“Does corporate governance moderate the effect of corporate social responsibility on a firm’s financial performance?”

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DOES CORPORATE GOVERNANCE MODERATE THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY ON A FIRM'S FINANCIAL PERFORMANCE?

Abstract

Drawing on the agency and resource dependence theories, the paper assumes that the impact of corporate social responsibility on companies' financial performance should be investigated not in a binary manner but against the backdrop of corporate governance. The analysis is based on testing the dataset retrieved from the Chinese Stock Market and Accounting Research database containing 28,200 company-year observations of 3,576 Chinese listed companies covering 2008–2019. The findings accentuate that corporate social responsibility, interacting with board size, equity concentration, and CEO duality, positively impacts a firm's financial performance. In contrast, the study fails to substantiate the claim that board gender diversity and board independence moderate the bond between corporate social responsibility and financial performance. Thus, by exploring five elements of corporate governance, this study takes a step forward in understanding exactly which elements of corporate governance best suit corporate social responsibility to enhance financial performance in China's institutional settings. This study assists in filling the gap in corporate social responsibility research by displaying and corroborating the moderating effects of corporate governance attributes on the nexus between corporate social responsibility and financial performance in China. Therefore, this paper presents valuable information and details for companies and regulators alike to improve the impact of corporate social responsibility on financial performance by focusing on corporate governance quality.

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INTRODUCTION

In the last few decades, due to the growing pressure from various stakeholder groups, a global trend toward corporate social responsibility (CSR) has been evident. With this activity, companies try to mitigate the concerns of stakeholders and increase their legitimacy in their eyes (D'Souza et al., 2022; Pasko et al., 2021c). Moreover, to maintain their 'license' to operate in society, companies resort to various CSR strategies and tactics in trying to solidify their corporate citizenship (Homer, 2022; Pasko et al., 2021d).

However, those CSR-related activities are often inconsistent with, unrelated to, or at odds with shareholder value, which in turn can result in activities harming a company's financial performance, both in the short- and long-term. Based on this fact, which is founded on common sense and simple logic, many researchers began to investigate CSR's impact on companies' financial results in a direct binary fash-

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ion. For example, some research infers that CSR enhances a firm's financial performance (Abukari et al., 2022; Babajee et al., 2022; Crifo et al., 2016; Q. Wang et al., 2022; Y. Wang et al., 2020). Moreover, stronger CSR firms are less likely to become bankrupt relative to weaker CSR firms, all else being equal (Cooper & Uzun, 2019, p. 130). In comparison, others indicate that costs incurred due to CSR exceedingly offset any gains from social contributions and, therefore, it does not boost a firm's financial performance (Mahoney & Roberts, 2007; Rehman et al., 2020).

Recently, several studies have extended this direct bond – CSR-firm's financial performance – forward, inferring that it could be conditional on other moderating factors. This paper follows several rationales and infers that due to the gradual evolution of CSR within companies' goals and firm governance hierarchy and owning to the incremental transition from a CSR compliance approach to an approach of active integration of CSR into corporate structures, core business, it is expected that the efficiency and effectiveness of CSR largely depend on how companies are managed and governed internally. Adopting a contemporary view on corporate governance that incorporates implications of corporate decision-making on non-financial stakeholders as well (as opposed to only shareholders) (Zaman et al., 2022), this study views corporate governance as a mechanism of balancing the interests of all stakeholders (not only shareholders) while ascertaining a firm survival in a highly competitive environment. Therefore, corporate governance mechanism composition could be regarded as a most fitting explication concerning the 'social contract' among all stakeholders (Sacconi, 2011). Furthermore, some studies indicate that corporate governance significantly influences CSR dimensions (Ding et al., 2022). Thus, corporate governance can be considered an omitted link between CSR and the financial performance of companies as a vehicle of adoption, application, and implementation of CSR activity into the company's fabric with the endorsement of the company's top management. Therefore, the impact of CSR on a firm's financial performance is better to be explored against the backdrop of corporate governance. Moreover, given that corporate governance is a country's specific phenomenon instituted through myriads of legal frameworks, as well as institutional and cultural factors, research should focus on particular jurisdictions to elucidate the peculiar effect of corporate governance on CSR link to a firm's financial performance in a particular institutional context. This study responds to the latest calls offered by Pekovic and Vogt (2021) and Servaes and Tamayo (2013).

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Research on the relationship between CSR and financial performance gives mixed results that contradict each other. When some studies indicate a positive impact (Abukari et al., 2022; Babajee et al., 2022; Crifo et al., 2016; Q. Wang et al., 2022; Y. Wang et al., 2020), others reveal a negative influence of CSR on financial performance (Mahoney & Roberts, 2007; Rehman et al., 2020). Such inconsistencies in results may not only be the result of studies of different data sets representing different jurisdictions but also may be the result of "measurement, methodological and theoretical issues" (Wood, 2010, p. 75). Indeed, if analyzed, most studies on the impact of CSR on financial performance examine the direct, unmediated interaction between these phenomena. Only relatively recently have researchers begun to move away from binary, direct analysis by introducing various mediating factors (Delmas & Pekovic, 2013; Nakamura, 2008; Pekovic & Vogt, 2021; Rothenberg et al., 2017; Servaes & Tamayo, 2013; Tang et al., 2012). Several pieces of research focus on and suggest that corporate governance can potentially moderate the effect of CSR on financial performance (Crifo et al., 2016; Pekovic & Vogt, 2021; Servaes & Tamayo, 2013). De Graaf and Stoelhorst (2013, p. 312) suggest that corporate governance is a natural element in the study of CSR, as "governance structures and systems institutionalize the outcomes of value attunement."

In the analysis, this paper proceeds from two theories that explain the relationship it investigates: the agency theory and the resource dependence theory. The agency theory asserts that boards monitor and restrain managers' activities to safeguard owners'

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interests (Pekovic & Vogt, 2021; Servaes & Tamayo, 2013; Tang et al., 2012). The resource dependence theory assumes that the board is a supplier of resources, for instance, advice and counsel, legitimacy bearer, and is a vehicle for transmitting information between external institutions and the firm, and avail itself with privileged access to commitments or endorsement from crucial constituents outside the firm (Chan et al., 2014; Soobaroyen et al., 2022).

