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CSR Gap and Firm Performance: An Organizational Justice Perspective

Abstract

A firm's internal and external stakeholders may have conflicting demands on the firm's corporate social responsibility (CSR) investments. Based on the organizational justice perspective, this study examines the impact of the gap between external and internal CSR investments on firm performance. A panel sample of 3,302 firms and 21,031 firm-year observations from China over the 2010–2019 period is employed. The results empirically support the negative impacts of the CSR gap on financial and operational performance. Besides, this study finds that CSR disclosure strengthens the negative impacts while Employee Stock Ownership Plan weakens the impacts. This study provides empirical evidence on the link between CSR and firm performance by considering the competing relationship between internal and external CSR investments and employees' perceptions. The findings suggest that managers need to adopt a more productive CSR strategy based on a comprehensive consideration of different CSR dimensions.

Keywords: corporate social responsibility; CSR gap; firm performance; organizational justice

1 Introduction

With the increasing awareness of society about the importance of sustainable development and the triple bottom line, more and more firms are investing in corporate social responsibility (CSR) (Cantele & Zardini, 2018; Kong, Antwi-Adjei, & Bawuah, 2020; Mackey, Mackey, & Barney, 2007). Firms may invest in CSR activities that benefit external stakeholders (e.g. business partners and local community) or internal stakeholders (e.g. employees) (Scheidler, Edinger-Schons, Spanjol, & Wieseke, 2019). Existing literature has reported mixed findings on the impacts of external and internal CSR on performance outcomes (Bai & Chang, 2015; Jayachandran, Kalaignanam, & Eilert, 2013; Meier, Naccache, & Schier, 2021; Rehman, Khan, & Rahman, 2020; Sardana, Gupta, Kumar, & Terziovski, 2020). Moreover, there may be conflicting demands from internal and external stakeholders and a firm often has to satisfy external stakeholders' needs at the expense of internal stakeholders due to firms' resource limitations (Rupp, Ganapathi, Aguilera, & Williams, 2006). Some firms thus may adopt a "window dressing" strategy in CSR investments by focusing on external CSR and ignoring internal CSR (Cavaco and Crifo, 2014).

CSR gap refers to the degree to which a firm emphasizes external CSR compared with internal CSR (Hawn & Ioannou, 2016)¹. It captures the competing relationships between internal and external CSR. Organizational justice perspective has been used to examine the

¹ A positive CSR gap means that the focal firm take more external CSR activities than internal ones while a negative CSR gap implies that the firm emphasize internal stakeholders than external ones in terms of CSR investments.

relationships between CSR and employees' behaviors (e.g., L.-F. Chen & Khuangga, 2021; De Roeck, Marique, Stinglhamber, & Swaen, 2014; Rupp et al., 2006). Researchers argue that internal CSR is related to employees' direct interests (O. Farooq, Rupp, & Farooq, 2017) and first-party justice (L.-F. Chen & Khuangga, 2021) while external CSR caters to employees' ethical needs and third-party justice (Rupp et al., 2006). This study focuses on the joint effects of internal and external CSR investments and investigates the impacts of the CSR gap on performance outcomes. Based on the organizational justice perspective, we argue that the CSR gap may lead to employees' perception of injustice. Thus, employees may reduce their efforts, and hence CSR gap is negatively associated with financial and operational performance.

Researchers argue that stakeholders' responses to focal firms' CSR activities might be influenced by whether they can acquire CSR information and how they interpret CSR information (Pham & Tran, 2020; Yadav, Han, & Rho, 2016). Therefore, from the perspective of employees, the study examines the moderating effects of CSR disclosure (CSR information acquisition) and Employee Stock Ownership Plan (ESOP) (CSR information interpretation). We argue that CSR disclosure will amplify the negative impacts of the CSR gap on firm performance. ESOP can bind the interests of firms and their employees so firms' external CSR activities can be related to their employees' direct interests (Wagner, Parker, & Christiansen, 2003). Thus, it reduces the negative impact of the CSR gap on performance outcomes.

This study aims to answer two research questions: 1) what are the impacts of the CSR gap on firm performance? and 2) how do CSR disclosure and ESOP influence the impacts? This study contributes to the literature in two ways. First, investigating the impacts of the CSR gap

on performance outcomes could provide a possible explanation for the inconsistent conclusions on the CSR-performance relationship (Bhardwaj, Chatterjee, Demir, & Turut, 2018; Sun & Ding, 2020; Úbeda-García, Claver-Cortés, Marco-Lajara, & Zaragoza-Sáez, 2021). The study also highlights the competing relationship between internal and external CSR and reveals that external CSR may lead to employees' perception of injustice and hence negatively affect performance. Second, the study reveals that the impacts of CSR investments on performance are moderated by employees' cognition and processing of CSR information, enhancing current understandings under what conditions CSR investments have stronger effects on performance outcomes.

2 Theoretical Background and Hypotheses

2.1 External CSR and Internal CSR

CSR refers to the actions and investments that aim to promote social good that goes beyond the requirements of the law and the immediate interests of a firm and its shareholders (De Roeck et al., 2014). It emphasizes that firms should cater to the needs of other stakeholders besides shareholders because they can exert influence on firms' activities and profits (Yang & Baasandorj, 2017). CSR can be classified into internal and external CSR based on the target stakeholders (e.g., Deng, Long, Schuler, Luo, & Zhao, 2020; O. Farooq et al., 2017). Internal CSR activities refer to "formal CSR initiatives within which employees can participate and reap developmental benefits" (O. Farooq et al., 2017, p.957). It targets internal stakeholders and involves employee training, safe working environments, and care and consolation for employees. External CSR activities, such as charitable donations, environmental protection

investment, and customer care, are concerned with external stakeholders, that is, society, the environment, and business partners (suppliers and customers) (Deng et al., 2020).

Investing in internal and external CSR can help firms generate valuable resources and capabilities, especially intangible ones, such as corporate reputation and culture (Cavaco & Crifo, 2014). Moreover, firms can legitimize their actions by engaging in CSR activities (Bai & Chang, 2015). Researchers also argue that internal and external CSR play conducive roles for firms and trigger employees' positive responses by increasing employees' organizational identity and organizational justice (L.-F. Chen & Khuangga, 2021; De Roeck et al., 2014). Despite having emphasized the positive roles of both external and internal CSR, the majority of previous studies have neglected the interrelationship between them.

2.2 CSR and Firm Performance

Scholars have been investigating the relationship between CSR and firm performance (Kong et al., 2020; Q. Wang, Dou, & Jia, 2015). Various theoretical perspectives, such as stakeholder theory (Bai & Chang, 2015; González-Rodríguez, Martín-Samper, Köseoglu, & Okumus, 2019), the resource-based view (Cavaco & Crifo, 2014; Inoue & Lee, 2011), institutional theory (L. Chen, Feldmann, & Tang, 2015; Sardana et al., 2020), and social identity theory (Deng et al., 2020; Mishra & Suar, 2010), have been used to examine the impacts of CSR on performance. Most of the studies focus on the impacts of CSR on financial performance, such as ROA (return on asset) and Tobin's Q (Shahbaz, Karaman, Kilic, & Uyar, 2020; Su, Liu, & Teng, 2020; Yang & Baasandorj, 2017), market performance (L. Chen et al., 2015; González-

Rodríguez et al., 2019), and overall firm performance measured by questionnaires (Bai & Chang, 2015; Sardana et al., 2020).

Existing studies have reported contradictory findings on the impact of CSR on performance outcomes ([Table 1](#)). For example, mixed results have been obtained about the impacts of external CSR activities on performance. Researchers have argued that environmental and social CSR investments grant legitimacy to the focal firms (Su et al., 2020; Yang & Baasandorj, 2017), release the signal of their sense of responsibility (Mishra & Suar, 2010), and reinforce stakeholders' identification with them (Cantele & Zardini, 2018), thus improving firm performance. In contrast, other studies have found these CSR activities may have detrimental (e.g., Bouslah, Kryzanowski, & M'Zali, 2013; Inoue & Lee, 2011) or insignificant (e.g., González-Rodríguez et al., 2019; Miras-Rodríguez, Carrasco-Gallego, & Escobar-Pérez, 2015; Platonova, Asutay, Dixon, & Mohammad, 2018) effects on firm performance. The studies have argued that environment protection actions and social CSR could play conducive roles only when firms can obtain enough gains from these CSR investments to make up for the costs. Existing studies have also reported inconsistent findings on the impacts of customer/supplier CSR on performance outcomes, including a linear positive relationship (Bai & Chang, 2015; Jayachandran et al., 2013), an insignificant relationship (Sardana et al., 2020), and a U-shaped relationship (Miras-Rodríguez et al., 2015). Besides, regarding the effects of internal CSR on firm performance, a linear positive relationship (Rehman et al., 2020), an inverted U-shaped relationship (Meier et al., 2021), and an insignificant relationship (L. Chen et al., 2015) have been found.

Please insert [Table 1](#)

Researchers argue that CSR investments can be costly (Mackey et al., 2007). The benefits resulting from CSR activities are affected by both diminishing returns and increasing costs (Meier et al., 2021). Besides, companies with “window dressing” CSR strategies may only be willing to undertake external CSR activities. As a result, investments in external CSR may result in a reduction of internal CSR investments (Cavaco & Crifo, 2014), and different dimensions of CSR investments may not be independent of each other. Hence, firms often need to consider the interrelationship between internal and external CSR when making decisions.

Nevertheless, most of the existing studies have focused on the individual impact of CSR activities on performance. Although some studies (e.g., Crifo, Diaye, & Pekovic, 2016; Deng et al., 2020) have examined the interactive and complementary effects of internal and external CSR investments, few studies consider the potential competing relationship between them. Failure to consider the CSR gap may also lead to inconsistent empirical evidence on the impact of CSR on organizational justice. For example, De Roeck et al. (2014) find that both high levels of internal and external CSR lead to employees’ high perception of organizational justice. Farid et al. (2019) also report a positive link between CSR and perception of justice (both distributive justice and procedural justice). In contrast, J. Kim, Milliman, and Lucas (2021) report insignificant relationships between CSR (economic, legal, and philanthropic CSR) and employees’ perception of procedural justice. Besides, L.-F. Chen and Khuangga (2021) report that the combination of high levels of internal and external CSR can induce positive employee behavior, whereas individually none of them has an impact.

Furthermore, previous research has found that the impacts of CSR on performance are moderated by firm attributes (e.g. firm size (Jayachandran et al., 2013), plant capability (Sardana et al., 2020), and slack resources (Tan, Habibullah, Tan, & Choon, 2017)), industry types (Inoue & Lee, 2011) and market environment (Bai & Chang, 2015). Few studies have taken a social perspective and investigated how employees' CSR information acquisition and interpretation affect the CSR-performance link.

2.3 CSR Gap and Firm Performance: An Organizational Justice Perspective

Organizational justice is employees' perception and judgment of how fairly they are treated by their firms in the working area (Colquitt, Greenberg, & Zapata-Phelan, 2005). Employees perceive a sense of organizational justice or injustice in employee-organization exchanges after comparing their inputs with outcomes or comparing their inputs and outputs with those of others (Colquitt et al., 2005). Employees who believe that they are in a state of injustice will try to reduce injustice by changing inputs or even leaving the organization (J. Kim et al., 2021) or if they think that they are being treated fairly, they will perceived a stronger organizational identification and thus increase their work efforts.

Studies have established the link between CSR and employees' behavior from an organizational justice perspective (e.g., L.-F. Chen & Khuangga, 2021; De Roeck et al., 2014; J. Kim et al., 2021). Firms' CSR activities may increase employees' perception of organizational justice, thus leading to their pro-organizational behaviors (Aguilera, Rupp, Williams, & Ganapathi, 2007; Rupp et al., 2006). The positive connection between CSR and

organizational justice involves three paths—instrumental motives, relational motives, and morality-based motives (Aguilera et al., 2007; Rupp et al., 2006).

