



ARTICLE



<https://doi.org/10.1057/s41599-023-01786-9>

OPEN

Managers' aspirations and quality of CSR reports: evidence from China

Yuanyuan Hu ¹, Shouming Chen ¹✉, Runshi Liu² & Yi Dai¹

This study aims to investigate the potential impact of peer firms on the quality of CSR reports produced by the focal firm. By combining insights from the behavioral theory of the firm and existing literature on aspirations, this paper proposes that the aspiration levels of managers regarding CSR reporting play a crucial role in determining the quality of CSR reports. Specifically, it is suggested that the quality of CSR reports is likely to improved when the current level falls short of managers' aspirations for CSR reporting. Conversely, when the current quality of CSR reports surpasses managers' aspirations, it is expected to decline. Additionally, this paper proposes that this effect will be stronger when the owner of the firm is government or the firm's visibility is high. Using a comprehensive panel dataset covering Chinese listed firms with A-shares from 2012 to 2018, the empirical findings strongly support these arguments.

¹School of Economics and Management, Tongji University, Shanghai, China. ²School of Social Science, University of Manchester, Manchester, UK.
✉email: schen@tongji.edu.cn

Introduction

Over the past decade, CSR reporting and disclosure have become increasingly common (Lu & Abeysekera, 2014; Liao et al., 2017). The proportion of companies engaging in CSR reporting has risen from 12% in 1993 to 80% in 2020 (KPMG, 1993, 2020). This growing trend has prompted researchers to investigate the factors that influence CSR reporting and disclosure (Du et al., 2010; Marquis & Qian, 2014; Luo et al., 2017; Dai et al., 2018). For example, social performance feedback could affect firms communication strategy, such as using visual expressions in their CSR reports (Wang et al., 2021). In China, state-owned firms have been found to be particularly concerned with CSR reports due to their reliance on such reports to mitigate potential political reputation losses and counter negative perceptions of poor non-financial performance (Li et al., 2013; Rudyanto, 2017). However, as the majority of firms now engage in CSR reporting (KPMG, 2020), the focus has shifted towards understanding why there are substantial variations in the quality of CSR reports across different firms, rather than solely examining the antecedents of CSR reporting itself (e.g., Marquis & Qian, 2014).

To answer this research question, this study attempts to investigate the antecedent of the variation in the quality of CSR reports. We explore whether and when disparities between firms' CSR reporting and managers' aspiration levels influence the change in CSR report quality. Building upon the behavioral theory of the firm (Cyert & March, 1963) and drawing from relevant research on aspirations (e.g., Greve, 2008; Tarakci et al., 2018), we show that CSR reporting discrepancies play a crucial role in shaping the improvement or decline in CSR report quality. Specifically, we argue that when CSR reporting disparities are negative, the quality of CSR reports is likely to improve. Conversely, when CSR reporting disparities are positive, the quality of CSR reports is expected to decline. In addition, we proposed that the impact of CSR reporting discrepancies on the growth of CSR report quality is contingent upon the extent to which firms engage in CSR activities to enhance their legitimacy, as reflected in factors such as firm visibility and state-ownership. Specifically, we suggest that this relationship is more pronounced when CSR reporting discrepancies are negative but not when CSR reporting discrepancies are positive.

Our study makes several contributions to the literature. First, this study focused on the theoretical mechanisms that connect CSR reporting discrepancies with the growth of CSR report quality, building and extending on the behavioral theory of the firm and studies on aspirations (Cyert & March, 1963). The behavioral theory of the firm suggests that corporate strategic behavior is motivated by the discrepancy between performance and aspiration levels (Cyert & March, 1963; Gavetti et al., 2012). Further, literature on aspirations suggests that firms' aspirations are desired performance levels for specific organizational goals and managers establish aspirations to serving purposes such as communicating strategic direction (Fiegenbaum et al., 1996), enhancing performance (Hamel & Prahalad, 1989), and measuring success (Kaplan & Norton, 1996; Meyer, 2002). This study contributes to expanding the existing literature's understanding of the expected performance feedback effect by integrating these perspectives in providing novel evidence on how discrepancies between firms' CSR reporting and managers' aspiration levels impact CSR disclosure behavior.

Second, previous research has not adequately identified the factors that could moderate the relationship between CSR reporting discrepancies and CSR disclosure behavior, nor has it sufficiently elucidated the boundary conditions of such a relationship. State-owned firms, which with greater power and legitimacy, exhibit a heightened concern for CSR (Hu et al., 2018;

Rudyanto, 2017; Muttakin, Subramaniam, 2015) because of the pressures of pursuing political goals. High visibility can not only confer many benefits on a firm, including improved brand value and an enhanced ability to attract customers and talented employees (Pollock et al., 2008; Bednar, 2012) but also makes the firm be intensively watched over by stakeholders and under greater stakeholder pressures (Brooks et al., 2003; Zavyalova et al., 2017).

Third, we study managers' aspiration levels and firm behavior in the Chinese context, which has been based primarily in based on Western organizational contexts (Cyert & March, 1963; Gavetti et al., 2012). By exploring the Chinese context, we incorporate additional factors specific to China that can influence CSR disclosure behavior. Specifically, we consider whether a firm is state-owned (Rudyanto, 2017; Muttakin, Subramaniam, 2015) and whether a firm possesses high visibility (Pollock et al., 2008; Bednar, 2012). Both of these factors might limit the managers' aspiration feedback effect in the Chinese context.

This paper is structured as follows. Firstly, we present the theoretical framework and develop hypotheses for empirical testing. Secondly, we outline our data collection procedure and details how variables were constructed, along with an explanation of the empirical methodology employed to examine the hypotheses. Thirdly, we present the findings from our empirical analysis. Finally, we summarize our conclusions, discuss the implications of our results, and address any limitations of our study.

Theoretical development and hypotheses

Organizational aspirations. According to the behavioral theory of the firm, decision-makers are motivated to adjust their strategic decisions to achieve set financial goals due to the discrepancy between performance and aspiration levels (Cyert & March, 1963; Gavetti et al., 2012). Organizational aspirations, which can also be referred to as goals or reference points, represent the desired performance levels for specific organizational outcomes. Managers establish these aspirations to communicate strategic direction (Fiegenbaum et al., 1996), improve performance (Carver & Scheier, 1981; Eisenhardt, 1985; Hamel & Prahalad, 1989), and gauge success (Kaplan & Norton, 1996; Meyer, 2002). In such studies, goals consist of aspiration levels of measurable organizational outcomes. When an organization falls short of its goal, decision-makers may take action to try and achieve a better outcome. This can include a problematic search action that aims to produce results higher than the original aspiration level (Cyert & March, 1963). Alternatively, failure to achieve the desired level may also motivate decision-makers to take risks and implement changes in the organization (Bromiley, 1991; Lant, 1992; Kim et al., 2015).

