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Corporate social responsibility and CEO compensation structure

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A B S T R A C T

We examine how firms' corporate social responsibility (CSR) performance affects CEO compensation structure. Traditional agency theory suggests that CEOs engage in CSR for their own interests at the expense of shareholders. A competing argument is that CEOs consider firms' social performance as a business strategy to increase firm value and align their interests with those of shareholders. Our results support the latter prediction. We find that a firm's social performance is negatively associated with the proportion of cash-based compensation, while it is positively associated with the proportion of equity-based compensation. These results are robust to the degree of corporate governance, and they are more pronounced for firms with high levels of inside director ownership and long director tenure. Overall, our findings highlight the positive impact of CSR performance on CEO compensation packages, implying that CEOs' fiduciary behavior of engaging in CSR leads to mitigating agency problems and maximizing firm value.

1. Introduction

Prior literature shows that corporate social responsibility (CSR) has great impact on various aspects of accounting and finance. These studies show that a firm's CSR activity improves operating and financial performance (Hillman & Keim, 2001; Jiao, 2010; Karpoff, Lott, & Wehrly, 2005; McGuire, Sundgren, & Schneeweis, 1988; Waddock & Graves, 1997), reduces the cost of capital (El Ghoul, Guedhami, Kwok, & Mishra, 2011; Sharfman & Fernando, 2008), and limits firms' earnings management behavior (Kim, Park, & Wier, 2012). In line with this, some suggest the introduction of new standards on environmental reporting and environmental assurance service (Beets & Souther, 1999). Some studies, however, find no significant effect of CSR (Nelling & Webb, 2009) or its negative effect on firms' financial performance (Brammer, Brooks, & Pavelin, 2006).

Since a firm's CSR performance is not the main goal of its business activity, mixed evidence from the prior studies raises the question of why CEOs intend to engage in CSR.[2] Classic agency theory introduced by Jensen and Meckling (1976) argues that CEOs tend to pursue their own interests rather than to maximize shareholders' value. For instance, CEOs tend to invest in CSR to hide their wrongdoings such as corporate misconduct (Hemingway & Maclagan, 2004), or to increase their own benefits such as strengthened reputation and bargaining power (Barnea & Rubin, 2010; Milbourn, 2003). A competing argument, on the other hand, posits that CEOs perceive CSR activity as a business strategy that improves firm performance and aligns their interest with those of shareholders. This is supported by Deng, Kang, and Low (2013), who argue that improving relationships with a firm's stakeholders leads those stakeholders to be more willing to support a firm's operation, contributing to increasing firm value. Under this argument, CEOs' engagement in CSR would end up mitigating agency problems between managers and shareholders, rather than amplifying them.

Empirically, though, it is challenging to test these two arguments, since the consequences of CEOs' CSR activities, such as changes in their reputation level or increased firm value attributable to CSR performance, are not clearly observable through financial data. One indicator that shows CEOs' motivation for CSR is CEO compensation. For example, if CEOs engage in CSR for their own interests, firms' high social performance will be followed by high levels of CEO compensation (Barnea & Rubin, 2010; Borghesi, Houston, & Naranjo, 2014; Brown, Helland, & Smith, 2006; Hemingway & Maclagan, 2004; Krüger, 2015; Masulis & Reza, 2015; Milbourn, 2003). In contrast, CEO compensation

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[2] Although a firm's CSR investment is primarily initiated by CEOs, such strategic decisions must be ultimately approved by the board of directors. Therefore, CSR activities could be significantly affected by the board and its characteristics. Nonetheless, our assertion that CEOs take lead in firms' social activities is still valid, given that the main function of the board is to monitor CEOs' business activities on behalf of shareholders, rather than initiating new activities (Fama & Jensen, 1983; Hillman & Dalziel, 2003; Jensen & Meckling, 1976).

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may decrease with firms' CSR performance, because high social performance makes CEOs proud of being "an exemplary CEO" and internally rewarded by doing the right thing (Potts, 2006; Rekker, Benson, & Faff, 2014), or improved relationships between CEOs and other employees reduce the compensation gap between CEOs and non-CEOs (Cai, Jo, & Pan, 2011).

Although the total level of CEO compensation represents CEOs' financial benefits, its association with CSR performance may not provide dichotomous conclusions on CEOs' intention to engage in CSR and its effect on firm value. Motivated by this, we extend the literature by analyzing the structure of CEO compensation measured by the proportions of cash-based (short-term) or equity-based (long-term) compensation.

CEO compensation structure is a crucial factor in inducing executives to take on riskier investments and pursue long-term profits in alignment with the interests of shareholders (Indjejikian, 1999). In particular, given that CEOs' preference for less risky short-term compensation is closely related to their entrenchment, an analysis on how a firm's social performance is associated with the proportions of cash- and equity-based compensation provides direct evidence on CEOs' motivation for CSR as well as the consequences of their CSR activity on shareholders' wealth. For example, if CEOs invest in CSR for their own interests at the expense of shareholders, firms' CSR performance can be positively associated with the proportion of cash-based compensation, such as salary and bonus. On the other hand, if CEOs engage in CSR to increase firm value in alignment with shareholders' interests or if CEOs' successful CSR performance improves their relationships with other stakeholders including employees and shareholders, the proportion of equity-based compensation may increase with their social performance.