In terms of instrumental motives, employees will have a positive attitude towards the firm that takes on more CSR responsibility and treats the environment and community fairly (Aguilera et al., 2007). This reflects employees' presumption of first-party justice or self-focused justice (fair treatment of employees themselves) according to third-party justice (fair treatment of external stakeholders) (L.-F. Chen & Khuangga, 2021; Lind, Kray, & Thompson, 1998). However, if firms take on too much external CSR at the expense of internal CSR (a wider CSR gap), employees may perceive a more direct, non-presumptive sense of first-party injustice.

A firm's treatment of stakeholders can communicate information about the quality of the relationship between employees and the firm (Rupp et al., 2006). The relational motives indicate that the perception of organizational justice can lead to a strong organizational identity for employees (Colquitt et al., 2005). Employees rely on their firms' CSR activities to evaluate how much their firms value their relationship with them (De Roeck et al., 2014). Nevertheless, a wider CSR gap reflects the lack of importance that firms place on their employees, which reduces employees' organizational identity.

Firms' external CSR actions can cater to their employees' underlying ethical and moral imperative that involves the third path—morality-based motives. De Roeck et al. (2014) propose that employees have a high level of perceived justice when they perceive that their firms undertake more external CSR activities because they think that their firms are allocating

part of their resources to realize the ethical pursuit of employees. But compared with external CSR and ethical needs, employees may pay more attention to internal CSR that involves direct (one-to-one) economic reciprocity and stimulates direct social exchange relationships between employees and their firms (O. Farooq, Payaud, Merunka, & Valette-Florence, 2014). Thus, a wider CSR gap that meets ethical needs while ignoring direct and economic needs may produce negative effects.

Therefore, we argue that the CSR gap increases employees' perception of injustice and employees are more likely to believe that firms play up to external stakeholders while omitting employees in terms of CSR investments. Employees' perceptions of organizational injustice may incur their negative emotions or behaviors, such as reducing their work efforts, less organizational commitment, and higher turnover intention (J. Kim et al., 2021), reducing operational and financial performance.

We suggest that the negative impacts of the CSR gap on performance still hold even when firms take more internal CSR activities than external activities. The organizational justice perspective has proposed that individuals react to justice issues in an egocentric fashion (Lerner & Goldberg, 1999). On the one hand, all the three paths through which external CSR affects employees' perception of justice reflect a primary egocentric bias in processing justice targeting the self and others. In other words, employees respond negatively to external corporate social irresponsibility because they perceive that they may not be treated fairly and valued by their irresponsible employers and their ethical needs may not be met, which are all centered on their own needs and interests (Lind et al., 1998; Rupp, Shao, Thornton, & Skarlicki,

2013). However, if their employers' external corporate social irresponsibility is attributed to taking on too many internal CSR activities that are highly relevant to their economic needs and direct interests, employees will be less likely to have a perception of injustice.

On the other hand, people typically give their own experience or treatment more weight than the experience or treatment of others (Lind et al., 1998). In terms of CSR perception, they may indeed care about external CSR (the treatment of others), but when confronted with comparisons of internal CSR and external CSR, they may place precedence on internal CSR (their own treatment) and first-party justice than external CSR and third-party justice (Rupp et al., 2013).

Therefore, we propose the following hypothesis.

H1: A larger value of CSR gap leads to lower firm (a) financial and (b) operational performance.

2.4 Moderating Roles of CSR Disclosure and Employee Stock Ownership Plan

Information plays an important role in the CSR-firm performance link (Z. Wang, Hsieh, & Sarkis, 2018). The reaction of employees to the CSR gap depends on whether they can acquire CSR information easily and how they interpret the information. The premise for employees to make a CSR comparison is they can access and understand CSR information. Scholars (e.g., Pham & Tran, 2020; Z. Wang et al., 2018; Yadav et al., 2016) have supported that the reporting and understandability of CSR-related information are important factors affecting the CSR-performance relationship. This study argues that the responses of employees to the CSR gap vary with employees' processing of the information related to their firms' CSR investments.

Employees in a firm are likely to follow the firm's official website to learn about the CSR activities of the firm. Whether a firm has a column about CSR on the official website serves as a proxy for CSR disclosure for employees. A CSR column makes it easier for employees to obtain specific information about the firm's CSR activities and facilitate their understanding of the CSR gap. As a result, employees are more likely to respond to firms' CSR gap. Therefore, we propose the following hypothesis.

H2: CSR disclosure strengthens the negative relationship between the CSR gap and firm (a) financial and (b) operational performance.

In terms of information interpretation, this study explores the impact of ESOP on the relationship between the CSR gap and firm performance. ESOP allows employees outside the management level to hold stocks of their firms (O'Boyle, Patel, & Gonzalez-Mulé, 2016). We argue that the larger CSR gap triggers employees' negative responses since they may value more of the direct benefits associated with internal CSR compared with external CSR and ethical satisfaction. ESOP influences the relationship by reshaping employees' interpretation of firms' external CSR and CSR gap. Specifically, ESOP provides incentives for employees and encourages employees to pay more attention to the long-term value of the firm (Oyer & Schaefer, 2005) and hence leads to employees' positive responses (Sengupta & Yoon, 2018). With the implementation of ESOP, employees place more emphasis on their firms' long-term interests and reputations that are highly related to external CSR. External CSR activities have transformed from just satisfying the ethical pursuit of employees to granting more direct economic interests. Therefore, even if the degree of CSR gap is greater, employees will think

that more external CSR will improve their interests, so they are less likely to respond negatively to the CSR gap.

Besides, a wider CSR gap may be perceived as a signal that the firm does not value its relationship with employees and thus employees are less likely to perceive organizational identity according to relational motives. However, ESOP can mitigate the adverse effects of the CSR gap since employee ownership instills psychological ownership (K. Y. Kim & Patel, 2017) and “a sense of possession of the organization” (Wagner et al., 2003, p. 849), which enhance employees’ organizational identification. Therefore, we propose the following hypothesis.

H3: Employee Stock Ownership Plan weakens the negative relationship between CSR gap and firm (a) financial and (b) operational performance.

Fig. 1 shows the conceptual framework of this study.

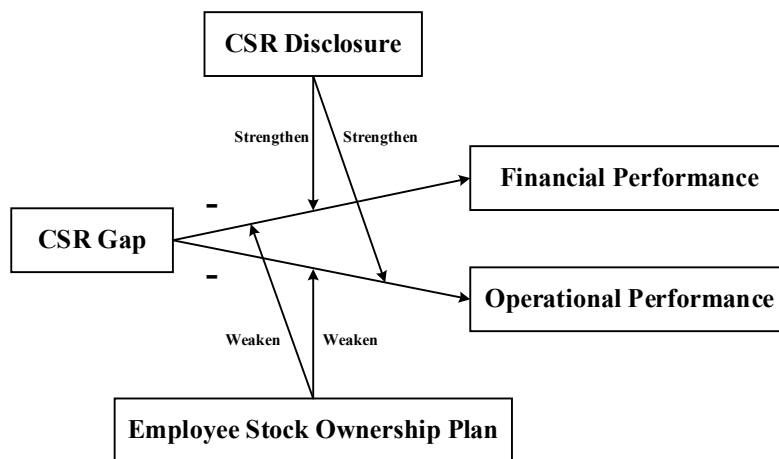


Fig. 1. Conceptual Framework

3 Research Design

3.1 Data Collection

Our samples are listed firms in Shenzhen and Shanghai stock exchanges in China. CSR indicators are taken from the Hexun database, one of the most significant third-party CSR rating systems in China (Deng et al., 2020). The sample period is from 2010 to 2019. We choose 2010 as the beginning year of our sample period because the first CSR scores on Hexun appeared in that year. Other financial data are derived from the China Stock Market and Accounting Research (CSMAR) database. The final sample consists of 3,302 firms and 21,031 firm-year observations.

3.2 Measurements of Variables

3.2.1 CSR gap

The Hexun database scores firms' CSR according to employees, suppliers and customers, environment, and social CSR performance. External CSR in this study represents the sum of all the external CSR scores — suppliers and customers, environment, and social CSR performance while internal CSR refers to the score of employee CSR performance. According to the Hexun database, the employee CSR performance includes employee performance², employee safety³ and employee care⁴. We calculate the CSR gap (hereafter, *CSRG*) through the following equation:

² The employee performance consists of per-capita income of employee and employee training.

³ The employee safety consists of security check and safety training.

⁴ The employee care consists of consolation awareness, consolation and solatium.

$$CSRG = (External\ CSR - Internal\ CSR) / Internal\ CSR \quad (1)$$

3.2.2 Firm performance

This study measures two types of firm performance—financial performance and operational performance. Tobin’s Q is a market-based indicator while ROA is a commonly used accounting-based indicator of financial performance. Labor productivity (hereafter, *Productivity*) serves as the indicator for firms’ operational performance (Sartal, Rodríguez, & Vázquez, 2020). We measure *Productivity* by using the listed firm’s total income (the main business income) divided by the number of employees (Deng et al., 2020).

3.3 Empirical Model

The empirical model to test the link of *CSRG* and firm performance is shown as follows:

$$\begin{aligned} Performance_{i,t+1} &= \beta_0 + \beta_1 CSRG_{i,t} + \beta_2 Size_{i,t} + \beta_3 CSR_{i,t} + \beta_4 Profit_{i,t} \\ &+ \beta_5 Cash_{i,t} + \beta_6 Lev_{i,t} + \beta_7 Shrholder3_{i,t} + \beta_8 SOE_{i,t} \\ &+ \beta_9 Age_{i,t} + \beta_{10} Inst_{i,t} + \beta_{11} Indu_ratio_{i,t} + \varepsilon_{i,t+1} \end{aligned} \quad (2)$$

where $Performance_{i,t+1}$ measures a firm i ’s performance in accounting year $t+1$. β_0 is the regression coefficient and ε is the error term. *CSRG* is calculated by **Eq. (1)**. We control firm *Size*, *CSR* score, firm *Profit*, cash flow (*Cash*), financial leverage (*Lev*), the top three shareholders (*Shrholder3*), Ownership (*SOE*), firm age (*Age*), the proportion of institution ownership (*Inst*), the ratio of independent directors on the board (*Inde_ratio*). The definitions of all variables are reported in [Table 2](#). In addition, to mitigate the samples’ heterogeneity

caused by year and industry, we adopt a two-way fixed effect model to estimate the regressions. To overcome endogenous effects, we regress the firm performance on the one-lag independent and control variables. We report the robust standard errors after clustering at the firm and year level. Finally, all other continuous variables are winsorized at the 1% level in each tail.

Please insert [Table 2](#)

4 Empirical Analyses and Results

[Table 3](#) provides descriptive statistics for all variables used in empirical models. The means of *Tobin's Q*, *ROA*, and *Productivity*, are 2.20, 0.06, and 13.82, respectively. The mean of *CSR* is 5.82 and the standard deviation is 14.53 for our sample firms, showing a large variation of CSR gap of sample firms. [Table 1](#) also shows descriptive statistics about control variables. In terms of financial information, the average firm size is 4.01 billion ($e^{22.13}$) and the average profit before tax over the total asset is 6.03%. The sample firms have a mean of 0.05 for Cash with a standard deviation of 0.07. The range of the leverage ratio for our samples is from 0.41 to 0.98 with a mean of 0.41. The proportion of shares held by the top three shareholders and institutional investors are 50% and 38% on average, respectively. The proportion of State-owned enterprises is 37% in our sample firms. Next, the average listing age for sample firms is 10.23 years to the event year. 38% of board members are independent directors on average in our sample. We compute VIFs to test the multicollinearity problem when conducting the main regression analyses. The results show that the VIF values range from 1.25 to 4.37 and the mean value of VIF is 2.71. They are far below the critical cutoff of 10.0, which indicates that there is no serious multicollinearity problem.

