

# **CORPORATE SOCIAL RESPONSIBILITY, ENTERPRISE RISK MANAGEMENT AND EARNINGS MANAGEMENT**

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## **ABSTRACT**

This study hypothesize a link between corporate social responsibility (CSR), enterprise risk management (ERM), and earnings management, as it may be that earnings management determines financial performance and that the latter, in turn, affects CSR. The findings show that (1) the implementation of ERM can reduce the effects of individual and overall risk on CSR firm, (2) CSR firms with better risk management engage in earnings management through accruals rather than real activities, (3) CSR firms manage income-increasing earnings through accruals and engage in income-decreasing earnings management through real activities. After controlling for the effects of executives' characteristic, we find that managers adopt real activities manipulation, increasing short-term incentives.

## **INTRODUCTION**

A corporation's operate which in the public concern environmental is not merely interested in creating profits, but also in maintaining a balance between business growth and social progress. That is, a corporation is not only beholden to the wealth maximization of stockholders, but to advance the interests of employees and consumers, promote opportunities for underprivileged minorities, protect the environment and ecology, etc. This is the concept of corporate social responsibility [1]. The businesses adopting CSR principles believe that by operating ethically and responsibly, they have a greater chance of success. In addition, under certain circumstances, firms are not homogeneous in the risk profiles of their relational wealth. As a discretionary action by a firm's management, risk management helps to solidify a manager's economic incentive to allocate some of the firm's resources toward higher corporate social responsibility activities. In contrast to conventional risk management techniques, ERM has emerged as a new paradigm for managing the portfolio of risks that face organizations, and policy makers continue to focus on mechanisms to improve corporate governance and risk management [2]. Furthermore, to reduce the negative effects of uncertainty on firm performance, a manager is motivated to manage earnings, by altering accruals and influencing the structure of real transactions, thus providing investors with high quality financial reporting and sustaining stock prices. Atkins [3] claims that what the investing public really means by "social responsibility" is transparency in firms' financial reporting.

Socially responsible firms that expend effort and resources in choosing and implementing CSR practices to meet expectations of stakeholders are likely to constrain earnings management, thereby providing investors with more transparent and reliable financial information. Given this backdrop, this paper examines the implications of CSR with respect to the following issues: (1) the relationship between corporate social responsibility and enterprise risk management. (2) whether CSR affects earnings management. Alternatively, based on [4] agency theory, CSR practices can potentially be linked to the pursuit of a manager's self-interest. A manager might engage in CSR activities to cover up the impact of corporate misconduct [5]. In sum, we also control for a wide range of risk management factors, executive incentives characteristics (including the CEO's bonus compensation and shareholdings of the executives), and control for corporate governance characteristics.

## LITERATURE AND HYPOTHESIS

According to the World Business Council for Sustainable Development (WBCSD), CSR is defined as "the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large." The present study suggests a competing hypothesis regarding the relationship between CSR and risk management and examines whether socially responsible firms behave differently from other firms in their risk management and financial reporting. However, ERM targets overall corporate strategy and when implemented correctly, can be used to manage a corporation's risk appetite and exposure. Most of the literature on CSR focuses on enhanced performance and shareholder wealth, while few studies explore CSR's impact on ERM. Hence, we examine the effects of enterprise risk management, expecting ERM to positively affect corporate social responsibility. We propose the following hypothesis:

*H1: Firm with better enterprise risk management is positively associated with the corporate social responsibility.*

From a managerial perspective, different accounting methods may be chosen depending on the socially responsible firm's objectives, motivations behind earnings management and management's perceptions of behavior. Atkins [3] claims that socially responsible firms that expend effort and resources in choosing and implementing CSR practices to meet ethical expectations of stakeholders are likely to constrain earnings management, thereby providing investors with more transparent and reliable financial information. Chih et al. [6] show CSR firms are more aggressive in accruals management but less likely to engage in earnings smoothing and earnings loss avoidance. Moreover, Kim et al. [7] find that CSR firms are less likely to engage in real activities manipulation than non-CSR firms are. Taking these results together, we consider that if CSR firms wish to convey private information to investors and tend to adhere to a high standard of behavior, they are more likely to constrain earnings management and make responsible operating decisions. We propose the following hypothesis:

*H2A: A CSR firm with better enterprise risk management is less likely to engage in earnings*

*management.*

Most studies in the earnings management literature have focused on two types of general earnings management: accrual management and the manipulation of real economic activity. Hence, we expect a negative relationship between CSR and earnings management tools and propose the following hypotheses:

*H2B: A CSR firm with better enterprise risk management is less likely to engage in accrual-based earnings management.*

*H2C: A CSR firm with better enterprise risk management is less likely to engage in real earnings management.*

