



The Effect of Corporate Social Responsibility on Market and Operating Performance of Egyptian Firms: The Role of Board Gender Diversity

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*Scientific Journal for Financial and Commercial Studies and Research
(SJFCSR)*

Faculty of Commerce – Damietta University

Vol.5, No.2, Part 1., July 2024

APA Citation:

Zidan, M. A. A. (2024). The Effect of Corporate Social Responsibility on Market and Operating Performance of Egyptian Firms: The Role of Board Gender Diversity, *Scientific Journal for Financial and Commercial Studies and Research*, Faculty of Commerce, Damietta University, 5(2)1, 321-347.

Website: <https://cfdj.journals.ekb.eg/>

The Effect of Corporate Social Responsibility on Market and Operating Performance of Egyptian Firms: The Role of Board Gender Diversity

Dr. Mai Ahmed Abdelzaher Zidan

Abstract

The relationship between corporate social responsibility (CSR) and firm performance is still up for debate among scholars, despite evidence that enterprises and capital market participants view CSR as becoming increasingly significant. The purpose of this research is to investigate how Egyptian companies' market and operational performance are affected by corporate social responsibility. In light of the function of gender diversity on boards the study sample concentrated on non-financial enterprises and eliminated financial companies by applying to the Egyptian market in the period from 2015 to 2019, resulting in 68 companies under study. Additionally, the variables in the study were categorized as follows: a control variable (Size-lev-Big4-Age-SG), an intermediate variable (gender diversity), a dependent variable (Tobin's Q-operating margin performance), and an independent variable (corporate social responsibility). Furthermore, financial accounts, reports, and the global database Thomson Reuters were sources of the data needed for statistical analysis. The research's most important findings were as follows: (CSR) has a positive significant relationship with Tobin's Q, and (CSR) has a positive significant relationship with OPM. There is a positive significant relationship between (CSR*BGD) and OPM. Applying Robustness analysis, the relationship between CSR and operational performance that was not significant in GLS analysis has been changed to a significant relationship among them.

Keywords: *Social responsibility, gender diversity, operating performance, market performance*

1. Introduction

In practice, the key factors for business organizations to add optimal value to society and the communities in which they operate are a strong commitment to corporate and social governance, open dialogue with external stakeholders and a commitment to environmental sustainability (Nelson 1998). We believe that companies that make real progress on social value share four characteristics: values-based transformational leadership, reliance on knowledge that crosses boundaries, stakeholder relationships, and performance mechanisms. (Peter, J and Zaira, M 2002).

Corporate social responsibility is a mechanism for an organization's voluntary commitment to strengthen its social responsibility by including social and environmental issues in its activities and communicating with stakeholders following the international standard ISO 2600 (kusumadilaga 2016). Accountability means keeping ethical and transparent behavior consistent with sustainable development and public interests, considering the impact of decisions and actions on society, the environment and stakeholders, following international regulations and laws. (Resturiyani 2012).

Different perspectives have appeared to explain corporate social responsibility. Stakeholder theory has appeared, which includes, for example, a set of policies, practices, values, commitments to legal requirements, environmental requirements and community rewards, as well as contributing to the sustainable development of business organizations. The theory starts with the basic assumption that cost is undoubtedly an essential part of running a business. Companies that manage CSR effectively are those that are interested in existing social and environmental issues and receive full support from stakeholders. Especially for companies when they use legal regulations. Second, signaling theory states that actions taken by a company always have an impact on stakeholders, especially those that attract or benefit investors or potential investors. Therefore, the company undertakes to show information reports to its shareholders. is presented in financial statements, but some companies allow the disclosure of other reports, such as annual reports, which supply information about the company's workforce, benefits paid and corporate social responsibility activities.

The purpose of these reports is to supply more information about the company's activities, which are viewed as signals about the environment for the company, which are positively received by the market and influence the performance of the institutional market. Therefore, it reflects the share price in the market. Third, Sharia theory: It assumes that all actions or activities of a company are desirable or proper actions or follow advanced rules, values, beliefs and systems of social justice. An organization's legitimacy can be seen as what is given to the company and the community, or the extent to which the company is sought after in society and is beneficial to keeping its existence. (Gangi,F.et.al 2018).

CSR is becoming increasingly important in business, politics, and academia. The nature, strength, and direction of the relationship between corporate social responsibility (CSR) and market and operational performance, however, are not well covered in the literature. The following research questions were the focus of this investigation: What effect does gender diversity have on the connection between market and operational performance and corporate social responsibility? This study shows that a company's market and operational performance is positively affected by social responsibility, and that this effect grows as the company's ESG score rises.

