Journal of
Risk and Financial Management

Article

Diverging Paths: CEO Regulatory Focus, Corporate Social Responsibility, and the Enigma of Firm Performance

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Abstract: Regulatory focus theory theorizes that there are two distinct dispositional foci of self-regulation (promotion focus and prevention focus) that impact individuals' motivational tendencies to achieve their decision-making processes. This study integrates regulatory focus theory with upper echelons theory to investigate how CEO regulatory focus (i.e., higher degrees of promotion focus relative to prevention focus) influences corporate strategic outcomes, particularly regarding the pursuit of corporate social responsibility (CSR) performance and firm performance. This study uses data collected from the annual reports of S&P 1500 firms in the US from 2000 to 2018. Results show a negative association between CEOs who are predominantly promotion-focused and CSR performance. This negative association is diminished in firms with better corporate governance (i.e., higher CEO equity compensation and greater institutional ownership). The results also show that CSR plays a mediating role in the relationship between CEO regulatory focus and firm performance. These findings not only contribute to the existing literature by highlighting the role of CEO regulatory focus in shaping CSR initiatives but also shed light on its implications for firm performance.

Keywords: CEO regulatory focus; corporate social responsibility (CSR); firm performance (FP); mediation; upper echelons

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Citation: Cheng, Tianmin, Wen Hua Sharpe, and Abdel K. Halabi. 2024. Diverging Paths: CEO Regulatory Focus, Corporate Social Responsibility, and the Enigma of Firm Performance. *Journal of Risk and Financial Management* 17: 258. https://doi.org/10.3390/jrfm17070258

Academic Editor: Ştefan Cristian Gherghina

Received: 15 May 2024
Revised: 12 June 2024
Accepted: 16 June 2024
Published: 22 June 2024

1. Introduction

Firm performance (FP) is a central theme of corporate finance and serves as a crucial driver of firm growth. FP reflects the effectiveness of management in fulfilling their responsibilities to shareholders (Jensen and Meckling 1976; Kruse et al. 2023). Today, top executives face mounting pressure for their firms to prioritize "doing good" by enhancing societal well-being alongside profit maximization. Not surprisingly, this shift in corporate ethos aligns with a growing desire among many investors to engage in sustainable investments (Fatemi et al. 2015). For example, in 2021, USD 8.4 trillion (representing 13 percent) of assets managed in the US were branded as sustainable investments (US SIF 2022). One of the most debated questions in the CSR/sustainability literature is whether management decisions regarding corporate responsibility contribute to improving FP (Giannopoulos et al. 2024; Gillan et al. 2021).

Advancing this literature, the investigation of the antecedents and consequences of CSR has expanded greatly (for a review, see Christensen et al. 2021), particularly in the last two decades. For example, scholars have studied the antecedents of CSR and focused largely on the external drivers, such as the influences of media press (Kölbel et al. 2017), analyst stock recommendations (Lee et al. 2018), and legal mandates (Jackson et al. 2020) on CSR. Conversely, research on the internal drivers of CSR has been somewhat limited. The scant work on the internal drivers has focused primarily on firm characteristics (Moussu and Ohana 2016), and board characteristics (Beji et al. 2021). We know very little about whether a firm's propensity to engage in CSR is influenced by CEOs' personal characteristics. Indeed, CSR refers to management's obligation to set policies, make decisions, and follow courses of action that are desirable in terms of the values and objectives of society (Mosley et al. 1996).

In this study, we address the important research gaps in the literature by investigating the influence of one specific psychological trait of CEOs, represented by regulatory focus, on a firm's CSR performance and FP. We aim to answer two key research questions. First, does a CEO's regulatory focus influence the firm's CSR performance? Second, does CSR mediate the relationship between the firm's CEO regulatory focus and FP?

We first examine the impact of CEO regulatory focus on CSR, mainly drawing from upper echelons and regulatory focus theories. Upper echelons theory predicts that CEOs, as leaders, are the most powerful actors within organizations and can influence corporate strategic decisions and outcomes (Hambrick and Mason 1984). While research using upper echelons theory is widespread, less attention has been paid to exploring the psychological traits of CEOs (Christensen et al. 2021). Empirical studies in this regard have shown how the self-concept attributes of CEOs affect strategic outcomes, particularly CSR performance, including CEO hubris (Tang et al. 2018) and narcissism (Al-Shammari et al. 2019). As stated in Gamache et al. (2020, p. 1309), regulatory focus has a "more proximal influence" on behavior compared with hubris and narcissism characteristics. A relatively small body of research has shifted the attention more toward the impact of motivational attributes in the form of CEOs' regulatory focus on corporate actions such as the pursuit of corporate acquisitions, innovation, strategic change, and myopic marketing management (Chung and Low 2022; Gamache et al. 2015; Jiang et al. 2020; Kashmiri et al. 2019). Surprisingly, research that investigates whether CEO regulatory focus impacts a firm's CSR performance remains scant. This omission indicates that the role of CEO regulatory focus in corporate strategy is understated.

Regulatory focus theory posits that there are two dispositional foci of self-regulation (promotion focus and prevention focus) that impact individuals' motivation to achieve strategic goals (Higgins 1997; Higgins and Pinelli 2020). Promotion-focused individuals are primarily concerned with advancement and accomplishment and are motivated to attain gains—these motivations are based on ideals and what could be. In contrast, prevention-focused individuals are concerned with protection and responsibility and are motivated to avoid losses—these motivations are based on ought and what should be (Lanaj et al. 2012). Both promotion and prevention foci independently shape inclinations of how individuals are motivated to pursue goals. Therefore, the competing motivational orientation poses a question of how CEOs are driven to pursue CSR to satisfy their vanity through a promotion or prevention focus.

In addition, it is likely that different stakeholders are perceived differently by CEOs based on their relevancy and importance. There is a growing awareness in the literature that firms may engage in some CSR activities (externally oriented CSR activities) more than in other activities (internally oriented CSR activities) (Al-Shammari et al. 2019). Limited research (Chang et al. 2021) has examined whether CEO regulatory focus is associated with CSR primarily through external CSR or internal CSR (or both). We aim to shed light on this overlooked lacuna.

We next examine the indirect effect of CEO regulatory focus on FP via CSR activities. Presently, how CEO regulatory focus impacts FP has been largely neglected in empirical studies, and thus, more attention is warranted (Chung and Low 2022). To the best of our knowledge, the literature has not yet investigated the mediating role of possible mechanisms, particularly CSR, in the relationship between CEO regulatory focus and FP. Despite the fact that the relationship between CSR and FP has been well investigated in the literature, there is inconsistency with previous findings, revealing positive (e.g., Albuquerque et al. 2019; Fatemi et al. 2015), negative (e.g., Giannopoulos et al. 2024), or insignificant relationships (e.g., Suteja et al. 2023), drawing from the competing theories of stakeholder theory and agency theory. Consequently, a robust answer about how CSR affects FP is imperative for management practices. Scholars have suggested that the mixed results regarding the effect of CSR on FP may be contingent on other factors, which have been largely omitted in empirical studies (Brooks and Oikonomou 2018; Orlitzky et al. 2003). Hence, our aim is to investigate whether the impact of CEO regulatory focus on FP is mediated by the firms engaging more in CSR activities.