Some research proposes the managerial opportunism hypothesis, suggesting that CSR can potentially be linked to the pursuit of managers' self-interest. McWilliams et al. [8] argue that CSR is a managerial perquisite in the sense that managers use CSR to advance their careers or other personal agendas. Borghesi et al. [9] argue that some CSR investments might be expected to enhance shareholder value, whereas others are more likely to be motivated by altruism or the manager's own self-interest. As above articles, if managers' opportunistic incentives that derive from self-interest and/or reputation insurance prevail, then we might expect a CSR firm's executive to have higher shareholdings and bonus compensation. Thus, we propose the following hypothesis:

*H3A: A CSR firm is positively associated with higher shareholdings of the executives.*

*H3B: A CSR firm is positively associated with higher bonus compensation of the executives.*

Grant Thornton [10] argues that businesses demonstrate that well-managed corporate responsibility actually supports business objectives in that it has been shown to increase shareholder value and profitability. However, the final aspect that we address in this study is the impact of CSR on financial performance, triggered by ERM, earnings management and corporate governance practices.

*H4A: A CSR firm with better enterprise risk management positively affects its financial performance.*

*H4B: A CSR firm engage in earnings management positively affects its financial performance.*

## **RESEARCH DESIGN**

As measure of CSR, we calculate the social contribution value per share (SCVPS) for each firm in our sample. The term SCVPS was first introduced in the Environmental Disclosure Guidelines, published by The Shanghai Stock Exchange (SSE) in 2008. On the basis of earnings per share generated for shareholders, the added value to society is calculated by adding tax revenues paid to the state, salaries paid to employees, loan interest paid to creditors (including banks), donations and other value for stakeholders, and deducting social costs that result from environmental pollution and other negative factors.

### **Social contribution value per share (SCVPS)**

= (earnings + tax payment + salary to employees + interest expenses + donation – social cost) / total

number of shares

Therefore, this study adopts Gordon et al.'s [11] measure, the ERM Index (*ERMI*), to measure the effectiveness of a firm's risk management. This index is based on COSO's four categories of business objectives: strategy, operations, reporting and compliance. The basic objective of the *ERMI* is to combine achievement of the four objectives into one metric. Two indicators are used to measure achievement of each objective. The *ERMI* is then constructed by summing all eight indicators of the above four objectives, as follows:

$$ERMI = \sum_{k=1}^2 Strategy_k + \sum_{k=1}^2 Operation_k + \sum_{k=1}^2 Reporting_k + \sum_{k=1}^2 Compliance_k \quad (1)$$

### Empirical Model

In this paper we focus on the effect of social responsibility in constraining earnings management through ERM mechanisms. To explain CSR and validate Hypotheses 1, 2, and 3, we then introduce panel fixed effects in the causality model specification. We rely on the following regression:

$$\begin{aligned} SCVPS_{it} = & \alpha_0 + \alpha_1 ERMI_{it} + \alpha_2 TEM_{it} + \alpha_3 CEOShare_{it} + \alpha_4 CEOBonus_{it} + \alpha_5 ROA_{it-1} + \alpha_6 R \& D_{it} \\ & + \alpha_7 LEV_{it} + \alpha_8 OCF_{it} + \alpha_9 SIZE_{it} + \alpha_{10} Beta_{it} + \alpha_{11} BIG4_{it} + \alpha_{12} CEOChair_{it} \\ & + \alpha_{13} BordSize_{it} + \alpha_{14} InsideShare_{it} + \alpha_{15} OutsideDirector_{it} + \alpha_{16} FirmAge_{it} + \alpha_{17} IND + \varepsilon_{it} \end{aligned} \quad (2)$$

To examine the individual effects of the various earnings management tools and capture the relationship between CSR and risk management in financial reporting, we also employ engagement of accruals (*DAC*) and real earnings management (*REM*) as dependent variables to further test whether CSR, risk management, and corporate governance can effectively mitigate earnings management. In particular, we add the aforementioned interaction variable, *SCVPS\*ERMI*, to test the effect of risk management on CSR in a managerial entrenchment situation. Hence, Eq. (3) and Eq. (4) are as follows:

$$\begin{aligned} DAC_{it} = & \gamma_0 + \gamma_1 SCVPS_{it} + \gamma_2 ERMI_{it} + \gamma_3 SCVPS_{it} \times ERMI_{it} + \gamma_4 CEOShare_{it} + \gamma_5 CEOBonus_{it} \\ & + \gamma_6 ROA_{it} + \gamma_7 LEV_{it} + \gamma_8 OCF_{it} + \gamma_9 SIZE_{it} + \gamma_{10} BIG4_{it} + \gamma_{11} CEOChair_{it} + \gamma_{12} BordSize_{it} \\ & + \gamma_{13} InsideShare_{it} + \gamma_{14} OutsideDirector_{it} + \gamma_{15} BlockHolders_{it} + \gamma_{16} IND + \varepsilon_{it} \end{aligned} \quad (3)$$

$$\begin{aligned} REM_{it} = & \delta_0 + \delta_1 SCVPS_{it} + \delta_2 ERMI_{it} + \delta_3 SCVPS_{it} \times ERMI_{it} + \delta_4 CEOShare_{it} + \delta_5 CEOBonus_{it} \\ & + \delta_6 ROA_{it} + \delta_7 LEV_{it} + \delta_8 OCF_{it} + \delta_9 SIZE_{it} + \delta_{10} BIG4_{it} + \delta_{11} CEOChair_{it} \\ & + \delta_{12} BordSize_{it} + \delta_{13} InsideShare_{it} + \delta_{14} OutsideDirector_{it} + \delta_{15} BlockHolders_{it} \\ & + \delta_{16} IND + \varepsilon_{it} \end{aligned} \quad (4)$$

