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Bridging the gap: The moderating roles of institutional quality and compliance on the link between CSR and financial performance

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ABSTRACT

Corporate social responsibility (CSR) is widely acknowledged to have a significant impact on firm's financial performance, but it is yet ambiguous how institutional, cultural and national factors influence this relationship in corruption contexts. Therefore, institutional mechanisms and perceived corruption should not be considered in isolation, as this would jeopardize the company's ability to act in a socially responsible manner. Obtaining an institutional approach of corruption and using self-administered survey data collected from 632 Pakistani firms operating in manufacturing and service sectors, we investigated the impact of CSR, institutional quality and law enforcement (IQLE), and internal compliance and ethical management (ICEM) on firm financial performance. Our results found that IQLE negatively moderates and weakened the positive relationship between CSR and firm financial performance. Additionally, we discover that ICEM positively moderates and strengthened the direct relationship between CSR and financial performance. We show that improving compliance and ethics management, CSR has the potential to enhance financial performance.

1. Introduction

Over the last few decades, researchers have focused on corporate social responsibility (CSR): what is it, why do firms act in socially responsible ways, and how do corporate socially responsible behaviours result in positive firm financial performance? Several previous studies have been carried out to answer these questions (Le, 2022b; Novitasari et al., 2023; Pan et al., 2022; Saeed et al., 2023; Vishwanathan et al., 2020). The relationship between CSR and financial performance has long been a matter of contention, with conflicting results. One stream of research discovered a positive relationship between CSR and financial performance (Balon et al., 2022; Feng et al., 2022; Gallego-Álvarez and Pucheta-Martínez, 2022; Khan et al., 2022; Kong et al., 2020; Yeon et al., 2021), whereas another found a negative and a neutral relationship (Ghardallou and Alessa, 2022; Nguyen et al., 2022; Selcuk and Kiymaz, 2017). These perplexing findings have led both academic theorists and practitioners astray. Furthermore, while the majority of previous studies found a positive significant relationship between CSR and financial performance (Feng et al., 2022; Khan et al., 2022; Yang and Jiang, 2023), some research has suggested at a potential indirect association between these two variables (Cao et al., 2023; Novitasari et al., 2023). In their meta-analysis, Vishwanathan et al. (2020) discovered four

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frameworks that explain the CSR-firm performance association, indicating that there remains much potential for forthcoming academic research.

It is well acknowledged that situational or contextual factors are likely to influence corporate socially responsible activities and their influence on firm performance (Yang and Jiang, 2023). Some researchers assert that a firm's willingness to act in a corporate socially responsible way varies across national boundaries (Yang et al., 2022), and different organizational factors like organizational innovation and corporate image influence the association between CSR and firm performance (Lu et al., 2020). Similarly, existing research affirms that corporate social responsibility decisions cannot be made in isolation from institutional mechanisms and perceived corruption, which are likely to have an impact on corporate social responsibility activities (Bahoo et al., 2020; Branco and Branco, 2021; DasGupta and Roy, 2023; Hossain and Kryzanowski, 2021; Lian, 2022). Some studies, for example, have suggested a negative association between perceived corruption and CSR (Lian, 2022; Selcuk and Kiymaz, 2017; Wu and Chen, 2022). Given that perceived corruption is observed as a cultural (Artello and Albanese, 2022; Chen et al., 2020) and institutional phenomenon (Hoinaru et al., 2020; Ojeka et al., 2019), it becomes a strategic issue to include such institutional contextual mechanisms in existing CSR studies to better understand the relationship between CSR and financial performance because such country-specific institutions can have a significant impact on CSR practices (Balon et al., 2022; Campbell, 2007; Pham and Tran, 2020).

Corruption has not received systematic attention from scholars in the field of corporate social responsibility. However, corruption is widespread in emerging markets, increasing transaction costs for firms operating in these markets and posing a threat to their economies. Illegal activities carried out in a corrupt environment not only wreak havoc on the company's image, corporate governance, and corporate reputation (Sánchez-Torné et al., 2020), but also jeopardize the firm's ability to act in a socially responsible manner. Given that corruption has been identified as a country's institutional and cultural phenomenon (Arminen and Menegaki, 2019; Sampath and Rahman, 2019), it has become an essential element of recent research questions to investigate how corruption can moderate the relationship between CSR and financial performance. This study assumes that government agencies and government institutions serve as a critical mechanism for communicating to the market information about firms' CSR activities and financial performance. In other words, these third parties may have a significant impact on a firm's decision to invest more in corporate socially responsible activities to improve its financial and non-financial performance (Balon et al., 2022; Velte, 2022).

Much of the previous literature on CSR has investigated brand performance and consumer purchase intention in marketing (Gupta and Wadera, 2021; Le, 2022a), CSR deployment barriers in construction industry (Pham et al., 2022), and the impact of CSR on firm financial performance like profitability (Oware and Mallikarjunappa, 2022); stock market liquidity (Roy et al., 2022); market value (Hao et al., 2022); earnings management (Balon et al., 2022); cash holdings (Atif et al., 2022); and cost of equity capital related issues (AlKhouri and Suwaidan, 2022). Nonetheless, the relationship between CSR and firm financial performance has not been thoroughly studied in the institutional context, nor how moderating role of perceived corruption will affect the relationship between CSR and firm financial performance.

Aiming to address the research gap, the findings of this study add to the theory and practice of CSR management and offer empirical proof that perceived corruption not only directly impacts financial performance, but also moderates the relationship between corporate social responsibility and financial performance under the assumption that the relationship is contextually dependent. Particularly, this study intends to provide a response to the following research questions: (1) Do CSR, low IQLE, and strong ICEM directly affect corporate financial performance? (2) Is corruption in a national context where institutional quality is low and anti-corruption laws are not enforced a negative moderating variable in the relation between CSR and corporate financial performance? and finally, (3) Is corruption in a national context where organizations have a strong compliance and ethics program a positive moderating variable in the relation between CSR and corporate financial performance?