Please insert [Table 3](#)

4.1 CSR Gap and Firm Performance

[Table 4](#) shows the results of the regression of [Eq. \(2\)](#). The results show that *CSRG* is negatively associated with *Tobin's Q* ($\beta=-0.016$, $p<0.01$), *ROA* ($\beta=-0.016$, $p<0.01$), and *Productivity* ($\beta=-0.050$, $p<0.01$), indicating that the CSR gap reduces both firm financial and operational performance. H1a and H1b are supported. Furthermore, according to columns (2), (4) and (6) in [Table 4](#), although the coefficients of the total CSR investments are significantly positive, the CSR gap exerts negative effects on firm performance.

The coefficients of the control variables are generally consistent with prior studies. We can observe that *Size* negatively correlates to *Tobin's Q* and *ROA* (Wu, Wu, Zhou, & Wu, 2012), but positively correlates to *Productivity* (Deng et al., 2020). Brower and Dacin (2020) suggest that corporate profitability and firm performance have a significant positive relationship. Also, we find significant positive coefficients of corporate *Cash* and *Tobin's Q*, *ROA* and *Productivity*. Wu et al. (2012) find that high leverage ratios have a positive impact on corporate *Productivity* and K.-H. Lee, Cin, and Lee (2016) find that high leverage ratios reduce financial performance (*Tobin's Q* and *ROA*). Our results confirm their findings. Next, we observe that the variable of *Shrholder3* has a significant negative impact on *Tobin's Q* and has a positive impact on *ROA* and *Productivity*, consistent with the results of Bozec and Laurin (2008). The coefficients of *SOE* are negative, in line with Gao and Yang (2016). The results also suggest that old and more equity held by institutional investors firms have better financial performance with evidence on significant positive coefficients of *Age*, supported by Wu et al. (2012) and

Gao and Yang (2016). Finally, results in columns (2), (4) and (6) show that the independence of the board has a significant positive impact on financial and operational performance (Faleye & Trahan, 2011).

Please insert [Table 4](#)

4.2 Moderating Effects of CSR Disclosure and Employee Stock Ownership Plan

The reaction of employees to the CSR gap depends on whether they can acquire CSR information conveniently. CSR disclosure is measured by a dummy variable (*Column*), which equals 1 when the firm establishes a column about CSR on the official website and 0 otherwise. The results are shown in [Table 5](#). In order to show the moderating effect of *Column* more visually, we plot the links between the CSR gap and performance (*Productivity* as an example) in the presence and absence of *column*, respectively, shown in [Fig. 2](#). The results show that the coefficients of $CSR_{i,t} * Column_{i,t}$ are significantly negative in terms of *Tobin's Q*, *ROA*, and *Productivity*, supporting H2a and H2b.

Please insert [Table 5](#)

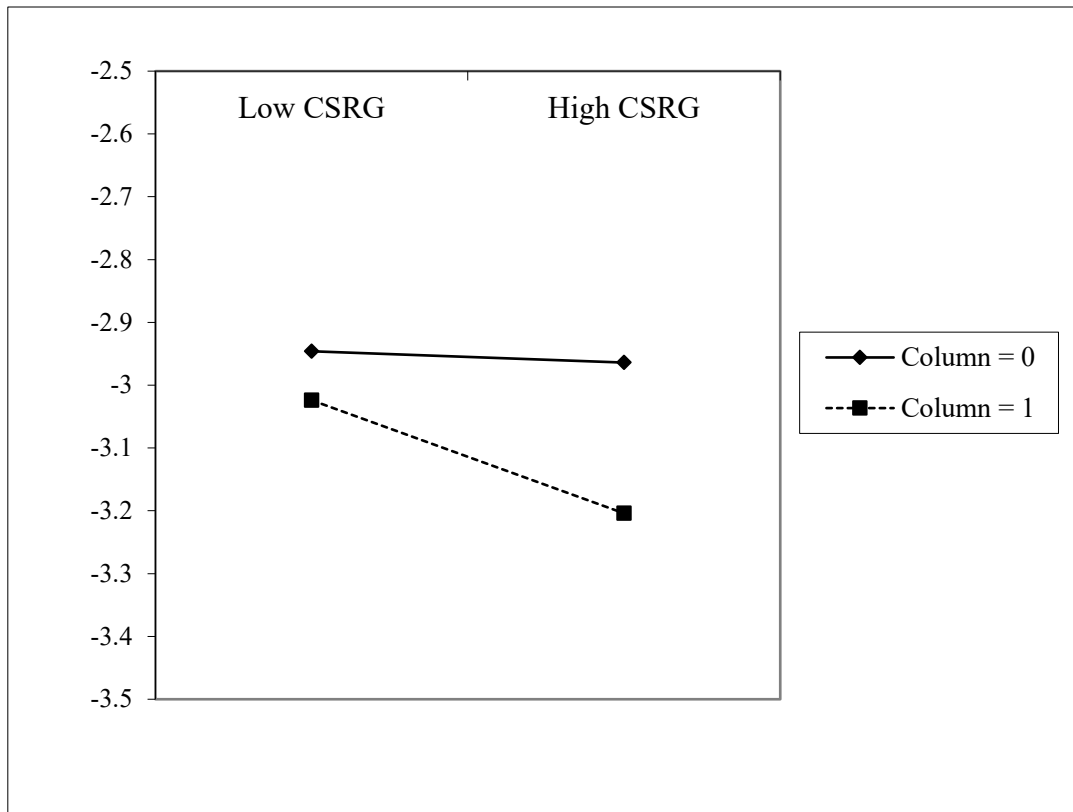


Fig. 2. Moderating Effect of *Column*

ESOP can combine the employees' interests with a firm's long-term development and enhance their organizational identification (Kim and Patel, 2017), which can change their interpretation of their employers' CSR activities. We measure *ESOP_1* by the ratio of the number of employees (excluding the number of management shareholders) participating in ESOP to the total number of employees. We also employ an alternative measurement for *ESOP*: *ESOP_2*, measured by the number of shares held by employee participating in ESOP (excluding management shareholding) divided by the firm's total equity. As shown in [Table 6](#), the coefficients of *CSRG*ESOP_1* are significantly negative. The results stay robust even if we use the alternative measurement, *ESOP_2*.

Please insert [Table 6](#)

The moderating effect of *ESOP* is shown visually in **Fig. 3** (*ESOP1*) and **Fig. 4** (*ESOP2*).

High *ESOP* refers to the mean of *ESOP* plus one standard deviation while low *ESOP* refers to the mean minus one standard deviation. The results indicate that *ESOP* weakens the negative impacts of the CSR gap on firm performance, which supporting H3a and H3b.

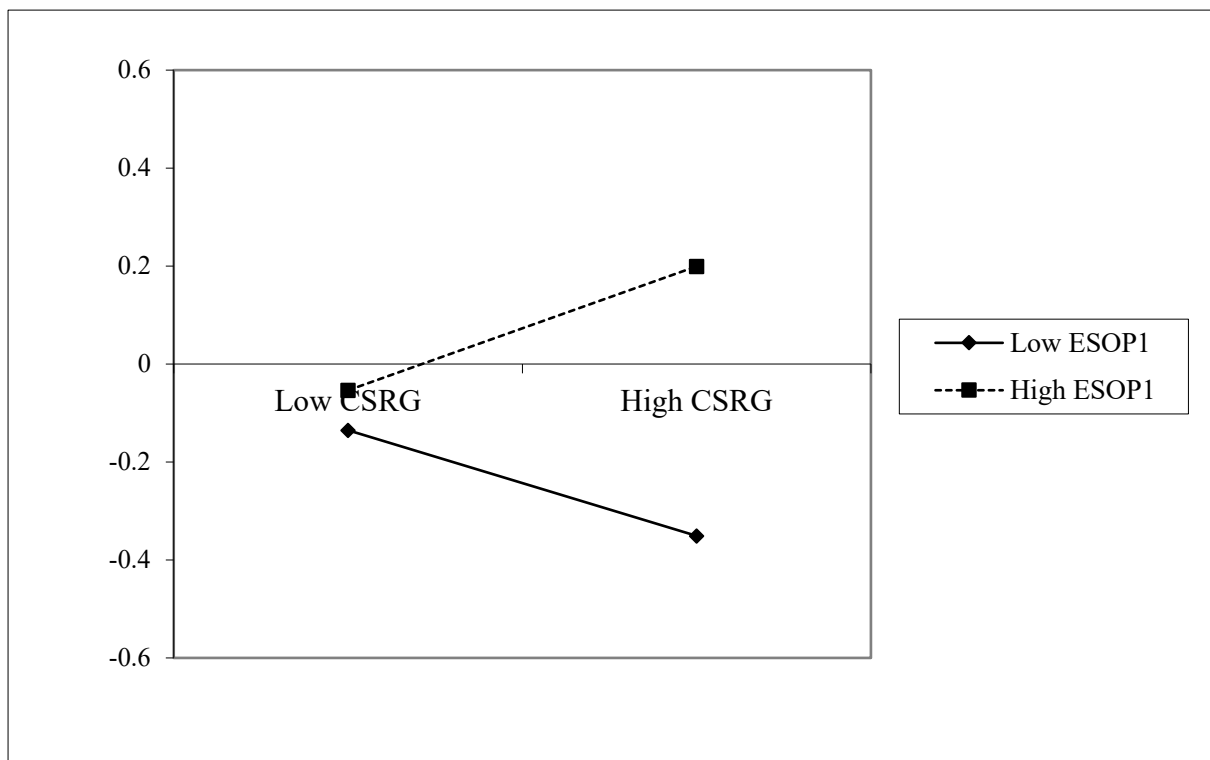


Fig. 3. Moderating Effect of *ESOP1*

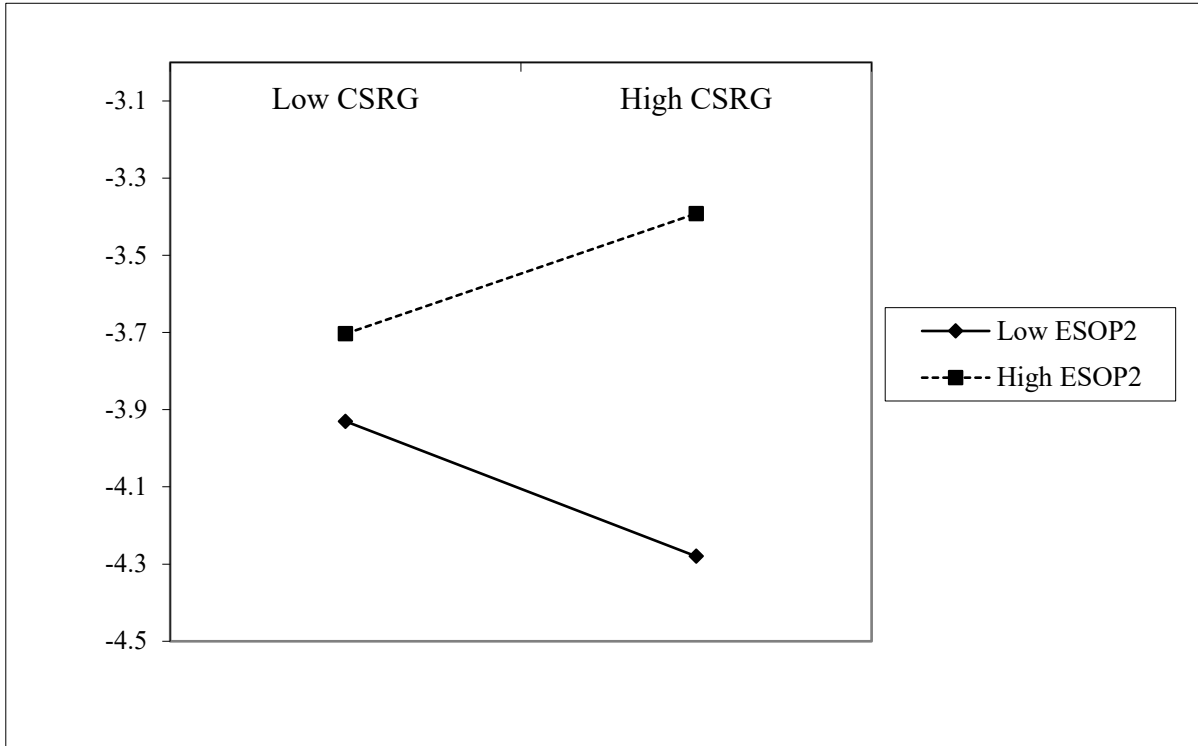


Fig. 3. Moderating Effect of *ESOP2*

Finally, [Table 7](#) pools together both the two moderating variables to examine the robustness of our moderating analyses. The results are broadly consistent with the above findings. The results suggest that CSR disclosure (*Column*) and Employ Stock Ownership Plans (*ESOP*) play the significant moderating effects in the negative effect of CSR gap on firm performance. In addition, CSR gap (*CSRG*) still maintains a significantly negative impact on the financial and operational performance.