This essay is divided into five subsections., section2 literature review, and Section3 Methodology , In Section4, the primary findings of this systematic review and a unified framework for the subject are presented, along with GLs and robust analysis. Section 5 concludes with recommendations for further study.

2. Literature review

1. The effect of CSR on firm performance

There is a group of studies that expected a positive moral relationship between corporate social responsibility and operational and market performance, such as a study (Adeneye,Y,B and Ahmed,M (2015), Kamatra,N(2015), Giannarakis,Gand zafeiriou,G,E(2016), We,A,P, and peng,C,L (2020), Asamoah,G,F (2021), Coelho,R and Jayantial,S (2023), as follows.

Adeneye,Y,B and Ahmed,M (2015) investigated the relationship between corporate social responsibility and organizational performance. Corporate social responsibility was measured by the CSR index, and corporate performance was measured by the ratio of book value to market value, return on invested capital

and company size. The study sample consisted of 500 companies listed on the UK stock market. Statistical methods such as descriptive statistics, correlation and regression analysis were used to analyze the study data. The results of the research are as follows:

- About 46.8% of the total 500 views represent industrial companies, which means that they are one of the largest sectors implementing social responsibility.

There is a strong moral connection between social responsibility and the relationship between market value and book value.

- There is no statistically significant relationship between size, sector and corporate social responsibility. This means that the total value of a company's assets does not determine the rate of participation in corporate social responsibility of these companies.
- There is a positive moral relationship between return on invested capital and corporate social responsibility, but it is not as strong as the relationship between book value and market value.
- Social stakeholder theory is applied to businesses to increase owner wealth.

Kamatra,N(2015) The purpose of this study was to investigate how corporate social responsibility affects financial performance as measured by profitability ratios like profit margin, earnings per share, return on equity, and return on assets. The study population consisted of mining and chemical companies that were listed between 2009 and 2012 on the Indonesian Stock Exchange. In addition to using a quantitative method and linear regression analysis to analyze data and test research hypotheses, the study sample consisted of 24 companies. The following was the outcome of the findings:

- The control variables are shown as follows: NPM, return on equity, size, earning per share, return on assets, and return on equity. The return on assets (NPM) is affected. While there is a significant correlation between corporate social responsibility and return on asset (NPM), there is no significant correlation between the two.
- In order for the company to fulfill its social responsibility, it must be able to keep all external relationships in balance.

Giannarakis, Gand zafeiriou, G, E (2016) Their study examines whether corporate social responsibility has an impact on financial performance and does so by applying to companies that are listed on the US stock exchange. The study sample ultimately consisted of 104 companies because Bloomberg's online service had missing data on CSR disclosure; the sample was limited to large-sized businesses during the 2009–2013 timeframe, and the study variables were represented by the CSR as an independent variable and the ROR as a dependent variable. Together with controlling variables like the number of women on the board, the size of the board, the total compensation paid to the directors, and the CEO duality. Descriptive statistics, a fixed regression model, and a correlation matrix were employed in statistical methods to evaluate the association between corporate financial performance and social responsibility disclosure. The following points serve as a summary of the study's findings:

- Corporate social responsibility initiatives have a positive impact on financial performance. In addition, control variables have a positive effect on financial performance.
- Investors can use ESGD scores because they affect the financial outcomes, which will affect financial outcomes, and increase the cost of investing in companies with initiatives in the social responsibility of corporate social responsibility and traditional investors in social responsibility. no see.
- There is a good opportunity to meet the initiative of social responsibility to meet the demands and goals of shareholders.
- Government and regulatory politicians should support managers and encourage managers to use social responsibility initiatives, which will return to market competitive positions.

We, A, P, and peng, C, L (2020) The impact of applying or not applying corporate social responsibility and customer satisfaction on a company's performance has not been extensively studied, despite the fact that numerous academic studies have examined a variety of real-world relationships between businesses that apply or do not apply social responsibility and financial performance on customer satisfaction. From the perspective of investors, this study aims to elucidate this influence and the degree to which it interacts with the company's performance. Certain control variables, including firm size, leverage, cash asset ratio, liquidity, turnover, and firm risk, were employed in the study. Approximately 285 companies through 4328 were included in the sample of American companies that trade their shares openly using the unbalanced regression method was used

to select a sample of American companies that trade their shares publicly. The sample, which includes financial reports, is approximately 285 companies based on 4328 observations made between 1995 and 2013. The research came to the following conclusions.

- Businesses that satisfy their customers see exceptional stock returns because their use of social responsibility gives them a competitive edge.
- Financial performance is lower for businesses that apply social responsibility and see a positive impact on their financial performance as opposed to businesses that do not.
- More satisfied customers should be more loyal, which boosts market share, drives away rivals, enhances the company's reputation, opens up new revenue streams, increases investor appreciation, and boosts future cash flows, all of which raise the company's valuation and stock returns.