This study carefully investigates the moderating impact of perceived corruption by analysing data from 632 firms operating in an emerging South Asian country, Pakistan. The main reason for selecting this country is that Pakistan is in South Asia where regional cultures, norms, and values appear to be very important, and firms are liable to adopt CSR activities. Moreover, corrupt activities like paying bribes by female-owned firms to get things done are highly acceptable in Pakistan, Nepal, and Bangladesh (Wellalage et al., 2019) because females are vulnerable victims who are compelled into making bribes to corrupt officials to go along their legitimate business (Lee and Moumbark, 2022). The incidence of bribes were also prevalent in imports/customs, courts, and tax collection department during global financial crisis in 2008 and 2009 (Eddleston et al., 2020). A review of the previous literature shows that the dominant existing empirical studies employed sample data based on developed countries such as the EU (Feng et al., 2022), and the results show a positive impact of CSR on firm performance. Despite the lack of studies focusing on developing and underdeveloped countries, especially the context of Pakistan, and being underutilized as a selected sample in worldwide research (Khan et al., 2020), it is also expected that similar outcomes will be found in Pakistan.

Remainder of the study is organized as follows: Following this introduction, section 2 of the article begins by providing a brief crucial review of the pertinent literature and develops hypotheses. Section 3 is about research methods. Section 4 then presents and discusses the findings of this study. Section 5 describes contributions, limitations, and implications. Finally, section 6 presents the conclusion.

2. Hypotheses development

2.1. Institutional context

Scholars have been investigating in the past 5 decades to comprehend what factors influence a firm's CSR activities. Those factors, nonetheless, were purely firm specific, like firm size, industry of operation, sovereign debt, and book-to-market (Zhang et al., 2022). Consequently, although firms operate in a variety of corporate sectors (DiMaggio and Powell, 2012), it become essential to comprehend the impact of various external factors, which are associated with every nation's institutional environment, on CSR practices. According to Campbell (2007), government institutions should bear responsibility for transactional distinctions in practicing CSR activities. Hence, CSR practices in developed and developing nations could be analyzed in cultural, national, and institutional contexts (Matten and Moon, 2020). It is acknowledged that highly regulatory contexts, such as the ones discovered in advanced nations, are encouraged to disperse CSR practices more extensively.

The institutional theory provides the study's theoretical foundation. This theory facilitates knowledge or understanding of the research. For instance, a CSR policy, whether mandated by statute or adopted voluntarily, represents guidelines that an organization must follow in the vicinity in which it operates or comply to the global presumption of organizations with regards to sustainability. An institution, according to the institutional theory, is characterized by its rules and norms, which may include cultural norms (Matten and Moon, 2020). As a consequence of coercive isomorphism, institutional theory is also associated to extrinsically organized rules and norms that may be imposed on corporate activities and eventually become the acceptable norm preceded by businesses in a particular atmosphere (DiMaggio and Powell, 2012). The implementation of ICEM is one such norm which has been advocated to comply with corruption and IQLE challenges that have been identified to address the laws and institutions. Such a discussion is imperative since firms must develop systems that can respond to new government regulations as they are established. Although several recent studies applied institutional theory to investigate the influence of mandatory CSR on financial performance (Nair and Bhattacharyya, 2019; Oware and Mallikarjunappa, 2022), none of them considered the moderating influence of perceived corruption in CSR practices and financial performance. This study was carried out with the expectation of contributing to the discussion surrounding the sustainability agenda by providing an insight on the association between CSR practices, perceived corruption, and firm financial performance. This collection of research is associated to our study in the context that a nation's traditional institutions might influence its firms to become more anti-corruption friendly and follow anti-corruption guidelines. As a result, firms operating in emerging markets can interact with fewer institutional pressures and hence invest more in anti-corruption efforts.

2.2. CSR and firm performance

Previous scholars have viewed CSR as a critical factor in achieving economic goals, increasing profitability, and generating corporate wealth (Feng et al., 2022; Gallego-Álvarez and Pucheta-Martínez, 2022; Lin et al., 2009). As a consequence, many researchers attempted to look into a universal connection between corporate social responsibility and financial performance (Rehman et al., 2020). Martinez-Conesa et al. (2017) discovered an indirect relationship between CSR and firm performance in Spanish SMEs, with innovation performance acting as a partial mediator. Lin et al. (2009) investigated 1000 Taiwanese companies to investigate the effect of corporate social responsibility on firm performance and discovered a positive relationship between CSR and financial performance. Research in existing literature discovered a significant positive relationship between CSR and financial outcomes in Spanish public and private organizations (Bona-Sánchez et al., 2023; Ortiz-Martínez et al., 2022). Various authors examine the link between corporate financial performance and CSR on U.S technology companies (Okafor et al., 2021) and Turkish manufacturing firms (Durak Uşar and Soytas, 2022). After reviewing previous empirical studies and various schools of thought, it is possible to conclude that there is overwhelming evidence of a strong positive relationship between CSR and firm performance (Feng et al., 2022; Khan et al., 2022; Saha et al., 2020; Yang and Jiang, 2023). Hence, the following hypothesis is developed:

Hypothesis 1. Corporate social responsibility has a positive relationship with corporate financial performance

2.3. Corruption and firm performance

Corruption is presented as a serious obstacle to economic growth at the country level (Nur-tegin & Jakee, 2020; Sharma and Mitra, 2019). Nonetheless, profit-making organizations would be expected to plan an optimal level of corruption to increase their economic profitability, whereas the contextual impact of corrupt enactments on firm performance could be either negative or positive, depending on whether the negative spillovers of corrupt enactments influence the first prospective positive impact (Sharma and Mishra, 2022). This study investigates the relationship between firm-level corruption and financial performance. Several previous researchers discovered a negative impact of corruption on firm performance (Lee et al., 2023; Martins et al., 2020), while others discovered a positive impact of corruption prevalent in the country on firm-level economic performance (Kalyuzhnova and Belitski, 2019; Sharma and Mitra, 2019).

