compensation of approximately $6.5 million.

Independent variables and moderators

Our independent variables were five types of SM found in the KLD database. Because these measures have been used extensively in prior research, we will only summarize them here. We measured SM as it related to the following: community relations, diversity, employee relations, environmental impact, and product safety/quality (customer related). These five dimensions best reflect a stakeholder view of the organization (Agle *et al*., 1999).

Each firm's performance on these dimensions is determined by KLD after extensive investigation of public records, surveys, and even facilities visits by the KLD analysts (Berman *et al.*, 1999). After this data collection, firms are given ratings on 5-point Likert-type scales, with a score of −2 suggesting poor social performance and a +2 indicating superior social performance. To test for interaction effects between SM and financial performance, we measured financial performance using return on assets (following Berman *et al.*, 1999) and total returns to shareholders. Each of these was drawn from the Compustat database for the year prior to our CEO compensation measure.

Control variables

Several industry-, firm-, and CEO-specific control variables used in prior research were included in our study to enhance confidence in our findings. Prior research has suggested that industry effects may influence both compensation strategies (Gerhart and Milkovich, 1990; Stroh *et al.*, 1996) and stakeholder management (Agle *et al.*, 1999; Hillman and Keim, 2001; Hillman *et al.*, 2001; Waddock and Graves, 1997). Following Hillman and Keim (2001), we therefore created industry dummy variables measured at the 2-digit SIC code level. Firm size was measured by the logarithm of sales following prior CEO compensation research using similar samples (Belliveau *et al.*, 1996; Finkelstein and Boyd, 1998; Sanders, 2001; Sanders and Carpenter, 1998). Prior research has shown that firm size generally has a significant effect on CEO compensation (Tosi *et al.*, 2000), and larger firms may have lower average costs than smaller firms when implementing social performance-related initiatives (McWilliams and Siegel, 2001). Thus, firm size is an important control variable.

CEO-related factors included CEO share ownership and CEO tenure with the current firm in days. A CEO's tenure may influence compensation levels because newer CEOs are likely to receive different levels and types of compensation than longer-tenured ones (Hambrick and Finkelstein, 1995). CEO equity ownership was included as a control variable because it has long been considered an important potential antecedent of CEO compensation (see Finkelstein, 1992). CEO equity ownership was measured as the percentage of shares outstanding owned by the CEO.

RESULTS

Table 1 reports descriptive statistics and correlations for the variables included in this study. On average, CEOs were paid $739,000 in salary and received $986,000 in bonus compensation. Stock options value averaged $4,700,000 while on average CEOs owned 1.5 percent of their firms. Multiple regression and moderated multiple regression analyses were used to test our hypotheses. The results of these analyses are shown in Tables 2 and 3. To aid in interpreting our interaction results, each variable included in the interaction terms was centered (Aiken and West, 1991). While centering our data helps minimize multicollinearity problems, we tested for the presence of multicollinearity in our analyses by examining variance inflation factors (VIF). These analyses showed no indication of multicollinearity, thus each of the interaction terms was included in one analysis. Table 2 reports results using ROA as firm performance, while Table 3 shows our results when financial performance is measured using shareholder returns.

Models 1, 4, 7, and 10 of Tables 2 and 3 present our control variable results for salary, bonus, stock options, and total compensation as dependent variables, respectively. Consistent with prior research, firm size and financial performance were both positively associated with each type of compensation. Stock ownership and tenure were negatively associated with salary, but unrelated to the other forms of compensation. Main effects for each of our SM performance measures are reported in Models 2, 5, 8, and 11 of Tables 2 and 3. The community, diversity, environment, and product performance variables were all negative and significant for salary, suggesting that CEOs are given incentives to decrease their focus on stakeholder management. These results refute our prediction in Hypothesis 1 that SM performance would have a positive effect on CEO compensation. Rather, CEOs appear to be given *dis*incentives to engage in stakeholder management issues, at least as far as base salary is concerned. Our results for bonus, stock options, and total compensation as dependent variables yield almost no significant effects of SM performance on compensation except for a positive effect of employee-related SM on bonuses. Given the number of relationships we explored, however, this finding should be viewed with extreme caution. We found no main effect whatsoever of SM on stock options or total compensation in either