Asamoah,G,F (2021) One of the most crucial subjects that needs to be researched is the relationship between financial performance and corporate social responsibility. This thesis shows how corporate social responsibility affects the financial performance of businesses that are listed on the Ghanaian exchange market. The CSR index disclosure was developed using corporate websites and annual reports, and this study was conducted using content analysis with a fixed and random effect. Asset returns and return on equity were used to measure financial performance. The non-experimental quantitative approach and panel data covering 36 companies from 2000 to 2009 were also utilized. Therefore, the following query can be used to formulate the study's problem: "What is the impact of corporate social responsibility on the financial performance of companies listed in Ghana".The study yielded the following results:

- The effects of corporate social responsibility on financial performance vary.
- The rate of return on assets is positively affected by corporate social responsibility.
- An older population has a lower return on assets.
- Age and the rate of return on equity do not significantly positively correlate. Leverage has a negative impact on both the rate of return on equity and the return on assets.

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- The rate of return on assets is positively affected by liquidity, while the rate of return on equity is negatively affected by liquidity.
 - Size unintentionally negatively affects the rate of return on assets and has a positive non-significant effect on the rate of return on equity.
 - • Sales growth has a positive insignificant impact on both the rate of return on assets and a negative non-significant effect on the rate of return on equity
- Coelho,R and Jayantial,S (2023) This study offers further insight into the relationship between corporate social responsibility and financial performance. It has been observed that in certain nations, organizations distribute a part of their resources toward environmental protection, social responsibility, and government initiatives. These efforts are seen as a means of boosting the company's value and enhancing financial performance for both the company and its shareholders. 53 studies were used to discuss the degree to which there is a conflict between corporate social responsibility and financial performance in the period from 1984 to 2021 in order to focus on this problem. The study produced a set of result, the most important of which are
- By using content analysis, the majority of studies have demonstrated that corporate social responsibility has a positive impact on performance, which in turn has a positive impact on investments in the community, customers, and stakeholders.
 - Companies may reveal information about their social responsibility through their R&D and advertising endeavors.
 - When information is shared more transparently, CSR improves financial performance.
 - This study is comparative in nature, and the results include an analysis of businesses from a wide range of global capital market sectors, whether in developed or emerging markets. There is a group of studies that differ with previous studies, such as the study (Cordeiro and Sarkis (1997), Brammer, Brooks & Pavelin, 2006; Fu, Wang & Jia, 2012, Gangi, F, et.al (2018) where they show a negative relationship between corporate social responsibility and financial performance as follows.
- Cordeiro and Sarkis (1997), Using data from the Toxic Release Inventory as a stand-in for environmental protection, a sample of 523 US companies shows a negative correlation between environmental activism and earnings per share. This school of thought contends that because CSR participants bear expenses that other institutions ought to have covered, they have a competitive disadvantage. Environmental conservation, health care facilities, philanthropy, and eco-friendly operations are a few examples.

The argument put forth by more recent studies (Brammer, Brooks & Pavelin, 2006; Fu, Wang & Jia, 2012) that predicted a negative relationship between CSR and financial performance is that the increased expenses incurred to improve social or environmental performance—which does not increase shareholder value—are the cause of the negative relationship. Furthermore, profitable investment and business plans that are turned down solely due to CSR considerations must have a negative impact on the economy.

Gangi, F, et.al (2018) The purpose of this research is to confirm the relationship between European banks' financial performance and their participation in social responsibility. The study's independent variables were corporate and social, the control variables were GDP, leverage, size, bank type, and loan to deposit, and the dependent variables were nonperforming loans, noninterest income, net interest income, and return on assets. and the study sample consisted of roughly 72 banks, the data came from the Thomson Reuters list, and a yearly statistical analysis of 504 observations was carried out. The following conclusions were drawn:

- Stakeholder theory contends that social responsibility has a positive impact on financial performance, but agency theory holds that social responsibility has a negative impact on financial performance.
 - The impact of corporate social responsibility policy on financial performance has received increased attention due to the declining quality of loans and the damage to banks' reputations caused by mortgages.
 - In terms of size, larger banks need more CSR practices than smaller banks.
 - In addition, banks attempt to manage their financial risks by implementing sound social responsibility practices because they have a high debt-to-equity ratio due to their high leverage.
- Taking part in social responsibility reduces risks from the perspective of investors, increasing the company's worth.

From the previous studies we can formulate the hypothesis as follow:

H1: *There is no significant relationship between corporate social responsibility and operating performance.*

H2: *There is no significant a negative relationship between corporate social responsibility and market performance.*

2- Board gender diversity, CSR, firm performance

There are a rare number of previous studies that study the closure between corporate social responsibility and the operational and market performance of companies taking into account the board gender diversity such as (Kahloul, p. et. al (2002), Hassan, L, S. et. al (2020) , Sameer, I. (2021)) , so the researcher focused on a few previous studies at this stage.