Taxation is the backbone of every country's economy, and companies are obligated to pay taxes to the government. Tax evasion, social security burdens, and institutional quality are all corrupt practices that a company can engage in. Executives are unwilling to pay taxes and prefer to keep all economic profits for themselves, which was identified as a corrupt practice in previous literature (Whait et al., 2018). Institutional quality, regulatory authorities, legal rules, bureaucracy, corruption, and a weak legal system may be the root causes that drive firms to act responsibly or irresponsibly (Canh et al., 2021; Hoinaru et al., 2020). Various Asian countries have low institutional quality, especially where FDI inflows are low and anti-corruption laws are not strictly enforced (Liu and Dong, 2021), and most of the firms report significantly lower level of corruption disclosure (Masud et al., 2022). Anti-corruption legislation enacted by law enforcement agencies is simply the establishment of ethical behavior practices by organizations in the public and private sectors, which are reviewed and measured by professional independent institutions. It is comprehensible that firms will be willing to act unethically when institutions commit law violations, such as through corruption, lowering their performance (Campbell, 2007). Recent research pointed that corporate corruption prevention plays a strong governance role in countries with high corruption risk (La Rosa et al., 2022). Hence, the following hypothesis is proposed:

Hypothesis 2a. Low institutional quality and law enforcement (IQLE) has a negative impact on corporate financial performance

Internal compliance can be utilized to fight corruption. Hills et al. (2009) defined internal compliance as "corporations should continue to invest significantly in ethics and compliance programs to maintain or increase their level of integrity across all divisions and countries" (p. 4). Compliance and ethics divisions typically ignore external anti-corruption efforts, and CSR executives frequently overlook this social issue. Corporate executives are increasingly interested in addressing the negative impact of corruption on corporate financial performance, and they believe that a better ethical compliance program will help them compete effectively and make better decisions, which will boost firm performance (PricewaterhouseCoopers, 2009; Saha et al., 2020).

Internal compliance and ethics management (ICEM) programs use a company's policies and procedures to monitor and prevent violations of rules and regulations, laws, and to encourage ethical behavior by and within the company (Gao and Yang, 2021; Nieto Martín, 2022). Firms must improve their social reputation and integrity by investing significantly in compliance and ethical programs (Hills et al., 2009; Pham and Tran, 2020). Organizations that have an effective ethics compliance program are given a reduction in the penalties allowed by the guidelines in the event of a violation (Armour et al., 2020; Root, 2019). Firms with strong compliance and ethical programs would like to invest more in fighting corruption to effect illegal practices, reduce bribery, and reduce operational costs, all of which contribute to a firm's economic profitability. Hence, the following hypothesis is proposed:

Hypothesis 2b. Strong internal compliance and ethical program (ICEM) has a positive impact on corporate financial performance

2.4. Moderating role of corruption

2.4.1. Institutional quality and law enforcement (IQLE)

Corruption and ethics have long been major concerns in public administration, institutionalization, law, society, and economics. As a result, corruption has become a major concern for institutions and law enforcement agencies (Jancsics, 2021; Ryder and Pasculli, 2020). Corruption has always existed in various forms in every society (Arafa, 2011). Organizations may be corrupt for one of two reasons: high tax and social security burdens, or institutional quality. First, the executives are dissatisfied with paying high taxes and prefer to keep all economic profits to themselves. Consequently, such executives' behavior is referred to as tax aggressiveness (Laguir et al., 2015), which is also referred to as corruption (Whait et al., 2018). Tax evasion or avoidance, which is considered corruption, has a significant negative impact on economic conditions and financial development (Bethencourt and Kunze, 2020; Islam et al., 2020). Firms are less likely to be socially responsible when operating in a weaker economic environment (Campbell, 2007). Second, 'institutional quality,' regulatory authorities, rules of law, bureaucracy, corruption, and a weak legal system may become root causes that drive firms to act responsibly or irresponsibly (Canh et al., 2021).

Because corruption poses a distinct and significant threat to both business and society, companies should approach the issue through the lens of strategic CSR (Hills et al., 2009). It is important to emphasize that anti-corruption measures are critical for strategic CSR and fighting corruption should be a top priority for legislative institutions and private organizations involved in the CSR movement (Arafa, 2011). The United Nations developed a Convention Against Corruption (Drugs and Crime, 2004), demonstrating the fundamental essence of CSR (Bahoo et al., 2020; Larson, 2011). The main objectives of the United Nations Convention are to strengthen the 140 signatory states by educating and advocating for them on the criminalities of corrupt practices, implementing rule of law against corruption, implementing anti-corruption measures, providing legal and technical assistance, and exchanging information (Drugs and Crime, 2004).

Several Asian countries do not enforce anti-corruption laws, or the existing anti-corruption laws are so sophisticated that they do not address the type of corruption (Adam, 2020; Scholl and Schermuly, 2020). Firms should develop internal anti-corruption strategies to deal with this threat to benefit not only themselves but also the nation, including the poorest and most vulnerable members of society (Ryder and Pasculli, 2020). Corruption is inextricably interrelated, with poor human development (health, education), and economic failure. It is comprehensible that firms would be willing to engage in unethical behavior when institutions violate the law, lowering their performance (Campbell, 2007). In other words, a corrupt environment will have a negative impact on the relationship between CSR and firm performance. Hence, this study investigates the following hypothesis:

Hypothesis 3a. The positive relationship between CSR and corporate financial performance will be weakened by the negative moderating role of corruption in a national context where institutional quality is low and anti-corruption laws are not enforced.