Aspiration levels are derived from various sources, including an organization's own experiences and observations of other similar organizations (Cyert & March, 1963; Gavetti et al., 2012). Similar to the social comparison process, that is, individuals usually compare themselves with other people who are similar in significant attributes as a reference group (Festinger, 1954; Miller, 1982; Baird et al., 2015; Thibaut, 2017), managers will set other organizations that they think are similar to their organizations as reference groups form reference groups (Lant & Baum, 1995; Porac, Thomas, Baden-Fuller, 1989; Kim et al., 2015; Tyler & Caner, 2016; Marquis & Tilcsik, 2016; Humphreys & Carpenter, 2018). Managers typically have greater awareness of the behavior exhibited by these reference groups and may even be inclined to imitate them (Baum & Haveman, 1997; Fiegenbaum & Thomas, 1988; Kim et al., 2015).

Organizations pursue various goals, including sales, profitability, and maintaining good relationship with various stakeholders. Goals of profitability and sales are associated with financial performance, while maintaining good relationships with stakeholders is achieved through the efforts not only to fulfill the duties a firm has for stakeholders (Jones, 1995; Berman et al., 1999; Freeman et al., 2018), but also to effectively communicate CSR to stakeholders (Du et al., 2010; Crane & Glozer, 2016). While numerous studies have investigated the consequences of financial performance aspirations, studies on aspirations such as effective CSR communication are very limited (Shinkle, 2012; Tarakci et al., 2018; Wang et al., 2021). Therefore, this study focuses on investigating aspiration regarding CSR communication. Specifically, we examine the aspirations for CSR reporting and their impact on the quality of CSR reports.

CSR reporting discrepancies and CSR reports quality. This study focuses on two key constructs: aspirations of CSR reporting and the quality of CSR reports. Aspirations of CSR reporting refer to the desired goals of CSR reporting or the reference points regarding CSR reporting. Specifically, it represents the level of quality that the issuing firm aims to achieve in its CSR reports. We define CSR reporting quality as the accuracy, substantiveness, informativeness, and comprehensiveness with which CSR reporting conveys information about CSR activities that inform stakeholders. This definition is consistent with the Global Reporting Initiative (GRI), which states that one objective of reporting is to inform public about an organization's economic, environmental and social impacts (Brown, 2009). The CSR reporting quality includes three-dimension: the managerial orientation (the corporate commitment to CSR), the content of the reporting information (what and how much is reported), and techniques used to describe CSR information (how it is reported) (Michelon et al., 2015). Higher performance on these dimensions implies higher CSR reporting quality.

According to the behavioral theory of the firm (Cyert & March, 1963), managers often adopt a “satisficing” approach rather than a “maximizing” one. Therefore, managers use aspiration levels to determine whether a satisfactory level of objective has been achieved. Here, an aspiration level represents “the smallest outcome that would be deemed satisfactory by the decision-makers” (Schneider, 1992: 1053). Similar to aspirations of profitability and growth (Greve, 2008; Tarakci et al., 2018), aspirations of CSR reporting, we argue, are formed through social comparisons with peers' firms—firms that are similar in certain ways (Festinger, 1954; Thibaut, 2017). Peer firms are more available to managers and information from peer firms is easier to access. The behavioral theory of the firm also contends that falling below an aspiration level for a specific performance will motivate managers to take competitive action to improve that performance (Greve, 2008; Tarakci et al., 2018). Building on this reasoning, we propose that managers will undertake specific strategic actions to improve the quality of CSR reports if it falls below their aspiration levels. This is done to attain their desired levels of quality in CSR reporting. Firms may adopt different approaches to achieve this, including modifying the CSR reports of their organizations in the subsequent year to enhance their quality. In this sense, we expect that the quality of CSR reports will experience greater improvement when there are negative discrepancies between firms' CSR reporting and managers' aspiration levels. Thus, we make the following prediction:

H1: When a firm's CSR reporting quality falls below their aspiration level, the growth in the quality of CSR reports will be positively related to discrepancies between the firm's CSR reporting and the managers' aspiration levels.

Prior literature has shown that the effects of aspiration levels are different based on whether the current performance is above or below the aspiration level (Greve, 2008; Tarakci et al., 2018). When the current performance exceeds the aspiration level, it is less likely to trigger a problematic search or strategic moves that aim to change the current performance in the organization (Bromiley, 1991). Drawing from these insights, we posit that the impact of CSR reporting above or below the aspiration level will yield different outcomes. When the discrepancies between the firm's CSR reporting and their managers' aspiration levels are positive, managers are less motivated to take actions to improve the quality of CSR reports in the future. In this case, managers may be satisfied with the current level of CSR reporting and may not see the need to take actions to change it. Additionally, the magnitude of these discrepancies plays a crucial role in influencing the future growth in CSR reporting quality. In particular, when managers perceive a large disparity between firms' CSR reporting and their aspiration levels, they are less likely to consider actions to grow the quality of CSR reports; instead, they are satisfied with the current quality of CSR reports and will do nothing to change it. Through a dysfunctional learning process, rational managers might intentionally reduce the quality of CSR reports when they feel that their firms have done “too much” in reporting CSR and therefore they downgrade the quality of CSR reports (Markle, 2011; Lyon & Maxwell, 2016; Wisler, 2018).

From the discussion above, we expect that managers are, at the very least, satisfied with the current quality of CSR reports when the discrepancies between firms' CSR reporting and managers' aspiration levels are positive. Consequently, they are unlikely to engage in actions that would enhance the future growth of CSR reporting quality, resulting in limited improvement. Furthermore, we expect that the greater the disparity between firms' CSR reporting and their aspiration levels, the less likely managers take action to grow the quality of CSR reports. Therefore, we make the following prediction:

H2: When a firm's CSR reporting quality above their aspiration level, the growth in the quality of CSR reports will be negatively related to the discrepancies between the firm's CSR reporting and the managers' aspiration levels.

The moderating role of state-ownership and firm visibility. We have argued above that the disparities between firms' CSR reporting and managers' aspiration levels have the potential to impact the future growth of CSR reporting quality. In the following sections, we discuss how state-ownership and firm visibility influence the relationship between CSR reporting discrepancies and the subsequent growth of CSR report quality. Again, we argue that such relationships will differ between one below aspiration levels and one above aspiration levels.

State-ownership. Li et al. (2013) noted that state-owned firms constitute almost 60% of China's listed companies and have greater power and legitimacy. Previous studies have indicated that state-owned firms exhibit a higher level of interest in CSR (Hu et al., 2018; Rudyanto, 2017; Muttakin, Subramaniam, 2015). There are several reasons. First of all, state-owned firms enjoy financial and regulatory support due to their inherent political ties, which also bring pressure to meet political goals. As the government represents the most trusted institution in the country, meeting the needs and expectations of stakeholders is one of its fundamental missions (Muttakin, Subramaniam, 2015). CSR aligns with the government's objectives, such as allocating

company resources to the public and so on (Liston-Heyes & Ceton, 2007). Secondly, managers of state-owned firms are more affected by political factors when making decisions (Ghazali, 2007; Dincer et al., 2011). Their political status is heavily influenced by their performance, and they are often under government supervision, with the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) providing policy guidelines for management evaluation, including non-financial measures such as environment and safety performance (Li et al., 2013). As a result, potential political reputation loss, self-identification of state-owned firms, and the risk of demotion due to poor performance in non-financial aspects serve as motivators for managers of state-owned firms to prioritize social responsibility activities. Consequently, we expect that state-ownership will affect the relationship between discrepancies in CSR reporting and the subsequent growth of CSR report quality.