Kahloul, p. et. al (2002). The aim of this article is to elucidate the intricate correlation between companies' financial performance and corporate social responsibility (CSR) by examining the impact of gender diversity on the board. They selected this aim in an effort to advance the understanding of the explanatory power of diversity in that relationship and to throw new light on the current theory of the relationship between CSR reporting and financial performance. using a panel data set made up of a sample of French businesses that were listed between 2008 and 2015 on the SBF 120, including banks and insurance providers. They arrived at the following conclusions:

- Discover that CSR reporting has a neutral impact on performance when measured by Tobin's Q variable, but when measured by the ROA variable, a negative impact is seen.
- These results are consistent with the trade-off hypothesis. Additionally, we discover that gender diversity on the board plays a beneficial moderating role in the enhancement of corporate financial performance through CSR reporting.
- As a result, this study offers theoretical and empirical understanding of the gender diversity problem in connection to CSR. Both the advantages of having a gender-diverse board and the possible impact of taking part in CSR reporting should be known to regulators and stakeholders.

Hassan, L, S. et. al (2020) Applying to the Malaysian trading market will allow you to try and investigate how diversity affects the relationship between CSR disclosure and financial performance of companies.

Since 2009 is the first year Malaysian companies have obtained the corporate governance code, a random sample of non-financial companies was chosen, and sample 270 companies from a variety of industries were included. The study period was represented in a single year. 205 companies were included in the sample after 65 companies from industries including construction, consumer

goods, hotels, infrastructure, industrial products, mining, farms, and technology were removed because they could produce anomalies and inaccurate results. The company's annual reports supplied the data, and the subsequent statistical were used (multicollinearity-descriptive statistics- person correlations-regression analysis) and the following results were reached:

- Regression analysis was used to find a positive correlation between managers' work backgrounds, diversity, and companies' financial performance. There is no discernible impact of other factors like age, gender, education level, or professional membership on financial performance.
- The Board's diversity (professional membership of the Board of Directors) greatly improves CSR's capacity to divulge information.
- There is a strong correlation between a company's financial performance and its disclosure of corporate social responsibility information.
- Experts in their fields may have diverse competencies in corporate social responsibility based on their areas of expertise, which they can leverage to benefit the organization. Board members will be strongly motivated to influence CSR information by these professional attributes.

Sameer,I.(2021) This study's primary goals are to examine how corporate social responsibility is disclosed and assess the degree to which social responsibility and financial performance are correlated in publicly traded companies. The Maldives will be used as a case study, and the independent variables include diversity, the workplace, and the community. The dependent variables include return on equity, earning per share, and return on assets. The control variables are represented by size. Panel data regression was used in the analysis of the data using Stata 15 statistical software. The ensuing was the conclusion:

- While the results did not reveal a significant correlation between the environment, society, and work, or between the rate of return on assets and the rate of return on equity, there is a strong negative correlation between diversity and the rate of return on assets.
- Financial performance and corporate social responsibility have a negative correlation.

- We find that the size of the company has no significant effect on the rate of return on assets if the control variables are taken into account and their impact is known.
- There is a negative significant relationship between diversity and return per share prior to there being a meaningful correlation between society, diversity, environment, and work and the rate of return on assets and return on shares.

From the earlier studies we can formulate the hypothesis as follow:

H3: Gender diversity moderate the relationship between CS and operating performance.

H4: Gender diversity moderate the relationship between CSR and market performance.

3. Research Methodology

Data and sample

The study sample concentrated on non-financial companies and excluded financial companies, bringing the total number of companies under study to 68 companies with 340 observations during the period from 2005 to 2019. The study population was represented by all companies registered in the EGX100 index, which is the period for which the data are accessible. The financial statements and reports were the source of the study's data.

Research model

$$TQ_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 Lev_{it} + \beta_5 SG_{it} + \beta_6 Big4_{it} + \beta_7 BGD_{it} + \varepsilon_{it} \dots\dots\dots(1)$$

$$OPM_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 Lev_{it} + \beta_5 SG_{it} + \beta_6 Big4_{it} + \beta_7 BGD_{it} + \varepsilon_{it} \dots\dots\dots(2)$$

$$TQ_{it} = \beta_0 + \beta_1 BGD \times CSR_{it} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 Lev_{it} + \beta_5 SG_{it} + \beta_6 Big4_{it} + \varepsilon_{it} \dots\dots\dots(3)$$

$$OPM_{it} = \beta_0 + \beta_1 BGD \times CSR_{it} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 Lev_{it} + \beta_5 SG_{it} + \beta_6 Big4_{it} + \varepsilon_{it} \dots\dots\dots(4)$$