2.4.2. Internal compliance and ethical management (ICEM)

Corruption is currently treated as a legal and risk-management issue, necessitating a compliance-driven approach. Compliance and ethical departments frequently disregard external anti-corruption efforts, and CSR executives frequently abandon this social issue. In comparison to other social issues affecting business directly or indirectly, corruption has received insufficient attention (Hills et al., 2009). Corruption incurs additional costs at the corporate level, resulting in costly operations such as operational costs, legal risk, and competitive risk. According to recent studies, corruption increases the cost of doing business by more than 10% in many countries, and this cost increases by 20% if the business is relocated from a low-corruption country to a medium- or high-corruption country (Adam and Fazekas, 2021; Branco and Branco, 2021; Hauser, 2019).

Because of the increased emphasis on corporate governance globally over the last two decades, corporations have acted more aggressively in terms of ethical management and internal compliance. Corporate executives are willing to highlight the negative consequences of corruption. They recognize that a strong ethical compliance program will assist them in competing productively, as well as in enhancing corporate social responsibility and superior decision making, which will inevitably improve their firm's performance (PricewaterhouseCoopers, 2009).

ICEM programs employ a company's policies and procedures to encourage ethical behavior by and within the firm, as well as to detect and divert violations of rules, regulations, and laws (Nieto Martín, 2022). Firms must improve their social reputation and integrity by investing significantly in compliance and ethical programs (Hills et al., 2009). Organizations that participate in a constructive compliance and ethical program face a reduction in penalties at the time of fractionation (Nieto Martín, 2022). A strong compliance and ethical program encourage firms to invest more in fighting corruption to minimize illegal practices, reduce bribery, and reduce operational costs, all of which contribute to the firm's economic outcome. Therefore, firms in good economic times will be more socially responsible (Campbell, 2007), and the relationship between CSR and firm performance will be strengthened in organizations with strong compliance and ethical programs. Hence, this study examines the following hypothesis:

Hypothesis 3b. The positive relationship between CSR and corporate financial performance will be strengthened by the moderating role of corruption in a national context where organizations have a strong compliance and ethical program.

3. Data and methodology

3.1. Sample

Data for this study was collected by a self-administered survey conducted over the 2 years between 2018 and 2020 to investigate the extent to which a firm's belief emphasizes corporate social responsibility. The sample includes 1832 firms in manufacturing and service industries in Pakistan. These firms were registered in the Pakistan stock exchange limited (PSE). The data for corruption, firm performance, and control variables were collected from factual sources for the period corresponding to the survey (Bank, 2017). Given that the major decisions such as CSR are mainly taken by corporate top management, a survey questionnaire was mailed to a prime executive in each firm measuring a firm's emphasis on CSR. There was a response rate of 34.9% (641 firms out of 1832). Nine firms were removed from the data due to incomplete answers to questions. Finally, we included 632 firms that fulfilled the requirements needed to add to our data sample. The final sample acquired consists of an almost identical proportion of firms in key characteristics such as firm age (companies between 1 and 10 years–22%; between 11 and 29 years–33% and more than 30 years - 45%), firm size (between 1 and 50 million $ - 19%; 51–100 million $- 32%; more than 101 million $- 49%), and industry (65% manufacturing and 35% services).

3.2. Measures

For CSR and perception of corruption variables, the items used in this study were primarily adopted from validated scales. To measure CSR, this study adopted the scale of ten items developed (Muthuri and Gilbert, 2011). The participants in the survey were asked to answer the extent to which an organization's philosophy emphasizes each factor on a five-point Likert scale of one ('it is not in the company code') to five ('it is in the company code but fully implemented'). To measure the perception of corruption, were adapted the scale from the study conducted by (Gaviria, 2002). Corruption and bribery are hard to measure due to the secrecy that importantly surrounds corrupt transactions. For this study, we developed a questionnaire to measure corruption in two ways: Institutional quality and law enforcement (IQLE) (5 items) and Internal compliance and ethical management (ICEM) (5 items). The first measure of corruption, IQLE, denotes negative perception due to a low level of institutional quality and law enforcement. We measured it on a scale from 0 to 5 where 0 explains a high level of corruption and 5 means the least corruption level in the country. A scale of 5 means that law enforcement agencies are working properly and there are fewer corrupt practices, representing a low level of corruption. The second variable to measure the level of corruption, ICEM, is something that is under the control of firms: it is whether firms are responsible for increasing or decreasing the level of perceived corruption. This variable is also measured on a scale of 0–5, where 5 denotes a low level of corruption. In this variable, if the company follows rules and regulations of the country, arranges training and workshop programs about corruption and ethics, and has strong written ethics codes, there will be more likely to have less perceived corruption.

This study employs net profit ratio (NPR) as a proxy for measure financial performance (Goll and Rasheed, 2004), given that most Pakistani companies use NPR as a representative proxy for their financial performance in financial statements and it is utilized by a large number of previous researchers (Khaddafi & Heikal, 2014, Öztürk & Karabulut, 2018). NPR is calculated by subtracting operating expenses and income tax from gross profit and divided by net sales of the year using the following formula. These data were collected from financial statements of participating firms for 2016 and 2017 and a mean of two years was computed to adjust variations of NPR in two years.

$$\text{Net Profit Ratio} = (\text{Gross profit} - \text{Operating expenses} - \text{Income tax}) / \text{Net sales} \times 100$$

Three control variables were included: for firm size, firm age, and GDP (Gross domestic product). It has been well known that the size of a firm influences the association between CSR activities and financial performance (D'Amato and Falivena, 2020). This study measures firm size by annual turnover in "USD", given that Pakistan deals with different currency, and we need to adjust the different currency into a common currency to analyse our available data at a standard unit. Hence, this study measured firm size by annual turnover in USD. This study measured a firm's age by the total number of years in corporate operation (Gaur and Kesavan, 2015). Finally, this study also controls for GDP for the years 2016 and 2017 to avoid any expectation of a particular direction (Bank, 2017).