Given the higher emphasis on social responsibility in state-owned firms, we propose that the relationship between CSR reporting discrepancies and the subsequent growth of CSR report quality will be stronger among state-owned firms compared to non-state-owned firms when the firms are below their aspiration level for CSR reporting. From the discussion above, we make the following prediction:

H3a: When the firms are below their aspiration level for CSR reporting, the relationship between discrepancies in CSR reporting and the growth in CSR report quality will be stronger in state-owned firms than non-state-owned firms.

We also expect that when the discrepancies between firms' CSR reporting and managers' aspiration levels are positive, the influence of state-ownership on the relationship between CSR reporting discrepancies and the subsequent growth of CSR report quality will be negligible. The reason is that, regardless of state-ownership status, managers tend to be content with the current quality of CSR reports and lack the motivation to enhance them when the discrepancies are positive. Accordingly, we make the following prediction:

H3b: When the firms are above their aspiration level for CSR, state-ownership does not significantly impact the relationship between CSR reporting discrepancies and the growth of CSR report quality.

Firm visibility. The firm's visibility reflects the degree to which stakeholders are concerned about the existence of the firm and perceive it as relevant and significant (e.g., Brooks et al., 2003; Rindova et al., 2005; Raithel & Schwaiger, 2015; Zavyalova et al., 2017). High visibility can bring many benefits to the firm, including the ability to improve brand value, attract customers and retain excellent employees (Pollock et al., 2008; Bednar, 2012). More importantly, high visible firms tend to bear greater pressure from stakeholders while receiving close attention from stakeholders (Brooks et al., 2003; Zavyalova et al., 2017). Therefore, managers of high visible firms will have greater motivations to gain legitimacy.

We argue that in cases where the discrepancies between firms' CSR reporting and managers' aspiration levels are negative, managers of highly visible firms are more inclined to take action towards enhancing the quality of CSR reports compared to managers of less visible firms. This argument is rooted in the observation that highly visible firms face stronger pressures to disclose their CSR activities compared to less visible firms. Although all managers are motivated to improve CSR report quality when it falls below their aspiration levels, managers of highly visible firms face heightened scrutiny and external pressures, making them more likely to act on improving CSR

report quality. From the discussion above, we make the following prediction:

H4a: When the firms are below their aspiration level for CSR reporting, the relationship between the CSR reporting discrepancies and the growth of CSR report quality will be stronger in more visible firms compared to less visible firms.

We also expect that, when the discrepancies between firms' CSR reporting and managers' aspiration levels are positive, the level of firm visibility will not impact the relationship between these discrepancies and the future growth of CSR report quality. The reason is that, for both firms with visibility or without visibility, managers are satisfied with the current quality of CSR reports and lack the motivation to improve it when the discrepancies between firms' CSR reporting and managers' aspiration levels are positive. Accordingly, we make the following prediction:

H4b: When the firms are above their aspiration level for CSR reporting, firm visibility does not significantly influence the relationship between the CSR reporting discrepancies and the growth of CSR report quality.

Methodology

Sample and data. Our initial sample was sourced from all A-shares Chinese listed firms between 2012 and 2018. Following prior studies, we exclude special treatment (ST) firms, *ST firms, and firms in the financial industry because they are typically subject to heavily regulation and their financial statements are different from those of other firms. Data were collected from multiple sources. Data about the CSR report quality and managers' aspirations were obtained from Runling CSR Reports Ratings (also known as RKS; www.rksratings.com). Most firm-level data such as ownership, financial performance, firm size, and so on were collected from company annual reports, the Chinese statistics bureau, and the Wind database, which serves as the primary information hub for Chinese listed firms and Chinese stock markets. Data about firm visibility is collected from the financial news database of Chinese listed companies (CFND). After matching the date and deleting missing values, we reached a final sample during 2012–2018.

Measures

Dependent variable. We constructed a measure for the growth of CSR report quality, the dependent variable in our study. This measure is a growth rate of the CSR reports rating scores in RKS in a specific year, as demonstrated by Formula (1). To construct this measure, we first subtracted the rating score in year $t + 1$ by the rating score in year t ; then the rating score in year t divided this difference. The resulting ratio represents the growth rate of CSR report quality in year $t + 1$.

$$\text{Growth of the CSR Reports Quality} = \frac{(\text{score}_{t+1} - \text{score}_t)}{\text{Score}_t} \quad (1)$$

The rating score in RKS represents an overall range of the quality of a CSR report and ranges from 0 to 100. Similar to KLD, RKS is an entirely independent rating agency in mainland China. The evaluation of a firm's CSR reporting quality in RKS is based on ISO 26000 and consists of three dimensions: macrocosm (30%), content (50%), and technique (20%). Furthermore, each dimension contains several items. The macrocosm dimension contains 16 items, the content dimension contains 30 items, and the technique dimension contains 17 items. In total, the three dimensions include 63 rating items.

The macrocosm dimension assesses the breadth of a CSR report, including the firm’s CSR strategy, sustainable development objectives, and plans, potential externalities, executives’ views on CSR and sustainability, CSR value and culture, ethics codes, CSR committees and departments, informational disclosure procedures, CSR risk-assessment and management, and stakeholder identification and communication. The content dimension focuses on the materiality of CSR reports, including whether and to what extent a report contains information regarding financial performance, employee relations and human rights, environmental performance, sustainable operations, consumer welfare, and community involvement and development. The third dimension—technique—evaluates the informational complexity and transparency of a CSR report. This dimension is followed by GRI 3.0 guidelines, which are modified by RKS to include elements unique to China. This dimension includes items related to a CSR report’s transparency, consistency, reliability, assurance, and readability. Because our focus is on assessing the materiality, readability, and reliability of CSR reports, we utilize the overall RKS ratings as a measure to capture the growth in CSR report quality.