Table 1. Measurement of Variables

Type of Variable	Name	Symbol	Measure
Dependent Variable	Market performance	TQ	Tobin's Q = (Total debt + market capitalization)/total assets
	Operating performance	OPM	Operating Margin = Operating income/total revenues
Independent Variable	Corporate social responsibility (CSR)	CSR (1,0)	A Dummy variable equals (1) if the firm listed in the ESG index and (0) otherwise.
		CSRwe	Firms listed in ESG index would take their ranking weight and (0) otherwise
Moderating Variable	Board Gender Diversity	BGD%	Number of females' directors/Total number of directors
Control Variables	Firm size	Size	The log of total assets
	Leverage	LEV	Debt/ Assets
	Audit firm Size	Big4	A Dummy variable equals (1) if the firm is audited by Big 4 and (0) otherwise
	Firm age	Age	The number of years in operation from the firm's inception
	Sales growth	SG	(Total sales in current year- total sales in previous year)/ total sales in previous year

The Research Technique

The theories are put to the test using the panel data method. Numerous benefits come with panel data, such as a high degree of freedom, low collinearity between explanatory variables, a large number of data points, and better control over individual heterogeneity (Baltagi et al., 2005). When examining the impact of BGD on the relationship between CSR, market, and operating performance, the Ordinary Least Squares (OLS) method was initially employed. Control variables included firm size, leverage, age, Big4, and sales growth. The OLS results show that all models have autocorrelation and heteroscedasticity issues (Prob < 1%). These issues were resolved by applying the general least square (GLS) technique. With panel and cross-sectional correlation, heteroscedasticity between panels, and AR (1) autocorrelation, the GLS approach enables estimation. robustness evaluation the current results were verified for robustness analysis using the Panel Corrected Standards Errors (PCSE) method. OLS or Prais-Winsten

regression are two methods used by the PCSE method to estimate linear cross-sectional time-series models. According to Beck and Katz (2011), PCSE makes the assumption that the disturbances are heteroscedastic by default and concurrently correlated throughout the panel.

4. Statistical analysis

- **Descriptive statics**

Table 2. Descriptive Statistics

Variables	Obs	Mean	Std. Dev	Min	Max
TQ	340	1.24	.612	.36	3.96
OPM	340	.032	.649	-5.90	0.79
CSR (1,0)	340	.26	.44	0	1
CSRwe	340	.008	.014	0	.038
Size	340	6.47	.836	4.36	8.88
Age	340	29.02	16.15	1	79
LEV	340	.468	.262	0	0.90
SG	340	.227	.543	-.983	3.52
Big4	340	.51	.50	0	1
BGD%	340	.089	.11	0	.38

- The arithmetic mean of TQ is 1.24, with a maximum of 3.96 and a minimum of .36; the arithmetic mean of OPM is .032, with a maximum of 0.79 and a minimum of -5.90; the arithmetic mean CSR (1,0,we) is (.26,.008), with a maximum of (1, .038) and a minimum of 0; the arithmetic mean of BGD% is .089, with a maximum of .38 and a minimum of 0 respectively. These findings are based on the preceding table.

- **Correlation Matrix**

The purpose of the correlation analysis was to find the kind and extent of the relationship between corporate social responsibility and the study's performance-related variables.

Table 3. Correlation Matrix

	TQ	OPM	CSR (1,0)	CSRwe	Size	Age	Lev	SG	Big4	BGD%	VIF
TQ	1										-
OPM	-0.12 **	1									-
CSR (1,0)	.014 ***	0.03	1								1.06
CSRwe	0.15 ***	0.02	0.98 ***	1							1.05
Size	-0.09 *	0.10 *	0.05	0.05	1						1.15
Age	-0.10 **	0.03	-0.13**	-0.13**	-0.28 ***	1					1.27
Lev	0.01	-0.06	0.10*	0.09*	0.27 ***	-0.33 ***	1				1.27
SG	0.04	0.17 ***	-0.08	-0.08	-0.01	0.02	0.03	1			1.01
Big4	0.11 **	-0.03 ***	0.17 ***	0.16 ***	0.08	-0.32 ***	0.34 ***	0.03	1		1.23
BGD%	0.02	0.01	.002	.016	-0.02	0.04	-0.03.	0.01	0.03	1	1.02

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Table (3) shows the existence of a positive moral correlation between (CSR, BIG4,) and TQ, and a negative correlation has been observed between (Size, Age) and TQ, there is also a positive moral correlation between (size, SG,BGD) and OPM, and there is a negative moral correlation between (Big4) and OPM. By conducting the multicollinearity test, it was noted that there is no multicollinearity between the variables, as the value of the VIF is less than 10.