Please insert [Table 7](#)

4.3 Additional Analyses

We conduct additional analyses by examining the effect of the firm's heterogeneity on the relationship between the CSR gap and firm performance. To simplify our analysis, we only consider *Tobin's Q* as the dependent variable.

The ownership of a firm may influence its CSR investments (Zhu, Liu, & Lai, 2016). Since state-owned enterprises (SOEs) are expected to conduct more CSR activities towards the environment and society than non-SOEs (Córdoba-Pachón, Garde-Sánchez, & Rodríguez-Bolívar, 2014). Thus, the CSR gap may have a less negative impact on performance in SOEs. We re-estimate **Eq. (2)** within the two subsets, non-SOEs and SOEs, separately. As shown in **Table 8**, the coefficients of *CSRG* are significantly negative in both subsets, but the coefficient for non-SOEs (-0.030) is smaller than that of SOEs (-0.010). The results imply that the effect of the CSR gap on firm performance is more pronounced in non-SOEs.

Please insert **Table 8**

The size of a firm may affect the resources available for CSR activities (Yadav et al., 2016). Employees may expect that large firms have more resources to take on more internal and external CSR. Thus, the CSR gap may have a more negative impact on performance in larger firms. To examine the effect, we divide the sample into two subsets: the large size subset with the index above the median at the same year and within the same industry (*Size_L*), and the small size subset with the index below the median (*Size_S*). We then re-estimate **Eq. (2)** for each subset separately. As shown in **Table 8**, the coefficients of *CSRG* are significantly negative in both subsets, but the coefficient for the large firm subset (-0.018) is smaller than that in the small firm subset (-0.015). The results indicate that the negative impact of the CSR gap on firm performance is more noticeable for large firms.

5 Endogeneity and Robustness Test

5.1 Endogeneity Test

Potential endogeneity may challenge our empirical results. For example, a firm with poor performance is less likely to allocate resources to conduct internal and external CSR activities.

We adopt the instrument variable approaches and the fixed-effects model to address the potential endogeneity issue.

5.1.1 The instrument variable approaches

The issue of endogeneity is the biggest challenge to study the impact of CSR gap on firm performance. The omitted factors that affect a single firm (such as institutional and policy environment) may also affect the performance of other firms. If the firm performance booming is driven by common factors, it may make $Cov(CSRG_{i,t}, \varepsilon_{i,t+1}) \neq 0$ in model (2), thus leading to biased estimates of CSR gap. To further control for the potential influence of other unobservable factors on the baseline results, an instrumental variable is constructed to further address the endogeneity problem, shown in **Eq. (3)**.

$$Performance_{i,t+1} = \beta_0 + \underbrace{\beta_1 CSR_{i,t}} + \sum_k \beta_k Controls_{k,i,t} + \varepsilon_{i,t+1} \quad (3)$$

It is assumed that the pure regional peer group of the dependent variable i , which come from the same province but operate in different industries in year t , is composed of $M1, M2, \dots, Mm, \dots, \underbrace{Mn}$

We regard each individual observation in the above peer group, such as Mm , as a new individual observation, and continue to look for their pure industry peer group ($Zn1, Zn2, \dots, Znm, \dots, Znn$), which operate in the same industry but are in different regions in year t .

In general, the pure industry peer group of Mn ($Zn1, Zn2, \dots, Znn, \dots, Znm$) and the dependent variable observation i are in different regions and operate in different industries. It means that the CSR gap of the industry peer group, such as ($Zn1, Zn2, \dots, Znn, \dots, Znm$), can be used as a perfectly exogenous variable of CSR .

Previous studies have shown that firms' decisions present significant peer effects at the industry level (e.g., Adhikari & Agrawal, 2018; Du & Shen, 2018). Cao, Liang, and Zhan (2019) present evidence of the adoption of CSR practices among peer firms following the passage of a voting firm's CSR proposal, named the peer effects of CSR. Their results demonstrate that CSR activities can be transferred within the same industry.

In addition, due to the regional disparity in economic development and marketization degree, the actions of corporations in the same region have more reference value for each other, because they are operating in the same local environment. The actions of local neighbors can

easily be observed and can serve as a source of public information and reference group, which reduce the cost of environmental uncertainty. There is evidence that firms are more inclined to imitate local firms to make CSR actions (Ding, Ferreira, & Wongchoti, 2019), which may induce regional peer effects.

Therefore, the pure industry peer group ($Z_{n1}, Z_{n2}, \dots, Z_{nn}, \dots, Z_{nm}$) can influence the CSR gap of M_n only through the industry path. Moreover, the pure industry peer group is perfectly exogenous to the dependent variable observation i . Then, we obtain the mean value Q of the pure industry peer group by averaging each firm's CSR gap. Finally, by averaging the mean value Q of all pure industry peer groups, an exogenous instrument variable ($CSRGI^IV$), which satisfies the exclusion restrictions, can be constructed.

Using the instrumental variable obtained from the above process, we conduct the regression analysis.⁵ Column (1) of [Table 9](#) reports the results of the first-stage regression. It shows that the CSR gap in the same industry presents significant peer effects (Cao et al., 2019), which are significant at the 1% level. More importantly, the results in Column (2) – (4) of [Table 9](#) show that, in the second-stage regression, the coefficient on *Instrument-CSRGI* is also significantly positive a 1% level. It indicates that the negative impact of the CSR gap on firm performance still exists after controlling for other potential regional factors through the instrument variable. Overall, the results of [Table 9](#) show that the baseline results are robust after using the instrumental variable approach.

Please insert [Table 9](#)

⁵ We conduct the weak instrumental variable test. The test result of weak instrumental variable is much larger than 10, which rejects the null hypothesis of the existence of weak instrumental variable and conforms to the rule of thumb.

5.1.2 Firm fixed effects model

To mitigate potential problems that may arise from omitting firm-specific and time-invariant characteristics, we re-estimate the regressions controlling for the time-invariant and firm-specific factors. The regression results in columns (1)-(3) of [Table 10](#) confirm that our results are robust and that the estimated coefficients of *CSRG* are all significantly negative across four columns regardless of using *Tobin's Q*, *ROA*, or *Productivity* as the dependent variable. The results in [Table 10](#) imply that time-invariant and firm-specific characteristics do not drive our results.

Please insert [Table 10](#)

5.2 Robustness Test

In this section, we check whether our results are affected by alternative proxies for the CSR gap and firm performance. First, we employ Return on Equity (ROE) as an alternative accounting-based proxy for firm profitability (Dixon-Fowler, Slater, Johnson, Ellstrand, & Romi, 2013). Earnings Per Share (EPS) is an alternative market-based indicator and is used to reflect the results of a firm's operations as well. It measures the level of profitability and investment risk. It is one of the most important indicators used by investors to make relevant investment decisions. In addition, we have also replaced the labor productivity measurement (hereafter, *ProductivityI*) by using the listed firm's operating profit divided by the number of employees (Deng et al., 2020). Therefore, we use them to explore the links between *CSRG* and firm performance. The results in Column (1) – (3) on Panel A of [Table 11](#) indicate that our results are robust by using alternative measures of firm performance.

Please insert [Table 11](#).

Second, we reconstruct the measurement of the CSR gap using tax, donation, and employee compensation published in the public firm's annual report. Specifically, we construct the new measurement of the CSR gap ($CSRG_R$) and use the following regression for each firm-year observation:

$$CSRG_R_{i,t} = (Tax_{i,t} + Donation_{i,t} - Compensation_{i,t})/Compensation_{i,t} \quad (4)$$

where $Tax_{i,t}$ is the amount of corporate taxes for firm i in year t . $Donation_{i,t}$ is the number of corporate donations for firm i in year t . $Compensation_{i,t}$ is the amount of corporate employee compensation for firm i in year t . We regress *Tobin's Q*, *ROA*, and *Productivity* on $CSRG_R$. Columns (4)-(6) on Panel A of [Table 11](#) indicate that our results are robust.

Third, in the Hexun database, external CSR (environmental, community, suppliers, and customers responsibility) includes more dimensions than internal CSR (employee responsibility). External CSR is weighted at 55%, while internal CSR is weighted at 15%. As a result, the scores of the former were larger than the latter in most cases. Although a relative size of the CSR gap based on [Eq. \(2\)](#) can reflect that the focal firm places the relative emphasis on external stakeholders compared with internal stakeholders and thus, the allocation of internal CSR and external CSR weights does not have an essential impact, this study still examines the robustness of the results in the following ways. We reconstruct the $CSRG$ variable ($CSRG_W$) by adjusting the weights of both internal CSR and external CSR to 50% and re-estimate [Eq. \(2\)](#) by replacing $CSRG$ with $CSRG_W$. Column (1)-(3) of Panel B in [Table 11](#)

shows that the regression coefficients on *CSRG_W* are all significantly negative at the 1% level.

The baseline results of this paper are robust.

Fourth, corporate ESG evaluation⁶ is also a good proxy for assessing the corporate contributions to the environment, governance, and society (Lins, Servaes, & Tamayo, 2017). We divide ESG into external ESG⁷ and internal ESG⁸ based on evaluation criteria and construct an ESG gap used as an alternative measure of CSR gap in this study. As shown in Panel B of **Table 11**, the coefficients on *ESGG* are negatively associated with firm performance in Columns (4)-(6). The above results indicate that the negative impacts of the ESG gap on firm performance remain stable and significant.

6 Discussion

The impacts of CSR on firm performance have attracted considerable research interest. However, conflicting theoretical predictions and contradictory empirical evidence have been obtained (Bhardwaj et al., 2018; Sun & Ding, 2020; Úbeda-García et al., 2021) even if recent studies have differentiated dimensions of CSR to reconcile the contradictions (Su et al., 2020). We suggest that the contradiction may arise from failure to consider the competing relationship

⁶ ESG consists of Environmental, Social and Governance. It is a corporate evaluation standard that focuses on the environmental, social and governance performance of a firm rather than its financial performance. The ESG data is derived from Bloomberg ESG ratings data. <https://www.bloombergchina.com/solution/sustainable-finance/>

⁷ External ESG: Environmental+ Ethics & Compliance + Community & Customers + Supply Chain + Air Quality + Climate Change + Ecological & Biodiversity Impacts + Energy + Materials & Waste + Water

⁸ Internal ESG: Diversity + Health & Safety + Human Capital + Audit Risk & Oversight + Compensation + Diversity + Sustainability Governance

between CSR dimensions since CSR investments are costly or firms may have different CSR strategies.