We draw on a large sample of US public firms, spanning from 2000 to 2018, to test our research questions. We focus on the US market for two main reasons. First, despite the global increase in CSR reporting, the standalone CSR reporting in the US remains limited. For example, SASB (2017) noted in its 2017 report on CSR reporting that although 83 percent of companies registered with the US Securities and Exchange Commission (SEC) disclose some sustainability information in their regulatory filings, much of this information is considered voluntary. Thus, investors often express concerns about the lack of comparable and verifiable information in this regard (Christensen et al. 2021). This information gap makes CSR of particular interest to both academics and practitioners. Second, the US is well-developed and provides detailed regulatory filings (Form 10-K), including the CEO letter to shareholders. Numerous studies have investigated the importance of CEO regulatory focus in corporate outcomes (e.g., Gamache et al. 2015). The US market therefore provides an ideal setting for our study and for future studies aiming to link a CEO's regulatory focus to a firm's CSR and its firm value. To measure CEO regulatory focus, we use the CEO promotion focus predominance (i.e., higher degrees of promotion-focus relative to prevention-focus), as introduced by Gamache et al. (2015) and measured by Chung and Low (2022) and Kashmiri et al. (2019). We find that predominantly promotion-focused CEOs are negatively associated with CSR performance; in particular, it is negatively related to external CSR activities but insignificantly related to internal CSR activities. We also show that the negative impact of CEO promotion focus predominance on FP is partially mediated by firms engaging more in CSR.

We extend our results by performing cross-sectional tests to provide further evidence on whether this association is moderated by internal corporate governance (as proxied by CEO equity compensation) and external corporate governance (as proxied by institutional ownership). We are drawing on the central paradigm of ought versus ideal goals, as the motivational level of an individual's regulatory focus can be affected by situational factors (Brockner and Higgins 2001). We expect that the negative impact of predominantly promotion-focused CEOs on CSR will be weaker for firms with better corporate governance (as proxied by higher CEO equity compensation and higher institutional ownership). The cross-sectional results are consistent with our expectations.

Our study makes three important contributions. First, we expand research on regulatory focus theory and upper echelons theory by examining how CEO promotion focus predominance impacts a firm's overall, internal, and external CSR. Such a contribution is important as it reveals a potential motivational tension between the pursuit of CSR performance as a strategic action that is more prevention-focused and the pursuit of other types of strategic actions (e.g., mergers and acquisitions) that are promotion-focused. Second, while previous research on the influence of CEO regulatory focus on firm outcomes has primarily investigated the main effect of this relationship, we explore the role of corporate governance factors (CEO equity compensation and institutional ownership) in moderating the association between CEO promotion focus predominance and CSR. Our results provide important insights for the board of directors on using these factors to monitor and control CEO behavior. Finally, while scholars have devoted substantial attention to investigating the impact of CSR on FP, there is limited research that sheds light on how CEO regulatory focus is impacted in this relationship. We theorize and find empirical support that CSR mediates the association between CEO promotion focus predominance and FP. Our results provide a more complete picture of the CSR–FP relationship and a nuanced understanding of the mediating mechanism linking CEO regulatory focus to firm financial performance.

The rest of this paper is structured as follows. Section 2 discusses the literature and hypotheses development. Section 3 describes data and variables used in the research design.

Section 4 presents the empirical results. The final section discusses and concludes the paper with implications and areas for further research.

2. Literature and Hypotheses

2.1. Literature on CSR and Regulatory Focus

CSR has been defined as "situations where the firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm" (McWilliams et al. 2006, p. 1). Prior studies have primarily revealed the determinants of CSR, focusing on external factors such as media press (Kölbel et al. 2017) and legal mandates (Jackson et al. 2020). Researchers have begun to explore the idea that CSR might hinge on within-firm antecedents of CSR (e.g., Beji et al. 2021; Bouchet et al. 2022). CSR performance will be expected to be sensitive to the characteristics of CEOs, with its theoretical foundations in two distinct streams of research.

First, according to agency theory (Jensen and Meckling 1976), an agency conflict arises between the principal (i.e., shareholders) and the agent (i.e., managers) when managers prioritize their own interests over those of the company. For instance, managers bear relatively high costs and risks associated with allocating resources to social investments (van Dierendonck 2011). The agency problem is evident in situations where firm managers have little or no financial interest in the company, as noted by Fama (1980). In response to these challenges, companies increasingly are seeking leadership that emphasizes ethics and concerns for society, in part as a reaction to scandals involving self-serving corporate management (Peterson et al. 2012). CEOs play a central role in this form of leadership. They set the tone for the company through the policies they implement, the vision they articulate, and the decisions they make (Finkelstein et al. 2009).

Second, according to upper echelons theory (Hambrick and Mason 1984), the attributes and characteristics of the top management team (CEO in particular) are the key drivers of the firm's decision-making processes (Arslan et al. 2022). From this perspective, how CEOs act on information and make decisions on behalf of the company is uniquely determined by a combination of their individual traits, experiences, and cognitive frameworks. While the work of upper echelons emphasizes the importance of CEO characteristics in shaping corporate outcomes, there has been less focus on their role in CSR performance, despite CSR being essential to the company's sustainable development (Kiriu and Nozaki 2020). By overlooking the role of CEO characteristics in CSR performance, firms may miss the opportunities to leverage leadership attributes for enhancing their social and environmental impact.

Much of the prior research within the upper echelon theory has traditionally relied on demographic variables as proxies for the subjective beliefs and values of CEOs to study their effects on corporate outcomes (Finkelstein et al. 2009; Yim 2013). Relatively less consideration has been devoted to the psychological traits of CEOs, such as hubris (Tang et al. 2018), narcissism (Al-Shammari et al. 2019), and overconfidence (Malmendier and Tate 2005), in explaining their decision-making behaviors, including their engagement in CSR activities. One such psychological characteristic that has recently gained attention among upper echelons researchers is CEO regulatory focus: an attribute reflecting the motivation individuals have for attaining gains (promotion focus) and/or avoiding losses (prevention focus) (Gamache et al. 2015; Kashmiri et al. 2019). Research suggests that CEOs' regulatory focus directly affects their level of motivation and tolerance for uncertainty, which, in turn, can significantly impact their strategic decisions and outcomes (e.g., Gamache et al. 2015; Huang and Zheng 2022). By extending these insights to the logic of upper echelons theory, we focus on CEOs' psychological characteristics, as indicated by CEO regulatory focus.

Indeed, there is a rich literature on regulatory focus. Higgins (1997, 1998) introduced the regulatory focus theory and suggested that individuals are motivated to pursue their goals through two internal mechanisms: a promotion focus and a prevention focus. Although both regulatory foci motivate people to move toward their desired end-states, they do so through different cognitive and behavioral processes (Gamache et al. 2015; Higgins and Pinelli 2020). Self-regulation, through a promotion focus, involves the presence or absence of positive outcomes in relation to nurturance needs (Higgins 1998) and directs individuals' attention towards the accomplishment of goals that reflect their hopes, wishes, and aspirations (Chan 2021). Individuals who are predominantly promotion-focused (i.e., those who have higher degrees of promotion focus relative to prevention focus) tend to be more sensitive towards perceived opportunities for gain and seek to attain strategic goals aligned to the ideal self.

In contrast, self-regulation, through a prevention focus, involves the presence or absence of negative outcomes in relation to security needs and directs individuals' attention towards the accomplishment of goals that reflect their duties, obligations, and responsibilities (Chan 2021; Higgins 1997). Unlike a promotion focus that is aligned to the ideal self, a prevention focus is aligned to the ought self, which emphasizes attributes that individuals believe they should possess based on moral obligations and normative standards. Thus, individuals who are predominantly prevention-focused (i.e., those who have higher degrees of prevention focus relative to promotion focus) seek to minimize losses and maximize non-losses through the adoption of vigilance strategies.