Corporate governance is a level of the firm's strategic decisions; thus, a firm's social responsibility falls into its purview (Filatotchev & Nakajima, 2014; Pasko et al., 2021a; Pasko et al., 2021b; Wasiuzzaman et al., 2022). Filatotchev and Nakajima (2014, p. 299) clearly demonstrate that "the firm's choice of a specific CSR approach is not random, and it may depend on a particular constellation of corporate governance factors, such as control and incentive systems within the firm's governance mechanism." Moreover, since corporate governance shapes a company's value orientation and social behavior as an entity, it can also influence how CSR affects a company's financial performance (Isaksson & Woodside, 2016).

From all of the above, it can be expected that to enhance financial performance, the CSR activities of a firm should be combined and correspond to its corporate governance context. Or if one reformulates the previous statement in another way, the possible interrelationship and articulation between CSR and corporate governance can improve financial performance. This study attempts to find this possible relationship between corporate governance and CSR, one that affects financial performance. Since corporate governance and its impact and interrelationships are best studied in a specific institutional environment, this paper aims to investigate this interrelationship in the Chinese institutional setting.

Previous studies have focused their attention on some attributes of corporate governance that may affect the quality of the board's monitoring function. They are the board size, ownership concentration, board gender diversity, CEO duality and board independence (Abu Qa'dan & Suwaidan, 2019; Ben Fatma & Chouaibi, 2021; Ebaid, 2022; Filatotchev & Nakajima, 2014; Hamrouni et al., 2022; Makarenko et al., 2020; Mohamed Adnan et al., 2018; Pasko et al., 2021d; Pekovic & Vogt, 2021; Sokil et al., 2020; Wasiuzzaman et al., 2022). Therefore, agreeing with previous arguments and reasoning in the field, this paper focuses on those five components of corporate governance as potential moderators.

The above discussion implies that corporate governance can be an excellent road to unraveling the riddle of the interrelation between CSR and financial performance. Next, an argumentation is given as to why and how board size, ownership concentration, board gender diversity, CEO duality, and board independence affect CSR and, ultimately, financial performance.

1.1. Board size

Extant research acknowledges that larger boards are coupled with a greater variety of expertise, knowledge, and experience, positively influencing corporate standing and impression (Alshbili et al., 2019; Ben Fatma & Chouaibi, 2021; Ebaid, 2022; Hamrouni et al., 2022). Besides, it is believed that companies with large boards are characterized by a higher quality of monitoring, which, in turn, should increase the company's social performance (Fasan & Mio, 2017; Filatotchev & Nakajima, 2014; Kumar et al., 2022).

It is also crucial that a large board of directors can expand connections and stretch the organizational boundaries of a company by establishing contacts and accessing resources and information with a variety of stakeholders; otherwise (with a small board) go unnoticed (Ebaid, 2022; Fasan & Mio, 2017).

However, regardless of the positive characteristics of large boards of directors, they also suffer from poor coordination, planning, and communication problems, which can therefore lead to obstacles in overcoming the agency problem, which in turn can affect financial performance (Pekovic & Vogt, 2021; Tang et al., 2012).

The extant literature provides several empirical findings testifying the corporate governance's role in CSR and financial performance. Ebaid (2022), on a sample of 67 companies listed on the Saudi Stock Exchange during 2014–2019, shows that board size has positive and significant associations with the extent of CSR disclosures. Abu Qa'dan

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and Suwaidan (2019), on a sample companies of listed on the Amman Stock Exchange (ASE) during 2013–2015, found board size to be significantly and positively associated with CSR disclosure level. Alnabsha et al. (2018), on a sample of Libyan listed and non-listed firms between 2006 and 2010, found that board size has an impact on the level of corporate disclosure. Operating with a sample of 115 financial institutions belonging to 12 European countries from 2007 to 2017, Ben Fatma and Chouaibi (2021) showed that board size positively affects the extent of CSR disclosure. Finally, Pekovic and Vogt (2021), on a sample of 17,500 observations over 11 years, found that board size moderates the CSR-firm's financial performance link positively.

In contrast, Kumar et al. (2022), on a sample of 53 environmentally sensitive companies drawn from the NIFTY100 Index at NSE, did not find any substantial effect of board size on sustainability reporting practices. Alshbili et al. (2019), on a sample of Libyan oil and gas companies between 2009 and 2013, did not establish any meaningful impact of board size on corporate social responsibility disclosures.

1.2. Ownership concentration

The literature clearly recognizes that ownership concentration significantly increases information asymmetry between stakeholders in a firm's governance (Ameer, 2012; Rehman et al., 2021). Accordingly, two concepts of opportunistic behavior can be distinguished within the information asymmetry context: adverse selection (Jiang et al., 2011) and moral hazard (Tang et al., 2012). Respectively, adverse selection entails hidden information, while moral hazard presupposes hidden actions (Pekovic & Vogt, 2021). Due to those effects, extant research unequivocally points to the negative implications of ownership concentration on CSR and financial performance. Moreover, the review of extant research supplies a number of papers empirically testing this relationship.

Abu Qa'dan and Suwaidan (2019), on a sample of Jordanian manufacturing companies listed on the Amman Stock Exchange (ASE) during 2013–2015, found that ownership concentration has had a significant negative impact on CSR disclosure level. Alnabsha et al. (2018), on a sample of Libyan listed and non-listed firms between 2006 and 2010, found that ownership structures have a non-linear effect on the level of corporate disclosure. Ben Fatma and Chouaibi (2021), operating with a sample of 115 financial institutions from 12 European countries from 2007 to 2017, showed that ownership concentration has no significant associations with the extent of CSR disclosure. Pekovic and Vogt (2021,) on a sample of 17,500 observations over 11 years, found that CSR interacting with ownership concentration negatively impacts a firm's financial performance.

1.3. Board gender diversity

Amongst the various attributes of board of directors diversity, gender is considered the most controversial and much debated. However, it is believed that female presence on the board is due to their cognitive frames (Geletkanycz, 2020), greater openness and perception of CSR issues (Ding et al., 2022), the unique and differentiating from those of men's ethics of care (Boulouta, 2013; Briano-Turrent, 2022) mostly have a positive effect on CSR and financial performance. Moreover, there is plenty of empirical substantiation to the claim.

