

Corporate Social Responsibility and Corporate Performance: Does Financial Reporting Quality Matter?

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Abstract: This study aims to analyze the role of social responsibility in times of crisis, where the study examines whether the role of social responsibility in the corporate performance will depend on its interaction with other basic aspects of the corporate business environment. In the contemporary economic context, information environment considers important aspects of the business environment, therefore, it can be suggested that the impact of social responsibility on the company's performance will be clearer when considering its interaction with financial reporting quality. To test this argument, data from the Saudi business environment for the year 2020 was collected to explore the relationship between social responsibility and the company's financial performance during the Corona pandemic, and the role of the financial reporting quality in that relationship. The results were largely consistent with the general argument of the study, the results showed that social responsibility does not affect the financial performance, but the interaction between it and the financial reporting quality positively affects the financial performance of the company during the pandemic period. Therefore, financial reporting quality play a major role in the extent to which social responsibility affects performance. The results represent a motivation for the various parties in the business environment to pay attention to the general framework of the company's business aspects when analyzing performance.

Keywords: Financial reporting - social responsibility - corporate performance - Saudi business environment.

JEL Classification: M41– M14 – L25 – Q56.

1 Introduction

Corporate Social responsibility has attracted great attention at both media and academic level, as it is a subject of an academic debate about whether it increases the wealth of shareholders or consumes resources without sufficient returns. In line with that controversy, empirical studies provided conflicting results concerning the impact of social responsibility on the corporate performance. One of the explanations for this conflicting is the lack of understanding of the conditional factors that may modify that relationship [1], which motivate the use of the moderating variables to explain this relationship [2].

In times of crisis, such as what resulted from the Corona pandemic, companies need to find mechanisms to deal with the complicated business environment and market pressures. Among these mechanisms, Corporate social responsibility performance and information environment have great importance. Accordingly, the current study proposes that the social responsibility performance improves the financial performance during times of crises such as the Corona crisis, but that relationship will be affected by the financial reporting quality. The interaction between social responsibility and the financial reporting quality leads to an efficient social responsibility investment that is more consistent with the overall performance of the company and improves the financial performance.

Corporate social responsibility refers to the inclusion of economic and social dimensions side by side as essential aspects in the decision-making process, but this interaction between social and economic dimensions has some challenges and it is subject to a cost - return trade-off [3]. At an early stage, Friedman [4] argued that the firm's responsibility is to achieve profits and that social responsibility represents a distribution of shareholders' wealth to achieve the private interests of managers. On the other hand, another perspective has suggested that the social responsibility costs can be economically justified on the basis that they improve the corporate financial performance [5] or reduce the cost of capital [6]; [7]. In the context of the Corona crisis, [8] indicates that the debate about social responsibility has gained attention again during the global financial crisis 2008 and now during the Corona crisis. In this context, the current study addresses the impact of social responsibility on financial performance during the financial crisis that resulted from the Corona pandemic.

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In addition to social responsibility, financial reporting is a key component of a business environment, as financial reporting is more than a simple description of future cash flows because it allows managers to decide when, how, and in some cases, what to report in the financial statements. Therefore, companies with similar core operations can have financial reports that look very different [9]. Abed, et al. [10] indicated that there are several studies that showed a positive correlation between social responsibility and the financial reporting quality. The financial reporting quality can be considered as one of the factors that affect whether social responsibility leads to an improvement in financial performance. According to the agency concept, the absence of effective control from shareholders can allow opportunistic behavior of managers, thus social responsibility activities come at the expense of good financial performance because it may use company resources to achieve management benefits [11]. Social responsibility investment provides managers with some advantages that are not available in other types of investment, such as improving reputation and social status because of advocating a social cause. Therefore, it can be expected that the management opportunistic behavior leads to over-investment in social responsibility activities at the expense of performance quality. In this context, the accounting literature indicates that the high-quality financial reporting may alleviate the ethical problems associated with the agency concept by reducing information asymmetry and increasing the ability of shareholders to control managers' investments in social responsibility. Thus, the high-quality financial reporting can increase the social responsibility investment efficiency, which improves its relationship with the financial performance of the company. In the context of the financial crisis resulting from the Corona pandemic, there is a debate about the role of accounting in the global financial crisis of 2008, in particular the role of fair value measurement in accelerating that crisis, which reflects the importance of accounting in the stability of the economic system and maintaining investor confidence [12]. In times of crisis, market participants face a high degree of uncertainty and risks, therefore their need for high-quality information increases in those times. Accordingly, companies that provide a high-quality financial reporting face fewer negative effects during crises [12]. In this context, the current study addresses the role of the financial reporting in the context of the relationship between social responsibility and financial performance.