Prior evidence has demonstrated that different regulatory foci of CEOs have different firm-level responses to various types of strategic decisions, including firm acquisitions (Gamache et al. 2015), strategic change (Huang and Zheng 2022), internationalization (Biru et al. 2023), and carbon emission performance (Wagner and Fischer-Kreer 2024). Surprisingly, less attention has been paid to exploring the implications of CEO regulatory focus for corporate ethical conduct (e.g., CSR). One exception, a study by Chang et al. (2021), examines the direct link between CEO regulatory focus and CSR. They find a positive association between CEO promotion focus and CSR but an insignificant association between CEO prevention focus and CSR. However, their findings do not explain the possibility that CSR might mediate the effect of CEO regulatory focus on FP. Thus, understanding the mediating effect of CSR on the relation between CEO regulatory focus and FP remains an unresolved issue. To gain a deeper understanding of how these traits shape corporate decisions, we aim to extend their study and examine the impact of CEOs' promotion focus relative to prevention focus on firms' CSR and financial performance.

2.2. CEO's Promotion Focus Relative to Prevention Focus and CSR

We theorize that firms led by CEOs who are predominantly promotion-focused (i.e., CEOs have a greater degree of promotion focus relative to prevention focus) are likely to engage less in CSR for the following reasons. On one hand, we propose that CEOs with greater promotion focus (relative to prevention focus) may prioritize activities that directly contribute to financial gains. They tend to pay much more attention to over-investing in these profit-oriented activities (Gamache et al. 2015), leaving fewer resources to be allocated towards fostering their firm's engagement in any form of CSR initiatives. This is because CSR initiatives often require long-term investments and may not directly lead to short-term gains. Promotion-focused CEOs, who exhibit a disposition towards the maximization of gains aligned to their aspirations, will perceive CSR activities as non-gains; thus, they will seek to minimize their focus on pursuing CSR activities (Crowe and Higgins 1997). Under the leadership of predominantly promotion-focused CEOs, CSR activities might take a backseat in the allocation of resources, which leads to lower CSR performance.

In addition, predominantly promotion-focused CEOs will be rendered myopic to the pursuit of CSR performance due to a lack of moral attentiveness (Hafenbrädl and Waeger 2017). CEOs with low moral attentiveness will be less concerned about the ethical implications of their actions and are more focused on achieving their personal goals. This lack of moral attentiveness could lead to a disconnect between the firm's CSR activities and its genuine commitment to social and environmental responsibility.

On the other hand, we propose that CEOs with greater prevention focus (relative to promotion focus) would be positively associated with CSR because they place more emphasis on their duties and responsibilities to shareholders (Gamache et al. 2020). They will pay more attention to their job and prioritize gaining the trust of the firm's shareholders and other stakeholders (Gamache et al. 2015). From a motivational point of view, these CEOs are more likely to engage in CSR, as they perceive CSR as a business strategy that improves firm performance and aligns their interests with those of shareholders. They are more likely to endorse the firm's social engagement and its pluralistic responsibility to multiple stakeholders through the active pursuit of CSR activities.

A prevention-focused orientation is also characterized by a strong desire for avoiding losses and preventing mistakes (Gamache et al. 2015). Predominantly prevention-focused CEOs are driven by security and responsibility, make decisions with due diligence, and are sensitive to negative information (Crowe and Higgins 1997). Prior studies suggest that high moral values are directly linked to one's engagement in CSR (Shao et al. 2008). Following this line of research, predominantly prevention-focused CEOs are likely to engage more in CSR, as they feel the need to minimize losses in relation to their personal moral obligations, which are tethered to an ought goal. They also actively communicate to keep the board and shareholders informed, ensuring effective board monitoring (Sonnenfeld et al. 2013). Recognizing the importance of CSR in mitigating the potential negative consequences of the company's reputation and enhancing long-term sustainability, it is expected that predominantly prevention-focused CEOs are more likely to implement CSR strategies. For instance, they engage in CSR to reduce environmental impact, improve employee well-being, or enhance community engagement to prevent any risks associated with neglecting social and environmental responsibilities.

Based on the above analysis, we propose the following hypothesis:

H1. *The greater a CEO's level of promotion focus relative to the CEO's prevention focus, the lower the firm's CSR performance is likely to be.*

2.3. CEO's Promotion Focus Relative to Prevention Focus, CSR, and FP

In addition to the antecedents of CSR, researchers have also examined the consequences of CSR and used several theoretical frameworks for the perspective of CSR, mainly drawn from stakeholder theory and agency theory (e.g., Gul et al. 2020). According to the stakeholder theory conceptualized by Freeman (1984), firms fulfill their CSR due to altruism and societal well-being and promote their CSR to maintain a good citizen image or fulfill the moral obligations of enterprises instead of just monetary returns. Consistent with the stakeholder theory, a plethora of research indicates that firms engage in CSR to improve their social image and status, obtain reputational capital, and enhance firm value (e.g., Bardos et al. 2020; Yu and Zheng 2020). Aguinis and Glavas (2019) summarize that many firms aim to use CSR to build a solid relationship with their broad scope of stakeholders and ensure survivability and the triple bottom line of economic, social, and environmental performance.

Alternatively, agency theory, initiated by Friedman (1970), suggests that firms perform CSR due to their own self-interest and fulfill certain goals. In line with the agency theory, CSR has been viewed with skepticism from some researchers who believe that such firms' motives are less than sincere, raising the concerns of "greenwashing" or "window dressing", where firms improve CSR for purely presentational reasons while hiding poor performance (Brooks and Oikonomou 2018; Owen et al. 2001). There is evidence that CSR is a misappropriation or misallocation of a firm's resources and is equivalent to theft from the firm's shareholders (Masulis and Reza 2015).

Thus, understanding the impact of CSR on FP is important because maximizing firm value is the main goal of the company (Jensen and Meckling 1976). Despite many empirical studies that have examined the relationship between CSR/ESG and FP, the results remain inconsistent (for a review, see Brooks and Oikonomou 2018; Christensen et al. 2021). Some studies find a positive relationship (e.g., Albuquerque et al. 2019), while others report a negative (e.g., Buchanan et al. 2018; Giannopoulos et al. 2024) or no relationship (e.g., Suteja et al. 2023). From a shareholder's perspective, the ultimate test of CSR activities is whether they can help to enhance firm value (Houqe and Khan 2023). Following this flow of thought, several studies find a positive effect of CSR on FP (e.g., Albuquerque et al. 2019; Fatemi et al. 2015), suggesting that CSR activities positively impact the firm's reputations, stakeholder relationships, and brand image (Hahn and Kühnen 2013). In line with these studies, we expect a positive association between CSR and FP.

In an attempt to open the black box in the association between CSR and FP, we next examine whether CSR mediates the impact of CEO promotion focus predominance on FP. Surprisingly, there has been a dearth of research examining the relationship between CEO regulatory focus and FP. A study by Chung and Low (2022) is one of the few that explores this association and shows that firms led by predominantly promotion-focused CEOs are associated with poorer FP. Based on this premise, we expect that CEOs with greater promotion focus (relative to prevention focus) tend to focus on attaining gains and avoiding losses. This may lead them to take excessive risks in the pursuit of ambitious goals, which can result in financial loss for the company. They might also be more risk-averse when comes to innovation, preferring to maintain tried-and-tested methods rather than investing in innovative strategies such as R&D that could drive long-term financial growth (Kashmiri et al. 2019). Thus, a negative association between CEO promotion focus predominance and FP is expected.

Taken together, we expect the firm's CSR performance to mediate the relationship or path between its CEO's promotion focus predominance and the firm's FP. In other words, CEO promotion focus predominance will have a negative impact on FP and CSR. Since CSR typically has a positive impact on FP, we argue that CSR acts as a mediator in the association between CEO promotion focus predominance and FP, thus reducing the expected negative impact of CEO promotion focus predominance on FP. Therefore, we propose the following hypothesis:

H2. *CSR mediates the association between a CEO's level of promotion focus relative to the CEO's prevention focus and FP.*

Figure 1 presents our conceptual model that positions CSR as a mediator of the relationship between CEO regulatory focus and FP.