Table 1. Descriptive statistics and correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Salary	739.49	382.67	1.00													
2. Bonus	986.05	1745.35	0.35	1.00												
3. Options	4729.04	17,536.04	0.11	0.16	1.00											
4. Total compensation	6454.59	17,961.15	0.16	0.27	0.99	1.00										
5. Firm size	8.39	1.27	0.47	0.33	0.15	0.19	1.00									
6. ROA	5.66	7.80	−0.05	−0.00	0.03	0.02	−0.06	1.00								
7. Shareholder return	19.37	49.43	−0.05	0.07	0.08	−0.03	−0.03	0.17	1.00							
8. CEO stock ownership	0.02	0.05	0.01	0.01	0.01	0.08	−0.08	0.14	0.03	1.00						
9. CEO tenure	2914.66	2665.45	0.01	0.01	−0.00	0.01	−0.07	0.11	0.07	0.36	1.00					
10. Community performance	0.32	0.76	0.08	0.11	0.02	0.03	0.16	0.05	0.04	0.04	0.04	1.00				
11. Diversity performance	0.70	1.32	0.20	0.17	0.07	0.09	0.37	0.02	−0.01	−0.03	−0.03	0.28	1.00			
12. Employee performance	0.30	0.93	−0.07	0.03	−0.01	−0.01	0.04	0.09	0.01	−0.03	0.04	0.05	0.16	1.00		
13. Environment performance	−0.18	0.97	−0.21	−0.05	0.01	0.00	−0.28	0.07	0.07	0.06	0.09	0.19	0.01	0.05	1.00	
14. Product/customer performance	−0.20	0.80	−0.31	−0.16	−0.03	−0.05	−0.36	0.01	0.05	0.14	0.13	−0.02	−0.11	0.10	0.28	1.00

Correlations greater than or equal to 0.05 or less than or equal to −0.05 are significant.

Table 2. Regression results for effects of stakeholder management performance on CEO compensation level

Predictors and controls	Model 1 Salary	Model 2 Salary	Model 3 Salary	Model 4 Bonus	Model 5 Bonus	Model 6 Bonus
Firm size	50.00***	46.78***	45.26***	409.21***	408.73***	406.64***
	(7.09)	(6.94)	(6.80)	(47.16)	(50.67)	(50.88)
Financial performance (ROA)	0.85**	0.89*	1.15**	17.87***	17.11***	25.60***
	(0.34)	(0.33)	(0.38)	(4.13)	(4.15)	(4.81)
CEO stock ownership	−329.53*	−352.19**	−356.87**	−377.08	−267.64	−240.50
	(128.78)	(124.19)	(121.23)	(1100.05)	(1100.78)	(1103.02)
CEO tenure	−0.20***	−0.20***	−0.20***	−0.26	−0.37	0.24
	(0.13)	(0.13)	(0.12)	(0.15)	(0.15)	(0.15)
Community performance		−9.61*	−8.63		−15.85	−15.73
		(4.76)	(4.65)		(55.37)	(55.23)
Diversity performance		−10.17***	−9.83***		−31.37	−39.90
		(3.08)	(3.00)		(34.69)	(34.58)
Employee performance		−2.75	−2.99		120.67**	124.09**
		(3.72)	(3.63)		(42.72)	(42.62)
Environment performance		−18.59***	−18.14***		−67.43	−71.13
		(4.03)	(3.93)		(45.71)	(45.57)
Product performance		−18.20***	−18.40***		−1.44	15.12
		(4.75)	(4.65)		(54.21)	(54.16)
Community × financial performance			0.66			12.04
			(0.57)			(7.24)
Diversity × financial performance			−1.02***			7.99**
			(0.26)			(3.41)
Employee × financial performance			−0.18			−7.31
			(0.35)			(4.50)
Environment × financial performance			1.10*			0.86
			(0.48)			(6.34)
Product × financial performance			−0.31			−14.98***
			(0.35)			(4.50)
F	31.02***	30.29***	28.76***	13.99***	13.08***	12.11***
Partial F		10.79***	7.95***		1.90*	1.69*
R^2	0.44	0.46	0.46	0.26	0.27	0.27
N	2297	2297	2297	2297	2297	2297

(*continued overleaf*)

Table 2. (*Continued*)