• GLS Regression

Table 4. The Effect of CSR on Tobin's Q using GLS

TQ	1		2	
	Ceof	Z	Ceof	Z
CSR (1,0)	.171	3.35***	-	-
CSRwe	-	-	4.90	3.19***
TQ. lag1	.612	13.14***	.611	13.04***
Size	-.033	-1.28	-.033	-1.29
Age	-.003	-2.49**	-.003	-2.47**
Lev	-.16	-1.78*	-.158	-1.75*
Big4	.037	0.77	.036	0.76
SG	-.003	-0.16	-.003	-0.19
BGD%	.66	2.84***	0.64	2.76***
Year- effect	Yes	Yes	Yes	Yes
Cons	-111.20	-3.96	-113.65	-4.01
Prob	0.000	0.000	0.000	0.000
Obs	333		333	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

The previous table (4) shows the relationship between corporate social responsibility and company value, and social responsibility was measured in two ways through Dummy variable and by weight When CSR was measured as a Dummy variable results were reached that there is a positive significant relationship between (CSR1.0) and Tobin's Q This means that companies that apply social responsibility have a high market capitalization. When CSR was analyzed by weight, a positive significant relationship was found between (CSRwe) and Tobin's Q This means that as CSR increases, it increases the company's market value. For the intermediate variable, which is diversity in the Council, a positive significant relationship was found between BGD and Tobins Q, and for the control variables, and for control variable there is a negative significant relationship between (Age-Lev) and Tobins Q.

Table 5. The Effect of CSR on Operating margin using GLS

OPM	1		2	
	Ceof	Z	Ceof	Z
CSR(1,0)	.032	2.08**	-	-
CSRwe	-	-	1.052	2.24**
OPM.lag1	.205	3.48***	.204	3.48***
Size	.032	2.26**	.032	2.26**
Age	-.001	-1.81*	-.001	-1.84*
Lev	-.158	-4.35***	-.158	-4.37***
Big4	-.042	-2.96***	-.042	-2.88***
SG	.137	9.61***	.137	9.60***
BGD%	-.111	-1.49	-.111	-1.50
Year- effect	Yes	Yes	Yes	Yes
Cons	-27.30	-2.69	-27.69	-2.72
Prob	0.000	0.000	0.000	0.000
Obs	333		333	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Table (5) shows the relationship between the company's operational performance and its level of corporate social responsibility. Consequently, when the company's level of social responsibility was assessed using the digital variable, a positive moral relationship was found between (CSR0.1) and (OPM), showing that companies that apply the concept of social responsibility perform better operationally than those that do not. Similarly, when the company's level of social responsibility was assessed using weight, a positive moral relationship was also found between (CSR, we) and (OPM), This implies that a company's operational performance will increase in proportion to its level of corporate social responsibility. As for the control variables, a positive significant relationship was observed between (Size-SC) and OPM, and there is a negative significant relationship between (Age-Lev, Big4) and OPM.

Table 6. The Effect of BGD on the link between CSR and Tobin's Q using GLS

TQ	1		2	
	Ceof	Z	Ceof	Z
TQ.lag1	.618	13.25***	.616	13.17***
BGD% × CSR(1,0)	1.06	4.07***	-	-
BGD% × CSRwe	-	-	33.58	4.10***
Size	-.053	-2.03**	-.053	-2.03**
Age	-.003	-2.80***	-.003	-2.79***
Lev	-.075	-0.92	-.078	-.96
Big4	.069	1.40	.067	1.37
SG	.003	0.21	.003	0.17
Year- effect	Yes	Yes	Yes	Yes
Cons	-103.30	-3.84	-102.99	-3.83
Prob	0.000	0.000	0.000	0.000
Obs	334		334	

Notes: *, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.**

Using the earlier table (6) as a guide, it can be concluded that there is a positive moral relationship between (CSR*BGD) and Tobin's Q. This shows that the interaction of the intermediate variable, board diversity, raises the company's value and strengthens the relationship between corporate social responsibility and value. On the other hand, there is a significant negative relationship between (Age-Size) and Tobin's Q for the control variable.