Mattera, et al. [13] indicates that there is a gap regarding analysis of the social responsibility in the opposite socio-economic context when firms face crises such as those that occurred during the pandemic, as it is important to understand whether social responsibility strategies that are implemented through a long period of time contribute to the formation of integrated business models which can help better crisis management. Bae, et al. [8] proposes that the growing demand for social responsibility resulting from the market crash during the COVID-19 pandemic presents a practical opportunity to test the idea that social responsibility protects corporate value during periods of crisis, which rooted in mainstream of social responsibility theories including stakeholder, institutional, and legitimacy theories. The Corona pandemic has led to fundamental changes around the world, where there is a need for a balance between human health and the economic situation, and companies required to increasingly commit to social responsibility activities in response to the pandemic [14]. Companies also need to be aware of and respond to the changing environment, or to the risk of losing customers, suppliers, and other stakeholders [15], where failure to respond can harm the social and legal environment in which the company operates. In addition, in times of the financial crisis, there is greater uncertainty and decreasing investor confidence, which lead to an increased demand for reliable information. Management's incentives to manipulate are also stronger because difficult times cause management to act unethically, perhaps as a survival tactic [8], [16]. As a result, investors become more concerned with the integrity of the financial reporting [16]. Considering the abovementioned, the global financial crisis resulting from the Corona pandemic provides a distinct environment to test the impact of social responsibility on performance and the role of the financial reporting quality in that relationship. Therefore, the current study uses data from the Saudi business environment for the year 2020, the year that witnessed the strongest impact of the Corona pandemic on the financial markets, to answer the following questions:

- What is the impact of social responsibility performance on the company's financial performance during the Corona pandemic?
- How does the financial reporting quality affect the relationship between social responsibility performance and financial performance?

The results of the study can provide clear insights about the business models to be adopted and help companies overcome difficult circumstances. The study shows whether a business model that is more concerned with sustainability and social responsibility can help companies in difficult times.

The study is proceeded as follows: the second section presents previous studies and development of the hypotheses, the third section addresses the research method, and the fourth section presents the results of the study, and conclusion.

2 Literature review and hypotheses

The resource-based perspective proposes that competitive advantage can be achieved through combining three basic elements, tangible assets, intangible assets, and company capabilities [2]. This view suggests that the competitive

advantage depends on the interaction between various aspects of the work environment, therefore that interaction affects performance, especially in times of crisis. Social responsibility and financial reporting are considered basic pillars of any company's work environment in recent decades. Social responsibility plays an important role in determining the corporate image that affecting its stability and growth, while the financial reporting is the main and the most important information source within the business environment and closely related to financing and investment decisions that are largely reflected on performance. Corporate social responsibility is considered a tool to obtain a competitive advantage [1]. However, Porter & Kramer [17] argued that social responsibility is considered a tool for competitive advantage only when it is integrated into the corporate strategic framework that guides its core business choices. Firdaus, et al. [18] indicates that there is a close relationship between social responsibility and the financial reporting quality, as the poor social responsibility performance is significantly associated with accounting manipulation [19], and companies that offer higher levels of social responsibility are less likely to manage revenue [20]. Accordingly, it can be argued that social responsibility affects the corporate performance, but that impact will be largely determined according to the interaction of social responsibility within the corporate business environment, specifically with the financial reporting quality.