Ben Fatma and Chouaibi (2021), operating with a sample of 115 financial establishments from 12 European countries from 2007 to 2017, showed that the proportion of female directors positively affects the extent of CSR disclosure. Pekovic and Vogt (2021), on a sample of 17,500 observations over 11 years, found that gender diversity moderates the CSR-firm's financial performance link positively. Nguyen and Thai (2022), on a sample of more than 1000 Japanese listed firms from 2005 to 2014, concluded that the introduction of the first female director leads to a better CSR performance and that, overall, board gender diversity has an effect on CSR performance in listed firms. Ding et al. (2022) find that board gender diversity improves CSR performance. Briano-Turrent (2022, p. 80), using a sample of 1285 company-year observations from Argentina, Brazil, Chile, and Mexico over 2004–2014, finds a positive effect of female directors "over the board's ethical function … the creation of ethics codes, and the adoption of a stakeholder orientation."

In contrast, Ananzeh (2022), adopting a sample of 94 non-financial companies listed on the Amman Stock Exchange, found that board diversity is negatively associated with CSRD quality.

1.4. CEO duality

The influence of CEO duality on CSR and financial performance is to be differentiated following firms' industry and various institutional factors (Voinea et al., 2022). Empirical evidence is inconsistent so far, providing support for both negative and positive impacts. Abu Qa'dan and Suwaidan (2019, p. 28) on a sample of listed on the Amman Stock Exchange (ASE) Jordanian manufacturing companies over the period (2013–2015) found that CEO duality has had a significant negative impact on CSR disclosure level. On the other hand, Ben Fatma and Chouaibi (2021, p. 346), operating with a sample of 115 financial institutions belonging to 12 European countries from 2007 to 2017, showed that CEO duality has no significant associations with the extent of CSR disclosure.

In contrast, Ananzeh et al. (2022), using a sample of 94 companies listed on the Amman Stock Exchange from 2010 to 2016, find that CEO duality negatively impacts forward-looking corporate social responsibility disclosure.

1.5. Board independence

Preceding papers in its majority indicate that board independence positively influences corporate social behavior (Pekovic & Vogt, 2021). Ebaid (2022, p. 396), on a sample of 67 companies from the Saudi Stock Exchange over 2014–2019, shows that board independence has positive and significant associations with the extent of CSR disclosures. Ben Fatma and Chouaibi (2021, p. 346), operating with a sample of 115 financial institutions belonging to 12 European countries from 2007 to 2017, showed that board independence has positive associations with the extent of CSR disclosure.

In contrast, Pekovic and Vogt (2021, p. 1115), on a sample of 17,500 observations over 11 years, found no support for the suggestions that board independence moderates the CSR-firm's financial performance link. Abu Qa'dan and Suwaidan (2019, p. 28), on a sample of Jordanian manufacturing companies listed on the Amman Stock Exchange (ASE) during 2013–2015, found that board independence had a significant negative impact on CSR disclosure level.

Thus, the effect of CSR on financial performance needs to be investigated not in a binary manner but rather against the backdrop of corporate governance. This study aims to establish whether corporate governance moderates the effect of corporate social responsibility on a firm's financial performance in Chinese institutional settings.

Accordingly, taking into account previous discussions putting forward both arguments that support both positive and negative moderating roles, the following hypotheses are proposed:

H1a: Board size has a positive moderating effect on CSRD and FP.

H1b: Board size has a negative moderating effect on CSRD and FP.

H2a: Equity concentration has a positive moderating effect on CSRD and FP.

H2b: Equity concentration has a negative moderating effect on CSRD and FP.

H3a: Board gender diversity has a positive moderating effect on CSRD and FP.

H3b: The board gender diversity has a negative moderating effect on CSRD and FP.

H4a: CEO duality has a positive moderating effect on CSRD and FP.

H4b: CEO duality has a negative moderating effect on CSRD and FP.

H5a: Independent directors have a positive moderating effect on CSRD and FP.

H5b: Independent directors have a negative moderating effect on CSRD and FP.

The hypotheses with the 'a' are the moderated hypotheses, while those ended with the 'b' are to be called non-moderated.

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2. METHODOLOGY

2.1. Data and sample

The data source of this paper is the China Stock Market and Accounting Research Database (CSMAR), one of the leading providers of data on listed companies in China, covering listed companies in mainland China since 1990. These data are widely used by researchers and institutions studying Chinese-listed companies in mainland China, Hong Kong, and some universities in the United States. Social responsibility disclosure for Chinese listed companies started in 2008, so the data used in the analysis are for all A-share companies from 2008 to 2019. Corporate governance data are derived from corporate financial analysis data in CSMAR, extracted and calculated directly from corporate annual reports. Gender diversity data are obtained by calculating the gender ratio of all directors in a company.

By convention, in the study, some data have been excluded that impact the study results. Among the latter are the data of the first year of listing because in the first year of listing, listed companies are cash-rich, and each aspect's indicators differ from the normal operation years. Excluded are also the data of the financial industry, considering the statements of the financial industry are different from the other non-financial companies. Third, companies that received delisting warnings and have been delisted are excluded from the erstwhile sample. Fourth excluded are the data before 2008 due to lack or scarcity of data in that period. Making those mentioned-above adjustments to the erstwhile sample, this paper ended up with a balanced panel dataset containing 28,200 company-year observations of 3,576 companies covering the 2008–2019 period. The period covered in this paper is predicated on two limitations that have been considered. First, the lower threshold of the period, 2008, is explained by the lack of data on one of the components of the study, namely CSR. Secondly, the higher threshold of the chosen period is rationalized by the significant distortion of information as a result of the destructive impact of COVID-19; the inclusion of the statistics of the year 2020 would significantly blur the picture of the real state of affairs. The sample was selected in a 5-step process, shown in Table 1.

Table 1. Sample selection process

Steps	Explanation	Observations
1	A – share listed company on China's Shanghai and Shenzhen stock	46888
2	Less: Data for the first year of listing	(3938)
3	Less: The financial industry companies	(782)
4	Less: ST and delisted companies	(1288)
5	Less: Data before 2008	(12680)
Final sample		28200

Note: ST denotes special treatment companies.