Independent variables. In our study, the independent variable focuses on the discrepancies between firms’ CSR reporting and managers’ aspiration levels. We also relied on RKS CSR Reports ratings to calculate the measure of this variable. According to previous research on aspirations (e.g., Greve, 2008; Mishina et al., 2010; Kim et al., 2015; Ref & Shapira, 2017), managers’ aspiration levels in this study are defined as the average CSR report quality of the industrial peers. To compute the CSR report quality of peer firms of a focal firm, we first defined peer firms as those having the same CSRC (China Securities Regulatory Commission) industry code. Then, we used Formula (2) to compute the industry-average quality of CSR reports. Please note that the quality of CSR reports of the focal firms *i* was excluded when computing the quality of CSR reports for the peer firms.

$$\text{aspirations}_{it} = \frac{\sum_{j \neq i} \text{score}_{jt}}{N - 1} \tag{2}$$

where *t* refers to time, *i* denotes the focal firm, *j* represents the firms belonging to the same CSRC industry code as the focal firm, and *N* indicates the total number of firms within the CSRC industry code.

Following Mishina, Dykes, & Block (2010), we used a spline to isolate the effects of higher or lower than aspiration levels on the quality of CSR reports and to see if the negative or positive discrepancies between firms’ CSR reporting and managers’ aspiration levels had different effects on CSR discourse behaviors. To create two separate variables, namely CSR report quality below aspirations and CSR report quality above aspirations, we use the following formulas to calculate their values for firm *i* in year *t*:

- CSR report quality above aspiration_{it} = Quality of CSR reports_{it} – aspiration_{it},
- if Quality of CSR reports_{it} > aspiration_{it} > aspiration_{it};
- CSR report quality above aspiration_{it} = 0, if Quality of CSR reports_{it} ≤ aspiration_{it}.
- CSR report quality below aspiration_{it} = aspiration_{it} – Quality of CSR reports_{it},
- if aspiration_{it} > Quality of CSR reports_{it};
- CSR report quality below aspiration_{it} = 0, if aspiration_{it} ≤ Quality of CSR reports_{it}.

Therefore, the disparity was computed by subtracting the average rating of peer firms from the overall ratings of the CSR report quality of the focal firm in a given year. A greater difference represents a greater disparity between firms’ CSR reporting and managers’ aspiration levels.

Moderators. We measure *firm visibility* as the media coverage of a firm (Marquis & Qian, 2014). Greater media coverage indicates higher visibility among stakeholders. To measure this, we utilized the CFND database, which encompasses news reports and articles from over 400 online media sources and more than 600 newspapers in mainland China (Marquis & Qian, 2014). By examining the number of news reports and articles, we observed a highly skewed distribution. A small number of firms received a significant amount of coverage, while many others had less than five news reports or articles. To deal with this issue, we created a dummy variable to measure firm visibility. We defined a firm as more visible and coded this variable as 1 if the firm was covered by more than the average number of news reports and articles; 0 otherwise.

State-ownership. According to prior studies, we measure state-ownership as a dummy variable. We categorized firms in our sample as either state-owned or non-state-owned. We then defined state-owned firms as those controlled by the central or local state, or a government agency (Steinfeld, 2000; Lin et al., 1998; Zhou et al., 2017), and the other firms were classified as non-state-owned firms. Accordingly, we assigned a value of 1 to state-owned firms and 0 otherwise.

Control variables. To rule out alternative explanations, we incorporated several control variables into our analysis. One variable is firm size, as larger firms tend to possess more resources to engage in CSR activities. We measured firm size using the log-transformed values of firm assets for the fiscal year (Marquis & Qian, 2014). Additionally, we controlled for firm age, as firms with a longer history of being listed on the stock market might face heightened scrutiny from stakeholders and exhibit greater attention to CSR practices. Firm age was measured as the number of years a firm had been listed on China’s stock exchanges as of the focal year (Marquis & Qian, 2014). Prior research also suggests that firm’s CSR activities are driven by economic affordability (Waddock & Graves, 1997). Thus, we controlled for financial indicators that could impact a firm’s resource allocation and strategic decision-making. Specifically, we controlled for return on assets (ROA) as a measure of firm performance, cash ratio as a measure of slack resources, financial leverage as the ratio of debt to equity, and R&D intensity as the logarithm of the ratio of R&D expenses to sales plus one. Lastly, we controlled for ownership concentration, which has been found to influence CSR policies (Dam & Scholtens, 2013).

Estimation procedure. Our sample was an unbalanced panel of A-shares Chinese listed firms issuing CSR reports. In other words, our sample does not cover all Chinese listed firms. Therefore, a sample selection bias may arise. To address this possibility, we rely on Heckman’s sample selection procedure (Heckman, 1979). The first stage of Heckman’s model was estimating the probability of a firm issuing CSR reports based on various firm characteristics. Then, we calculated the inverse mills ratios and use them as controls in the second stage to control for the possible sample selection bias.

Results

We followed Wooldridge’s (2002) procedures to analyze the data. Firstly, we conducted the Breusch-Pagan Lagrange multiplier test to determine the most suitable approach for our analysis: pooled data or panel data method. The test results showed that the pooled data approach was not appropriate because of the existence of the unobserved individual effects. Secondly, the Hausman test was used to decide whether random effect or fixed-effect models were more appropriate. The results suggested that

Table 1 Descriptive statistic and correlations (Heckman's first-stage).

Variable	N	Mean	s.d.	1	2	3	4	5	6	7	8
1. CSR Reporting	12,263	0.223	0.416								
2. Firm Size	12,263	9.551	0.554	0.471***							
3. Firm Age	12,263	15.71	5.329	0.116***	0.159***						
4. Financial Performance	12,263	0.043	0.077	-0.019**	-0.064***	-0.040***					
5. Leverage	12,263	0.394	0.207	0.206***	0.542***	0.154***	-0.399***				
6. Slack Resource	12,263	0.193	0.137	-0.112***	-0.276***	-0.121***	0.203***	-0.404***			
7. R&D Intensity	12,263	0.022	0.024	-0.061***	-0.206***	-0.093***	0.079***	-0.135***	0.184***		
8. State-Ownership	12,263	0.310	0.462	0.326***	0.414***	0.237***	-0.135***	0.351***	-0.144***	-0.136***	
9. Ownership Concentration	12,263	54.530	15.11	0.005	0.073***	-0.175***	0.153***	-0.080***	0.117***	-0.029***	-0.009

p < 0.01; *p < 0.001.

Table 2 Results of probit regression (Heckman's first-stage).

Dependent variable: CSR reporting dummy (Report = 1, non-Report = 0)			
Firm size	3.917***(0.202)	Slack Resource	-1.338***(0.455)
Firm age	0.007(0.014)	R&D Intensity	2.300(3.456)
Financial performance	-2.854***(0.723)	State-Ownership	1.824***(0.166)
Leverage	-2.809***(0.407)	Ownership Concentration	-0.015***(0.005)
Constant	-40.815***(1.845)		
Wald Chi-square	567.836***	Log likelihood	5563.97***

N = 12,263. ***p < 0.001. Standard errors are in parentheses.

random effect models were not appropriate because the unobserved effects were found to be correlated with the discrepancies between firms' CSR reporting and managers' aspiration levels. Finally, considering the time-varying unobservable industry effects may influence the attractiveness of specific industries (Javorcik, 2004: p. 616), the year dummies and industry dummies were added.