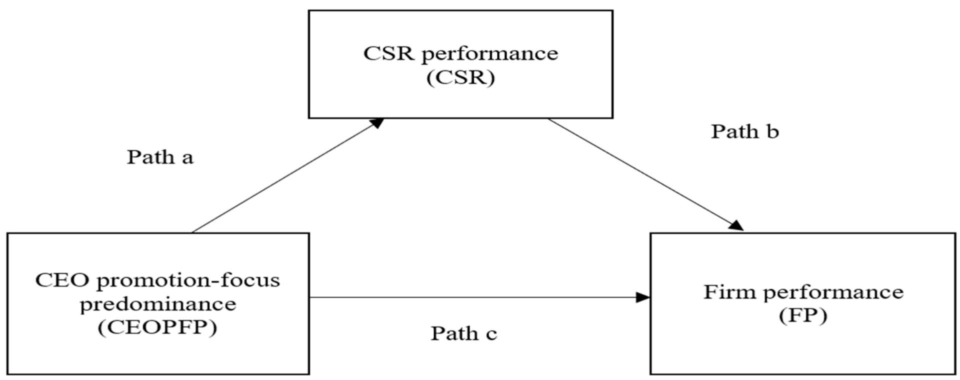

Figure 1. Conceptual model.

3. Data and Variables

3.1. Data

Our sample was drawn from several sources. First, since our study is focused on the antecedents and outcomes of CSR, we began by considering all US public firms with non-missing CSR information from MSCI ESG KLD STAT (formerly known as Kinder LydLydenburg Domini (KLD), USA), spanning from 2000 to 2018 (the latest data was ended on 1 January 2019). Second, to obtain CEO regulatory focus, we derived a sample of S&P 1500 firms on the Russell 3000 index, plus others listed on the Dun and Bradstreet database, to collect the letters from CEOs to shareholders in annual reports. Finally, we collected firm-level financial data from Compustat, stock price data from the Center for Research in Security Prices (CRSP), CEO-level data from ExecuComp, board data from Institutional

Shareholder Services (ISS), and institutional ownership data from Thomson Reuters Institutional Holdings (13F). We then dropped observations with missing information for calculating our variables used in this study. This left a final sample of 7555 to 8106 firm–year observations from 1053 unique firms over the sample period.

3.2. Variables of Interest

3.2.1. CSR Performance (CSR)

We computed CSR performance using the *KLD* database that has been broadly used in many CSR studies. Following Feng et al. (2023), we focused on five main categories of CSR activities: community, diversity, employee relations, environmental, and product. Under each category, CSR is related to two subcategories—strengths and concerns—that are related to the diverse set of CSR engagement. We calculated a firm's overall CSR score using the total strengths minus the concerns across the five categories in the KLD database.

3.2.2. Firm Performance (FP)

We defined FP using Tobin's q, which has been widely used in the literature (Bardos et al. 2020; Buchanan et al. 2018). We measured *Tobin's q* as the ratio of market value of total equity plus the liquidating values of preferred stocks and total debt to the book value of total assets.

3.2.3. CEO Promotion Focus Relative to Prevention Focus (CEOPFP)

Our *CEOPFP* variable reflected the degree of a CEO's promotion focus relative to prevention focus. To measure this variable, we followed prior research (Chung and Low 2022; Gamache et al. 2015; Kashmiri et al. 2019) and conducted a content analysis[1] of CEO letters to their firm's shareholders in annual reports. We analyzed CEO letters to shareholders using specific dictionaries of promotion- and prevention-related words that were developed by Gamache et al. (2015). To ensure high coding reliability, we used Linguistic Inquiry and Word Count (LIWC) software to detect the presence of promotion- and prevention-related words in each CEO letter extracted (see Supplementary Appendix A).

We first measured CEO promotion-focus and prevention-focus using a percentage of related words within each letter, respectively. We then subtracted the average percentage of prevention-related words from the average percentage of promotion-related words in each CEO's letters and used this difference to reflect *CEOPFP* (the degree of promotion-focus relative to prevention-focus). A positive (negative) value indicated that the CEO is predominately promotion-focused (prevention-focused). Further, we followed the suggestion of Chung and Low (2022) and standardized the proportion of sentences with promotion-related words and the proportion with prevention-related words to have a mean of zero and standard deviation of one first before taking the difference. The motivation for standardization is because there are many more sentences with promotion-related words than prevention-related words, and the standard deviation for the former is also much higher.

3.3. Control Variables

We included several control variables that may impact CSR (Al-Shammari et al. 2019; Buchanan et al. 2018). For firm characteristics, we controlled firm size (*SIZE*) and age (*AGE*) since larger and older firms may be more inclined to engage in CSR compared to smaller and younger firms. Cash ratio (*CASH*) was included to control the potential impact of the degree of liquidity on its engagement in CSR. We included two controls that account for firm profitability as indicated by growth in sales (*SGROW*) and *ROA*. We also included two controls that account for the firm's potential risk, as proxied by leverage (*LEV*) and earnings volatility (*VOLAT*). To account for other strategic actions that may impact CSR, such as innovation, we controlled for R&D intensity (*RDINT*) and capital intensity (*CAPINT*).

CEO characteristics also play an important role in determining CSR. We controlled for CEO gender (*CEOGENDER*), as the perceived importance of CSR may vary among different groups between male and female CEOs (Chen et al. 2020a). We controlled CEO age (*CEOAGE*) and tenure (*CEOTENURE*) to account for the potential effect of CEO discretion characteristics that may motivate CEOs' decisions to pursue CSR. We also controlled for CEO overconfidence (*CEOOVER*) since these CEOs are likely to be confident about their superior interpretation and understanding of strategic actions (Gul et al. 2020). Furthermore, we included board size (*BSIZE*) and board independence (*BINDP*) to account for the potential effect of board governance on CSR. Variable definitions are shown in Table 1.

Table 1. Variable definitions.

Variables	Definition
CEO promotion focus predominance (CEOPFP)	(Number of sentences in the CEO annual letter containing words relating to promotion focus/total number of sentences in the annual letter)—(Number of sentences in the CEO annual letter containing words relating to prevention focus/total number of sentences in the annual letter). Proportions of sentences with promotion- and prevention-related words are each standardized to have a mean of 0 and standard deviation of 1.
CSR	Total CSR strengths minus total CSR concerns across the five categories of KLD ratings: community, diversity, employee relations, environment, and product
External CSR	Total strengths minus total concerns of the community and environment categories
Internal CSR	Total strengths minus total concerns of the employee relations and diversity categories
Firm performance (FP)	(Market value of total equity + liquidating values of preferred stocks + total debt)/total assets
Firm size (SIZE)	Natural logarithm of total sales
Firm age (AGE)	Natural logarithm of the number of years the firm was listed in Compustat
Cash ratio (CASH)	(Cash and cash equivalents)/total assets
Sales growth (SGROW)	Change in log of sales between year t and year t–1
Return on assets (ROA)	Operating income/total assets
Leverage (LEV)	Total debt/total assets
Earnings volatility (VOLAT)	Standard deviation of earnings over the past five years
R&D intensity (RDINT)	R&D expenditure/total sales
Capital intensity (CAPINT)	Capital expenditure/total sales
CEO gender (CEOGENDER)	1 if the CEO is a male CEO, and 0 otherwise
CEO age (CEOAGE)	Natural logarithm of CEO age
CEO tenure (CEOTENURE)	Natural logarithm of the number of years that the CEO has been serving the company
CEO overconfidence (CEOOVER)	1 if the CEO holds stock options that are at least 67% in cash, and 0 otherwise
Board size (BSIZE)	Number of directors sitting on the board
Board independence (BINDP)	The percentage of independent directors on the board
CEO equity compensation (CEOEQUITY)	(CEO's annual restricted stocks and stock options)/total compensation
Institutional ownership (INSOWN)	The percentage of shares held by institutional investors for the firm to the total shares outstanding

3.4. Descriptive Statistics

Table 2 presents the descriptive statistics and correlations of the regression variables. The mean value of *CSR* score is 1.30, which is comparable to those shown in prior studies (Chen et al. 2020b). The mean value of *CEOPFP* is similar to that reported in Chung and Low (2022). We also calculate variance inflation factors (VIF) for each variable to test for multicollinearity. The mean VIF value is 1.23 (ranges from 1.01 to 1.69), indicating that multicollinearity is not a concern for our sample.