Table 2 shows the industry distribution of the sample. The sample covers all industries except the financial sector, with the largest number of industries being manufacturing (17,916 company years, or 63.53%), followed by IT (1,652 company years, or 5.86%), and the third being retail (1,583 company years, or 5.61%). These three industries together accounted for 75% of the data.

Table 2. Industry distribution of the sample

Industry	Freq.	Percentage	Cum.
Agriculture, forestry, animal husbandry, and fishery	438	1.55	1.55
Mining industry	712	2.52	4.08
Manufacturing	17916	63.53	67.61
Electricity, heat, gas, and water production and supply	986	3.5	71.11
Construction industry	746	2.65	73.75
Wholesale and retail	1583	5.61	79.37
Transportation, storage, and postal industry	960	3.4	82.77
Accommodation and Catering Industry	110	0.39	83.16
Information transmission, software, and information technology service industry	1652	5.86	89.02
Real estate	1425	5.05	94.07
Leasing and business services	351	1.24	95.32
Scientific research and technical service industry	219	0.78	96.09
Water conservancy, environment, and public facilities management industry	303	1.07	97.17
Resident services, repairs, and other services	34	0.12	97.29
Education	20	0.07	97.36
Health and social work	56	0.2	97.56
Culture, sports, and entertainment industry	337	1.2	98.75
Comprehensive	352	1.25	100
Total	28200	100	

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2.2. Empirical model

This paper uses panel data for the analysis. Panel data capture unobserved heterogeneity effects to a large extent by observing changes in the dependent variable over time and controlling for certain types of omitted variable bias. After the Hausman test performed, are obtained larger and more significant results (Chi-square test value = 175.485, p-value = 0.00), so a fixed effects model is utilized in the paper. Thus, the fixed-effects regression model estimates the independent variable's effect on the dependent variable while controlling for unobservable aspects that do not change over time. The paper uses the explanatory variables afterwards, one at a time, to address the potential endogeneity caused by reverse causality.

To measure the impact of social responsibility disclosure, corporate governance, and their interaction on financial performance, this study uses the following two models for parameter estimation and robustness testing. The empirical models are as follows:

Model 1

$$\begin{aligned} Tobin's\,Q_{i,t} &= \alpha + CSRD_{i,t} + BoardSize_{i,t} + \\ &+ Top1_{i,t} + GenderDiversity_{i,t} + \\ &+ Duality_{i,t} + BoardIndep_{i,t} + \delta Z_{i,t} + \varepsilon_{i,t}. \end{aligned} \tag{1}$$

Model 2

$$\begin{aligned} Tobin's\,Q_{i,t} &= \alpha + CSRD_{i,t} + CSRD_{i,t} \cdot BoardSize_{i,t} + \\ &+ CSRD_{i,t} \cdot Top1_{i,t-1} + CSRD_{i,t} \cdot GenderDiversity_{i,t} + \\ &+ CSRD_{i,t} \cdot Duality_{i,t} + CSRD_{i,t} \cdot BoardIndep_{i,t} + \\ &+ BoardSize_{i,t} + Top1_{i,t} + GenderDiversity_{i,t} + \\ &+ Duality_{i,t} + BoardIndep_{i,t} + \delta Z_{i,t} + \varepsilon_{i,t}, \end{aligned} \tag{2}$$

where i represents the firm, t is the year, δ is a vector of coefficients, Z is a vector of control variables, and u is a random error term.

In this study, three models are used. The first model estimates the effect of sustainability report disclosure and corporate governance on firm performance. The second model examines the effect of sustainability report disclosure, corporate governance, and the interaction between them on firm performance. The third one introduces tests for robustness. In addition, since more than 67.5% (17,916 company-years) of the sample were manufacturing companies, this study conducts separate regression analyses for manufacturing and non-manufacturing companies to verify the robustness of the results, considering the possible differences between manufacturing and non-manufacturing companies. The variables of the study are defined in Table 3.

2.2.1. *Dependent variable*

This study uses Tobin's Q as a measure of a firm's financial performance, which is the firm's market value divided by the replacement costs of its assets. This indicator is widely used in relevant studies to measure a firm's financial performance. Tobin's Q is a prospective performance yardstick founded on market value and resistant to accounting manipulation. To avoid the effect of outliers on the regression results, tailoring at the 1% and 99% percentiles is performed.

2.2.2. *Independent variables*

The independent variable in this study includes the disclosure of social responsibility reports. The

Table 3. Variables definition

Variable	Mnemonics	Type	Measurement
TobinQ	TobinQ	Dependent	Total market value/Total assets
CSR disclosure index	CSRD	Independent	Sum of CSR disclosure items
Board size	BoardSize	Control	Number board directors
Single biggest owner	Top1		The largest shareholder's shareholding ratio
Board gender diversity	GenderDiversity	Control	Number of female directors/number of board members
CEO duality	Duality	Independent	1 = Chairman and CEO are the same person, 0 = Other situation
Board independence	BoardIndep	Control	Number of independent directors/Number of board of directors
Firm size	LnSize	Control	Natural log of total assets
Return on Equity	ROE	Control	Net profit/Shareholders' equity
Return on Assets	ROA	Control	Net income/Total assets
Leverage	Leverage	Control	Total debt/Total assets
Industry	Industry	Control	Industry code

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social responsibility database in the CSMAR database counts the disclosure of social responsibility reports issued by Chinese-listed companies. It should be noted that CSRD is obtained by calculating the social responsibility disclosures in the CSMAR database. The data on social responsibility disclosures in CSMAR are divided into 11 items. If a company discloses an item, then the value of this item is 1; otherwise, it is 0. The CSRD is obtained by summing up all items for the formula of CSRD: CSRD = GRI + ShareholdersProtection + CreditorProtection + StaffProtection + DeliveryProtection + CustomerProtection + EnvironmentProtection + PublicRelations + SystemConstruction + WorkSafety + Deficiency.

The paper cumulates these essential items using the methodology used in previous studies (Isaksson & Woodside, 2016). After calculation, the final CSRD value is obtained, which ranges from 0 to 11. Although this method does not measure weights for individual items, it is the most feasible calculation method so far.