Results of first-stage of Heckman's procedure. Table 1 demonstrates the descriptive statistics and the correlations of the variables used in the first stage of Heckman's procedure. The mean value of CSR reports is 0.223, meaning that out of the total sample, only 22.3% of enterprises disclosed CSR reports during 2012–2018. Table 2 shows the results of probit regression of the first stage of Heckman's procedure. According to Table 2, the probability of a firm issuing CSR reports is positively related to firm size ($b = 3.917, p < 0.001$) and state-ownership ($b = 1.824, p < 0.001$). The results indicate that an increase of one standard deviation in both firm size and state-ownership is associated with a 5.208 and 2.025 standard deviation increase, respectively, in the probability of a firm issuing CSR reports. One plausible explanation for this finding is that larger firms and state-owned enterprises (SOEs) are more inclined to issue CSR reports, possibly driven by their desire to enhance political legitimacy in response to government pressure. Furthermore, Table 2 reveals a negative association between the probability of a firm issuing CSR reports and financial performance ($b = -2.854, p < 0.001$), leverage ($b = -2.809, p < 0.001$), slack resources ($b = -1.388, p < 0.001$), and ownership concentration ($b = -0.015, p < 0.001$). The results reveal that a one standard deviation increase in financial performance, leverage, slack resources, and ownership concentration corresponds to a 0.527, 1.398, 0.441, and 0.531 standard deviation decrease in the probability of a firm issuing CSR reports, respectively. These negative relationships are

likely due to several reasons. Firstly, firms that are financially underperforming may issue CSR reports to enhance their image and signal their commitment to stakeholders. Secondly, firms with limited slack resources may be more motivated to issue CSR reports to secure support from stakeholders. Thirdly, firms with low levels of debt may be more conservative and place greater emphasis on their long-term image, leading them to focus on CSR reporting to demonstrate their commitment to sustainability. Lastly, firms with low ownership concentration may have multiple shareholders, some of whom may be more attentive to CSR activities and reporting, which can further increase the likelihood of issuing CSR reports.

Results of second stage of Heckman's procedure. Table 3 presents the descriptive statistics and correlations of the variables utilized in the second stage of Heckman's procedure. The results of the fixed-effect panel estimation of the second stage of Heckman's procedure are shown in Table 4. In addition, the constituent independent variables and moderators were mean-centered before generating the interaction terms to eliminate harmful multi-collinearity. We also checked for variance inflation factor (VIF). We found that the mean VIF is 4.28. All the VIF values excluding IMR(28.57) and firm size (26.62) are well below the warning level of 10 proposed by Chatterjee, Hadi (2015). Thus, we conclude that multi-collinearity would not harmfully affect the results of our statistical analyses.

In Model 1 of Table 4, which includes all the control variables and the two moderators. Inverse mills ratios ($b = 8.570, p < 0.001$), firm age ($b = -1.354, p < 0.001$), firm size ($b = 24.444, p < 0.01$), slack resource ($b = -15.254, p < 0.01$), ownership concentration ($b = -0.124, p < 0.05$), state ownership ($b = 13.581, p < 0.01$), and firm visibility ($b = 1.765, p < 0.05$) were found to significantly affect the growth of CSR report quality. We added the major independent variables (i.e., CSR report quality below aspirations, CSR report quality above aspirations) into Model 2 to test Hypothesis 1 and Hypothesis 2. Hypothesis 1 predicts a positive relationship between the CSR reporting discrepancies and the growth of CSR report quality when discrepancies are negative. The results supported Hypothesis 1, with a positive and significant coefficient observed for the growth of the quality of CSR reports ($b = 2.017, p < 0.001$) when the discrepancies are negative. Hypothesis 2 predicts a negative relationship between the CSR reporting discrepancies and the growth of the quality of CSR reports when the discrepancies between firms' CSR reporting and managers' aspiration levels are positive. As expected, the coefficient of the growth of quality of CSR reports is negative and significant ($b = -1.120, p < 0.001$) when the discrepancies between firms' CSR reporting and

Table 3 Descriptive statistic and correlations (Heckman's second stage).

Variable	N	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1. Growth of quality of CSR reports	2704	3.382	13.560												
2. IMR	2704	3.223	2.093	-0.004											
3. Firm Age	2704	16.860	5.026	-0.054***	-0.150***										
4. Firm Size	2704	10.040	0.632	0.015	-0.896***	0.034*									
5. Leverage	2704	0.474	0.200	0.044**	-0.445***	0.062	0.560***								
6. Financial Performance	2704	0.040	0.062	0.065***	0.111***	-0.012	-0.056***	-0.424***							
7. Slack Resource	2704	0.165	0.114	-0.043**	0.201***	-0.065***	-0.187***	-0.340***	0.249***						
8. R&D Intensity	2704	0.020	0.024	-0.026	0.159***	-0.109**	-0.163***	0.097***	0.097***	0.210***					
9. Ownership Concentration	2704	54.73	16.55	0.055***	-0.232***	-0.211***	0.349***	0.126***	0.074***	-0.027	-0.133***				
10. State-Ownership	2704	0.594	0.491	0.025	-0.626***	0.128***	0.331***	0.264***	-0.174***	-0.069***	-0.149***	0.219***			
11. Firm Visibility	2704	0.406	0.491	0.039**	-0.453***	-0.026	0.530***	0.216***	0.070***	0.028	0.009	0.211***	0.104***		
12. CSR report quality above aspirations	2704	4.701	8.248	-0.123***	-0.313***	-0.032*	0.392***	0.138***	-0.013	-0.03	-0.021	0.252***	0.117***	0.269***	
13. CSR report quality below aspirations	2704	4.127	5.288	0.202***	0.113***	0.023	-0.160***	-0.055***	-0.008	-0.012	-0.046**	-0.050***	0.007	-0.108***	-0.445***

*p < 0.05; **p < 0.01; ***p < 0.001.

managers' aspiration levels are positive, thereby proving strong support for Hypothesis 2.

We conducted Model 3 to examine the moderating effect of state-ownership. Hypothesis 3a predicts that state-ownership will positively moderate the relationship between CSR reporting discrepancies and the growth of CSR report quality when the discrepancies are negative. Hypothesis 3a is supported, as the coefficient of the interaction is positive and statistically significant ($b = 2.019, p < 0.001$). On the other hand, Hypothesis 3b predicts a non-significant moderating effect of state-ownership when discrepancies are positive. The interaction coefficient is found to be not statistically significant ($b = 0.561, p > 0.10$) and hence Hypothesis 3b cannot be rejected.

Model 4 shows the results used to test the moderating effects of firm visibility stated by Hypotheses 4a and 4b. Hypothesis 4a predicts a positive moderating effect of firm visibility when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative. Hypothesis 4a is supported because the coefficient of interaction term is positive and significant ($b = 0.993, p < 0.001$). In addition, we cannot reject Hypothesis 4b because the interaction coefficient is not statistically significant ($b = 0.446, p > 0.10$).