2.1. Social responsibility and financial performance

Social responsibility theories posit that companies to survive and grow, must consider the interests of different stakeholders, and legitimize their activities by maintaining congruence between the goals of society and companies. The theory of social impact also refers to the positive impact of social responsibility on the financial performance and improvement of the social relationships of the company [21]. Social responsibility strategies can lead to positive or negative impacts on the company's performance, depending on the company's ability to benefit from investments in those activities, which is related to its ability to properly communicate the strategic choices related to social responsibility to stakeholders [22]. Previous studies have provided different results about the relationship of social responsibility with company performance between a positive association [23], [24] and a negative or no relationship [25], [26]. Huang et al. [27] conducted a meta-analysis of studies that dealt with the relationship of social responsibility with financial performance and found that economic fluctuations can affect the relationship between social responsibility and the financial performance of the company.

In the context of the Corona crisis, Albuquerque, et al. [28] and Dunbar, et al. [29] suggest that social responsibility affects a company's risk-taking ability, which in turn affects the company's market valuation. Qiu et al. [30] examined the impact of social responsibility on corporate performance under the Corona pandemic and found that social responsibility activities attracting the attention of stakeholders such as customers. Huang & Liu [31] found that donations under the Corona pandemic has a positive impact on brand loyalty. Zhang [32] also found that social responsibility positively affects customer loyalty and the company's image, and that this effect increases considering the Corona pandemic. Albuquerque et al. [33] found that companies that perform better for social responsibility have better stock returns during the crisis, and Garel & Petit-Romec [34] found that environmental performance is positively correlated with stock returns during the crisis. Li et al. [35] found that companies with strong corporate cultures engage more with their communities and, as a result, are more resilient to the pandemic. According to the abovementioned, it can be argued that social responsibility in times of crisis such as the Corona pandemic represents a mechanism to improve the company's reputation and support relationships with various parties, including maintaining customer loyalty, which leads to support the company's financial performance during the crisis. Thus, the following hypothesis can be formulated:

H1: There is a positive association between the corporate social responsibility performance and the corporate financial performance.

2.2. The impact of the financial reporting quality

Information is an essential component of the business environment, where a weak information environment discourages investors from participating in the market and impairs the optimal allocation of resources [36], and the financial reporting represents a mainstay in the information environment. The poor financial reporting impedes the prediction of the company's ability to pay dividends [37], while the high-quality financial reporting reduces information asymmetry, improves investment efficiency, and makes profits more representative of future cash flows [38]. The financial reporting can be related to social responsibility, where both aim to meet the needs and interests of stakeholders. Martinez-Ferrero, et al. [39] indicated that the financial reporting quality plays a crucial role in setting the company's social responsibility strategy. The relationship between social responsibility and financial reporting can take one of two directions. On the one hand, the quality of internal control affects the financial reporting quality [40], and at the same time, internal control is associated to social responsibility practices, as these practices require a clear identification of rights, responsibilities and interests [41], and internal control also requires ensuring that the company adheres to social responsibility practices and thus preserves the rights and interests of stakeholders [42]. Thus, social responsibility

practices improve the internal control process, which improves the quality of the financial reporting. Yoon et al. [43] indicated that companies with good social responsibility performance provide a high-quality financial reporting in terms of receivables. The social responsibility reporting can also reduce the possibility of information asymmetry, therefore there is a positive relationship between social responsibility and the appropriateness of information [44], as investors and users of financial information increase their confidence in the company that provide social responsibility reporting [45]. On the other hand, there is a view that managers often engage in social responsibility activities to hide creative accounting practices and avoid the cost of fines due to the low quality of financial reporting. Martinez-Ferrero, et al. [39] found that social responsibility modifies the relationship between earnings management and firm value, which indicates that social responsibility may be used as a tool to cover up the poor quality of the financial reporting.