2.2.3. Board characteristics

The paper calculates the five items of corporate governance used (board size, ownership concentration, board gender diversity, CEO duality, and board independence) according to the formulas indicated in Table 3, while the raw data come from the CSMAR database.

2.2.4. Control variables

To make the regression results more realistic, the study controls for firm size, profitability, leverage, and industry; the specific calculation method is given in Table 3. Given that the number of listed companies varies greatly across industries, for example, in the paper's sample, manufacturing firms account for 60% of the total; the industry codes are utilized as control variables in the study.

3. RESULTS

Table 4 shows the results of descriptive statistics. It can be seen that the mean value of Tobin's Q for listed companies is 2.032, the mean value is 1.602, the minimum value is 0.878, and the maximum value is 8.6. The mean value of Tobin's Q is significantly larger than the median, and the difference between the minimum and maximum values is large, close to 10 times. This indicates that, in general, the distribution of Tobin's Q is skewed to the left, with large values for individual companies. In addition, the median value of CSRD is 0, indicating that the mean value is only 1.919, indicating that most Chinese listed companies do not have high CSR scores and should be at a low level overall. The values and distributions of other variables are within the normal range.

Table 5 presents the results of the Pearson correlation test, and it can be seen that the largest value occurs between Leverage and LnSize (0.465). In contrast, the smallest value occurs between LnSize and TobinQ (-0.430), and the sign of these relationships is as expected.

Table 6 presents the results of models 1 and 2 and the robustness tests.

Table 4. Descriptive statistics

Variable	Obs	Min	Max	Mean	Median	SD
TobinQ	27564	0.878	8.600	2.032	1.602	1.309
CSRD	28200	0.000	11.000	1.919	0.000	3.395
BoardSize	28121	3.000	20.000	8.691	9.000	1.766
Top1	28200	0.286	89.986	35.005	32.974	15.186
GenderDiversity	28200	0.000	0.667	0.178	0.167	0.110
Duality	28200	0.000	1.000	0.248	0.000	0.432
BoardIndep	28121	0.333	0.571	0.374	0.333	0.053
LnSize	28200	14.942	28.636	22.108	21.930	1.323
ROE	28131	–0.817	0.311	0.055	0.067	0.140
Leverage	28200	0.054	0.900	0.439	0.434	0.208
Industry	28200	1.000	19.000	4.850	3.000	3.599

Table 5. Pearson correlation test

Variable	TobinQ	CSRD	BoardSize	Top1	GenderDiversity	Duality	BoardIndep	LnSize	ROE	Leverage	Industry
TobinQ	1										
CSRD	–0.101***	1									
BoardSize	–0.145***	0.152***	1								
Top1	–0.136***	0.090***	0.046***	1							
GenderDiversity	0.111***	–0.120***	–0.178***	–0.085***	1						
Duality	0.067***	–0.092***	–0.179***	–0.059***	0.131***	1					
BoardIndep	0.043***	0.018***	–0.462***	0.038***	0.063***	0.107***	1				
LnSize	–0.430***	0.433***	0.268***	0.223***	–0.183***	–0.161***	0.022***	1			
ROE	0.016***	0.086***	0.042***	0.135***	–0.011*	0.004	–0.026***	0.113***	1		
Leverage	–0.263***	0.131***	0.164***	0.071***	–0.127***	–0.146***	–0.013**	0.465***	–0.179***	1	
Industry	0.004	0.011*	0.012**	–0.003	0.113***	–0.037***	0.020***	0.062***	0.022***	0.082***	1

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Table 6. Regression results

Variable	(1) Model 1	(2) Model 2	(3) Robustness Test
CSRD	0.014***	–0.053*	–0.054**
	(4.14)	(–1.95)	(–1.99)
CSRDxBoardSize		0.005***	0.005***
		(3.19)	(3.33)
CSRDxTop1		0.000***	0.000***
		(2.58)	(2.60)
CSRDxGenderDiversity		0.007	0.008
		(0.29)	(0.32)
CSRDxDuality		0.013**	0.013**
		(2.12)	(2.12)
CSRDxBoardIndep		0.007	0.006
		(0.16)	(0.14)
BoardSize	–0.064***	–0.075***	–0.078***
	(–8.44)	(–8.93)	(–9.29)
Top1	–0.016***	–0.017***	–0.018***
	(–16.51)	(–16.59)	(–17.63)
GenderDiversity	0.641***	0.630***	0.625***
	(6.14)	(5.57)	(5.54)
Duality	–0.047**	–0.068***	–0.069***
	(–2.20)	(–2.89)	(–2.96)
BoardIndep	0.220	0.168	0.186
	(1.09)	(0.74)	(0.81)
LnSize	–0.416***	–0.416***	–0.425***
	(–37.74)	(–37.74)	(–38.87)
ROE	0.607***	0.606***	
	(11.94)	(11.94)	
ROA			2.063***
			(15.77)
Leverage	0.267***	0.264***	0.458***
	(4.30)	(4.25)	(7.30)
Industry	–0.008**	–0.008**	–0.009**
	(–2.12)	(–2.12)	(–2.36)
_cons	12.011***	12.169***	12.313***
	(44.78)	(43.98)	(44.76)
N	27424	27422	27483

Regression result (1) is the result of the regression analysis of model (1) with all direct effects of the basic model. CSRD and Tobin's Q are significantly positively correlated (0.014, $p < 0.01$). Meanwhile, among the independent variables GenderDiversity (0.642, $p < 0.01$) and Tobin's Q are positively correlated. BoardSize (–0.067, $p < 0.01$), Top1 (–0.016, $p < 0.01$), Duality (–0.047, $p < 0.05$) are all significantly and negatively correlated with BoardIndep. On the other hand, it is not significantly correlated with Tobin's Q.

Regression result (2) is the result of regression analysis of model (2), where five interaction terms of CSRD and corporate governance are added. The interaction term CSRDxBoardSize (0.005, $p < 0.01$) indicates that board size positively moderates the relationship between CSRD and FP. The interaction term CSRDxTop1 (0.000, $p < 0.01$) indicates that equity concentration has a positive moderating effect on the relationship between CSRD and FP. However, it is essential to note that this coefficient is small. The interaction term CSRDxGenderDiversity (0.007, $p > 0.1$) indicates that board gender diversity has a limited effect on the relationship between CSRD and FP and does not reach significance. The interaction term CSRDxDuality (0.013, $p < 0.01$) indicates that CEO duality has a positive moderating effect on the relationship between CSRD and FP. The interaction term CSRDxBoardIndep (0.007, $p > 0.1$) indicates that independent directors have a limited effect on the relationship between CSRD and FP, which does not reach a significant level.