Predictors and controls	Model 7 Options	Model 8 Options	Model 9 Options	Model 10 Total Comp.	Model 11 Total Comp.	Model 12 Total comp.
Firm size	2299.37***	2555.85***	2508.91***	2915.65***	3134.88***	3086.03***
	(446.27)	(503.66)	(507.99)	(470.13)	(525.56)	(529.73)
Financial performance (ROA)	120.44*	123.42**	142.64**	137.68**	140.46**	168.89**
	(52.55)	(52.70)	(60.53)	(52.37)	(52.50)	(60.48)
CEO stock ownership	−292.30	−1198.55	−1758.21	−1126.86	−1918.57	−2419.08
	(11,215.94)	(11,254.25)	(11,327.35)	(11,675.35)	(11,708.64)	(11,779.34)
CEO tenure	0.99	0.90	0.65	0.11	0.10	0.72
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
Community performance		−54.46	−108.05		24.82	−39.34
		(645.83)	(648.14)		(656.11)	(657.86)
Diversity performance		−167.71	−158.06		−192.04	−192.71
		(397.27)	(398.37)		(404.97)	(405.75)
Employee performance		−597.35	−506.46		−533.85	−435.36
		(494.87)	(496.84)		(503.27)	(504.79)
Environment performance		791.79	800.40		711.06	722.88
		(523.79)	(526.01)		(533.95)	(535.59)
Product performance		60.71	17.34		−38.00	−69.47
		(626.27)	(629.68)		(637.25)	(640.10)
Community × financial performance			−48.98			−33.67
			(91.27)			(91.17)
Diversity × financial performance			7.81			19.09
			(44.08)			(43.76)
Employee × financial performance			−191.47***			−212.56***
			(57.95)			(57.59)
Environment × financial performance			13.30			24.81
			(82.50)			(81.79)
Product × financial performance			−27.66			−46.57
			(56.74)			(56.66)
F	3.77***	3.59***	3.39***	4.92***	4.66***	4.38***
Partial F		1.35	1.07		1.37	1.05
R^2	0.09	0.09	0.09	0.11	0.12	0.12
N	2297	2297	2297	2297	2297	2297

Measure of financial performance is return on assets. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 3. Regression results for effects of stakeholder management performance on CEO compensation level

Predictors and controls	Model 1 Salary	Model 2 Salary	Model 3 Salary	Model 4 Bonus	Model 5 Bonus	Model 6 Bonus
Firm size	51.69***	48.68***	42.67***	425.70***	424.06***	421.05***
	(7.07)	(6.93)	(6.43)	(47.04)	(50.56)	(50.60)
Financial performance (1-yr return)	0.91*	0.92**	0.30	2.44***	2.48***	2.56***
	(0.40)	(0.38)	(0.36)	(0.51)	(0.51)	(0.53)
CEO stock ownership	−326.11**	−346.64**	−373.39***	−104.09	5.23	39.58
	(127.99)	(126.65)	(112.59)	(1094.43)	(1094.92)	(1093.92)
CEO tenure	−0.21***	−0.20***	−0.21***	0.27	0.37	0.37
	(0.13)	(0.13)	(0.11)	(0.15)	(0.15)	(0.15)
Community performance		−9.48*	−8.31*		−14.74	−17.37
		(4.74)	(4.28)		(55.28)	(55.08)
Diversity performance		−10.06***	−10.27***		−31.37	−28.41
		(3.06)	(2.77)		(34.63)	(34.53)
Employee performance		−1.83	−2.98		136.42***	136.54***
		(3.70)	(3.34)		(42.54)	(42.47)
Environment performance		−18.69***	−17.96***		−67.76	−63.91
		(4.02)	(3.62)		(45.63)	(45.53)
Product performance		−18.27***	−15.74***		−0.40	−11.02
		(4.73)	(4.28)		(54.11)	(54.00)
Community × financial performance			−0.26***			0.50
			(0.61)			(0.89)
Diversity × financial performance			−0.39			1.14**
			(0.29)			(0.42)
Employee × financial performance			−0.14***			−0.27
			(0.39)			(0.58)
Environment × financial performance			0.39***			0.74
			(3.62)			(0.83)
Product × financial performance			0.81			−0.83
			(0.53)			(0.79)
F	30.94***	30.26***	28.05***	14.22***	13.29***	12.52***
Partial *F*		11.02***	5.87***		1.92*	2.00*
R^2	0.44	0.46	0.46	0.27	0.27	0.27
N	2297	2297	2297	2297	2297	2297

(*continued overleaf*)

Table 3. (*Continued*)