In the context of the current study, Timbate & Park [46] argue that if investors consider engaging in social responsibility as a value-adding activity, they will pay more attention to reported profits of socially responsible companies. This proposition reflects that there is a correlation between social responsibility and financial reporting in influencing the performance. In this context, it can be suggested that the two views on the relationship of social responsibility with financial performance include a reference to investment efficiency, where the positive relationship indicates the efficiency of social responsibility investment, while the negative relationship indicates the inefficiency of social responsibility investment. The financial reporting play an important role regarding social responsibility investment efficiency, where social responsibility investment implies greater moral risks because it can provide special benefits for managers that are not available in traditional types of investment such as improving reputation and social status as an advocate for social causes. In this context, the quality of the financial reporting can mitigate managers' motivation to overinvest as it allows shareholders to better track managers' investment decisions, Biddle et al. [47] indicated that the financial reporting quality reduces both the overinvestment and the underinvestment. Bushman & Smith [48] also indicated that the financial reporting quality improves investment efficiency by investing in projects with higher returns and increasing the efficiency of the asset management process. Thus, companies with a high-quality financial reporting are less probable to overinvest in social responsibility activities. Therefore, a high-quality financial reporting can improve the social responsibility investment efficiency, which makes it more consistent with the overall performance of the company and thus positively reflects on the relationship between social responsibility and financial performance. Accordingly, the interaction between social responsibility and the financial reporting can modify the relationship between social responsibility and financial performance, as the high-quality financial reporting improves the strength of that relationship. Then, the following hypothesis can be formulated:

H2: The financial reporting quality has a positive impact on the relationship between social responsibility and the company's financial performance.

3 Methodology

To test the study's hypotheses and achieve its goals, data from Saudi non-financial companies registered for the year 2020 is used. The year 2020 is the year of beginning the financial crisis as a result of declaring the spread of the Corona virus as a pandemic. Among the 144 companies representing 17 non-financial sectors in the Saudi financial market, the sample of the study consists of 101 companies after excluding companies for which all the data required for the study could not be accessed. The data was manually collected through the published financial reports of the companies, through the companies' websites and through the Saudi Stock Exchange website Tadawul. The hypotheses test is based on the linear regression method.

3.1. Variables measurement

Corporate social responsibility performance

The framework of the Dow Jones Sustainability Index [49] can be used to measure CSR, with the addition of a dimension related to the company's policy concerning social responsibility disclosure. According to that framework, social responsibility includes three dimensions (and the governance dimension has been excluded) which is the economic, social, and environmental dimension. These dimensions can be measured as follows:

First: The economic dimension (ECO), which includes the company's contribution to shareholders and creditors, where:

- 1) The company's contribution to shareholders (SC) is represented in the percentage of profits per share = (net profit after tax - dividends for preferred shares) / Average stocks.
- 2) The company's contribution to creditors CC = (total interest expense / total debt).

Thus, $ECO = (SC + CC) / 2$

Second: The social dimension SOC includes the company's contribution for the government, employees, and suppliers,

where:

3) The company's contribution for the government, $GC = \text{total tax expense} / \text{sales revenue}$.

4) The company's contribution to employees, $EC = (\text{total interest and benefits expense for employees} / \text{number of employees}) / \text{sales revenue}$.

5) the company's contribution for suppliers, $SUC = \text{total annual purchases} / \text{sales revenue}$.

Thus, $SOC = (GC + EC + SUC) / 3$

Third: The environmental dimension ENV includes two variables, namely the number of environmental notes and the value of fines related to environmental risks, where:

6) The first environmental variable $EV1 = \text{number of environmental observations} / \text{average number of observations in the industry}$.

7) The second environmental variable $EV2 = \text{the value of environmental fines} / \text{average value of fines in the industry}$.

Thus, $ENV = (EV1 + EV2) / 2$

Fourth: an indicator for social responsibility disclosure (CSD) is added, based on the accumulation of points for the company, as follows:

- There is a special section in the company's annual report on social responsibility (1) or not (0),
- The company's website contains a distinct section on social responsibility (1) or not (0),
- The company issues stand-alone report on social responsibility (1) or not (0).