Model 5 represents the comprehensive model, where all the independent variables, moderators, interactions, and control variables were entered into regression analyses. The results reported by Model 5 confirm that all the hypotheses were support.

We utilized the estimated coefficients from Model 5 and followed the methodology of Aiken and West (1991) to graphically represent the significant moderating effects. Fig. 1 and Fig. 2 display the significant moderating roles of state-ownership and firm visibility, respectively, when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative. These plots illustrate that the positive relationship between the CSR reporting discrepancies and the growth of CSR report quality is stronger when state-ownership is present or when firm visibility is high (one standard deviation above the mean) compared to when these factors are low (one standard deviation below the mean).

Discussion and conclusions

In this paper, we attempt to provide an answer to the critical question of whether and under what conditions industrial peers can impact CSR reporting quality for the focal firm. Building on the behavioral theory of the firm (Cyert & March, 1963) and insights from aspirations research (e.g., Greve, 2008; Tarakci et al., 2018), we uncover the significance of the discrepancies between firms' CSR reporting and managers' aspiration levels in shaping the growth of CSR report quality. Our theoretical framework suggests that when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative, the CSR report quality is expected to improve. Conversely, when these discrepancies are positive, the CSR report quality is predicted to decline. To support our theoretical claims, we conducted empirical analyses, providing evidence that aligns with our hypotheses. Furthermore, we shed light on the moderating roles of state-ownership and firm visibility in the relationship between CSR reporting discrepancies and the CSR report quality. Specifically, we find that these moderating effects are significant when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative but not when they are positive.

Our study is expected to make a major theoretical contribution to the literature on CSR and CSR reporting by highlighting the importance of the discrepancies between firms' CSR reporting and managers' aspiration levels in determining the quality of CSR

Table 4 Fixed-effect panel estimation (Heckman's second stage).

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
IMR	8.570*** (2.738)	10.803*** (2.346)	11.089*** (2.340)	11.032*** (2.344)	11.333*** (2.338)
Firm age	-1.354*** (0.249)	-1.479*** (0.213)	-1.486*** (0.213)	-1.450*** (0.213)	-1.457*** (0.213)
Firm size	24.444** (9.906)	37.070*** (8.497)	38.615*** (8.482)	37.641*** (8.490)	39.237*** (8.474)
Leverage	-13.963* (8.353)	-24.339*** (7.157)	-24.985*** (7.138)	-24.760*** (7.149)	-25.432*** (7.130)
Financial performance	4.792 (9.939)	-13.011 (8.527)	-14.002* (8.507)	-13.787 (8.518)	-14.804* (8.497)
Slack resource	-15.254** (6.073)	-13.273** (5.199)	-13.645*** (5.185)	-13.749*** (5.197)	-14.153*** (5.182)
R&D intensity	8.978 (21.126)	10.578 (18.067)	10.246 (18.013)	10.999 (18.040)	10.663 (17.985)
Ownership concentration	-0.124* (0.077)	-0.145** (0.066)	-0.147** (0.066)	-0.146** (0.066)	-0.147** (0.066)
State ownership	13.581** (5.804)	15.699*** (4.970)	17.077*** (4.970)	16.348*** (4.971)	17.768*** (4.971)
Firm visibility	1.765* (1.015)	1.315 (0.868)	1.376 (0.867)	1.449* (0.871)	1.507* (0.869)
CSR report quality above aspirations		-1.120*** (0.101)	-1.158*** (0.101)	-1.148*** (0.101)	-1.182*** (0.104)
CSR report quality below aspiration for CSR reporting		2.017*** (0.100)	1.848*** (0.109)	1.950*** (0.102)	1.777*** (0.111)
CSR report quality above aspirations * State-Ownership			0.561 (0.673)		0.535 (0.675)
CSR report quality below aspiration for CSR reporting*State-Ownership			2.019*** (0.534)		2.048*** (0.533)
CSR report quality above aspirations* Firm Visibility				0.446 (0.379)	0.432 (0.380)
Quality of CSR reports below aspiration for CSR reporting* Firm visibility				0.993*** (0.345)	1.018*** (0.344)
Constant	-240.915** (103.198)	-363.035*** (88.521)	-379.678*** (88.368)	-369.684*** (88.453)	-386.907*** (88.295)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
N	2704	2704	2704	2704	2704
R ²	0.095	0.339	0.343	0.341	0.346
Adj. R ²	-0.185	0.133	0.138	0.136	0.141
F	6.014	27.799	26.924	26.696	25.934

Regression of growth of CSR report quality on firm and industry predictors. Standard errors are in parentheses. Growth of quality of CSR reports was measured for year $t + 1$; firm and industry predictors, for year t ; $n = 1232$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

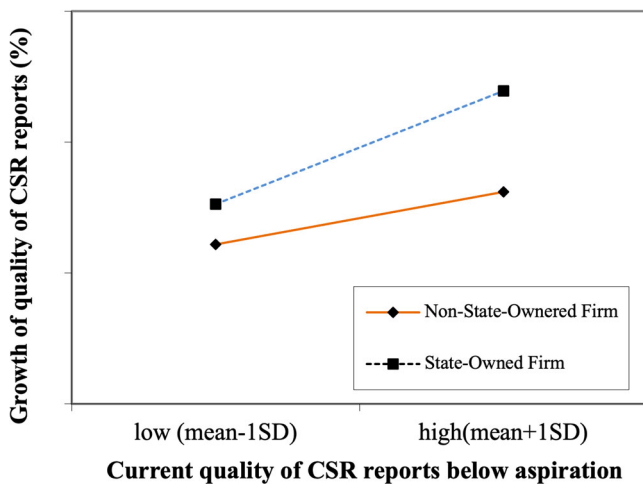


Fig. 1 The moderating effect of state-ownership. This figure illustrates the significant moderating roles of state-ownership when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative.

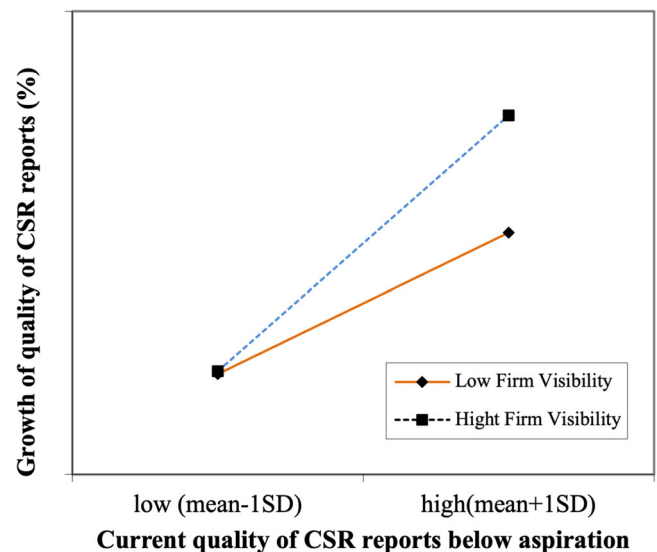


Fig. 2 The moderating effect of firm visibility. This figure illustrates the significant moderating roles of firm visibility when the discrepancies between firms' CSR reporting and managers' aspiration levels are negative.

reports. Previous studies have shown that the quality of CSR reports varies substantially across firms (Dong et al., 2014; Dhir, 2015). However, few have explored the underlying reasons for this variation. Our study answers this question by suggesting that the discrepancies between firms' CSR reporting and managers' aspiration levels can at least partially lead to the variation. Our findings also have practical implications for managers, helping

them understand how peer firms in the same industry can influence the quality of CSR reports for each other, and under what conditions they are more or less vulnerable to influence.