Table 7. The Effect of BGD on the link between CSR and operating margin using GLS

OPM	1		2	
	Ceof	Z	Ceof	Z
OPM.lag1	.139	2.68***	.139	2.67***
BGD% ×CSR(1,0)	.195	1.47	-	-
BGD% ×CSRwe	-	-	5.53	1.36
Size	.046	2.77***	.047	2.81***
Age	-.0005	-.69	-.0005	-.63
Lev	-.107	-2.53**	-.105	-2.46**
Big4	-.009	-0.44	-.007	-0.37
SG	.09	5.77***	.098	5.69***
Year- effect	Yes	Yes	Yes	Yes
Cons	-14.45	-1.18	-14.39	-1.17
Prob	0.000	0.000	0.000	0.000
Obs	339		339	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

- Table (7) above shows that there is a positive non-significant relationship between (CSR*BGD) and OPM, indicating that the relationship between CSR and the company's operational performance is not improved by the interaction of the intermediate variable, namely diversity in the board. We also discovered that there is a negative significant relationship between Lev and OPM and a positive significant relationship between (SG-Size) and OPM.

• **Robustness analysis**

Table 8. The Effect of CSR on Tobin's Q using PCSE

TQ	1		2	
	Ceof	Z	Ceof	Z
CSR (1,0)	.106	2.11**	-	-
CSRwe	-	-	3.72	2.47**
TQ. lag1	.198	2.76***	0.197	2.76***
Size	.057	2.84***	.057	2.83***
Age	-.002	-1.90*	-.002	-1.90*
Lev	-.204	-2.07**	-.204	-2.08**
Big4	.063	2.09**	.062	2.06**
SG	.064	1.73*	.065	1.74*
BGD%	.279	1.94*	.270	1.91*
Year- effect	Yes	Yes	Yes	Yes
Cons	-37.19	-1.06	-40.17	-1.12
Prob	0.000	0.000	0.000	0.000
R2	0.20		0.20	
Obs	340		340	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Whether corporate social responsibility (CSR) is measured using the digital variable or weight, the preceding regression table (8) shows a positive and significant relationship between CSR and the market value of the company, which confirms the findings of the GLS regression model. One found that (R2) = 0.20. This shows that roughly 20% of the variation in the independent variable can be explained by the dependent variable, Tobin's Q.

Table 9. The Effect of CSR on operating margin using PCSE

OPM	1		2	
	Ceof	Z	Ceof	Z
CSR (1,0)	.101	2.32**	-	-
CSRwe	-	-	3.03	2.18**
OPM.lag1	.418	2.78***	0.418	2.78***
Size	.062	1.64	.062	1.64
Age	.001	1.49	.001	1.48
Lev	-.081	-1.64	-.081	-1.63
Big4	-.034	-0.98	-.033	-0.94
SG	.218	5.20***	.217	5.20***
BGD%	.085	0.45	.083	0.44
Year- effect	Yes	Yes	Yes	Yes
Cons	-42.73	-1.15	-43.64	-1.17
Prob	0.000	0.000	0.000	0.000
R2	0.212		0.215	
Obs	338		338	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Whether corporate social responsibility (CSR) is measured by weight or by the digital variable, Table (9) shows that there is a positive and significant relationship between CSR and operating margin. This finding supports the conclusions drawn from the GLS regression model. As observed, (R2) = 0.21 This indicates that roughly 21% of the variance in the independent variable can be explained by the dependent variable, OPM.

Table 10. The Effect of BGD on the link between CSR and Tobin's Q using PCSE

TQ	1		2	
	Ceof	Z	Ceof	Z
TQ. lag1	.085	4.55***	.85	4.55***
BGD% ×CSR (1,0)	.657	2.11**	-	-
BGD% ×CSRwe	-	-	20.39	2.14**
Size	-.080	-1.46	-.080	-1.47
Age	-.003	-1.56	-.003	-1.57
Lev	-.045	-0.23	-.046	-.23
Big4	.075	0.94	.076	0.95
SG	.001	0.02	.001	0.02
Year- effect	Yes	Yes	Yes	Yes
Cons	-35.53	-0.31	-35.38	-0.32
Prob	0.000	0.000	0.000	0.000
R2	0.60		0.60	
Obs	340		340	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

According to Table (10), there is a positive and statistically significant relationship between (CSR*BGD) and Tobin's Q. This suggests that the intermediate variable—diversity on the board—interacts with the company to increase its value and to improve the relationship between corporate social responsibility and value. These findings are consistent with the findings of the GLS regression model. One found that (R2) = 0.60. This indicates that roughly 21% of the variance in the independent variable can be explained by the dependent variable, OPM.

Table 11. The Effect of BGD on the link between CSR and operating margin using PCSE

OPM	1		2	
	Ceof	Z	Ceof	Z
Oprmrgr.lag1	.417	1.76*	.41	1.76*
BGD% × CSR (1,0)	.55	2.56**	-	-
BGD% × CSRwe	-	-	16.32	2.49**
Size	.062	1.17	.062	1.16
Age	.001	0.98	.001	.97
Lev	-.074	-0.88	-.074	-.88
Big4	-.017	-0.40	-.017	-0.39
SG	.216	5.08***	.215	5.08***
Year- effect	Yes	Yes	Yes	Yes
Cons	-38.42	-1.04	-37.96	-1.02
Prob	0.000	0.000	0.000	0.000
R2	0.21		0.21	
Obs	340		340	

Notes: ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Table (11) demonstrates that (CSR*BGD) and OPM have a statistically significant positive relationship. As a result, the relationship between CSR and operational performance—which was not significant—became moral when robustness analysis was applied. One found that (R2) = 0.60. This indicates that roughly 21% of the variance in the independent variable can be explained by the dependent variable, OPM.