Supporting H1, we find that a larger value of the CSR gap leads to worse firm performance. Notably, the absolute value of the coefficient of *CSRG* ($\beta=-0.050$, $p<0.01$) is larger than that of the total CSR investments ($\beta=0.022$, $p<0.01$) in terms of their effects on *Productivity*, shown in [Table 4](#). In other words, *CSRG* may even exert a stronger effect on performance than the total CSR investments.

Empirically, this may imply that researchers need to consider the CSR gap and the competing relationship between CSR dimensions in order to coordinate the paradoxical CSR-performance link. Besides, we argue that previous empirical studies have obtained conflicting findings on the link between CSR and employees' justice perception, possibly because they have ignored the competing relationship between different dimensions. Our finding is consistent with Scheidler et al. (2019) who have argued that employees in firms with more external CSR investments compared with internal CSR have more intention to quit.

Theoretically, this finding links the application of RBV and institutional theory in CSR studies (Bai & Chang, 2015; L. Chen et al., 2015; Inoue & Lee, 2011; Tan et al., 2017). According to the resource-based view, internal and external CSR investments could become "VRIN" resources that bring sustainable competitive advantage. The institutional theory argues that internal and external CSR activities enable firms to gain legitimacy. Therefore, both theories indicate that internal and external CSR can improve firm performance, and hence firms are recommended to make individual investment decisions on internal and external CSR

without considering their interrelationship. This study suggests that a social perspective is needed when considering the impacts of internal and external CSR because they not only help firms gain resources and legitimacy but also affect employees' perception of justice. Hence, this study complements the resource-based view and institutional theory by providing empirical evidence that the gap between external and internal CSR may reduce firm performance despite both of them individually have positive effects. The results also suggest that external CSR investment with a wide CSR gap could be a "double-edged" sword that may trigger the negative responses of internal stakeholders. Therefore, managers should consider the potential competing relationships between internal and external CSR investments.

Our results also respond to another stream of research concluding that the magnitude of the contribution of different dimensions to performance varies. S. Lee, Seo, and Sharma (2013) have found that operation-related CSR activities exert a greater effect on firm performance than non-operation-related CSR activities. Besides, Zhao, Wu, Chen, and Zhou (2020) have found that internal CSR exerts a stronger direct effect on organizational commitment compared with external CSR. Their findings are in line with our results that a larger value of the CSR gap always damage firm performance regardless of whether firms take on more internal CSR or more external CSR. Practically, in consideration of firms' limited resources and the difference in returns from different CSR investments, firms need to adopt a more productive CSR strategy based on a comprehensive consideration of different CSR dimensions rather than just making separate cost-benefit calculations for each individual dimension.

We also find that CSR disclosure strengthens the negative link between the CSR gap and firm performance, in line with H2. As Platonova et al. (2018) have argued, CSR activities can trigger stakeholders' responses on the assumption that stakeholders hold CSR-related information. Previous studies (e.g., Z. Wang et al., 2018; Yadav et al., 2016) have supported the role of CSR information in external stakeholders' responses. In contrast, our results indicate that a CSR column on the corporate official website makes it easier for employees to obtain corporate CSR information, which may enhance the negative effect of the CSR gap.

This finding implies to scholars who have used or will use questionnaires for CSR research that employees' perceptions of their employers' CSR activities may be biased, depending on whether they can obtain CSR information. It also implies that differences in research methods may also be the cause of conflicting results on the CSR-performance link, which echoes the findings of Q. Wang et al. (2015). They have found that the CSR-performance relationship measured by surveys produces a stronger effect compared with other measures. In contrast, this study is more rigorous, uses reliable secondary data, and conducts some robustness analyses to reduce methodological issues that may lead to inconsistent findings.

In terms of information interpretation, we find that ESOP weakens the negative relationship between the CSR gap and firm performance, supporting H3a and H3b. The findings indicate that the alignment of the firms' and employees' objectives could reduce the negative impacts of the CSR gap and employees' perception of injustice. As K. Y. Kim and Patel (2017) and Wagner et al. (2003) have suggested, ESOP can instill psychological ownership and enhance employees' identification. Therefore, employees will be less likely to

react negatively to more external CSR investments that are recognized to contribute to a firm's growth and in turn, improve their direct interests. This finding is in line with M. Farooq, Farooq, and Jasimuddin (2014)'s conclusion that employees may respond more positively to community CSR (i.e., more knowledge-sharing behavior in their study) when they have a higher level of identification with their employers.

More generally, our finding is in line with previous studies (e.g., O'Boyle et al., 2016; Sengupta & Yoon, 2018) that have concluded a positive effect of ESOP on firm performance. They have suggested several paths, such as combining the employees' interests with a firm's long-term development (O'Boyle et al., 2016) and enhancing employees' organizational identification (K. Y. Kim & Patel, 2017). Complementing these studies that have focused on the direct and positive impacts of ESOP, this study suggests that ESOP can improve performance by suppressing the negative aspect (that is, the negative role of the wide CSR gap and inappropriate CSR investment strategies).

Although a larger value of CSR gap leads to employees' lower perception of justice and thus reduces firm performance, employees in different types of firms may perceive diverse thresholds of CSR gap. We conduct additional analyses by examining the effect of firm ownership and firm size on the main results. The analysis shows that the CSR gap has a less negative effect on firm performance in SOEs. As Córdoba-Pachón et al. (2014) have suggested, SOEs are generally believed to be closely linked to the development of society and be responsible for the local community. Zhu et al. (2016) have also found that state-owned

enterprises are expected to highlight environmental CSR. Therefore, external CSR investments and a larger value of CSR gap for SOEs may lead to fewer negative responses.

Last, we have found that the negative role of the CSR gap in firm performance is more significant in larger firms. Large firms are confronted with fewer resource constraints to take CSR actions (Yadav et al., 2016). Our finding also serves as a reminder to those studies exploring the interactive impacts of external CSR and firm size/resources on firm performance to be more cautious in making practical recommendations. For example, Tan et al. (2017) have found that environmental CSR can play a greater conducive role in enhancing firm performance when firms possess more slack resources and thus they suggest to managers that firms should take on more environmental CSR when they have spare resources. Our result implies that these firms should deliberate the trade-offs of different CSR investments when they invest more in external CSR activities.

7 Conclusions and Implications

This study finds significant and negative relationships between the CSR gap and financial and operational performance. In addition, CSR disclosure strengthens the relationships while ESOP weakens them. We employ the Heckman two-step sample selection model and the firm fixed effects model to mitigate endogeneity problems. Furthermore, our main results remain robust when we use the alternative proxies for the CSR gap and firm performance.

7.1 Theoretical Implications

First, previous studies have obtained conflicting findings on the CSR-performance link. This study argues that the contradiction may be because few of them have considered the competing

relationship between different CSR investments. The absolute value of the coefficient of *CSRG* is larger than that of the total CSR investments in terms of their effects on *Productivity* confirms the importance of considering the competing relationship for resolving the confusing CSR-performance link. Our additional analyses support different thresholds of CSR investments in different types of firms.

Second, unlike previous studies that have mainly emphasized the positive responses of internal stakeholders, this study explored the negative reactions of employees from the organizational justice perspective. Although both internal and external CSR play conducive roles in employees' sense of justice, the potentially competing relationship between different CSR investments makes employees' responses ambiguous, and thus, employees may respond negatively to external CSR. Taking it into account may contribute to coordinating contradictory findings on the link between CSR and employees' organizational justice. More generally, we argue that researchers need to combine social perspectives and RBV/institutional theory when exploring the role of investments closely related to employees' interests in firm performance.

Third, different from previous studies investigating the moderating effects of firm characteristics, industry types, and market environment, this study reveals that employees' cognition and interpretation moderate the impacts of the CSR gap and firm performance. The findings also remind studies that have employed or will employ questionnaires to measure CSR investments to heed employees' access to CSR information that can bias their perception of CSR.

7.2 Practical Implications

The most significant practical implication is to remind managers to adopt a more productive CSR strategy based on a comprehensive consideration of different CSR dimensions rather than just making separate cost-benefit calculations for each individual dimension. Many studies have concluded the conducive role of external CSR activities based on different theoretical perspectives and recommend firms to take on more external CSR. Nevertheless, this study finds that external CSR could be a double-edged sword. Our empirical results suggest that managers need to recognize the detrimental effect of the “window dressing” CSR strategies that overemphasize external CSR while ignoring internal CSR. When managers make CSR investments on business partners and society, such as charitable donations, environmental protection investments, and customer care, they should be aware that the investments might have negative impacts on employees’ perception of justice. Therefore, we suggest managers make CSR investments in employees, such as increasing average income, employee training, safe working environments, and care and consolation for employees, at the same time. The practical implication is particularly relevant to larger firms and non-SOEs.

Besides, managers should be aware that setting up a CSR column on firms’ official websites for CSR disclosure amplifies the negative impacts of the CSR gap. We also suggest firms implement ESOP to bind the firms’ and employees’ interests as it reduces the negative impacts of the CSR gap. Managers should also be aware that increasing the number of employees holding shares in the firm could alleviate the potential negative impact of external CSR on employees.

7.3 Limitations and future research directions

Firstly, this study mainly focuses on the competing relationship between external and internal CSR by employing the CSR gap. Future research could explore different classifications of CSR investments and adopt a configurational approach to examine the impacts of different configurations of CSR investments on performance outcomes. Secondly, this study only investigates the listed firms in China. Therefore, future research could test the hypotheses by collecting data from listed and non-listed firms in other countries and compare the results with the findings in this study. Thirdly, future studies could validate the causal relationship between the CSR gap and firm performance outcomes using experiments. Last but not the least, we did not explicitly measure the employees' perceived justice in the model. Future studies could take a social perspective and empirically investigate how CSR investments affect justice and social capital within a firm, such as trust and commitment.