Accordingly, the social responsibility performance variable will be measured as follows:

$CSR = ECO + SOC + ENV + CSD$

Financial reporting quality

The accruals quality is the prevalent method in the accounting literature to express the quality of the financial reporting, where the total accruals are expressed through the following form:

$TA_{it} = \alpha_1 (1/ASSETS_{it-1}) + \alpha_2 \Delta REV_{it} + \alpha_3 PPE_{it} + \epsilon_{it}$

where TA is the total accruals of company i in year t, calculated as the difference between income before unusual items and operating cash flows, ASSETS is assets at year-end of company i in year t-1, ΔREV is a change in sales from year t-1 to year t, PPE is property, plant, and equipment. TA, ΔREV , and PPE are weighted by total assets. To express the quality of the financial reporting, the absolute values of the residual values from the previous model, ϵ_{it} , are multiplied by -1, whereby the higher the output, the higher the quality of profits/quality of financial reports.

3.2. Study Model

To achieve the objectives of the study and test its hypotheses, the following OLS regression model is used:

$Y_{it} = \alpha_0 + \beta_{1-3} \sum_{1-2} X_{it} + \beta_{1-6} \sum_{1-6} \text{control variables}_{it} + \epsilon_{it}$

Where Y_{it} is the dependent variable of company i in year t which is the financial performance expressed as return on assets ROA, and X_{it} represents the explanatory variables of company i in year t: corporate social responsibility CSR and financial reporting quality FRQ. The control variables for company i in year t, are: company SIZE as measured by the natural logarithm of total assets, age of the company AGE, leverage rate LEV, nature of activity TA which is a dummy variable that takes the value 1 for industrial companies and the value 0 otherwise, investment growth IG which is a ratio of Capital Expenditures to Sales, Quality of Governance System CG. In addition, the study uses the modified variable $CSR*FRQ$ to explore the impact of the financial reporting quality on the relationship between social responsibility and financial performance, and it expresses the interaction between social responsibility and the quality of the financial reporting, which is the product of the two variables.

4 Results

4.1. Descriptive Statistics

Table No. 1 presents the results of descriptive statistics that describe the study' variables. The results show that the average profitability rate of the companies is 15%. The average corporate performance index in social responsibility is

4.3 and the average financial reporting quality index is 3.6. The average natural logarithm of the total assets of the companies is approximately 9.8, and the average growth rate of investment is 12%. Regarding the corporate governance system, the average indicator of the quality of the governance system is approximately 5, which reflects the high quality of the governance system in general in the Saudi companies.

Table 1: Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	101	0.1577127	3.939766	-0.093	0.41
CSR	101	4.388588	1.009111	2.4429	7.257
FRQ	101	3.67754.5	13.29756	-6.321457	6.254763
SIZE	101	9.836701	2.231188	6.95	11.74
AGE	101	42.36782	8.075393	21	58
LEV	101	6.680115	2.661927	2.01	10.74
TA	101	0.5445544	0.498011	0	1
IG	101	0.1201379	0.0706151	0.01	0.321
CG	101	5.022989	1.389136	0	6

4.2. Correlation analysis

Table No. 2 presents the results of the correlation test. Regarding the financial performance expressed in the rate of return on assets ROA, the results show a positive significant correlation between the company's financial performance and both social responsibility performance and the financial reporting quality. This result provides a preliminary indication of the importance of these variables in the business environment under the conditions of crises and that they represent mechanisms to deal with these conditions.

Regarding social responsibility, the results show a positive correlation between it and the financial reporting quality. This positive correlation is consistent with Martinez-Ferrero, et al. [39] that indicated that the corporate social responsibility strategy can be affected by the way information is provided to the stakeholders, where the higher quality of information means increased transparency and increased attention to issues related to the stakeholders, which promotes the adoption of social responsibility practices. Also, the balancing relationship between stakeholders and the financial reporting can alleviate information asymmetry problem [18], which indicates that social responsibility affects the company's environment and is linked to the quality of the financial reporting. Al Ani [50] finds that there is a relationship between social responsibility and the financial reporting quality.