Regression result (3) is a robustness test. The study uses ROA instead of ROE here, and although the coefficient of ROA exceeds three times that of ROE, the sign of each variable does not change, and the significance level remains consistent as well. Table 7 shows in easy-to-digest form the overall results of this paper.

Table 7. Effects of corporate governance attribute on CSRD and FP interaction

Hypothesized relationships	Type of effect: moderating	Type of effect: non-moderating
The board size effect on CSRD and FP interaction	+	
Equity concentration effect on CSRD and FP interaction	+	
The board gender diversity effect on CSRD and FP interaction		+
CEO duality effect on CSRD and FP interaction	+	
Independent directors' effect on CSRD and FP interaction		+

Thus, most hypotheses indicate that the moderated effect of corporate governance attributes on CSRD and FP interaction is prevailing. Hypotheses related to leadership in a company (equity concentration and CEO Duality) clearly indicate a moderating effect, from which it might be inferred that leaders see a positive effect in corporate social responsibility and its impact on companies' financial results. Instead, contrary to expectations and in contrast to many studies in the institutional environment of Western countries, board gender diversity and board independence have no effect in the Chinese institutional setting.

4. DISCUSSION

Having turned into a mandatory element of corporate activity, CSR attracted more and more attention, which led to an increasing number of questions related to the new elements and goals of corporate activity (CSR) and old ones (financial performance). This paper approaches this question by examining the effect of the alignment of corporate governance elements with a company's CSR strategy on the company's financial performance. In this way, this study examines the moderating effect (if any) of corporate governance on the impact of CSR on financial performance when there is a befitting link or "fit" between CSR and corporate governance.

The study finds that CSR interaction with board size positively affects a firm's financial performance, which is on par with previous studies in other institutional settings (Pekovic & Vogt, 2021). Concerning board independence and its interaction with CSR the study delivers similar to previous studies' results (no association). However, this paper comes to opposite conclusions about moderating effect of ownership concentration (positively in the study, negatively – previously) and board gender diversity (negatively in the study, positively – previously). Moreover, having searched through and through this study did not find any preceding study investigating how CSR, interacting with CEO duality, impact a firm's financial performance. Hence, this paper's findings that CSR, interacting with CEO duality, positively impacts a firm's financial performance are incomparable.

This study provides some significant implications for companies and regulators alike. First, directors should be alert and aware that the design, construction and composition of the corporate governance policy affects not only the amount of dividends earned by shareholders but also the interests of other stakeholders. Therefore, during the construction of the board of directors, it is necessary to consider and analyze numerous characteristics of the board of directors, paying attention to the fact that modern corporate governance serves not only the interests of shareholders but also stakeholders (Zaman et al., 2022).

Second, companies should seek to increase the size of their board of directors only if they intended to fulfill and conduct CSR activities effectively in terms of future financial returns from such activities.

Thirdly, this study and its results, which confirm the link between the quality of corporate governance and its moderating effect through CSR on financial performance, lead to some recommendations. Following Chan et al. (2014, p. 59), instead of mandating specific disclosures, regulators might be better served to focus on corporate governance quality to increase CSR disclosures.

CONCLUSION

This paper investigates the befitting link between corporate social responsibility and corporate governance and how it can improve a firm's financial performance in Chinese intuitional settings. Moreover, it answers the research question of whether corporate governance moderates the effect of corporate social responsibility on a firm's financial performance. Using a sample of 28,200 company-year observations of 3,576 Chinese listed companies covering 2008–2019, the study finds that corporate social responsibility, interacting with board size, equity concentration, and CEO duality, positively impacts a firm's financial performance. However, the paper fails to support the suggestion that board gender diversity and board independence in Chinese institutional settings moderate the corporate social responsibility-financial performance nexus.

This study makes several significant contributions to corporate social responsibility research. First, the study responds to calls for investigating the moderating effect of corporate governance on the relation-

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ship between corporate social responsibility and financial performance, especially in under-researched jurisdictions. In contrast to most previous studies that investigated the binary impact of corporate social responsibility on financial performance, this study identifies elements and components of corporate governance (internal governance) that moderate this relationship. This paper contributes to further improving the understanding of the unresolved relationship and impact of corporate social responsibility on financial performance by suggesting that corporate governance can influence and affect this relationship. Second, by examining five different components (elements) of corporate governance, this study takes a significant step forward in understanding exactly which forms and elements of corporate governance best suit corporate social responsibility to enhance financial performance in China's institutional environment, which in many ways differs from the western world. Thus, this paper emphasizes the necessity of achieving a level of compatibility between the corporate social responsibility strategy and the internal governance structure of the company in order for the former to produce a positive effect on the firm's financial performance.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Abu Qa'dan, M. B., & Suwaidan, M. S. (2019). Board composition, ownership structure and corporate social responsibility disclosure: The case of Jordan. *Social Responsibility Journal, 15*(1), 28-46. https://doi.org/10.1108/SRJ-11-2017-0225
2. Abukari, K., Musah, A., & Assaidi, A. (2022). The role of corporate sustainability and its consistency on firm financial performance: Canadian evidence*. *Accounting Perspectives*. https://doi.org/10.1111/1911-3838.12309
3. Alnabsha, A., Abdou, H. A., Ntim, C. G., & Elamer, A. A. (2018). Corporate boards, ownership structures and corporate disclosures. *Journal of Applied Accounting Research, 19*(1), 20-41. https://doi.org/10.1108/JAAR-01-2016-0001
4. Alshbili, I., Elamer, A. A., & Beddewela, E. (2019). Ownership types, corporate governance and corporate social responsibility disclosures. *Accounting Research Journal, 33*(1), 148-166. https://doi.org/10.1108/ARJ-03-2018-0060
5. Ameer, R. (2012). Impact of cash holdings and ownership concentration on firm valuation. *Review of Accounting and Finance, 11*(4), 448-467. https://doi.org/10.1108/14757701211279196
6. Ananzeh, H. (2022). Corporate governance and the quality of CSR disclosure: Lessons from an emerging economy. *Society and Business Review, 17*(2), 280-306. https://doi.org/10.1108/SBR-09-2021-0153
7. Ananzeh, H., Alshurafat, H., Bugshan, A., & Hussainey, K. (2022). The impact of corporate governance on forward-looking CSR disclosure. *Journal of Financial Re-*