References

- Adhikari, B. K., & Agrawal, A. (2018). Peer influence on payout policies. *Journal of corporate finance*, 48, 615-637.
- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, 32(3), 836-863. doi:10.5465/amr.2007.25275678
- Bai, X., & Chang, J. (2015). Corporate social responsibility and firm performance: The mediating role of marketing competence and the moderating role of market environment. *Asia Pacific Journal of Management*, 32(2), 505-530. doi:10.1007/s10490-015-9409-0
- Bhardwaj, P., Chatterjee, P., Demir, K. D., & Turut, O. (2018). When and how is corporate social responsibility profitable? *Journal of Business Research*, 84, 206-219. doi:<https://doi.org/10.1016/j.jbusres.2017.11.026>

- Bouslah, K., Kryzanowski, L., & M'Zali, B. (2013). The impact of the dimensions of social performance on firm risk. *Journal of Banking & Finance*, 37(4), 1258-1273. doi:<https://doi.org/10.1016/j.jbankfin.2012.12.004>
- Bozec, Y., & Laurin, C. (2008). Large Shareholder Entrenchment and Performance: Empirical Evidence from Canada. *Journal of Business Finance & Accounting*, 35(1 - 2), 25-49. doi:<https://doi.org/10.1111/j.1468-5957.2007.02066.x>
- Brower, J., & Dacin, P. A. (2020). An Institutional Theory Approach to the Evolution of the Corporate Social Performance – Corporate Financial Performance Relationship. *Journal of Management Studies*, 57(4), 805-836. doi:10.1111/joms.12550
- Cantele, S., & Zardini, A. (2018). Is sustainability a competitive advantage for small businesses? An empirical analysis of possible mediators in the sustainability–financial performance relationship. *Journal of Cleaner Production*, 182, 166-176. doi:<https://doi.org/10.1016/j.jclepro.2018.02.016>
- Cao, J., Liang, H., & Zhan, X. (2019). Peer effects of corporate social responsibility. *Management Science*, 65(12), 5487-5503.
- Cavaco, S., & Crifo, P. (2014). CSR and financial performance: complementarity between environmental, social and business behaviours. *Applied Economics*, 46(27), 3323-3338. doi:10.1080/00036846.2014.927572
- Chen, L.-F., & Khuangga, D. L. (2021). Configurational paths of employee reactions to corporate social responsibility: An organizational justice perspective. *Corporate Social Responsibility and Environmental Management*, 28(1), 389-403. doi:<https://doi.org/10.1002/csr.2056>
- Chen, L., Feldmann, A., & Tang, O. (2015). The relationship between disclosures of corporate social performance and financial performance: Evidences from GRI reports in manufacturing industry. *International Journal of Production Economics*, 170, 445-456. doi:<https://doi.org/10.1016/j.ijpe.2015.04.004>
- Colquitt, J. A., Greenberg, J., & Zapata-Phelan, C. P. (2005). What is organizational justice? A historical overview. In *Handbook of Organizational Justice* (Vol. 1, pp. 3–58). Mahwah, NJ, USA: Lawrence Erlbaum Associates Publishers.
- Córdoba-Pachón, J.-R., Garde-Sánchez, R., & Rodríguez-Bolívar, M.-P. (2014). A Systemic View of Corporate Social Responsibility (CSR) in State-Owned Enterprises (SOEs). *Knowledge and Process Management*, 21(3), 206-219. doi:<https://doi.org/10.1002/kpm.1453>
- Crifo, P., Diaye, M.-A., & Pekovic, S. (2016). CSR related management practices and firm performance: An empirical analysis of the quantity–quality trade-off on French data. *International Journal of Production Economics*, 171, 405-416. doi:<https://doi.org/10.1016/j.ijpe.2014.12.019>
- De Roeck, K., Marique, G., Stinglhamber, F., & Swaen, V. (2014). Understanding employees' responses to corporate social responsibility: mediating roles of overall justice and organisational identification. *International Journal of Human Resource Management*, 25(1), 91-112. doi:10.1080/09585192.2013.781528

- Deng, X., Long, X., Schuler, D. A., Luo, H., & Zhao, X. (2020). External corporate social responsibility and labor productivity: A S-curve relationship and the moderating role of internal CSR and government subsidy. *Corporate Social Responsibility and Environmental Management*, 27(1), 393-408. doi:10.1002/csr.1877
- Ding, D. K., Ferreira, C., & Wongchoti, U. (2019). The geography of CSR. *International Review of Economics & Finance*, 59, 265-288.
- Dixon-Fowler, H. R., Slater, D. J., Johnson, J. L., Ellstrand, A. E., & Romi, A. M. (2013). Beyond “Does it Pay to be Green?” A Meta-Analysis of Moderators of the CEP–CFP Relationship. *Journal of Business Ethics*, 112(2), 353-366. doi:10.1007/s10551-012-1268-8
- Du, Q., & Shen, R. (2018). Peer performance and earnings management. *Journal of Banking & Finance*, 89, 125-137.
- Faleye, O., & Trahan, E. A. (2011). Labor-Friendly Corporate Practices: Is What is Good for Employees Good for Shareholders? *Journal of Business Ethics*, 101(1), 1-27. doi:10.1007/s10551-010-0705-9
- Farid, T., Iqbal, S., Ma, J., Castro-González, S., Khattak, A., & Khan, M. K. (2019). Employees’ Perceptions of CSR, Work Engagement, and Organizational Citizenship Behavior: The Mediating Effects of Organizational Justice. *International Journal of Environmental Research and Public Health*, 16(10), 1731. Retrieved from <https://www.mdpi.com/1660-4601/16/10/1731>
- Farooq, M., Farooq, O., & Jasimuddin, S. M. (2014). Employees response to corporate social responsibility: Exploring the role of employees’ collectivist orientation. *European Management Journal*, 32(6), 916-927. doi:<https://doi.org/10.1016/j.emj.2014.03.002>
- Farooq, O., Payaud, M., Merunka, D., & Valette-Florence, P. (2014). The Impact of Corporate Social Responsibility on Organizational Commitment: Exploring Multiple Mediation Mechanisms. *Journal of Business Ethics*, 125(4), 563-580. doi:10.1007/s10551-013-1928-3
- Farooq, O., Rupp, D. E., & Farooq, M. (2017). The Multiple Pathways through which Internal and External Corporate Social Responsibility Influence Organizational Identification and Multifoci Outcomes: The Moderating Role of Cultural and Social Orientations. *Academy of Management Journal*, 60(3), 954-985. doi:10.5465/amj.2014.0849
- Gao, Y., & Yang, H. (2016). Do employees support corporate philanthropy? Evidence from Chinese listed companies. *Management and Organization Review*, 12(4), 747-768.
- González-Rodríguez, M. R., Martín-Samper, R. C., Köseoglu, M. A., & Okumus, F. (2019). Hotels’ corporate social responsibility practices, organizational culture, firm reputation, and performance. *Journal of Sustainable Tourism*, 27(3), 398-419. doi:10.1080/09669582.2019.1585441
- Govindan, K., Kilic, M., Uyar, A., & Karaman, A. S. (2021). Drivers and value-relevance of CSR performance in the logistics sector: A cross-country firm-level investigation. *International Journal of Production Economics*, 231, 107835. doi:<https://doi.org/10.1016/j.ijpe.2020.107835>

- Hawn, O., & Ioannou, I. (2016). Mind the gap: The interplay between external and internal actions in the case of corporate social responsibility. *Strategic Management Journal*, 37(13), 2569-2588. doi:<https://doi.org/10.1002/smj.2464>
- Inoue, Y., & Lee, S. (2011). Effects of different dimensions of corporate social responsibility on corporate financial performance in tourism-related industries. *Tourism Management*, 32(4), 790-804. doi:<https://doi.org/10.1016/j.tourman.2010.06.019>
- Jayachandran, S., Kalaignanam, K., & Eilert, M. (2013). Product and environmental social performance: Varying effect on firm performance. *Strategic Management Journal*, 34(10), 1255-1264. doi:<https://doi.org/10.1002/smj.2054>
- Kim, J., Milliman, J. F., & Lucas, A. F. (2021). Effects of CSR on affective organizational commitment via organizational justice and organization-based self-esteem. *International Journal of Hospitality Management*, 92, 102691. doi:<https://doi.org/10.1016/j.ijhm.2020.102691>
- Kim, K. Y., & Patel, P. C. (2017). Employee ownership and firm performance: A variance decomposition analysis of European firms. *Journal of Business Research*, 70, 248-254. doi:<https://doi.org/10.1016/j.jbusres.2016.08.014>
- Kong, Y., Antwi-Adjei, A., & Bawuah, J. (2020). A systematic review of the business case for corporate social responsibility and firm performance. *Corporate Social Responsibility and Environmental Management*, 27(2), 444-454. doi:<https://doi.org/10.1002/csr.1838>
- Lee, K.-H., Cin, B. C., & Lee, E. Y. (2016). Environmental Responsibility and Firm Performance: The Application of an Environmental, Social and Governance Model. *Business Strategy and the Environment*, 25(1), 40-53. doi:<https://doi.org/10.1002/bse.1855>
- Lee, S., Seo, K., & Sharma, A. (2013). Corporate social responsibility and firm performance in the airline industry: The moderating role of oil prices. *Tourism Management*, 38, 20-30. doi:<https://doi.org/10.1016/j.tourman.2013.02.002>
- Lerner, M. J., & Goldberg, J. H. (1999). When do decent people blame victims? The differing effects of the explicit/rational and implicit/experiential cognitive systems. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology*: The Guilford Press.
- Lind, E. A., Kray, L., & Thompson, L. (1998). The social construction of injustice: Fairness judgments in response to own and others' unfair treatment by authorities. *Organizational Behavior and Human Decision Processes*, 75(1), 1-22.
- Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *Journal of Finance*, 72(4), 1785-1824.
- Mackey, A., Mackey, T. B., & Barney, J. B. (2007). Corporate social responsibility and firm performance: Investor preferences and corporate strategies. *Academy of Management Review*, 32(3), 817-835. doi:10.5465/amr.2007.25275676
- Meier, O., Naccache, P., & Schier, G. (2021). Exploring the Curvature of the Relationship Between HRM–CSR and Corporate Financial Performance. *Journal of Business Ethics*, 170(4), 857-873. doi:<http://dx.doi.org/10.1007/s10551-019-04332-3>

- Miras-Rodríguez, M. d. M., Carrasco-Gallego, A., & Escobar-Pérez, B. (2015). Has the CSR engagement of electrical companies had an effect on their performance? A closer look at the environment. *Business Strategy and the Environment*, 24(8), 819-835. doi:<https://doi.org/10.1002/bse.1848>
- Mishra, S., & Suar, D. (2010). Does Corporate Social Responsibility Influence Firm Performance of Indian Companies? *Journal of Business Ethics*, 95(4), 571-601. doi:10.1007/s10551-010-0441-1
- Nollet, J., Filis, G., & Mitrokostas, E. (2016). Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling*, 52, 400-407. doi:<https://doi.org/10.1016/j.econmod.2015.09.019>
- O'Boyle, E. H., Patel, P. C., & Gonzalez-Mulé, E. (2016). Employee ownership and firm performance: a meta-analysis. *Human Resource Management Journal*, 26(4), 425-448. doi:<https://doi.org/10.1111/1748-8583.12115>
- Oyer, P., & Schaefer, S. (2005). Why do some firms give stock options to all employees? An empirical examination of alternative theories. *Journal of Financial Economics*, 76(1), 99-133. doi:<https://doi.org/10.1016/j.jfineco.2004.03.004>
- Pham, H. S. T., & Tran, H. T. (2020). CSR disclosure and firm performance: The mediating role of corporate reputation and moderating role of CEO integrity. *Journal of Business Research*, 120, 127-136. doi:<https://doi.org/10.1016/j.jbusres.2020.08.002>
- Platonova, E., Asutay, M., Dixon, R., & Mohammad, S. (2018). The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking Sector. *Journal of Business Ethics*, 151(2), 451-471. doi:10.1007/s10551-016-3229-0
- Rehman, Z. u., Khan, A., & Rahman, A. (2020). Corporate social responsibility's influence on firm risk and firm performance: the mediating role of firm reputation. *Corporate Social Responsibility and Environmental Management*, 27(6), 2991-3005. doi:<https://doi.org/10.1002/csr.2018>
- Rupp, D. E., Ganapathi, J., Aguilera, R. V., & Williams, C. A. (2006). Employee reactions to corporate social responsibility: an organizational justice framework. *Journal of Organizational Behavior*, 27(4), 537-543. doi:<https://doi.org/10.1002/job.380>
- Rupp, D. E., Shao, R., Thornton, M. A., & Skarlicki, D. P. (2013). Applicants' and Employees' Reactions to Corporate Social Responsibility: The Moderating Effects of First-Party Justice Perceptions and Moral Identity. *Personnel Psychology*, 66(4), 895-933. doi:<https://doi.org/10.1111/peps.12030>
- Sardana, D., Gupta, N., Kumar, V., & Terziowski, M. (2020). CSR 'sustainability' practices and firm performance in an emerging economy. *Journal of Cleaner Production*, 258, 120766. doi:<https://doi.org/10.1016/j.jclepro.2020.120766>
- Sartal, A., Rodríguez, M., & Vázquez, X. H. (2020). From efficiency-driven to low-carbon operations management: Implications for labor productivity. *Journal of Operations Management*, 66(3), 310-325. doi:<https://doi.org/10.1002/joom.1060>