3.3. Analysis

This study employs the following estimation regression model to test the moderating impact of perceived corruption between CSR and firm performance after controlling for other confounding variables that may influence CSR and firm performance.

$$\text{FPi} = \beta^0 + \beta^1 CSRi + \beta^2 IQLEi + \beta^3 ICMEi + \beta^4 CSRixIQLEi + \beta^5 CSRixICEMi + \beta^6 Controli + \varepsilon i$$

Where FP *i* represents financial performance for the firm *i* calculated as NPR; CSR *i* is the average score of corporate social responsibility for the firm *i* in 2016–2017; IQLE *i* and ICME *i* are the mean score of perceived

Table 1
Exploratory factor analysis reliability, convergent validity, and measurement model.

Factors	Factor Loadings	Eigen-Values	Variance Explained	(α)	Skewness (Std. error)	Kurtosis (Std. error)	VIF	AVE	CR
Factor 1: Corporate Social Responsibility (Mean: 3.82; Standard Deviation: 0.56; KMO and Bartlett's Test: 0.868)									
CSR1: Our company supports employees' activities in the community	0.805	4.754	0.648	0.959	−0.813 (0.097)	1.887 (0.194)	2.762	0.916	0.562
CSR2: Our company has a procedure in place to respond to every customer complain	0.753		0.567		−0.727 (0.097)	0.343 (0.194)	2.497		
CSR3: The potential negative impact of our operations on the community are monitored	0.743		0.552		−0.503 (0.097)	−0.430 (0.194)	2.071		
CSR4: Our company provides financial support and material to local community activities and projects (e.g., charitable donations, sponsorship)	0.630		0.397		−0.661 (0.097)	−0.331 (0.194)	1.816		
CSR5: We have a functioning waste management and pollution prevention program in place	0.704		0.496		−0.988 (0.097)	0.588 (0.194)	2.402		
CSR6: We improve social infrastructure and living conditions in our communities	0.747		0.558		−0.941 (0.097)	1.898 (0.194)	1.138		
CSR7: We have concrete measurable targets to judge our CSR practice	0.856		0.733		−1.150 (0.097)	2.913 (0.194)	2.831		
CSR8: We have an established method of monitoring CSR performance	0.695		0.483		−0.409 (0.097)	0.158 (0.194)	1.930		
CSR9: We rarely ask our stakeholders what they want and need	0.742		0.551		0.176 (0.097)	−0.964 (0.194)	1.559		
CSR10: We have standard procedures that we follow to determine the needs of our stakeholders	0.833		0.694		−0.800 (0.097)	0.164 (0.194)	2.822		
Factor 2: Institutional Quality and Law Enforcement (Mean: 2.90; Standard Deviation: 0.80; KMO and Bartlett's Test: 0.825)									
IQLE1: Generally speaking, employees at anti-corruption institution seek to permanently improve the quality of law enforcement	0.769	2.921	0.591	0.818	0.716 (0.097)	−0.898 (0.194)	1.784	0.873	0.584
IQLE2: This institution fulfills the purpose for which it was established	0.816		0.666		−0.124 (0.097)	−0.826 (0.194)	2.484		
IQLE3: The majority of leaders and managers in this institution are honest and competent people	0.663		0.440		0.065 (0.097)	−0.740 (0.194)	1.153		
IQLE4: There are groups within this institution who pursue their self-interests, even if they negatively affect the broader goals of the nation	0.822		0.676		0.958 (0.097)	−0.277 (0.194)	1.931		
IQLE5: This institution does everything within its power to enforce rules and laws	0.818		0.670		−0.020 (0.097)	−0.633 (0.194	1.761		
Factor 3: Internal Compliance and Ethical Management (Mean: 2.81; Standard Deviation: 0.82; KMO and Bartlett's Test: 0.789)									
ICEM1: Do your company has written ethics codes of conduct?	0.878	3.115	0.771	0.831	0.994 (0.097)	−0.067 (0.194)	2.395	0.889	0.624
ICEM2: Do your company conduct regular and comprehensive staff training?	0.919		0.844		0.960 (0.097)	0.329 (0.194)	2.812		
ICEM3: Do your company integrate ethics issues in performance reviews?	0.745		0.555		0.416 (0.097)	−0.809 (0.194)	1.813		
ICEM4: Do your company follow monitoring, auditing, and enforcement mechanisms?	0.891		0.793		−0.279 (0.097)	−1.117 (0.194)	1.265		
ICEM5: Do Ombuds systems, whistle-blower policies, and ethics hotlines are practiced in your company?	0.840		0.706		0.624 (0.097)	−0.382 (0.194)	2.401		

Note: Cronbach's alpha (α), KMO, and composite reliability (CR) > 0.70 and AVE > 0.50 meet the rule of thumb.

corruption; CONTROL *i* represents the firm size, firm age, and GDP.