Predictors and controls	Model 7 Options	Model 8 Options	Model 9 Options	Model 10 Total Comp.	Model 11 Total Comp.	Model 12 Total comp.
Firm size	2350.54***	2607.85***	2607.99***	2983.34***	3201.90***	3200.10***
	(440.01)	(497.85)	(498.70)	(463.82)	(519.83)	(520.97)
Financial performance (1-yr return)	21.06**	20.78**	18.88**	22.65***	22.43***	20.56**
	(6.81)	(6.80)	(7.10)	(6.71)	(6.70)	(6.99)
CEO stock ownership	1913.00	1167.18	1380.59	1326.92	706.37	932.41
	(11,030.93)	(11,069.82)	(11,086.21)	(11,499.42)	(11,533.53)	(11,554.15)
CEO tenure	0.98	0.91	0.83	0.11	0.10	0.94
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
Community performance		−65.98	9.30		17.09	90.51
		(642.81)	(643.66)		(653.90)	(654.69)
Diversity performance		−171.64	−177.05		−193.65	−199.29
		(395.06)	(395.60)		(403.23)	(403.76)
Employee performance		−499.64	−492.01		−423.36	−415.63
		(490.88)	(491.90)		(499.93)	(501.00)
Environment performance		802.69	805.21		725.99	731.47
		(520.80)	(523.02)		(531.60)	(533.60)
Product performance		47.28	61.83		−54.96	−43.27
		(623.12)	(624.07)		(634.83)	(635.88)
Community × financial performance			−28.78**			−27.55**
			(11.95)			(11.78)
Diversity × financial performance			4.09			5.18
			(5.69)			(5.60)
Employee × financial performance			−9.67			−9.83
			(7.76)			(7.65)
Environment × financial performance			8.04			8.73
			(11.17)			(10.99)
Product × financial performance			−1.01			−1.34
			(10.67)			(10.50)
F	3.97***	3.77***	3.62***	5.17***	4.88***	4.63***
Partial F		1.24	1.32		1.25	1.27
R^2	0.09	0.10	0.10	0.11	0.12	0.12
N	2297	2297	2297	2297	2297	2297

Measure of financial performance is total returns to shareholders. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 2 or Table 3. Thus, our results indicate a relationship that is the opposite of what was suggested in Hypothesis 1.

Hypothesis 2 proposed that financial performance and SM interact to predict CEO compensation such that CEOs of firms having higher SM and higher financial performance would be most highly compensated. Moderated multiple regression analyses were used to test this hypothesis. We created linear-by-linear interaction terms following Stone and Hollenbeck (1988) by multiplying financial performance (either ROA or 1-year shareholder return) by the five types of SM. After entering the proposed main effects into the regression model, we then added the multiplicative terms. As with our main effects models, there appears to be a predominantly negative interaction effect of SM and financial performance on compensation. Our two types of financial performance, five types of SM, and four types of compensation yielded a total of 40 interaction terms, 12 of which were significant. Of these 12, eight were in the direction opposite of our hypothesis. SM tended to reduce the positive effects of financial performance on the various types of compensation. Consistent patterns were difficult to find, however, with regard to a given interaction's effects across multiple types of compensation, or with respect to the effects of multiple interactions on a single type of compensation. One exception, however, is a negative interaction of community-related SM and shareholder returns on salary, stock options, and total compensation. In sum, we feel that our results should be viewed with caution, with the exception of the negative main effects we found of SM on CEO salaries.

DISCUSSION

Despite being one of the most highly researched areas in the management field, empirical investigations of CEO compensation and organizational effectiveness have been limited by researchers' reliance on financial measures of organizational effectiveness. This study's purpose was to examine the effects of a different organizational effectiveness measure, SM, on CEO compensation. Our main effects models provide evidence that the SM dimensions of community, diversity, environment, and product performance are negatively associated with CEO salaries. These results indicate that a proactive approach to SM on the part of CEOs may negatively affect their personal wealth. Our tests for interactions between SM and financial performance yielded similar results, though the bulk of the interactions were non-significant. Boards apparently give negative reinforcement to their CEOs for engaging in stakeholder value-enhancing initiatives. This may occur because proactive behavior is costly in terms of financial and managerial resources (Jawahar and McLaughlin, 2001).