porting and Accounting. https://doi.org/10.1108/JFRA-10-2021-0379

8. Babajee, R. B., Seetanah, B., Nunkoo, R., & Gopy-Ramdhany, N. (2022). Corporate social responsibility and hotel financial performance. *Journal of Hospitality Marketing & Management, 31*(2), 226-246. https://doi.org/10.1080/19368623.2021.1937433
9. Ben Fatma, H., & Chouaibi, J. (2021). Corporate governance and CSR disclosure: Evidence from European financial institutions. *International Journal of Disclosure and Governance, 18*(4), 346-361. https://doi.org/10.1057/s41310-021-00117-1
10. Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of Business Ethics, 113*(2), 185-197. https://doi.org/10.1007/s10551-012-1293-7
11. Briano-Turrent, G. del C. (2022). Female representation on boards and corporate ethical behavior in Latin American companies. *Corporate Governance: An International Review, 30*(1), 80-95. https://doi.org/10.1111/corg.12416
12. Chan, M. C., Watson, J., & Woodliff, D. (2014). Corporate governance quality and CSR disclosures. *Journal of Business Ethics, 125*(1), 59-73. https://doi.org/10.1007/s10551-013-1887-8
13. Cooper, E., & Uzun, H. (2019). Corporate social responsibility and bankruptcy. *Studies in Economics and Finance, 36*(2), 130-153. https://doi.org/10.1108/SEF-01-2018-0013
14. 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. https://doi.org/10.1016/j.ijpe.2014.12.019
15. Crifo, P., Diaye, M.-A., Oueghlissi, R., & Pekovic, S. (2016). What drives firms' corporate social responsibility? The role of ownership concentration. In R. Manos & I. Drori (Eds.), *Corporate responsibility* (pp. 183-204). Palgrave Macmillan. https://doi.org/10.1057/9781137450722_9
16. D'Souza, C., Ahmed, T., Khashru, M. A., Ahmed, R., Ratten, V., & Jayaratne, M. (2022). The complexity of stakeholder pressures and their influence on social and environmental responsibilities. *Journal of Cleaner Production, 358,* 132038. https://doi.org/10.1016/j.jclepro.2022.132038
17. de Graaf, F. J., & Stoelhorst, J. W. (2013). The role of governance in corporate social responsibility. *Business & Society, 52*(2), 282-317. https://doi.org/10.1177/0007650309336451
18. Delmas, M. A., & Pekovic, S. (2013). Environmental standards and labor productivity: Understanding the mechanisms that sustain sustainability. *Journal of Organizational Behavior, 34*(2), 230-252. https://doi.org/10.1002/job.1827
19. Ding, R., Duan, T., Hou, W., Liu, X., & Xu, Z. (2022). Do women drive corporate social responsibility? Evidence from gender diversity reforms around the world. *International Review of Law and Economics, 72,* 106097. https://doi.org/10.1016/j.irle.2022.106097
20. Ebaid, I. E.-S. (2022). Corporate governance mechanisms and corporate social responsibility disclosure: evidence from an emerging market. *Journal of Global Responsibility, 13*(4), 396-420. https://doi.org/10.1108/JGR-12-2021-0105
21. Fasan, M., & Mio, C. (2017). Fostering stakeholder engagement: The role of materiality disclosure in integrated reporting. *Business Strategy and the Environment, 26*(3), 288-305. https://doi.org/10.1002/bse.1917
22. Filatotchev, I., & Nakajima, C. (2014). Corporate governance, responsible managerial behavior, and corporate social responsibility: Organizational efficiency versus organizational legitimacy? *Academy of Management Perspectives, 28*(3), 289-306. https://doi.org/10.5465/amp.2014.0014
23. Geletkanycz, M. A. (2020). Social movement spillover: Barriers to board gender diversity posed by contemporary governance reform. *The Leadership Quarterly, 31*(6), 101438. https://doi.org/10.1016/j.leaqua.2020.101438
24. Hamrouni, A., Bouattour, M., Ben Farhat Toumi, N., & Boussaada, R. (2022). Corporate social responsibility disclosure and information asymmetry: Does boardroom attributes matter? *Journal of Applied Accounting Research, 23*(5), 897-920. https://doi.org/10.1108/JAAR-03-2021-0056
25. Homer, S. T. (2022). A case-study approach to mapping corporate citizenship. *Business and Society Review, 127*(3), 663-684. https://doi.org/10.1111/basr.12280
26. Isaksson, L. E., & Woodside, A. G. (2016). Modeling firm heterogeneity in corporate social performance and financial performance. *Journal of Business Research, 69*(9), 3285-3314. https://doi.org/10.1016/j.jbusres.2016.02.021
27. Jiang, H., Habib, A., & Hu, B. (2011). Ownership concentration, voluntary disclosures and information asymmetry in New Zealand. *The British Accounting Review, 43*(1), 39-53. https://doi.org/10.1016/j.bar.2010.10.005
28. Kumar, K., Kumari, R., Nandy, M., Sarim, M., & Kumar, R. (2022). Do ownership structures and governance attributes matter for corporate sustainability reporting? An examination in the Indian context. *Management of Environmental Quality: An International Journal, 33*(5), 1077-1096. https://doi.org/10.1108/MEQ-08-2021-0196
29. Mahoney, L., & Roberts, R. W. (2007). Corporate social performance, financial performance and institutional ownership in Canadian firms. *Accounting Forum, 31*(3), 233-253. https://doi.org/10.1016/j.accfor.2007.05.001
30. Makarenko, I., Sukhonos, V., V. Zhuravlyova, I., Legenchuk, S., & Szołno, O. (2020). Sustainability reporting assessment for quality and compliance: The case of Ukrainian banks' management reports. *Banks and Bank Systems, 15*(2), 117-129. https://doi.org/10.21511/bbs.15(2).2020.11