While our study provides important insights, it is not without limitations, which present opportunities for future research. First

of all, we examined the role of aspiration levels for CSR reporting by focusing on social aspiration in an industry from the perspective of external expectations and perceptions. In the future, it may examine more dimensions of aspiration levels such as historical aspiration. Second, our study specifically examined CSR reporting in China, which has unique institutional characteristics and government ownership. Thus, the generalizability of our findings to other contexts remains an open question that warrants further investigation. In the future, it can expand the sample compared to other countries, such as developing countries.

In conclusion, as far as we know, these are the few studied that explicitly examine whether and when peer firms could affect the CSR report quality for the focal firm (Nason et al., 2018; Wang et al., 2021). By shedding light on the significance of the discrepancies between firms' CSR reporting and managers' aspiration levels, our findings contribute to a deeper understanding of how these discrepancies impact the growth of CSR report quality. Moreover, our study highlights the importance of further research in this emerging and intriguing area, encouraging scholars to explore this topic further in the future.

Data availability

The data supporting the findings of this study are available from CSMAR and Wind databases. However, access to these data is subject to restrictions and requires a license. Interested parties can obtain the data with the permission of CSMAR and Wind.

Received: 3 September 2022; Accepted: 23 May 2023;

Published online: 06 June 2023

References

- Aiken LS, West SG (1991) Multiple regression: testing and interpreting interactions. Sage, Newbury Park, CA
- Baird A, Grbavac A, Marinko D, Neuman M, Ericksen MK (2015) Social comparison and the idealized images of advertising: revisited. Proceedings of the 1995 Academy of Marketing Science (AMS) Annual Conference. Springer International Publishing
- Baum JAC, Haveman HA (1997) Love thy neighbor? Differentiation and agglomeration in the Manhattan hotel industry, 1898–1990. *Adm Sci Q* 42:304–338
- Bednar MK (2012) Watchdog or lapdog? A behavioral view of the media as a corporate governance mechanism. *Acad Manage J* 55(1):131–150
- Berman SL, Wicks AC, Kotha S, Jones TM (1999) Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Acad Manage J* 42(5):488–506
- Bromiley P (1991) Testing a causal model of corporate risk taking and performance. *Acad Manage J* 34:37–59
- Brown J (2009) Democracy, sustainability and dialogic accounting technologies: taking pluralism seriously. *Crit Perspect Account* 20(3):313–342
- Brooks ME, Highhouse S, Russell SS, Mohr DC (2003) Familiarity, ambivalence, and firm reputation: is corporate fame a double-edged sword? *J Appl Psychol* 88:904–914
- Carver DS, Scheier MF (1981) Attention and self-regulation: a control-theory approach to human behavior. Springer-Verlag, New York, NY
- Chatterjee S, Hadi AS (2015) Regression analysis by example. John Wiley & Sons
- Crane A, Glozer S (2016) Researching corporate social responsibility communication: Themes, opportunities and challenges. *J Manag Stud* 53(7):1223–1252
- Cyert RM, March JG (1963) A behavioral theory of the firm. Prentice-Hall, Englewood Cliffs, NJ
- Dai NT, Du F, Young SM, Tang G (2018) Seeking legitimacy through CSR reporting: evidence from China. *J Manag Account Res* 30(1):1–29
- Dam L, Scholtens B (2013) Ownership concentration and CSR policy of European multinational enterprises. *J Bus Ethics* 118:117–126
- Dhir A (2015) Corporate reporting under the U.S. securities and exchange commission's diversity disclosure rule: a mixed-methods content analysis. In: Craig CJ (ed.) Challenging boardroom homogeneity: corporate law, governance, and diversity. Cambridge University Press, New York
- Dincer H, Gencer G, Orhan N, Sahinbas K (2011) A performance evaluation of the Turkish banking sector after the global crisis via CAMELS ratios. *Procedia Soc Behav Sci* 24:1530–1545
- Dong S, Burritt R, Qian W (2014) Salient stakeholders in corporate social responsibility reporting by Chinese mining and minerals companies. *J Cleaner Prod* 84:59–69
- Du S, Bhattacharya CB, Sen S (2010) Maximizing business returns to corporate social responsibility (CSR): the role of CSR communication. *Int J Manag Rev* 12:8–19
- Eisenhardt KM (1985) Control: Organizational and economic approaches. *Manage Sci* 31:134–149
- Festinger L (1954) A theory of social comparison processes. *Hum Relat* 7:117–140
- Fiegenbaum A, Thomas H (1988) Attitudes towards risk and the risk return paradox: prospect theory explanations. *Acad Manage J* 31:395–407
- Fiegenbaum A, Hart S, Schendel D (1996) Strategic reference point theory. *Strateg Manag J* 17:219–235
- Freeman RE, Harrison JS, Zyglidopoulos S (2018) Stakeholder Theory: Concepts and Strategies. Cambridge University Press
- Gavetti G, Greve HR, Levinthal DA, Ocasio W (2012) The behavioral theory of the firm: assessment and prospects. *Acad Manag Ann* 6(1):1–40
- Ghazali NAM (2007) Ownership structure and corporate social responsibility disclosure: some Malaysian evidence. *Corp Gov* 7(3):251–266
- Greve HR (2008) A behavioral theory of firm growth: Sequential attention to size and performance goals. *Acad Manage J* 51:476–494
- Hamel G, Prahalad CK (1989) Strategic intent. *Harv Bus Rev* 89:63–76
- Heckman JJ (1979) Sample selection bias as a specification error. *Econometrica* 47(1):153–161
- Hu YY, Zhu Y, Tucker J, Hu Y (2018) Ownership influence and CSR disclosure in China. *Account Res. J.* 31(1):8–21
- Humphreys A, Carpenter GS (2018) Status games: market driving through social influence in the US wine industry. *J Mark* 82(5):141–159
- Javorcik BS (2004) Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages. *Am Econ Rev* 94(3):605–627
- Jones TM (1995) Instrumental stakeholder theory: a synthesis of ethics and economics. *Acad Manage Rev* 20(2):404–437
- Kaplan RS, Norton DP (1996) The balanced scorecard: translating strategy into action. Harvard Business School Press, Boston, MA
- Kim JY, Finkelstein S, Haleblan J (2015) All aspirations are not created equal: the differential effects of historical and social aspirations on acquisition behavior. *Acad Manage J* 58(5):1361–1388
- KPMG (1993) KPMG international survey of corporate responsibility reporting 1993. Available at: <http://www.kpmg.com>
- KPMG (2020) KPMG international survey of corporate responsibility reporting 2020. Available at: <http://www.kpmg.com>
- Lant TK, Baum JAC (1995) Cognitive sources of socially constructed competitive groups: examples from the Manhattan hotel industry. In: Scott WR, Christensen S (eds.). The institutional construction of organizations: International and longitudinal studies. Sage, Thousand Oaks, CA. pp. 15–38
- Lant TK (1992) Aspiration level adaptation: an empirical exploration. *Manage Sci* 38:623–644
- Li Q, Luo W, Wang Y, Wu L (2013) Firm performance, corporate ownership, and corporate social responsibility disclosure in China. *Bus Ethics Europ Rev* 22(2):159–173
- Liao PC, Xia NN, Wu CL, Zhang XL, Yeh JL (2017) Communicating the corporate social responsibility (CSR) of international contractors: Content analysis of CSR reporting. *J Clean Prod* 156:327–336
- Lin JY, Cai F, Li Z (1998) Competition, policy burdens, and state-owned enterprise reform. *Am Econ Rev* 88(2):422–427
- Liston-Heyes C, Ceton GC (2007) Corporate social performance and politics: Do liberals do more? *J Corp Citizenship* (25):95–108
- Lu Y, Abeysekera I (2014) Stakeholders' power, corporate characteristics, and social and environmental disclosure: evidence from China. *J Clean Prod* 64:426–436
- Luo XR, Wang D, Zhang J (2017) Whose call to answer: Institutional complexity and firms' CSR reporting. *Acad Manage J* 60(1):321–344
- Lyon TP, Maxwell JW (2016) Self-regulation and regulatory discretion: why firms may be reluctant to signal green. In: Strategy beyond markets. Emerald Group Publishing Limited. pp. 301–329
- Markle G (2011) Constructions of citizenship among multinational corporations. *Int J Soc Sci Bus* 2(24):283–291
- Marquis C, Qian C (2014) Corporate social responsibility reporting in China: symbol or substance? *Organ Sci* 25:127–148
- Marquis C, Tilcsik A (2016) Institutional equivalence: how industry and community peers influence corporate philanthropy. *Organ Sci* 27(5):1325–1341
- Meyer MM (2002) Rethinking performance measurement: beyond the balanced scorecard. Cambridge University Press, Cambridge, UK
- Michelon G, Pilonato S, Ricceri F (2015) CSR reporting practices and the quality of disclosure: an empirical analysis. *Crit Perspect Account* 33:59–78