Table 2. Descriptive statistics and correlation matrix.

	Variables	Mean	S.D.	P5	P50	P95	1	2	3	4	5	6	7	8	9	10
1.	CSR	1.30	1.67	0.21	0.79	5.21	1.00									
2.	FP	1.94	1.72	0.86	1.45	4.63	0.02	1.00								
3.	CEOPFP	0.00	0.80	−1.42	0.05	1.23	−0.08 *	−0.01	0.79 *							
4.	CEOEBC	0.35	0.26	0.07	0.25	0.96	−0.15 *	−0.03	−0.08 *	1.00						
5.	INSOWN	0.72	0.28	0.14	0.79	1.00	−0.06 *	0.03 *	−0.01	−0.17 *	1.00					
6.	SIZE	4.69	12.18	0.03	0.91	21.09	0.41 *	−0.02	0.02	−0.15 *	−0.01	1.00				
7.	AGE	2.48	0.79	0.00	2.71	3.26	0.08 *	−0.09 *	0.07 *	0.00	0.05 *	0.02	1.00			
8.	CASH	0.15	0.18	0.00	0.08	0.57	−0.03	0.38 *	−0.03 *	0.04 *	0.03	−0.07 *	−0.05 *	1.00		
9.	SGROW	0.11	0.29	−0.24	0.07	0.57	−0.07 *	0.18 *	0.04 *	0.04 *	0.00	−0.03 *	−0.22 *	0.09 *	1.00	
10.	ROA	0.10	0.13	−0.11	0.11	0.27	0.10 *	0.06 *	0.11 *	−0.04 *	0.07 *	0.08 *	0.06 *	−0.31 *	0.02	1.00
11.	LEV	0.23	0.20	0.00	0.20	0.61	0.03	−0.17 *	−0.05 *	−0.13 *	0.13 *	0.04 *	−0.09 *	−0.38 *	−0.01	0.05 *
12.	VOLAT	0.15	0.29	0.00	0.03	1.00	−0.04 *	0.14 *	0.08 *	−0.08 *	−0.03 *	0.01	−0.67 *	0.13 *	0.20 *	−0.14 *
13.	RDINT	0.05	0.15	0.00	0.00	0.22	0.00	0.29 *	0.04 *	−0.03	0.04 *	−0.05 *	−0.07 *	0.59 *	0.13 *	−0.26 *
14.	CAPINT	0.21	0.36	0.00	0.04	1.00	−0.03 *	0.05 *	−0.07 *	−0.06 *	−0.08 *	0.04 *	−0.46 *	−0.07 *	0.14 *	0.04 *
15.	CEOGENDER	0.97	0.17	1.00	1.00	1.00	−0.02	0.00	0.00	0.04 *	−0.01	−0.03	0.03	0.01	0.02	−0.01
16.	CEOAGE	4.04	0.13	3.83	4.04	4.26	0.00	−0.04 *	−0.02	0.06 *	−0.07 *	0.03	0.06 *	−0.06 *	−0.04 *	0.00
17.	CEOTENURE	2.55	0.53	1.61	2.64	3.30	0.06 *	−0.01	−0.01	0.01	−0.08 *	0.05 *	0.26 *	−0.04 *	−0.03	0.05 *
18.	CEOOVER	0.49	0.50	0.00	0.00	1.00	−0.16 *	0.23 *	0.00	0.02	0.02	−0.05 *	−0.10 *	0.06 *	0.16 *	0.17 *
19.	BSIZE	9.20	1.32	7.00	9.00	12.00	0.25 *	−0.06 *	−0.03 *	−0.13 *	−0.03 *	0.27 *	0.09 *	−0.12 *	−0.04 *	0.01
20.	BINDP	0.36	0.40	0.00	0.00	0.91	0.05 *	−0.03 *	−0.07 *	−0.27 *	0.10 *	0.08 *	0.43 *	−0.01	−0.13 *	0.04 *
	Variables						**11**	**12**	**13**	**14**	**15**	**15**	**17**	**18**	**19**	**20**
11.	LEV						1.00									
12.	VOLAT						0.03 *	1.00								
13.	RDINT						−0.12 *	0.11 *	1.00							
14.	CAPINT						0.04 *	0.50 *	−0.10 *	1.00						
15.	CEOGENDER						−0.03	−0.03	0.02	−0.01	1.00					
16.	CEOAGE						0.01	0.03	−0.05 *	0.03 *	0.04 *	1.00				
17.	CEOTENURE						−0.07 *	−0.19 *	−0.05 *	−0.13 *	0.04 *	0.11 *	1.00			
18.	CEOOVER						−0.03 *	0.08 *	−0.02	0.07 *	−0.01	0.05 *	−0.06 *	1.00		
19.	BSIZE						0.06 *	0.00	−0.06 *	0.05 *	−0.02	0.05 *	0.10 *	−0.08 *	1.00	
20.	BINDP						−0.06 *	−0.23 *	−0.05 *	−0.17 *	−0.05 *	0.05 *	0.14 *	−0.03 *	0.20 *	1.00

Notes: this table presents summary statistics and descriptive statistics between 2000 and 2018. * represents statistical significance at the 0.05 level or better.

4. Results

4.1. Baseline Analysis

To test H1, we estimate the following regression model:

$$CSR_{i,t} = \beta_0 + \beta_1 CEOPFP_{i,t} + \beta_n CONTROLS_{i,t} + \varepsilon_{i,t} \quad (1)$$

For firm i in year t, *CSR* is a firm's overall CSR performance, *CEOPFP* is a level of CEO promotion focus relative to prevention focus; and *CONTROLS* is a set of control variables. We also include year-fixed and industry-fixed effects (using two-digit SIC codes) to control for market-wide economic conditions and industry-wide practices.

Models 1 and 2 of Table 3 report the results of estimating Equation (1). Model 1 includes only the control variables. Results for the control variables are consistent with the prior literature. Model 2 includes the independent variable of *CEOPFP* to test its main effect on *CSR*. The results show a significant and negative effect ($b = -0.110$, $p < 0.01$). Therefore, H1 is supported.

Table 3. CEO regulatory focus and CSR performance.