Hayes (2017) argues that the moderating analyses must be conducted to determine direct and moderating relationships (Hayes, 2017). Particularly, a moderating effect is based on two analyses. A significant correlation must be found between the variables in question (e.g., CSR, IQLE, ICEM) and the dependent variable (financial performance) (Hypotheses 1, 2a, and 2b), and between the interaction terms in the main independent variables and dependent variable (Hypotheses 3a and 3b). In addition, the independent and moderating variables must be significant in explaining the connection to the dependent variable. A moderating impact, such as CSR*IQLE and CSR*ICEM, exists if the interaction terms significantly predict the dependent variable. Furthermore, the moderator variables should not have a collinearity problem with the independent variables. The primary relationships in question were tested using the nested regression analyses.

4. Results

4.1. Reliability and validity tests for CSR, IQLE, and ICEM variables

The reliability of CSR, IQLE, and ICEM scales were examined on internal consistency as presented in Table 1. The normal Cronbach's alpha coefficient were satisfactory for all constructs ($\alpha > 0.70$). For the internal consistency of the scale, the normal Cronbach's alpha was used because the items were measured on the same scale and the correlation between the items was used, while for the composite reliability (CR), it varied between 0.889 and 0.916. Furthermore, the values of average variance extracted (AVE) are higher on their respective constructs, all were observed above the minimum threshold (i.e., > 0.50).

We also executed the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's test of sphericity of the factor analysis for the average of the items of CSR, IQLE, and ICEM scale. These two measurements help to determine the ability of the data for factor analysis. The Bartlett test of sphericity must be significant ($X^2 = 776.146$, $p \leq 0.05$) for the factor analysis to be considered appropriate and the Kaiser-Meyer-Olkin's measure of sampling adequacy can indicate in advance if the sample size is large enough to reliably extract the factors. We confirmed that Bartlett's test was significant ($p < 0.05$). KMO value was 0.868 for CSR, 0.825 for IQLE, and 0.789 for ICEM, where values between 0.7 and 0.9 are great and values below 0.5 are unacceptable. Hence, the KMO value indicates that the factor analysis can be suitably executed.

The full model findings demonstrate that the sample data fit the model magnificently. The conceptual framework was first evaluated for multicollinearity by estimating the variance inflation factor (VIF) values. The findings displayed in Table 1 demonstrate evidence of threshold multicollinearity in every series of estimator correlations in the research framework since all correlation coefficients were below the maximum threshold of 3.3. Finally, a preparatory analysis was performed to evaluate the normality, linearity, and homoscedasticity of the measurement model. The skewness and kurtosis of the research instruments revealed that the sample data were normally distributed as shown in Table 1. Skewness values are restricted between -0.988 (standard error $= 0.097$) to $+0.994$ (standard error $= 0.097$) did fall between ranges 2.00 and $+$ 2.00, as did kurtosis values varying between -1.117 (standard error $= 0.194$) to $+1.887$ (standard error $= 0.194$). This finding indicates that skewness and kurtosis issues were not found in the data source utilized in this study. Furthermore, by inspecting the adequate plots for every residual of the regression and scatterplot, linearity was affirmed that every single unbiased assumption in the suggested conceptual framework has a strong relationship with the outcome components. To summarize, preliminary analytical findings suggest that normality, linearity, and homoscedasticity for the sample data employed in this study was confirmed.

4.2. Results of correlation and regression analyses

The correlation matrix in Table 2 consists of the data of 632 firms from Pakistan between 2018 and 2020, and it shows that CSR, NPR, IQLE, and ICEM are correlated positively and somewhere negatively, but the positive association is dominant. Table 2 provides means, standard deviation, and ranges as well. The correlation results show that CSR is positively correlated ($r = 0.224$) with NPR at a significant level ($p < 0.01$). However, IQLE is negatively correlated ($r = -0.502$) with NPR but positively correlated ($r = 0.104$) with CSR. Finally, ICEM is strongly correlated with CSR ($r = -0.171$), IQLE ($r = -0.114$), and NPR ($r = 0.183$).

Table 3 explains the results of regression analyses to test the effects of corporate social responsibility on financial performance, the effects of IQLE and ICEM on financial performance, as well as the moderating impacts of IQLE and ICEM on the relationship between CSR and financial performance. The results in Model 1 of Table 3 show that firm size has a consistently positive impact on NPR at a significant level across all models. It implies that large-size firms can perform better and can have higher profitability as compared to small-size firms (Coad et al., 2013). Age and GDP have no significant impacts on NPR across all models. The existing empirical studies found mixed results about the effect of firm age on its financial performance such as a positive impact (Coad et al., 2013) and a negative impact (Pervan et al., 2017), but firms with young age are more likely to grow faster and have better performance than medium and large size firms (Stella et al., 2014). The sample data explains that the percentage of small size firms is much less than that of medium and large size firms, and it might be found that no significance was found on NPR across all models. These findings may imply that the firms with 10 years or less behave like those with more than 10 years and less than 30 years and those with more than 30 years of foundation. GDP growth of Pakistan is found between 6 for the years between 2018 and 2020 (Bank, 2021). The previous research found that regional capital subsidization has a neutral or negative effect on firm performance (Audretsch et al., 2019; Wang et al., 2021). Similarly, we found in Table 3 that GDP has a negative effect on NPR at a significant level.

This study ran multiple regressions to evaluate how corporate financial performance (i.e., NPR) is influenced by CSR and different perceived corruption variables such as IQLE and ICEM. CSR was included in Model 2 of Table 3, which was run to test whether a significant association between CSR and financial performance exists or not. Model 2 in Table 3 provides empirical evidence that CSR has a consistently positive relationship with financial performance across all models at a strongly significant level, supporting Hypothesis 1.

Then, we included perceived corruption variables in Model 3, which was run to test whether the relationship between IQLE and financial performance (i.e., NPR) is negative or not and whether the relationship between ICEM and NPR is positive or not. The results in Model 3 explain that institutional quality and law enforcement (IQLE) has a negative effect on firm performance at a strongly significant level, in turn supporting H2a. Model 3 also shows that contrary to IQLE, internal compliance and ethical management (ICEM) has a positive impact on financial performance. This means that if firms strongly adopt internal compliance, provide training to their employees, and manage ethical programs, they are likely to decrease corrupt practices and consequently enhance financial performance, supporting H2b.