Finally, Eq. (5) is used to validate Hypothesis 4A and 4B, the relationship between CSR and a firm's financial performance. We run the fixed effects regression models for panel/cross sectional time series data to examine the relationship between CSR and ROA. The specification is as follows:

$$\begin{aligned}
ROA_{it} = & \lambda_0 + \lambda_1 SCVPS_{it-1} + \lambda_2 ERMI_{it} + \lambda_3 SCVPS_{it} \times ERMI_{it} + \lambda_4 TEM_{it} + \lambda_5 SCVPS_{it} \times TEM_{it} \\
& + \lambda_6 CEOShare_{it} + \lambda_7 CEOBonus_{it} + \lambda_8 LEV_{it} + \lambda_9 OCF_{it} + \lambda_{10} SIZE_{it} + \lambda_{11} BIG4_{it} \\
& + \lambda_{12} CEOChair_{it} + \lambda_{13} BordSize_{it} + \lambda_{14} InsideShare_{it} + \lambda_{15} OutsideDirector_{it} \\
& + \lambda_{16} FirmAge_{it} + \lambda_{17} IND + \varepsilon_{it}
\end{aligned} \tag{5}$$

## EMPIRICAL RESULTS AND CONCLUSIONS

We report estimated coefficients for the panel data regression model, using fixed effects. The result shows that pressure from *ERMI* has a significant positive impact on CSR and implies that implementation of ERM takes into account the effects of individual risk and overall risk on CSR firm goals. The empirical results thus support H1. Moreover, we find a negative and significant relationship between *SCVPS* and earnings management (*TEM*) indicating that CSR firms constrain earnings management and maintain greater transparency in their financial reporting. Hypothesis 2A is also supported. We also examine the relationship between *SCVPS* and executives characteristics. As expected, both variables for executives' incentives (*CEOShare* and *CEOBonus*) significantly impact CSR. This result shows that managers enhance their private benefits (short-term and long-term incentives) as a result of CSR. The empirical results thus support H3A and H3B. We further examine whether firms that appear to exhibit social responsibility behave appropriately to constrain earnings management. The results report a positive and significant correlation between *SCVPS* and *DAC*, suggesting that CSR firms manage income-increasing earnings through accruals. The estimated coefficient for *SCVPS\*ERMI* is negative and significant, indicating that CSR firms with better risk management appear to be more conservative with respect to accrual-based earnings management. Hence, the results support H2B. Moreover, the *SCVPS* is negatively and significantly associated with *REM*, indicating that social responsibility firms engage in earnings management less by manipulating real activities. There is a positive correlation between *ERMI* and *REM* and a negative but non-significant correlation between *SCVPS\*ERMI* and *REM*. In contrast to *DAC*, this result suggest that CSR firms with better risk management are more likely to choose earnings management through accruals than to engage in real activities manipulation; therefore, H2C is not supported. We use two aforementioned variables (*SCVPS\*ERMI*, *SCVPS\*TEM*) to test for a moderating role of *ERMI* and earnings manipulation in the relationship between corporate social responsibility, and financial performance. The significant positive coefficient for the interaction term (*SCVPS\*ERMI*) confirms Hypothesis 4A. Remarkably, we find that the coefficient for *TEM* is significantly negative for *ROA* and the coefficient for the interaction term *SCVPS\*TEM* is significantly positive. These results imply that better CSR can defray the costs of accounting manipulation, improving overall performance. Hence, the results support H4B.

This study contributes to the literature and has several strategic implications for managers. First, CSR firms with better risk management engage in earnings management through accruals rather than real activities manipulation. Second, we examine the link between executive incentives, earnings

management, and financial performance, which may be most relevant when manipulation of accounting results directly impact the executive's personal wealth. As a result, we find that *CEOShare* is negatively associated with *DAC* and that *CEOBonus* is positively associated with *REM*. This implies that managers will not engage in accrual management against their short-term incentives but decreasing their long-term incentives; whereas, they adopt real activities manipulation, increasing long-term incentives. Third, we control for the effect of risk management and use the aforementioned variable (*SCVPS\*ERMI*) to test for a moderating role of ERM in our multivariate analysis. These results support our Hypothesis that CSR firms with better ERM will display better financial performance. Additionally, we find a positive moderating effect of CSR practices (*SCVPS\*TEM*) in the relationship between earnings management and financial performance.

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