	Y = CSR	**Y = CSR**	**Y = Internal CSR**	**Y = External CSR**
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**
CEOPFP (H1)		−0.110 ***	0.018	−0.069 ***
		(0.000)	(0.400)	(0.000)
SIZE	0.062 ***	0.061 ***	0.012 ***	0.018 ***
	(0.000)	(0.000)	(0.000)	(0.000)
FAGE	0.148 ***	0.141 ***	0.122 ***	0.027
	(0.001)	(0.001)	(0.006)	(0.166)
CASH	0.045	0.078	0.199	−0.105 **
	(0.739)	(0.565)	(0.154)	(0.021)
SGROW	−0.432 ***	−0.446 ***	−0.074	−0.119 ***
	(0.000)	(0.000)	(0.409)	(0.007)
ROA	2.552 ***	2.478 ***	2.528 ***	0.028
	(0.000)	(0.000)	(0.000)	(0.772)
LEV	0.156	0.130	0.091	0.057

Table 3. *Cont.*

	Y = CSR	Y = CSR	Y = Internal CSR	Y = External CSR
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	(0.161)	(0.245)	(0.408)	(0.184)
VOLAT	−0.073	−0.011	−0.394	−0.061
	(0.753)	(0.963)	(0.218)	(0.599)
RDINT	1.463 ***	1.511 ***	2.125 ***	−0.414 ***
	(0.000)	(0.000)	(0.000)	(0.000)
CAPINT	0.282	0.296	0.142	−0.278 ***
	(0.206)	(0.184)	(0.491)	(0.000)
CEOGENDER	−0.140	−0.146	−0.722 ***	0.128 ***
	(0.176)	(0.153)	(0.000)	(0.000)
CEOAGE	0.101	0.116	0.016	0.077
	(0.397)	(0.332)	(0.902)	(0.114)
CEOTENURE	−0.042	−0.032	−0.082 **	0.020
	(0.247)	(0.381)	(0.018)	(0.144)
CEOOVER	−0.313 ***	−0.308 ***	−0.080 **	−0.059 ***
	(0.000)	(0.000)	(0.018)	(0.000)
BSIZE	0.116 ***	0.116 ***	0.047 ***	0.003
	(0.000)	(0.000)	(0.000)	(0.486)
BINDP	0.391 ***	0.385 ***	0.352 ***	−0.003
	(0.000)	(0.000)	(0.000)	(0.909)
Year and industry fixed effects	Included	Included	Included	Included
Observations	8106	8106	8106	8106
R^2	0.375	0.377	0.217	0.420

Notes: *p*-values are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

4.2. Different Impact of CEO's Promotion Focus Relative to Prevention Focus on Internal and External CSR

To isolate the specific channels through which CEO regulatory focus predominance impacts CSR, we additionally examine whether predominantly promotion-focused CEOs have equal or different impact on activities directed toward external or internal activities. External activities include corporate philanthropy and environmental protection, while internal CSR activities involve behaviors related to employee rights protection and development (Al-Shammari et al. 2019). Thus, we choose community relations and environmental policies to capture the externally oriented CSR of the firm and employee relations and diversity as the two most appropriate and relevant dimensions to capture the internally oriented CSR. Following Al-Shammari et al. (2019), we calculated *External CSR* as the sum of all scores of the strength ratings minus the sum of all concerns reported by KLD data concerning *Community* and *Environment* categories, and *Internal CSR* as the sum of all scores of the strength ratings minus the sum of all concerns reported by KLD data concerning employee relations and diversity categories.

We re-estimate Equation (1) by replacing *CSR* with *External CSR* or *Internal CSR* as the dependent variable and report the results in Models 3 and 4 of Table 3. We find that *CEOPFP* has a negative and significant impact on *External CSR* ($b = -0.069$, $p < 0.01$, Model 4) and an insignificant effect on *Internal CSR* ($b = 0.018$, $p > 0.1$, Model 3), suggesting that predominantly promotion-focused CEOs prefer externally oriented CSR rather than internally oriented CSR activities.

4.3. Endogeneity Analysis

We perform a battery of endogeneity and robustness analyses to address the potential endogeneity concerns resulting from omitted variables bias, selection bias, and reverse causality problems. These analyses in confirm our results (see Supplementary Appendix).

4.4. Cross-Sectional Analysis

We next examine the role of corporate governance (i.e., CEO equity compensation and institutional ownership) as a moderating variable to shed light on the impact of CEO regulatory focus on CSR performance.

4.4.1. CEO Equity Compensation

CEO compensation structure is an important component of corporate governance and is used to incentivize executives to work toward a firm's particular goals and outcomes. It has been found to be an important compensation-related tool that helps corporate boards shape CEO behavior (Gamache et al. 2015). Agency theorists support the idea that rewarding stocks and stock options to CEOs can be an effective way to prevent CEOs from exhibiting shirking behavior, shortsightedness, and risk aversion (Jensen and Murphy 1990).

CEOs with higher equity compensation may have more at stake in terms of their personal reputation and public image. Thus, engaging in CSR is considered as a way for CEOs to demonstrate their commitment to social and environmental responsibilities, enhance firm reputation, and manage relationships with various stakeholders. CEOs will be compensated for their attempt to improve their firm's CSR performance as they recognize CSR can ultimately contribute to the firm's overall success. Moreover, while CSR initiatives are not always immediately financially rewarding, they can contribute to the firm's sustainable growth and long-term value, which aligns with the interest of CEO compensation incentives. In this case, CEOs with higher levels of compensation are inclined to invest more in CSR as a business activity, and we expect that the negative effect of CEOs' promotion focus predominance on CSR will be attenuated when CEO equity compensation is high.

Models 1 and 2 of Table 4 present the results for the moderating effect of CEO equity compensation. With the interaction term included in Model 2, we find a significantly positive interaction between *CEOPFP* and *CEOEBC* (b = 0.220, p < 0.01). As expected, this result suggests that the negative effect of a level of CEO promotion focus relative to prevention focus on CSR is weaker when CEOs have a higher proportion of equity compensation.

Table 4. Cross-sectional analysis.

	Y = CSR				
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
CEOPFP	−0.099 ***	−0.173 ***	−0.110 ***	−0.601 ***	−0.776 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEOEQUITY	0.427 ***	0.460 ***			0.532 ***
	(0.000)	(0.000)			(0.000)
INSOWN			0.463 ***	0.495 ***	0.643 ***
			(0.000)	(0.000)	(0.000)
CEOPFP * CEOEQUITY		0.220 ***			0.312 ***
		(0.005)			(0.000)
CEOPFP * INSOWN				0.633 ***	0.735 ***
				(0.000)	(0.000)
SIZE	0.060 ***	0.060 ***	0.061 ***	0.060 ***	0.058 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AGE	0.152 ***	0.154 ***	0.138 **	0.132 **	0.142 **
	(0.007)	(0.007)	(0.015)	(0.019)	(0.012)
CASH	0.064	0.054	0.092	0.141	0.133
	(0.680)	(0.724)	(0.548)	(0.358)	(0.387)
SGROW	−0.463 ***	−0.463 ***	−0.441 ***	−0.440 ***	−0.455 ***

Table 4. *Cont.*

Variables	Y = CSR				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	2.456 ***	2.452 ***	2.447 ***	2.437 ***	2.375 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LEV	0.047	0.038	0.179	0.193	0.105
	(0.698)	(0.753)	(0.134)	(0.105)	(0.382)
VOLAT	0.048	0.047	−0.030	−0.105	−0.026
	(0.889)	(0.892)	(0.929)	(0.754)	(0.940)
RDINT	1.427 ***	1.432 ***	1.510 ***	1.458 ***	1.345 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CAPINT	0.283	0.280	0.294	0.255	0.245
	(0.197)	(0.201)	(0.175)	(0.240)	(0.262)
CEOGENDER	−0.137	−0.134	−0.145	−0.144	−0.128
	(0.178)	(0.188)	(0.153)	(0.153)	(0.204)
CEOAGE	0.183	0.189	0.078	0.067	0.141
	(0.175)	(0.162)	(0.562)	(0.616)	(0.296)
CEOTENURE	−0.037	−0.036	−0.040	−0.044	−0.051
	(0.341)	(0.346)	(0.294)	(0.248)	(0.180)
CEOOVER	−0.296 ***	−0.298 ***	−0.305 ***	−0.299 ***	−0.284 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BSIZE	0.113 ***	0.112 ***	0.113 ***	0.113 ***	0.107 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BINDP	0.349 ***	0.344 ***	0.438 ***	0.437 ***	0.408 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year and industry fixed effects	Included	Included	Included	Included	Included
Observations	8064	8064	8106	8106	8064
R^2	0.379	0.380	0.378	0.380	0.385