Finally, interaction variables were added in Model 4 which investigates whether perceived corruption variables have moderating effects on the relationship between CSR and financial performance. H3a predicts that the positive relationship between CSR and corporate financial performance will be weakened by the negative moderating role of IQLE. Model 4 provides supporting evidence for H3a at a significant level. In H3b, this study proposes that the positive relationship between CSR and corporate financial performance will be strengthened by the moderating role of ICEM. The results in Model 4 also support H3b at a significant level. The results in Table 3 show that all hypotheses were

Table 2
Mean, standard deviations, and correlations.

Variables	Mean	SD	1	2	3	4	5	6	7
1. Net profit ratio	10.715	4.365	*1.00*						
2. Corporate social responsibility	3.820	0.559	0.224***	*1.00*					
3. Institutional quality & law enforcement	2.909	0.799	−0.502***	0.104*	*1.00*				
4. Internal compliance & ethical management	2.810	0.823	0.183***	−0.171**	−0.114**	*1.00*			
5. Firm age	2.343	0.607	0.054	0.036	−0.049	−0.009	*1.00*		
6. Firm size	2.443	0.624	0.282***	0.038	−0.112**	0.085*	−0.214**	*1.00*	
7. Gross domestic product	5.215	0.603	−0.262***	−0.045	0.119**	−0.168**	−0.385**	−0.571**	*1.00*

Note: SD = Standard deviation; Significance at: $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

Table 3
Effect of perceived corruption on financial performance.

Variables	Dependent variable: Net profit ratio			
	Model 1	Model 2	Model 3	Model 4
Independent variables				
Firm size	0.195*** (0.045)	0.191*** (0.044)	0.162*** (0.037)	0.147*** (0.037)
Firm age	0.180*** (0.040)	0.167*** (0.039)	0.100** (0.033)	0.052 (0.034)
Gross domestic product	−0.220*** (0.048)	−0.208*** (0.047)	−0.113** (0.040)	−0.079* (0.040)
Corporate social responsibility		0.201*** (0.036)	0.283*** (0.031)	0.403* (0.159)
Institutional quality & law enforcement			−0.479*** (0.031)	−0.417 (0.260)
Internal compliance & ethical management			0.145*** (0.031)	0.550*** (0.172)
Interaction effects				
Corporate social responsibility x institutional quality & law enforcement				−1.057*** (0.304)
Corporate social responsibility x internal compliance & ethical management				0.729*** (0.179)
Obs.	632	632	632	632
R	0.349	0.403	0.641	0.661
R^2	0.122	0.162	0.411	0.437
R^2 change	0.122	0.040	0.249	0.026
Standard error	4.098	4.007	3.366	3.296
F-models	29.118***	30.340***	72.574***	60.36***
Durbin Watson	1.508	1.919	1.210	1.216

Note: $*p < 0.1$, $**p < 0.05$, $***p < 0.01$.

strongly supported across all models.

The interaction term between CSR and IQLE was added in Model 4, which expects that there is a negative moderating effect on the relationship between CSR and firm performance. Here, to avoid a problematic multicollinearity problem with the interaction term, the interaction terms were mean-centered. The results of VIF show that all variables in question showed smaller than 3.3, meaning that there is no problem of multicollinearity. The results in Model 4 indicate that the negative and significant moderating effect of IQLE on the relationship between CSR and firm performance could be identified. Namely, the results imply that the significant relationship between CSR and financial performance can be weakened under the institutional quality and law enforcement (IQLE) corruption context. The results in Model 4 provide empirical evidence that Hypothesis 3a was strongly supported. Likewise, the interaction term between CSR and ICEM was also added in Model 4. The results in Model 4 show that the relationship between CSR and financial performance gets stronger, strongly supporting the expected H3b. That is, the results imply that the significant relationship between CSR and financial performance can be much stronger under the internal compliance and ethical management (ICEM) corruption context.

5. Discussion

The objective of this research was to determine whether CSR improves corporate financial performance and whether corruption could act as a moderator in the relationship between CSR and financial performance using institutional theory. The findings of this study may contribute to the existing literature by providing empirical evidence that the relationship between CSR and financial performance can be moderated negatively and positively by two corruption variables: institutional quality and law enforcement (IQLE) and internal compliance and ethical management (ICEM).

This study was carried out to achieve three theoretical goals. The first goal was to theoretically validate how changes in CSR activities affect financial performance. According to the findings, a positive or negative change in CSR will either increase or decrease financial performance. The second goal is to investigate the role of the institutional context in the relationship between CSR and financial performance, such as perceived corruption. Arafa (2011) has provided the link between corruption and firm performance as well as how to fight corruption through a corporate social responsibility strategy. Under the institutional theory conception, this study discovered a significant negative relationship between IQLE and financial performance and a significant positive relationship between ICEM and financial performance, which is consistent with Arafa's argument. Institutions, according to institutional theory, have regulations that designate how businesses should interact with one another in terms of competition and cooperation (Peters, 2022), and these regulations require the widespread adoption of strong principles, which are "standards of behavior defined in terms of rights and obligations" (Krasner, 1983). The findings suggest that implementing such regulations within the firm to combat corruption can significantly improve a firm's financial performance. The third goal was to contribute to the literature incorporating perceived corruption as a moderator. When IQLE and ICEM are considered as a moderator, the results provided empirical evidence for the argument that IQLE is likely to weaken and ICEM will strengthen the relationship between CSR and financial performance.