Table 2: Correlation matrix

	ROA	CSR	FRQ	SIZE	AGE	LEV	TA	IG	CG
ROA	1								
CSR	0.1057*	1							
FRQ	0.1053**	0.1090**	1						
SIZE	0.1892**	0.1447***	-0.0646	1					
AGE	-0.0116*	-0.1914*	0.1434	0.1123***	1				
LEV	0.2020**	-0.0300	-0.1822*	0.8779**	0.1204	1			
TA	-0.1123*	0.1392*	-0.0295*	0.6665*	0.1317*	0.6515	1		
IG	0.0421	-0.0071*	-0.0085*	0.0418*	-0.1323**	0.0820	-0.0445	1	
CG	0.1204	0.1006*	0.1372	-0.0143	0.0376	0.0381	-0.016*	-0.009	1

***p < 0.01, **p < 0.05, *p < 0.10

4.3. Hypotheses testing

The hypotheses test depends on the linear regression model. To test the first hypothesis of the study, the following regression model is used:

$$ROA = \beta_0 + \beta_1 CSR + \beta_2 FRQ + \beta_4 SIZE + \beta_5 AGE + \beta_6 LEV + \beta_7 TA + \beta_8 IG + \beta_9 CG + \varepsilon$$

The regression coefficient β_1 is of interest for the first hypothesis test, as it is expected to take a significant positive value. Table No. 3 presents the results of the regression test for the previous model that shows the significance of the model, indicating the reliability of its results. However, the R^2 value reflects the model's ability to explain a small percentage of the change in the dependent variable.

The regression results show that there is no significant relationship between the social responsibility performance and the rate of return on assets, which indicates that social responsibility does not affect the financial performance of the company during the Corona crisis and leads to the rejection of the first hypothesis of the study. This result is consistent with previous studies that did not find an effect of social responsibility on company performance, such as the study of

Humphrey, et al. [51] which indicated that there is no relationship between social responsibility and risk-adjusted returns. In the context of the Corona crisis, the result is consistent with Bae, et al. [8] who indicated that social responsibility did not affect stock returns during the Corona crisis period.

This result is consistent with the view that the management may use the social responsibility investment for its own interests without considering the impact on performance, where social responsibility investment theories can be classified into two categories; the profit motive theories and the non-profit motive theories [52]. The profit motive theories propose that the social responsibility investment can be economically justified as it improves the financial performance of the company in the future. Social responsibility can improve future financial performance by attracting higher quality employees, improving employee efficiency, reducing disputes between stakeholders, mitigating litigation risks, and improving company reputation [52]. On the other hand, the viewpoint of the non-profit driver of social responsibility indicates that in the absence of strong control from shareholders, managers can exploit the investment in social responsibility for their own personal interests [52]. Barnea & Rubin [53] found that management ownership is negatively associated with social responsibility, indicating that managers tend to overinvest in social responsibility when they are not bear its cost.

This result may also reflect that the financial market pressure during the Corona crisis leads to reducing the investors' interest in social dimension of the company in the Saudi business environment. One of the pillars on which the relationship between social responsibility and financial performance depends is the emergence and growth of the so-called social investment or green investment, but Renneboog et al. [54] pointed out that studies have not clearly demonstrated that investors with an interest in social investment will accept non-ideal financial performance to achieve social and ethical goals. Hartzmark & Sussman [55] did not find evidence that high-sustainability funds outperform low-sustainability funds, which supports that the investors only morally support socially responsible investment. The result is also consistent, to some extent, with the idea that the relationship between social responsibility and financial performance is a long-term relationship.

McWilliams & Siegel, [56] indicated that social responsibility activities contribute to the development of competitive advantage that improves financial performance in the long run, as the development of the corporate culture and the management practices associated with social responsibility may increase the company's costs, which negatively affects the financial performance in the short term [57]. Hill, et al. [58] found the positive impact of social responsibility performance on stock returns in the long run, while there is no correlation between them in the short term. Ramzan, et al. [59] suggested that social responsibility contributes to achieving financial stability in the long run, and that many companies engage in social responsibility activities because they realize that allow companies to be more flexible and have a longer life.