Notes: *p*-values are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

4.4.2. Institutional Ownership

Institutional investors have publicly stated their preference for firms that appear strong on CSR activities and have increasingly incorporated CSR into their corporate investments (Chen et al. 2020b). Research suggests that institutional investors play a role in pressuring firms to initiate and consequently adjust CSR reporting to better reflect the preferences of their institutional investors (Christensen et al. 2021). There is evidence that institutional ownership has a positive impact on CSR (Dyck et al. 2019) by mitigating concerns about overinvestment and agency problems through promoting the optimal allocation of firm resources and monitoring managerial actions in response to strategic decisions (Buchanan et al. 2018). Several studies suggest that by holding stable stakes in a firm, institutional investors specialize in monitoring activities, play a crucial role in corporate governance, and provide effective external control regarding the information transparency of CSR reporting (Yu and Zheng 2020). In line with this stream of work, we expect that monitoring by institutional investors can enhance CSR by reducing value-destroying activities related to CEO regulatory focus. Thus, we expect that the effect of CEOs' promotion focus predominance on CSR will be weaker when institutional ownership is high.

Models 3 and 4 of Table 4 present the results of the moderating effect of institutional ownership. We find a positive and significant interaction between *CEOPFP* and *INSOWN* (b = 0.633, p < 0.01, Model 4), suggesting that as institutional ownership increases, the negative effect of a level of CEO promotion focus relative to prevention focus on CSR will be mitigated. Model 5 of Table 4 is the full model when including all moderators. We find that the results are largely the same.

4.5. Mediation Analysis

To test H2 (X → M → Y), we conduct a mediation analysis using the following two-model set (PROCESS Model 4), suggested by Hayes (2022):[2]

$$FP_{i,t} = a_1 + b_1 CEOPFP_{i,t} + \gamma_n CONTROLS_{i,t} + \varepsilon_{1,i,t} \quad (2)$$

$$CSR_{i,t} = a_2 + b_2 CEOPFP_{i,t} + \beta_n CONTROLS_{i,t} + \varepsilon_{2,i,t} \quad (3)$$

$$FP_{i,t} = a_3 + b_3 CEOPFP_{i,t} + \lambda_1 CSR_{i,t-1} + \gamma_n CONTROLS_{I,T} + \varepsilon_{3,i,t} \quad (4)$$

Figure 1 indicates the intuition behind the path analysis to test H2, following Baron and Kenny (1986). *Path c* corresponds to the total effect of the independent variable (X = *CEOPFP*) on the dependent variable (Y = *FP*), while *Path a* corresponds to the effect of X on the mediator variable (M = *CSR*), and *Path b* corresponds to the effect of M on Y. In Equation (2), the total effect of *CEOPFP* on *FP* is b_1, which decomposes into the direct effect of CEOPFP (b_3) and the mediation effect ($b_2 \times \lambda_1$), or the product of Paths a and b shown in Figure 1. Because the total effect is also obtained as $b_1 = b_3 + b_2 \times \lambda_1$, only Equations (3) and (4) need to be estimated.

Panel A, Table 5 reports the mediation results of estimating Equations (2) to (4). According to Baron and Kenny (1986), a variable operates as a mediator when the following three criteria are met. The first condition proposes that X is significantly related to M (*Path a*). We find a negative effect of *CEOPFP* on *CSR* ($b = -0.130$, $p < 0.01$, Model 2). The second condition suggests that M is significantly related to Y (*Path b*). We find that the effect of *CSR* on *FP* is positively supported ($b = 0.007$, $p < 0.05$, Model 3). The third condition proposes that when the impacts of Path a and b are considered, the impact of X on Y should weaken or become insignificant when including the mediator. When CSR is included, we find that the effect of *CEOPFP* on *FP* decreases; while it remains negative, it is significant ($b = -0.011$, $p < 0.05$ in Model 3 is smaller in magnitude in comparing to $b = -0.017$, $p < 0.01$ in Model 1). Our results meet all three conditions, suggesting that CSR partially mediates the negative relationship between *CEOPFP* and *FP*, providing preliminary support for H2. Our results suggest that firms led by predominantly promotion-focused CEOs experience a decrease in CSR performance, which, in turn, leads to lower FP.

Table 5. Mediation analysis. Panel (**A**): Direct and indirect effect of regulatory focus on FP. Panel (**B**): Bootstrapped mediation analysis.

Panel (**A**)			
	Direct Effect	**Mediation Effect**	
	Y = FP	**M = CSR**	**Y = FP**
Variables	**Model 1**	**Model 2**	**Model 3**
CEOPFP (H2)	−0.017 ***	−0.130 ***	−0.011 **
	(0.000)	(0.000)	(0.048)
CSR			0.007 **
			(0.021)
SIZE	−0.000	0.064 ***	−0.001 *
	(0.978)	(0.000)	(0.053)
AGE	−0.006	0.135 **	0.014
	(0.677)	(0.039)	(0.325)
CASH	0.733 ***	−0.176	0.681 ***
	(0.000)	(0.334)	(0.000)
SGROW	0.051 *	−0.466 ***	0.037
	(0.065)	(0.000)	(0.101)
ROA	3.133 ***	2.533 ***	2.855 ***
	(0.000)	(0.000)	(0.000)

Table 5. *Cont.*

Panel (A)			
	Direct Effect	**Mediation Effect**	
	Y = FP	**M = CSR**	**Y = FP**
Variables	**Model 1**	**Model 2**	**Model 3**
LEV	−0.138 ***	0.131	−0.080 ***
	(0.000)	(0.341)	(0.008)
VOLAT	0.440 ***	0.009	0.341 ***
	(0.001)	(0.981)	(0.000)
RDINT	1.467 ***	2.115 ***	1.506 ***
	(0.000)	(0.000)	(0.000)
CAPINT	0.236 ***	0.485 *	0.117 *
	(0.002)	(0.090)	(0.064)
CEOGENDER	0.004	−0.103	0.006
	(0.856)	(0.373)	(0.818)
CEOAGE	−0.068 **	0.257 *	−0.064 *
	(0.022)	(0.096)	(0.061)
CEOTENURE	0.039 ***	−0.074 *	0.039 ***
	(0.000)	(0.096)	(0.000)
CEOOVER	0.133 ***	−0.353 ***	0.122 ***
	(0.000)	(0.000)	(0.000)
BSIZE	0.003	0.094 ***	0.005 *
	(0.147)	(0.000)	(0.056)
BINDP	0.032 **	0.343 ***	0.017
	(0.034)	(0.000)	(0.342)
Year and industry fixed effects	Included	Included	Included
Observations	7555	6097	6097
R^2	0.640	0.398	0.564

Panel (B)			
		Y = FP	
Indirect Effect of X on Y	**Observed Coefficient**	**Bootstrap Standard Errors (SE)**	**Bootstrap 95% CI (BC)**
X → M → Y	−0.002 ***	0.001	(−0.003, −0.001)

Notes: *p*-values are in parentheses. * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Bootstrap sample size = 5000. The figures presented in the table using bootstrap command in Stata16. SE = standard errors, CI = confidence interval (lower and upper 95% reported), BC = bias corrected. X = CEOPFP, M = CSR, Y = FP. Observations = 6097 in Models 2 and 3 is the application of the lagged model specified in Equation (4).