- Scheidler, S., Edinger-Schons, L. M., Spanjol, J., & Wieseke, J. (2019). Scrooge Posing as Mother Teresa: How Hypocritical Social Responsibility Strategies Hurt Employees and Firms. *Journal of Business Ethics*, 157(2), 339-358. doi:10.1007/s10551-018-3788-3
- Sengupta, S., & Yoon, Y. (2018). Moderating effect of pay dispersion on the relationship between employee share ownership and labor productivity. *Human Resource Management*, 57(5), 1083-1096. doi:<https://doi.org/10.1002/hrm.21899>
- Shahbaz, M., Karaman, A. S., Kilic, M., & Uyar, A. (2020). Board attributes, CSR engagement, and corporate performance: What is the nexus in the energy sector? *Energy Policy*, 143, 111582. doi:<https://doi.org/10.1016/j.enpol.2020.111582>
- Su, R., Liu, C., & Teng, W. (2020). The heterogeneous effects of CSR dimensions on financial performance—a new approach for CSR measurement. *Journal of Business Economics and Management*, 21(4), 987-1009.
- Sun, W., & Ding, Y. (2020). Corporate social responsibility and cash flow volatility: The curvilinear moderation of marketing capability. *Journal of Business Research*, 116, 48-59. doi:<https://doi.org/10.1016/j.jbusres.2020.05.016>
- Tan, S.-H., Habibullah, M. S., Tan, S.-K., & Choon, S.-W. (2017). The impact of the dimensions of environmental performance on firm performance in travel and tourism industry. *Journal of Environmental Management*, 203, 603-611. doi:<https://doi.org/10.1016/j.jenvman.2017.02.029>
- Úbeda-García, M., Claver-Cortés, E., Marco-Lajara, B., & Zaragoza-Sáez, P. (2021). Corporate social responsibility and firm performance in the hotel industry. The mediating role of green human resource management and environmental outcomes. *Journal of Business Research*, 123, 57-69. doi:<https://doi.org/10.1016/j.jbusres.2020.09.055>
- Wagner, S. H., Parker, C. P., & Christiansen, N. D. (2003). Employees that think and act like owners: Effects of ownership beliefs and behaviors on organizational effectiveness. *Personnel Psychology*, 56(4), 847-871. doi:<https://doi.org/10.1111/j.1744-6570.2003.tb00242.x>
- Wang, Q., Dou, J., & Jia, S. (2015). A Meta-Analytic Review of Corporate Social Responsibility and Corporate Financial Performance: The Moderating Effect of Contextual Factors. *Business & Society*, 55(8), 1083-1121. doi:10.1177/0007650315584317
- Wang, Z., Hsieh, T.-S., & Sarkis, J. (2018). CSR Performance and the Readability of CSR Reports: Too Good to be True? *Corporate Social Responsibility and Environmental Management*, 25(1), 66-79. doi:<https://doi.org/10.1002/csr.1440>
- Wang, Z., & Sarkis, J. (2017). Corporate social responsibility governance, outcomes, and financial performance. *Journal of Cleaner Production*, 162, 1607-1616. doi:<https://doi.org/10.1016/j.jclepro.2017.06.142>
- Wu, W., Wu, C., Zhou, C., & Wu, J. (2012). Political connections, tax benefits and firm performance: Evidence from China. *Journal of Accounting and Public Policy*, 31(3), 277-300. doi:<https://doi.org/10.1016/j.jaccpubpol.2011.10.005>

- Yadav, P. L., Han, S. H., & Rho, J. J. (2016). Impact of Environmental Performance on Firm Value for Sustainable Investment: Evidence from Large US Firms. *Business Strategy and the Environment*, 25(6), 402-420. doi:<https://doi.org/10.1002/bse.1883>
- Yang, A. S., & Baasandorj, S. (2017). Exploring CSR and financial performance of full-service and low-cost air carriers. *Finance Research Letters*, 23, 291-299. doi:<https://doi.org/10.1016/j.frl.2017.05.005>
- Zhao, X., Wu, C., Chen, C. C., & Zhou, Z. (2020). The Influence of Corporate Social Responsibility on Incumbent Employees: A Meta-Analytic Investigation of the Mediating and Moderating Mechanisms. *Journal of Management*, 0149206320946108. doi:10.1177/0149206320946108
- Zhu, Q., Liu, J., & Lai, K.-h. (2016). Corporate social responsibility practices and performance improvement among Chinese national state-owned enterprises. *International Journal of Production Economics*, 171, 417-426. doi:<https://doi.org/10.1016/j.ijpe.2015.08.005>

Table 1. Studies on the impacts of CSR on performance outcomes

Studies	Theoretical background	Performance outcomes	Findings of the impacts of CSR investments	Consideration of the relationship between CSR investments	Moderator
Mishra and Suar (2010)	Consumer inference making theory Signaling theory Social identity theory	ROA Non-financial performance	Employees (+, +) ⁹ Customers (+, +) Investors (+, +) Community (+, +) Environment (+, +) Suppliers (+, +)	None	None
Inoue and Lee (2011)	Neoclassical economic view Resource-based View	ROA Tobin's Q	Employee relations (0, +) Product quality (0, +) Community relations (-, 0) Environment (0, 0) Diversity (0, 0)	None	Industry
Bouslah et al. (2013)	Stakeholder theory Slack resources theory Risk management theory Investor recognition theory Managerial opportunism theory	Stock return volatility Idiosyncratic risk	Community (-, -) Diversity (0, 0) Employee (-, -) Environment (0, +) Human rights (0, 0) Product (0, 0)	None	S&P 500 membership

⁹ The n_{th} sign in the bracket represents the impact of the dimension on the n_{th} performance indicator. "Employee (+, +)", for example, indicates that employee CSR improves ROA (the first positive sign and the first performance indicator) and employee CSR enhances non-financial performance (the second positive sign and the second performance indicator).

			Corporate Governance (-, -)		
Jayachandran et al. (2013)	Legitimacy perspective	Tobin's Q	Product (+) Environment (0)	None	Information uncertainty Financial leverage Firm size ROA
S. Lee et al. (2013)	Instrumental CSR theory Ethical CSR theory	Tobin's Q	Operation (+) Non-operation (0)	None	Oil price
Cavaco and Crifo (2014)	Resource-based view	ROA Tobin's Q	Human resources (0, -) Environment (+, 0) Business (+, 0)	The interaction of environmental and business CSR reduces performance, while the interaction of human resource and business CSR increases performance	None
Bai and Chang (2015)	Stakeholder theory Institutional theory	Firm performance	Employees (+) Society (+) Customers (+)	None	Market turbulence Competitive intensity
L. Chen et al. (2015)	Institutional theory	Sales growth ROE Cash flow/sales	Labor practice and decent work (0, 0, 0) Human rights (0, +, 0) Society (0, +, 0) Product responsibility (0, +, 0)	None	None

Miras-Rodríguez et al. (2015)	None	ROA	Environment (0) Community (+) Diversity (+) Employment (0) Product (U-shaped) Corporate governance (+)	None	None
Crifo et al. (2016)	Stakeholder theory	Profit per employee	Environment (+) Human resources (+) Customers & Suppliers (+)	Interactions of different CSR investments improve performance	None
Nollet, Filis, and Mitrokostas (2016)	None	ROA Return on capital Excess stock market returns	Environment (0, 0, 0) Society (0, 0, 0) Governance (U-shaped, U-shaped, 0)	No significant relationship between the interaction of different CSR investments and performance	None
Zhu et al. (2016)	Stakeholder theory	Social performance Financial performance	Organizational governance (+, 0) Human rights (+, 0) Labor practices (0, +) Environment (+, 0) Fair operating practices (0, 0) Consumer issues (0, 0) Community involvement and development (0, +) Supply chain (0, +)	None	None

			Political responsibility (0, +)		
Tan et al. (2017)	Neo-classical view Stakeholder theory Resource-based view	Tobin's Q	Emission reduction (0) Resource reduction (0) Product innovation (0)	None	Industry Slack resources
Z. Wang and Sarkis (2017)	Legitimacy theory	ROA Tobin's Q	Environment (+, +) Society (+, +) Governance (+, +)	None	None
Yang and Baasandorj (2017)	Stakeholder theory	ROA Tobin's Q	Environment (+) Society (+)	None	Firm type
Cantele and Zardini (2018)	Stakeholder theory Equity theory Social identity theory	Competitive advantage Financial performance	Society (+, +) Environment (-, -) Economic (+, +) Formal practice (+, +)	None	None
Platonova et al. (2018)	Instrumental stakeholder theory Good management theory	ROA	Mission and vision (+) Products and services (+) Zakat, charity and benevolent fund (0) Employees (0) Debtors (0) Community (0)	None	None
González- Rodríguez et al. (2019)	Stakeholder theory	Financial performance Market performance	Employees (+, +) Customers (+, +) Environment (0, 0) Local community (0, 0)	None	None

Deng et al. (2020)	Social identity theory	Total income/number of employees	External CSR (S-curve) Internal CSR (+)	Internal CSR positively moderates the external CSR-performance link	Government subsidy
Rehman et al. (2020)	Stakeholder theory	ROA Beta values (firm risk)	Employee (+, -) Overall (+, -)	None	None
Sardana et al. (2020)	Institutional perspective	Firm performance	Environment (+) Supplier (0)	None	Plant capability
Shahbaz et al. (2020)	None	ROA Tobin's Q	Environment (0) Society (0) Governance (0)	None	None
Su et al. (2020)	None	Net profit margin ROA Tobin's Q	Human resources (0, 0, 0) Community (+, +, +) Environment (+, +, 0) Business and financial stakeholders (+, +, +)	None	Industry
Govindan, Kilic, Uyar, and Karaman (2021)	Agency theory Stakeholder theory	Tobin's Q	Environment (0) Society (-) Governance (0)	None	None
Meier et al. (2021)	Reputational effect theory	ROA	Human resource (Inverted U-shaped)	None	None
<i>This study</i>	<i>Organizational justice perspective</i>	<i>Tobin's Q ROA Labor productivity</i>	<i>CSR gap (-, -, -)</i>	<i>Competing relationship between external and internal CSR</i>	<i>CSR disclosure ESOP</i>

Table 2. Definitions of the main variables

Dependent Variable	
<i>Tobin's Q</i>	Market value of equity plus book value of assets minus book value of equity minus balance sheet deferred taxes, divided by book value of assets.
<i>ROA</i>	Return on assets, calculated as net profit divided by the book value of total assets.
<i>Productivity</i>	The variable is measured by the listed firm's total income divided by the number of employees.
Independent Variable	
<i>CSRG</i>	We calculate the CSR gap through the following equation: $CSRG = (External\ CSR - Internal\ CSR) / Internal\ CSR$.
Moderator	
<i>Column</i>	This is a dummy variable, which equals 1 when the firm establishes a Column about CSR on the official website and 0 otherwise.
<i>ESOP</i>	<i>ESOP_1</i> represents the ratio of the number of employees holding shares in the firm to the total number of employees. <i>ESOP_2</i> represents the number of employee shares divided by the firm's total equity.
Control Variable	
<i>Size</i>	The natural logarithm of the market value of equity.
<i>Profit</i>	Profit before tax divided by total assets.
<i>Cash</i>	The variable is measured by cash and marketable securities divided by the book value of total assets.
<i>Lev</i>	Firm financial leverage, calculated as the book value of total debt divided by the book value of total assets.
<i>Shrholder3</i>	The proportion of shares held by the top three shareholders.
<i>SOE</i>	A dummy variable that equals 1 if the ultimate controlling shareholder of a listed firm is the state in year <i>t</i> and 0 otherwise.
<i>Age</i>	Firm listing age, measured as the event year minus the listing year plus one.
<i>Inst</i>	Total percentage of firm's equity held by institutional investors.
<i>Inde_ratio</i>	The ratio of independent directors on the board.
<i>BM</i>	The ratio of the book value to the market value.
<i>Mgshare</i>	Managerial ownership, measured by the ratio of the market value of managerial shareholdings to the total market value.
<i>Growth</i>	The one-year growth rate of operating revenue from year <i>t-1</i> to year <i>t</i> .