In addition, although the non-significant association between social responsibility and financial performance, the positive association reflect the importance of social responsibility, where the relationship between business and society has moved from the concept of charitable work to a re-examination of the roles, rights, and responsibilities of business in society [60]. There are two perspectives concerning social responsibility, the first one suggests that the company should only engage in social responsibility activities if it will increase the wealth of shareholders, while the second believes that social investment should be made even if it reduces the shareholders' wealth [61]. Previous studies have provided evidence about the effects of social responsibility performance and disclosure, as social responsibility reduces business risk), information asymmetry [62], the cost of debt [63], cost of ownership [64], and analysts' forecasting errors [65]. Social responsibility also improves customer trust and loyalty [66], employee commitment, efficiency and productivity, and the company's image and reputation [67].

The results also showed that the financial reporting quality positively affects the financial performance, which is consistent with the importance of the financial reporting, particularly in times of market turmoil and uncertainty. The financial reporting plays an important role in shaping the company's information environment, which in turn greatly affects the capital market, market participation, and transaction costs and trading profits [36]. The financial reporting affects financing and investment decisions through two ways: first, managers could use the rules to achieve specific results, as managers may choose to structure deals to keep off-budget financing, second, using the basic features of the financial reporting such as disclosure policy and timing of recognition of losses to influences decisions [9]. The high-quality financial reporting alleviates agency problems that lead to inefficiency investment decisions. Bushman & Smith [48] indicated that accounting information affects the future performance through its role in governance system, and that the high-quality accounting information improves investment efficiency.

Table 3: Regression results to test first hypothesis

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
CSR	0.1295795	0.3567010	0.65	0.491	-0.25145	0.510609
FRQ	2.0590255	2.009417	1.97	0.042	-0.9127607	5.0308117

SIZE	0.21019905	0.5400902	1.06	0.056	-0.6029409	1.023339
AGE	0.00022785	0.2470099	0.47	0.709	-0.1003911	0.1008468
LEV	0.23520735	0.3547112	2.12	0.015	-0.5300692	1.0004839
TA	0.000366	1.0356	0.31	0.481	-2.050003	2.050735
IG	1.549002	5.002123	1.81	0.016	-1.00143	4.099434
CG	0.87697485	0.0974091	1.66	0.331	-0.196261	1.9502107
Cons	0.99964	3.096015	2.41	0.001	-8.00175	10.00103
Number of obs.	101					
Prob > F	0.0000					
Adj R-squared	0.1829					

To test the second hypothesis, the following regression model is used, where the interactive variables are added as modified variables to the previous regression model:

$$ROA = \beta_0 + \beta_1 CSR + \beta_2 FRQ + \beta_3 CSR*FRQ + \beta_6 SIZE + \beta_7 AGE + \beta_8 LEV + \beta_9 TA + \beta_{10} IG + \beta_{11} CG + \varepsilon$$

The regression coefficient β_3 is of interest for the second hypothesis test, as it is expected to take a significant positive value. Table No. 4 presents the results of the regression test for the previous model, which shows the significance of the model, which indicates the reliability of its results. The R^2 value of the model is higher than the previous model, which reflects that the use of modified variables improves the model's ability to explain the change in the dependent variable, but the model still explains a small percentage of the change in the dependent variable.

Regarding the second hypothesis related to the impact of the financial reporting quality on the relationship between social responsibility and financial performance, the results show the existence of a positive significant correlation of the interaction between social responsibility and financial reporting with financial performance. This result indicates that companies with high performance in social responsibility and at the same time providing a high-quality financial report have better financial performance under the conditions of Corona.