Our results suggest that boards consider both financial and stakeholder-related performance when determining CEO compensation, especially with regard to main effects on salary. Our findings of a negative SM effect on salary and many negative interactions between SM and firm financial performance are interesting in light of Johnson and Greening's (1999) observation that boards are concerned with both stakeholders' social goals and stockholders' profit goals. Our results suggest that, to more fully understand the complex relationships between firm performance and the various types of CEO compensation, researchers must move beyond financial performance and consider a broader view of organizational effectiveness that includes different dimensions of social (Freeman, 1984; Hillman *et al*., 2001) and innovative (Balkin *et al*., 2000) performance.

Although the results of our moderated multiple regression models should be interpreted with caution, several observations can be made. Results suggest that CEOs who simultaneously maximize environment-related SM and financial performance may be rewarded with greater salaries, while CEOs maximizing diversity-related SM and financial performance may be rewarded with higher bonuses. The diversity results are consistent with prior research that has clearly explicated a positive connection between diversity and financial performance outcomes (Richard, 2000). We also found evidence that the interaction of diversity-related SM and ROA was negatively related to salaries, which is consistent with CEO risk aversion associated with fixed compensation (Jensen and Murphy, 1990; McGuire *et al*., 2003; Zajac and Westphal, 1994). Our positive results for CEOs achieving greater levels of financial and environment-related SM appear inconsistent with prior findings by Mathur and Mathur (2000) and Gilley *et al*. (2000). Interestingly, a CEO's salary for achieving greater shareholder return appears to be reduced for those CEOs focusing on employee-related

SM. This result supports research that has found positive market reactions to announcements of union *de*-certification petitions and elections (Huth and MacDonald, 1990). Finally, consistent with CEO risk aversion toward fixed compensation, the interaction of financial performance (measured by ROA) and product performance is negatively associated with CEO salary compensation.

Hillman and Keim (2001) suggest it would be beneficial for researchers to more fully understand how managers prioritize and manage stakeholder demands. With few exceptions our results suggest that CEOs are given negative signals from boards of directors with regard to enhancing firm value to its various stakeholders. CEOs do appear to be rewarded (through bonus compensation) for employee-related SM performance, but again this finding should be viewed with caution. These findings indicate, however, that boards generally punish stakeholder-related managerial initiatives. This conclusion not only affects CEO compensation in isolation, but also affects the extent to which CEOs are rewarded for financial performance itself. Therefore, it is likely that CEOs will respond to this incentive system in a way that maximizes their own rewards, often at the expense of the organization's various stakeholder groups.

Limitations and future research

An important research limitation is the lack of attention to the complex relationships among board members and between the board and the CEO that ultimately determine CEO compensation. We have taken a more coarse-grained approach by using CEO compensation as a proxy for those behaviors that boards are rewarding. Researchers should extend this line of inquiry by collecting primary data from directors, especially those serving on compensation committees, dealing with the extent to which they value and reward SM-related behaviors on the part of their firm's CEO.

Our findings' generalizability is also somewhat limited. Given that our sample consisted only of the largest publicly held companies in the United States, it remains uncertain whether our results are generalizable to smaller public firms, private firms, non-profit and government agency executives, and firms outside the United States. These limitations may partially explain the relatively small amount of bonus, stock option, and total compensation variation we are able to explain.

Our results suggest several avenues for clarifying the relationship between organizational performance and CEO compensation. First, researchers should take care to separate salary and contingent compensation. Researchers have often combined these types of compensation to form a single measure (Geletkanycz, Boyd, and Finkelstein, 2001; Henderson and Fredrickson, 1996). Our results show that the organizational effectiveness measures used in this study have very different relationships with fixed vs. contingent compensation, likely due to CEO risk aversion (Jensen and Murphy, 1990; McGuire *et al*., 2003; Zajac and Westphal, 1994). Second, researchers should expand their conception of organization performance to include variables beyond financial performance such as innovative (Balkin *et al*., 2000), social, and diversification performance. Finally, research clarifying board member attitudes toward SM would benefit our understanding of the inducements to satisfy stakeholders and corporate governance.

CONCLUSION

This paper has extended research into CEO compensation antecedents by examining the extent to which America's top executives are rewarded or punished for pursuing stakeholder-related initiatives. Our results provide evidence that the main effects of SM on CEO compensation are more often negative than positive, and that the only form of compensation substantially affected by SM is salary. Our results also suggest that the interaction effects between financial performance and SM were generally negative. We therefore conclude that social performance is relevant to compensation committees when setting CEO compensation, and that CEOs are typically dissuaded from pursuing stakeholder-related initiatives.

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