CRatio The capital expenditure ratio, measured by capital expenditure divided by total assets.

Table 3. Descriptive statistics

Name	Obs	Mean	SD	Min	P25	Median	P75	Max
<i>Tobin's Q</i>	21031	2.20	1.44	0.90	1.33	1.74	2.51	11.31
<i>ROA</i>	21031	0.06	0.05	-0.29	0.02	0.05	0.08	0.31
<i>Productivity</i>	21031	13.82	0.87	11.81	13.22	13.70	14.30	16.50
<i>CSRG</i>	21031	5.82	14.53	-10.00	0.55	2.11	4.81	107.20
<i>CSR</i>	21031	26.72	14.75	-3.55	18.41	23.01	28.26	73.44
<i>Size</i>	21031	22.13	1.31	19.10	21.18	21.94	22.87	27.05
<i>Profit (%)</i>	21031	6.03	5.03	0.00	2.56	4.96	8.51	147.40
<i>Cash</i>	21031	0.05	0.07	-1.28	0.01	0.05	0.09	0.92
<i>Lev</i>	21031	0.41	0.21	0.05	0.24	0.39	0.56	0.98
<i>Shrholder3</i>	21031	50.45	15.19	16.30	39.17	50.47	61.53	87.29
<i>SOE</i>	21031	0.37	0.48	0.00	0.00	0.00	1.00	1.00
<i>Age</i>	21031	10.23	7.29	1.00	4.00	9.00	16.00	27.00
<i>Inst</i>	21031	0.38	0.24	0.00	0.17	0.39	0.58	0.89
<i>Inde_ratio</i>	21031	0.38	0.07	0.25	0.33	0.36	0.42	0.60
<i>Column</i>	18563	0.28	0.30	0.00	0.00	0.00	1.00	1.00
<i>ESOP_1(%)</i>	18563	1.64	10.19	0.00	0.00	1.23	16.36	68.85
<i>ESOP_2 (%)</i>	18563	0.28	9.45	0.00	0.00	0.31	13.00	100.00
<i>Return on Equity (ROE)</i>	21031	0.10	0.07	-0.74	0.05	0.09	0.13	0.51
<i>Earnings Per Share (EPS)</i>	21031	0.44	0.42	-1.32	0.15	0.32	0.59	2.24

Table 4. The impacts of the CSR gap on firm performance

	(1)	(2)	(3)	(4)	(5)	(6)
	Tobin's Q		ROA		Productivity	
<i>CSRG</i>	-0.007*** (-3.14)	-0.016*** (-2.84)	-0.032*** (-6.71)	-0.016*** (-3.76)	-0.062*** (-9.30)	-0.050*** (-7.69)
<i>Size</i>		-0.029*** (-3.28)		-0.309*** (-10.20)		0.111*** (9.39)
<i>CSR</i>		0.033*** (6.25)		0.114*** (4.91)		0.022*** (3.04)
<i>Profit</i>		0.099*** (6.48)		0.302*** (4.26)		0.036*** (4.73)
<i>Cash</i>		0.011* (1.86)		0.007 (0.80)		0.024** (2.09)
<i>Lev</i>		-0.190*** (-5.10)		-0.185*** (-8.35)		0.118*** (10.87)
<i>Shrholder3</i>		-0.060*** (-10.21)		0.077*** (4.71)		0.008 (1.13)
<i>Soe</i>		-0.204*** (-4.46)		-0.092*** (-8.00)		-0.015 (-0.86)
<i>Age</i>		0.014** (2.06)		0.003 (0.57)		0.015** (2.25)
<i>Inde_ratio</i>		0.339*** (3.06)		0.253*** (2.65)		0.372*** (3.01)
<i>Inst</i>		0.729*** (6.46)		0.218*** (9.51)		-0.021 (-0.71)
Constant	-0.042*** (-7.56)	-1.529*** (-9.29)	-0.091*** (-8.00)	-0.277*** (-12.11)	0.033*** (5.36)	-3.143*** (-5.40)
Industry_FE	Yes	Yes	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	21031	21031	21031	21031	21031	21031
Adj.R ²	0.210	0.286	0.045	0.187	0.227	0.272

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (This applies to all tables in this study.)

Table 5. The moderating role of CSR disclosure

	(1) Tobin's Q	(2) ROA	(3) Productivity
<i>CSRG</i>	-0.003*** (-3.12)	-0.002** (-1.99)	-0.009** (-2.36)
<i>CSRG*Column</i>	-0.050*** (-3.04)	-0.013* (-1.92)	-0.081*** (-2.61)
<i>Column</i>	-0.049** (-2.24)	-0.055** (-2.42)	-0.159*** (-3.47)
Constant	-0.458*** (-3.07)	-0.365*** (-6.91)	-2.955*** (-6.59)
Controls	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes
Obs.	18563	18563	18563
Adj.R ²	0.380	0.186	0.316

Table 6. The moderating role of the Employee Stock Ownership Plan

	(1)	(2)	(3)	(4)	(5)	(6)
	Tobin's Q	ROA	Productivity	Tobin's Q	ROA	Productivity
<i>CSRG</i>	-0.019*	-0.026***	-0.019***	-0.019*	-0.080***	-0.029*
	(-1.68)	(-2.66)	(-3.85)	(-1.76)	(-2.80)	(-1.91)
<i>CSRG*ESOP_1</i>	0.011*	0.034**	0.023**			
	(1.85)	(2.09)	(2.35)			
<i>CSRG*ESOP_2</i>				0.030**	0.041**	0.035**
				(2.31)	(2.18)	(2.22)
<i>ESOP_1</i>	0.003***	0.002	0.004**			
	(3.62)	(0.19)	(2.45)			
<i>ESOP_2</i>				0.028*	0.001	0.012
				(1.81)	(0.03)	(0.90)
Constant	-0.095*	-0.264***	-0.101	-0.343***	-0.384***	-3.820***
	(-2.45)	(-4.30)	(-0.46)	(-2.59)	(-2.71)	(-4.79)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean VIF	2.90	2.27	3.21	3.21	3.05	3.13
Max VIF	3.97	3.03	4.25	4.78	4.69	4.73
Obs.	18563	18563	18563	18563	18563	18563
Adj.R ²	0.241	0.118	0.210	0.320	0.123	0.266

Table 7 The comprehensive moderating effect

	(1) Tobin's Q	(2) ROA	(3) Productivity	(4) Tobin's Q	(5) ROA	(6) Productivity
<i>CSRG</i>	-0.014** (-2.37)	-0.017** (-2.25)	-0.052** (-2.77)	-0.020* (-1.68)	-0.089* (-1.71)	-0.018** (-2.41)
<i>CSRG#Column</i>	-0.037** (-2.36)	-0.016* (-1.92)	-0.001** (-2.02)	-0.002*** (-3.02)	-0.269*** (-5.86)	-0.340* (-1.93)
<i>CSRG#ESOP_1</i>	0.012** (2.16)	0.073*** (2.99)	0.025* (1.77)			
<i>CSRG#ESOP_2</i>				0.030* (1.98)	0.043* (1.69)	0.032** (2.65)
<i>Column</i>	-0.116** (-3.06)	-0.025 (-1.15)	-0.070* (-1.76)	-0.020 (-1.11)	-0.076* (-1.99)	-0.069 (-1.48)
<i>ESOP_1</i>	0.020** (2.30)	0.073 (0.51)	0.039 (0.84)			
<i>ESOP_2</i>				0.024** (2.34)	0.001 (1.11)	0.012 (1.87)
Constant	-0.342*** (-6.56)	-0.277*** (-6.64)	-3.306*** (-7.41)	-0.348* (-1.93)	-0.398*** (-4.01)	-4.239*** (-4.36)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	18563	18563	18563	18563	18563	18563
Adj.R ²	0.243	0.157	0.251	0.311	0.182	0.267

Table 8. Heterogeneity test

Tobin's Q	(1)	(2)	(3)	(4)
	SOEs	NonSOEs	Size_L	Size_S
<i>CSRG</i>	-0.010** (-2.31)	-0.030*** (-4.03)	-0.018*** (-3.28)	-0.015** (-2.30)
Constant	1.053*** (6.56)	1.411*** (8.62)	-0.340*** (-10.28)	2.332*** (6.69)
Controls	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes
Obs.	7823	13207	10847	10184
Adj.R ²	0.253	0.297	0.232	0.317

Table 9. Instrumental variable approach: rule out other omitted factors

First_Stage	(1)	Second_Stage	(1)	(2)	(3)
	CSRG		Tobin's Q	ROA	Productivity
<i>CSRG^{IV}</i>	0.007***	<i>Instrument- CSRG</i>	-0.282***	-0.106**	-0.290**
	(6.059)		(-3.611)	(-2.362)	(-2.126)
Constant	0.630***	Constant	1.572***	-4.359***	-1.899***
	(4.830)		(13.311)	(-4.807)	(-10.471)
Controls	Yes	Controls	Yes	Yes	Yes
Industry FE	Yes	Industry_FE	Yes	Yes	Yes
Year FE	Yes	Year_FE	Yes	Yes	Yes
Obs.	20552	Obs.	20552	20552	20552
Adj.R ²	0.133	Adj.R ²	0.250	0.206	0.133

Table 10. Regression results of firm fixed effects model

	(1) Tobin's Q	(2) ROA	(3) Productivity
<i>CSRG</i>	-0.016** (-2.17)	-0.011*** (-2.79)	-0.019** (-2.41)
Constant	-0.556*** (-3.95)	-0.008 (-0.42)	-2.217*** (-4.99)
Controls	Yes	Yes	Yes
Firm_FE	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes
Obs.	20425	20425	20425
Adj.R ²	0.414	0.317	0.554

Table 11. Alternative measures of CSR gap and performance

Panel A						
	(1)	(2)	(3)	(4)	(5)	(6)
	ROE	EPS	Productivity1	Tobin's Q	ROA	Productivity
<i>CSRG</i>	-0.012*** (-2.59)	-0.055*** (-7.02)	-0.027*** (-4.93)			
<i>CSRG_R</i>				-0.077*** (-7.69)	-0.022*** (-2.86)	-0.035*** (-2.82)
Constant	-3.905*** (-4.58)	-0.121*** (-3.56)	-1.840*** (-10.02)	-0.306** (-2.02)	-0.223*** (-5.87)	-2.634*** (-7.58)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	21031	21031	21031	9211	9211	9211
Adj.R ²	0.169	0.187	0.263	0.368	0.392	0.256
Panel B						
	(1)	(2)	(3)	(4)	(5)	(6)
	Tobin's Q	ROA	Productivity	Tobin's Q	ROA	Productivity
<i>CSRG_W</i>	-0.027*** (-2.75)	-0.094*** (-7.39)	-0.053*** (-4.90)			
<i>ESGG</i>				-0.016** (-2.11)	-0.022*** (-3.63)	-0.071*** (-2.71)
Constant	-1.384*** (-11.90)	-0.131*** (-5.20)	-3.185*** (-15.65)	0.662*** (3.52)	0.010*** (3.18)	-3.340*** (-6.28)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes	Yes	Yes
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	21031	21031	21031	3740	3740	3740
Adj.R ²	0.287	0.174	0.270	0.417	0.349	0.345