Comparing this positive association with the absence of a link between social responsibility and financial performance reflects a clear positive impact of the financial reporting quality on the relationship between social responsibility and financial performance, which leads to the acceptance of the second hypothesis of the study. This impact of the financial reporting quality on the relationship between social responsibility and financial performance comes in the context of the impact of the financial reporting quality on controlling social responsibility investment. Managers may use investment in social responsibility activities to achieve personal benefits, and the financial report is one of the most important mechanisms that enable shareholders to better follow up on management and consequently limit the managers' opportunistic behavior. The financial reporting is also closely related to the information asymmetry problem, which in turn plays a role in investment efficiency, as information asymmetry affects the investment decision and its efficiency through two dimensions.

First, external sources of financing will not be willing to provide sufficient capital to fund investment opportunities due to their information flaws. Second, managers have incompatible incentives with stakeholders resulting in either over- or under-investment [9]. Roychowdhury et al. [68] indicated to the link between financial reporting and investment decisions, where information asymmetry leads to adverse selection and ethical risk problems, in addition to uncertainty. Hence, the financial reporting quality helps control the social responsibility investment efficiency, making it more consistent with the company's overall performance. In addition, the Corona pandemic leads to a great state of uncertainty in the markets, and the high-quality financial report represents one of the most important mechanisms to deal with this situation and gain the confidence of the market and investors.

Therefore, the interaction between good social responsibility performance and high-quality financial reporting will be an influential and decisive factor in gaining the confidence of the market and investors, which will positively reflect on the financial performance.

Table 4: regression results to examine second hypothesis

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
CSR	0.34923715	0.5401201	1.21	0.162	-0.400105	1.0985793
FRQ	0.595545	2.008201	2.32	0.041	-0.099106	1.290196
CSR*FRQ	0.6045495	3.733897	2.76	0.003	-0.391007	1.600106
SIZE	0.2393101	0.4571081	1.81	0.023	-0.5803108	1.058931
AGE	-0.011638	0.1550307	-0.72	0.490	-0.1011881	0.0779121
LEV	0.05223965	0.2010731	2.21	0.024	-0.5980109	0.7024902
TA	-0.059548	1.040691	-0.31	0.671	-2.009106	1.89001

IG	1.444712	0.880146	2.22	0.002	-1.11989	4.009314
CG	0.50046645	0.2229404	1.91	0.061	-0.09091	1.0918429
Cons	3.914951	3.094693	2.81	0.008	-5.099108	12.92901
Number of obs.	101					
Prob > F	0.0000					
Adj R-squared	0.2091					

The results of the study are consistent with the view pointed out by Porter & Kramer [17] that social responsibility can be viewed as a competitive advantage rather than a constraint or cost if it is integrated within the company's strategic framework. The results are largely consistent with the results of Bae, et al. [8] which did not find evidence that social responsibility affected stock returns during the Corona crisis period, while it found evidence, albeit weak, that the relationship between social responsibility and stock returns during the crisis is positive when social responsibility is compatible with the corporate environment.

Therefore, it can be said that the lack of impact of social responsibility on financial performance does not mean that it is not important, as its interaction with other variables in the business environment clearly affects performance. In this context, if social responsibility is seen as a burden on the company and cannot improve performance, the efficiency and effectiveness of social responsibility activities must be supported by the company's resources, where social responsibility activities help to increase the efficiency of the company's operations and thus improve performance. The financial reporting can play a role in the efficiency of social responsibility activities, as the high-quality financial report greatly helps to improve the social responsibility investment efficiency.

5 Conclusion

The business environment includes multiple dimensions, and an in-depth understanding of that environment requires exploring the interactions between these dimensions to influence the company's performance, and one of the most important dimensions of the business environment at the present time is the social dimension and the information environment. In this context, the current study provided practical evidence that social responsibility affects corporate performance when it is integrated within the general framework of the company's strategy, as the results of the study indicated that although social responsibility does not affect the company's financial performance during the Corona crisis, the interaction between social responsibility and the financial reporting quality positively affects the corporate performance. Therefore, the quality of the financial report modifies the relationship between social responsibility and financial performance.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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