We find that the proportion of cash-based compensation decreases with CSR performance, while the proportion of equity-based compensation increases with CSR performance. This result refutes CEOs' opportunistic behavior of engaging in CSR for their own interests. Furthermore, it shows that CEOs' CSR activities are beneficial to shareholders by altering their compensation structure in a way to reduce agency problems.

The results are robust to the magnitudes of corporate governance variables, such as inside director ownership, director tenure, and the proportion of independent board members, and they are more pronounced for firms with higher inside director ownership, longer director tenure, and a lower proportion of independent directors on board. These results suggest that the positive association between CSR and CEOs' equity-based compensation is even more conspicuous when firms have weak corporate governance system.[3] We also find that firms' social performance reinforces the relation between CEO compensation structure and firm value. We find that firm value, proxied by Tobin's Q, increases with the proportion of equity-based compensation, and this relation is reinforced by firms' high CSR performance. These results emphasize the positive role of firms' social performance.

Additionally, our results are more or less pronounced depending on certain dimensions of CSR and the passage of the Sarbanes-Oxley Act of 2002 (SOX) and the Statement of Financial Accounting Standard No. 123(R) (SFAS 123R). While the negative association between CSR and the proportion of cash-based compensation is more pronounced in environment, the positive association between CSR and the proportion of equity-based compensation is more pronounced in environment and employee relations. It is also found that the results are more pronounced after the adoption of SOX and SFAS 123R.

Overall, our results show that improved CSR performance is associated with CEO compensation structure that is beneficial to shareholders. This is supported by Haugen and Senbet (1981) and Agrawal and Mandelker (1987), who argue that equity-based compensation, such as restricted stocks and stock options, plays an important role in inducing managers to increase shareholders' value and reducing agency problems.

This is the first study to examine the association between firms' CSR performance and the structure of CEO compensation using the intensity of each compensation component. While prior studies investigate on CEO total compensation or the levels of the compensation components, this study on the proportions of cash- and equity-based compensation draws clearer implications on how CSR is associated with the structure of CEO compensation. In addition, our results imply the extensive future use of CSR information among stakeholders and investors, since the CSR information provides insights into not only a firm's attempt to improve relationships with other stakeholders but also CEOs' intention to engage in CSR and its possible impact on shareholders' wealth.

The remainder of this paper is organized as follows. The following section reviews background literature including the development of testable hypotheses, and the third section describes data and methodology. In the fourth section, we discuss our empirical results of the association between CSR and CEO compensation structure, and the fifth addresses additional tests including robustness checks. Finally, the sixth section summarizes and concludes the paper.

2. Background and hypotheses development

Our main goal of the paper is to examine how a firm's social performance is associated with CEO compensation structure. For the analysis, we divide CEO compensation into two components: 1) the proportion of cash-based compensation, which is the sum of salary and bonus divided by total compensation, and 2) the proportion of equity-based compensation, which is the sum of the value of restricted stocks and the Black-Scholes value of stock options granted during the fiscal year divided by total compensation.

The association between CSR and CEO compensation is anticipated in two ways. First, if CEOs intend to exploit firms' social performance for their own benefits, such opportunistic behavior will lead to changes in CEO compensation in favor of CEOs. This conjecture is supported by Milbourn (2003), who finds a positive association between CEO reputation and stock-based pay sensitivities awarded to CEOs. The dynamics of this positive relation between CEOs' reputation and their compensation will lead CEOs to gain more bargaining power and better career opportunities. Therefore, CEOs are motivated to actively engage in CSR activities and increase their reputation through their social performance.

Barnea and Rubin (2010) also provide evidence supporting this rent extraction view. They find that CEOs tend to be more involved in CSR when insider ownership and leverage are low. This suggests that CEOs tend to overinvest in CSR when they bear little costs for such activity due to low levels of ownership and leverage. Given this, we can presume that CEOs' opportunistic engagement in CSR eventually leads to high levels of CEO compensation. With respect to each component of CEO compensation, we conjecture that CEOs prefer a less risky compensation structure with greater cash-based compensation that easily facilitates their extraction of rents, rather than equity compensation based on long-term performance (Harris & Raviv, 1979; Westphal, 1998). This conjecture is also supported by recent work by Dai, Rau, Stouraitis, and Tan (2017). They document that CEOs prefer cash-based compensation to mitigate future uncertainty when they earn an 8.8% terrorist compensation premium for working at firms located near terrorist attacks. Increased reputation and managerial power attributable

[3] To articulate what these variables proxy for, we examine the relations between these corporate governance variables and CEO compensation components before analyzing the effect of corporate governance on the CSR-CEO compensation association. Regardless, we should note that the implications of these results could be drawn in a cautious way, because of mixed evidence on the corporate governance variables in the prior literature. For example, some studies show that managerial ownership still play a role as an incentive to motivate managers to align their interests with those of shareholders when it exceeds certain thresholds (Morck et al., 1988). We discuss this issue in more detail in the fourth section.