- Miller CT (1982) The role of performance-related similarity in social comparison of abilities: a test of the related attributes hypothesis. *J Exp Soc Psychol* 18:513–523
- Mishina Y, Dykes BJ, Block ES (2010) Why “good” firms do bad things: the effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Acad Manage J* 53(4):701–722
- Muttakin MB, Subramaniam N (2015) Firm ownership and board characteristics. *Sustain Account Manag Policy J* 6(2):138–165
- Nason RS, Bacq S, Gras D (2018) A behavioral theory of social performance: Social identity and stakeholder expectations. *Acad Manage Rev* 43(2):259–283
- Pollock TG, Rindova VP, Maggitti PG (2008) Market watch: Information and availability cascades among the media and investors in the U.S. IPO market. *Acad Manage J* 51:335–358
- Porac JF, Thomas H, Baden-Fuller C (1989) Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers. *J Manag Stud* 26:397–416
- Raithel S, Schwaiger M (2015) The effects of corporate reputation perceptions of the general public on shareholder value. *Strateg Manag J* 36(6):945–956
- Ref O, Shapira Z (2017) Entering new markets: The effect of performance feedback near aspiration and well below and above it. *Strateg Manag J* 38(7):1416–1434
- Rindova VP, Williamson IO, Petkova AP, Sever JM (2005) Being good or being known: an empirical examination of the dimensions, antecedents, and consequences of organizational reputation. *Acad Manage J* 48(6):1033–1049
- Rudyanto A (2017) State ownership, family ownership, and sustainability report quality: the moderating role of board effectiveness. *Account Financ Rev (AFR)* 2(2):15–25
- Schneider SL (1992) Framing and conflict: aspiration level contingency, the status quo, and current theories of risky choice. *J Exp Psychol Learn Mem Cogn* 18:1040–1057
- Shinkle GA (2012) Organizational aspirations, reference points, and goals building on the past and aiming for the future. *J Manage* 38:415–455
- Steinfeld ES (2000) Forging reform in China: the fate of state-owned industry. Cambridge University Press, New York, NY
- Tarakci M, Ateş NY, Floyd SW, Ahn Y, Wooldridge B (2018) Performance feedback and middle managers’ divergent strategic behavior: the roles of social comparisons and organizational identification. *Strateg Manag J* 39(4):1139–1162
- Thibaut JW (2017) *The social psychology of groups*. Routledge
- Tyler BB, Caner T (2016) New product introductions below aspirations, slack and R&D alliances: a behavioral perspective. *Strateg Manag J* 37(5):896–910
- Waddock SA, Graves SB (1997) The corporate social performance–financial performance link. *Strateg Manag J* 18(4):303–319
- Wang H, Jia M, Xiang Y, Lan Y (2022) Social performance feedback and firm communication strategy. *J Manage* 48(8):2382–2420
- Wisler JC (2018) US CEOs of SBUs in luxury goods organizations: a mixed methods comparison of ethical decision-making profiles. *J Bus Ethics* 149(2):443–518
- Wooldridge JM (2002) *Econometric analysis of cross section and panel data* MIT Press, Cambridge, MA, 108
- Zavyalova A, Pfarrer MD, Reger RK (2017) Celebrity and infamy? The consequences of media narratives about organizational identity. *Acad Manage Rev* 42(3):461–480

- Zhou KZ, Gao GY, Zhao H (2017) State ownership and firm innovation in China: an integrated view of institutional and efficiency logics. *Adm Sci Q* 62(2):375–404

Acknowledgements

This work is supported by the National Natural Science Foundation of China (72072132).

Author contributions

YH contributed to study design. YH, RL, and YD contributed to data collection and interpretation of the findings. YH and SC contributed to drafting the manuscript. All authors read, revised, and approved the final manuscript.

Competing interests

The authors declare no competing interests.

Ethical approval

This article does not contain any studies with human participants performed by any of the authors.

Informed consent

This article does not contain any studies with human participants performed by any of the authors.

Additional information

Correspondence and requests for materials should be addressed to Shouming Chen.

Reprints and permission information is available at <http://www.nature.com/reprints>

Publisher’s note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2023