According to the results of this study, CSR has a positive effect on corporate financial performance, whereas corruption in the form of IQLE has a negative effect on financial performance. Given that IQLE negatively moderated the relationship between CSR and financial performance, the findings imply that when the moderating impact of IQLE's national institutional context is presumed, the positive relationship between CSR and financial performance may be turned negative. These findings are in accordance with the core assumptions of institutional theory that the states should formulate strategies to structure high quality institutions to provide information and strengthen integrity (Keohane and Martin, 2014). States with high levels of corruption, such as Pakistan, is more dependent on institutions, making them more likely to pay bribes, engage in corrupt practices, and invest less in CSR activities, implying that the positive relationship between CSR and firm performance is likely to change in such corrupted environments. According to the World Bank report (2021), the quality of institutions is low and law enforcement agencies act poor in high corrupt countries. This study also found a significant positive relationship between ICEM and financial performance. Further, the relationship between CSR and financial performance became much stronger when ICEM was considered as a moderator.

The results have some practical implications. To begin, the findings carefully suggest that the relationship between CSR and firm performance is context-dependent. As a result, identifying the contextual components that may strengthen or weaken the relationship is critical to the evolution of both managerial implications and theoretical understanding. Second, by examining two highly important corruption dimensions simultaneously with positive and negative consequences, this study can provide a better understanding of corruption's moderating role in the relationship between CSR and firm performance. According to the findings of this study, managerial decisions matter more in certain types of corruption environments than in others. To avoid corruption, corporate executives should invest more in ICEM to influence the firm's behavior employees and thus act in a more socially responsible way inside and outside to lead to higher firm performance. Moreover, managers operating in a high corrupt environment where institutional quality is low and law enforcement institutions are performing poorly should pay more attention to socially responsible behaviors rather than pay bribes or commissions to get their work done illegally (Joseph et al., 2016).

Last, this study demonstrated the importance of CSR for the benefit of the company through the improvement of the company's behavior. At a societal level, this study showed that the company can improve ostensibly its performance if the good practices of CSR are carried out and in turn, actions are taken to reduce or eliminate corruption which will result in better profitability for the company. The benefits obtained from CSR could result in improvement in the productivity of workers, satisfaction assured by customers, reduction of costs, improvement in the reputation and image of the company itself, and contribution to the reduction of poverty and the promotion of development. Like most empirical research, this study contains several limitations that must be kept in mind while interpreting and generalizing the results. First, the measurement problem is the main issue in the study of corporate social responsibility. Relying on the survey methodology conducted by Goll and Rasheed (2004), our main objective was not to measure corporate social performance but to measure executives' perceptions of firm ideology, philosophy, and most important their perception of corruption prevailing in the country. There is a possibility that respondents' social desirability biases may over-or underestimate their firm's commitment to corporate social responsibility. Second, this study relies on a single top executive respondent from each firm. Given that the sample could be more reliable by collecting responses from multiple respondents in the same firm, we admit that the sample may not represent the whole firm. Third, this study collected data of perceived corruption such as perceived IQLE and perceived ICEM from the same respondent in the firm and it may be biased because if the respondent perceives that there are low-quality institutions and law enforcement agencies in the country, he may be biased to respond to ICEM. Fourth, this study considers only two dimensions of corruption such as IQLE and ICEM where IQLE has a negative impact and ICEM has a positive (for both direct and moderated effect). Consideration of additional and different dimensions could be one of the best ways to investigate the moderating impact of the relationships. Last, the sample was collected from Pakistan companies in the manufacturing and services sectors, thereby potentially limiting its generalizability to all firms around the world with less corruption index.

Regardless of the mentioned limitations, the results of this study could suggest that future studies need to move corporate social responsibility research from bivariate relationships to country, organizational, institutional, or more context-specific approaches to carefully explore the existing relationship between CSR and firm performance, given that the existing studies have provided still confusing findings.

6. Conclusion

This study provides important empirical evidence connecting CSR to financial performance. The findings indicated a positive relationship between CSR and financial performance, presumably because social activities strengthen the certainty of firms in establishing a positive environment. Adopting institutional theory, it was further found that ICEM enhanced financial performance while IQLE had the adverse impact. Consistent with Armour et al. (2020), we also discovered a positive association between CSR and financial performance via its interaction with ICEM. By enhancing compliance and management, CSR has the potential to boost financial performance and employees confidence. In addition, we found that CSR interacts negatively with IQLE to predict financial performance, which is in accordance with (Martins et al., 2020). This indicates that in the existence of weak institutions and weak law enforcement, CSR can have a negative effect on financial performance. That's why most businesses care about CSR and are spending more on improving their own ethical and compliance programs. The findings suggest that institutional quality and law enforcement weaken the connection between CSR and firm financial performance, while internal compliance and ethical management strengthen it.

CRediT authorship contribution statement

Syed Asad Abbas Bokhari: Conceptualization, Methodology, Software, Formal analysis, Resources, Writing – original draft, Writing – review & editing, Visualization. **Murad Ali:** Conceptualization, Methodology, Formal analysis, Investigation, Resources, Writing – original draft, Writing – review & editing, Visualization, Project administration. **Gema Albort-Morant:** Conceptualization, Formal analysis, Writing – original draft, Writing – review & editing, Visualization, Project administration. **Hengky Latan:** Methodology, Writing – review & editing, Visualization. **Ana Beatriz Lopes de Sousa Jabbour:** Methodology, Writing – review & editing, Visualization. **Shakir Ullah:** Formal analysis, Writing – original draft, Writing – review & editing, Visualization. **Mohammad Asif Salam:** Formal analysis, Visualization, Funding acquisition, Writing – original draft, Writing – review & editing. **Tan Vo-Thanh:** Writing – review & editing, Visualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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