31. Mohamed Adnan, S., Hay, D., & van Staden, C. J. (2018). The influence of culture and corporate governance on corporate social responsibility disclosure: A cross country analysis. *Journal of Cleaner Production, 198,* 820-832. https://doi.org/10.1016/j.jclepro.2018.07.057
32. Nakamura, M. (Ed.). (2008). *Changing Corporate Governance Practices in China and Japan*. Palgrave Macmillan. https://doi.org/10.1057/9780230595156
33. Nguyen, T. T. P., & Thai, H. M. (2022). Effects of female directors on gender diversity at lower organization levels and CSR performance: Evidence in Japan. *Global Finance Journal, 53,* 100749. https://doi.org/10.1016/j.gfj.2022.100749
34. Pasko, O., Chen, F., Birchenko, N., & Ryzhikova, N. (2021a). Corporate governance attributes and accounting conservatism: Evidence from China. *Studies in Business and Economics, 16*(3), 173-189. https://doi.org/10.2478/sbe-2021-0053
35. Pasko, O., Chen, F., Proskurina, N., Mao, R., Gryn, V., & Pushkar, I. (2021b). Are corporate social responsibility active firms less involved in earnings management? Empirical evidence from China. *Business: Theory and Practice, 22*(2), 504-516. https://doi.org/10.3846/btp.2021.14940
36. Pasko, O., Marenych, T., Diachenko, O., Levytska, I., & Balla, I. (2021c). Stakeholder engagement in sustainability reporting: the case study of Ukrainian public agricultural companies. *Agricultural and Resource Economics: International Scientific E-Journal,* 58-80. https://doi.org/10.51599/are.2021.07.01.04
37. Pasko, O., Zhang, L., Bezverkhyi, K., Nikytenko, D., & Khromushyna, L. (2021d). Does external assurance on CSR reporting contribute to its higher quality? Empirical evidence from China. *Investment Management and Financial Innovations, 18*(4), 309-325. https://doi.org/10.21511/imfi.18(4).2021.26
38. Pekovic, S., & Vogt, S. (2021). The fit between corporate social responsibility and corporate governance: the impact on a firm's financial performance. *Review of Managerial Science, 15*(4), 1095-1125. https://doi.org/10.1007/s11846-020-00389-x
39. Rehman, I. U., Naqvi, S. K., Shahzad, F., & Jamil, A. (2021). Corporate social responsibility performance and information asymmetry: the moderating role of ownership concentration. *Social Responsibility Journal*. https://doi.org/10.1108/SRJ-06-2020-0244
40. Rehman, Z. ur, Zahid, M., Rahman, H. U., Asif, M., Alharthi, M., Irfan, M., & Glowacz, A. (2020). Do corporate social responsibility disclosures improve financial performance? A perspective of the Islamic banking industry in Pakistan. *Sustainability, 12*(8), 3302. https://doi.org/10.3390/su12083302
41. Rothenberg, S., Hull, C. E., & Tang, Z. (2017). The impact of human resource management on corporate social performance strengths and concerns. *Business & Society, 56*(3), 391-418. https://doi.org/10.1177/0007650315586594
42. Sacconi, L. (2011). A Rawlsian view of CSR and the game theory of its implementation (Part I): The multi-stakeholder model of corporate governance. In L. Sacconi, M. Blair, R. E. Freeman, & A. Vercelli (Eds.), *Corporate social responsibility and corporate governance* (pp. 157-193). Palgrave Macmillan. https://doi.org/10.1057/9780230302112_7
43. Servaes, H., & Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The Role of customer awareness. *Management Science, 59*(5), 1045-1061. https://doi.org/10.1287/mnsc.1120.1630
44. Sokil, O., Zvezdov, D., Zhuk, V., Kucherkova, S., & Sakhno, L. (2020). Social and environmental costs: the impact of accounting and analytical support on enterprises' sustainable development in Germany and Ukraine. *Economic Annals-XXI, 181*(1-2), 124-136. https://doi.org/10.21003/ea.V181-11
45. Soobaroyen, T., Ramdhony, D., Rashid, A., & Gow, J. (2022). The evolution and determinants of corporate social responsibility (CSR) disclosure in a developing country: extent and quality. *Journal of Accounting in Emerging Economies.* https://doi.org/10.1108/JAEE-02-2020-0031
46. Tang, Z., Hull, C. E., & Rothenberg, S. (2012). How corporate social responsibility engagement strategy moderates the CSR-financial performance relationship. *Journal of Management Studies, 49*(7), 1274-1303. https://doi.org/10.1111/j.1467-6486.2012.01068.x
47. Voinea, C. L., Rauf, F., Naveed, K., & Fratostiteanu, C. (2022). The impact of CEO duality and financial performance on CSR disclosure: Empirical evidence from state-owned enterprises in China. *Journal of Risk and Financial Management, 15*(1), 37. https://doi.org/10.3390/jrfm15010037
48. Wang, Q., Chen, H., Xue, Y., & Liang, H. (2022). How corporate social responsibility affects firm performance: The inverted-U shape contingent on founder CEO. *Sustainability, 14*(18), 11340. https://doi.org/10.3390/su141811340
49. Wang, Y., Liu, J., Sui, X., & Liu, L. (2020). Does corporate social responsibility improve financial performance? Evidence from pure green side. *Finance Research Letters, 36,* 101522. https://doi.org/10.1016/j.frl.2020.101522
50. Wasiuzzaman, S., Uyar, A., Kuzey, C., & Karaman, A. S. (2022). Corporate social responsibility: Is it a matter of slack financial resources or strategy or both? *Managerial and Decision Economics, 43*(6), 2444-2466. https://doi.org/10.1002/mde.3537
51. Wood, D. J. (2010). Measuring corporate social performance: A review. *International Journal of Management Reviews, 12*(1), 50-84. https://doi.org/10.1111/j.1468-2370.2009.00274.x
52. Zaman, R., Jain, T., Samara, G., & Jamali, D. (2022). Corporate governance meets corporate social responsibility: Mapping the interface. *Business & Society, 61*(3), 690-752. https://doi.org/10.1177/0007650320973415