To further validate H2, we conduct a mediation analysis using a bootstrapping approach recommended by Hayes (2022) and Preacher et al. (2007). Bootstrapping provides an empirical approximation of sampling distributions of indirect effects to provide the 95% confidence intervals (CIs) of estimates. If zero does not fall within the confidence interval, once can conclude that an indirect effect is different from zero (Preacher et al. 2007). This bootstrap command is generated by Stata 16 software to obtain both a bootstrapped 95% CI and the standard errors (SE) estimate for the product of coefficients (see Gould 1993). Panel B of Table 5 reports the bootstrapped results for the mediation effect, using the 5000 bootstrapped samples.[3] We find a negative and significant indirect effect of *CEOPFP* on *FP* via *CSR* ($b = -0.002$; SE = 0.001, $p < 0.01$; 95% CI = [−0.003 to −0.001]), which supports our prior assertion. Thus, H2 is supported.

5. Discussion

Given the strategic importance of CSR for contemporary corporations, researchers have increasingly investigated CSR and aimed to answer questions relating to the *antecedents* and *consequences* of CSR over the past four decades (e.g., Aguinis and Glavas 2019; Freeman 1984). Using a large sample of publicly listed US firms spanning from 2000 to 2018, our study aims to answer two unique related questions on the overarching relationship between a CEO's regulatory focus, the firm's CSR, and its FP. We first propose that CEO promotion focus predominance is an important reference point for a firm's CSR performance. Second, we theorize that CSR serves as a mediator in the relationship between CEO promotion focus predominance and FP.

Consistent with our theorizing, we find that firms led by predominantly promotion-focused CEOs are associated with lower CSR performance. This negative association is weaker in firms with a higher level of CEO equity compensation and higher institutional ownership. Furthermore, the negative impact of CEO promotion focus predominance on FP is partially mediated by firms engaging more in CSR. These findings provide important theoretical and practical implications.

5.1. Theoretical Implications

Theoretically, our study provides several contributions to the literature on the impact of CEO characteristics on corporate decisions. First, we contribute a nuanced understanding of how CEOs inject their motivational attributes (i.e., promotion focus vs. prevention focus) into their strategic decisions related to the engagement in CSR. While the extant literature on the role of such CEO psychological traits has been largely emphasized in the context of corporate risk-taking, such as pursuing acquisitions and innovations (Gamache et al. 2015; Kashmiri et al. 2019), the impact of these traits on CSR has remained largely unexplored. We therefore extend this literature by investigating the influence of CEO psychological traits in general and regulatory focus (i.e., a CEO's promotion focus relative to prevention focus) in particular on CSR, an area that has received limited attention from both upper echelons theory and regulation focus theory researchers. Our results answer the call for more research on the "*cognitive and motivational conditions that lead stakeholders to evaluate firms' social activities differently*" (Wang et al. 2016, p. 542).

Second, we contribute to the corporate governance literature by shedding light on how corporate governance factors—as proxied by CEO equity compensation and institutional ownership—interact with CEO psychological characteristics in shaping corporate strategy. We find that the negative impact of a level of CEO promotion focus relative to CEO prevention focus on CSR is attenuated in firms with high CEO equity compensation and high institutional ownership. Our results suggest that corporate governance (external or internal) is an effective lever that can be employed by the corporate board to monitor and control the positive or negative effects of CEO regulatory focus on corporate strategy.

Third, we advance strategic leadership research by providing a more detailed explanation of how FP is influenced by CEO regulatory focus through better CSR activities. We theorize and find empirical support for the view that CSR mediates the relationship between CEO regulatory focus and FP, which has been omitted heretofore in the literature. Our results also shed light on whether CSR affects the CEO regulatory focus–FP connection, which provides a potential explanation for the empirically inconsistent evidence in prior work.

5.2. Practical Implications

Our findings provide important implications for different stakeholder groups, including executives, directors, and investors. For instance, executives may benefit by understanding the motivational tendencies of CEOs to take advantages of the positive aspects of their regulatory focus and avoiding its negative consequences in shaping strategic decisions.[4] For the board of directors, understanding how CEO motivational attributes impact a preference towards or against a particular course of action (e.g., improving CSR performance) is very important for their CEO hiring decisions. Our findings can encourage directors to consider forming a balanced top management team by counterbalancing their incentive compensation arrangements. Investors may benefit from using a CEO regulatory focus as an effective signal to shape their investment decisions in situations when the CEO is newly hired and there is considerable uncertainty about the CEO's future strategic decisions.

5.3. Limitations and Future Research

Like all studies, our findings are subject to limitations that may be addressed in future research. First, the implications of our study may not be generalizable, as there are different jurisdiction systems across the world. We encourage future research to explore firms outside the US. In addition, in this study, CEO regulatory focus is assessed based on their psychological orientation toward regulating behavior through promotion focus and prevention focus words extracted from CEO letters to shareholders, a measurement commonly used in management studies (e.g., Gamache et al. 2015, 2020). We acknowledge the challenge of directly measuring the regulatory foci of CEOs due to data availability constraints and encourage future research to explore a more direct measure approach. Future research could also use other measures of regulatory foci, such as survey measures and experimental methods. Furthermore, we encourage future research to explore other factors that might moderate the effect of CEO regulatory focus on CSR. Such factors may include prior firm performance, environmental turbulence, and corporate culture.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/jrfm17070258/s1.

Author Contributions: Conceptualization, T.C., W.H.S., and A.K.H.; methodology, W.H.S.; software, W.H.S.; validation, W.H.S.; formal analysis, W.H.S.; resources, T.C. and W.H.S.; data curation, W.H.S.; writing—original draft preparation, W.H.S., T.C., and A.K.H.; writing—review and editing, W.H.S., T.C., and A.K.H.; visualization, T.C., W.H.S., and A.K.H.; supervision, W.H.S. and A.K.H.; project administration, W.H.S. and A.K.H. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Data Availability Statement: Dataset available on request from the authors.

Conflicts of Interest: The authors declare no conflict of interest.

Notes

1. While traditional survey or experimental studies often rely on financial metrics measured using scale points (e.g., Lockwood et al. 2002), we followed prior empirical studies (e.g., Chung and Low 2022; Gamache et al. 2015, 2020) and adopt a broader perspective by using the content analysis of CEOs' annual letters to shareholders to measure CEO regulatory focus. Indeed, content analysis has endorsed by experts as "accurately represents the focal concept" (Short et al. 2010, p. 320). Eggers and Kaplan (2009) also suggest that letters to shareholders has been considered as an ideal content to analyze due to their consistent, comparable, and annual form of communication that are reflective of the CEO's style and word choices. This approach is particularly suitable for longitudinal research. There is compelling evidence that the CEO is the primary author of the letter, and highly involved in drafting and editing it (Eggers and Kaplan 2009; Gamache et al. 2020). Following this rationale, studies have used letters to shareholders as an example for optimal content analyses (e.g., Eggers and Kaplan 2009; Gamache et al. 2020; Short et al. 2010). We then used Linguistic Inquiry and Word Count (LIWC) software, an approach frequently used for measuring psychological processes, to detect the content.
2. PROCESS Macro is widely used in social science and management studies for estimating the meditation hypothesis. One advantage of using the PRCOESS Macro over simultaneous equations models and simple regression analysis is its robustness in addressing potential endogeneity issues between the dependent, independent, and mediator variables (Hayes 2022).
3. According to Edwards and Lambert (2007), "When constructing confidence intervals, a minimum of 1000 bootstrap samples should be used to accurately locate the upper and lower bounds of the 95% confidence interval" (pp. 11–12). In our study, we used a larger bootstrap sample size (i.e., 5000), leading to more accurate estimates of parameters or statistics (Preacher et al. 2007).
4. CEOs who realize their promotion-focused tendencies may benefit by surrounding themselves with prevention-focused management team members to improve CSR. Similarly, CEOs who realize their prevention-focused tendencies may benefit by having promotion-focused management team members engage in other important activities such as acquisitions and innovations that may be pertinent to corporate strategy.

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