5. Conclusion

Companies are valued in the market based on more factors than just their financial performance. Additionally, consideration of the social and environmental effects is growing (Setó-Pamies, 2015). In addition to financial considerations, stakeholders' interests also encompass environmental, social, and governance (ESG) considerations (Ferrero-Ferrero et al., 2015, Jitmaneeoj, 2016). The goal of corporate social responsibility, or CSR, is to protect a business's bottom line while integrating social and environmental issues into its operations. Moreover, businesses can use CSR to address shareholder governance shortcomings (Cézanne & Rubinstein, 2011).

This study's main goals are to find out how CSR reporting affects Egyptian businesses' financial performance and to see if gender diversity has a moderating effect on this relationship. Overall, our study's findings have a number of ramifications for the three central issues. Without moderating factors, it is unclear whether corporate social responsibility influences a company's ability to make money. In fact, using the Tobin's Q variable as a dependent variable, we were able to confirm that CSR had a neutral effect in our sample.

The main results of the study were as follows: there is a positive significant relationship between (CSR) and Tobin's Q, there is a positive significant relationship between (CSR) and OPM. there is a positive significant relation between CSR and the OPM. there is a positive significant relationship between (CSR*BGD) and Tobin's Q, this, there is a positive significant relationship between (CSR*BGD) and OPM, by using Robustness analysis, the relationship that was not significant between CSR and operational performance in GLS analysis was changed to become a moral relationship between them.

The current study offers a number of contributions because it examines how corporate social responsibility affects operational and market performance and is regarded as a reference for earlier research. Social responsibility should be viewed as a way for businesses to help achieve sustainable development. The study's findings highlight the advantages of incorporating CSR into management and shareholder practices, which prompts the creation of a matrix for CSR and its integration into business strategies. It also offers a number of earlier theoretical and experimental studies that raise the possibility of This opens up the possibility of carrying out fresh experiments., which raises the potential for This opens up the possibility of carrying out fresh experiments. The study's boundaries fall within the time frame of 2015–2019, which corresponds to the data's availability. It also concentrated on the following variables: (BGD%-Size-lev-Big4-Age-SG) It is advised that different variables, such as macroeconomic factors, be used in subsequent research.

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تأثير المسؤولية الاجتماعية للشركات على الأداء السوقي والتشغيلي

للشركات المصرية: دور التنوع بين الجنسين في مجالس الإدارة

د. مي أحمد عبد الظاهر زيدان

الملخص

لا تزال العلاقة بين المسؤولية الاجتماعية للشركات وأداء الشركات تمثل موضع نقاش بين العلماء، على الرغم من وجود الأدلة على أن الشركات والمشاركين في سوق رأس المال ينظرون إلى المسؤولية الاجتماعية للشركات على أنها تزداد أهمية. وبالتالي الغرض من هذا البحث هو التحقق من كيفية تأثير الأداء المالي والتشغيلي في الشركات المصرية بالمسؤولية الاجتماعية للشركات وذلك في ضوء وظيفة التنوع بين الجنسين في مجالس الإدارة. ركزت عينة الدراسة على المشروعات غير المالية واستبعدت الشركات المالية من خلال تطبيقها على السوق المصري في الفترة من ٢٠١٥ إلى ٢٠١٩، مما أدى إلى وجود ٦٨ شركة قيد الدراسة. بالإضافة إلى ذلك، تم تصنيف المتغيرات في الدراسة على النحو التالي: المتغيرات الرقابية (الحجم – الرافعة المالية- حجم مكتب المراجعة- عمر المنشأة- نمو المبيعات)، المتغير الوسيط (التنوع بين الجنسين)، المتغيرات التابعة (نسبة ربح التشغيل- نسبة توبنز)، والمتغير المستقل (المسؤولية الاجتماعية للشركات). بالإضافة إلى ذلك تم الاعتماد على القوائم المالية والتقارير وقاعدة البيانات طومسون رويتر كمصادر للبيانات اللازمة للتحليل الإحصائي، وكانت أهم النتائج التي تم التوصل إليها البحث على النحو التالي: المسؤولية الاجتماعية للشركات تؤثر بشكل معنوي إيجابي على نسبة توبنز، المسؤولية الاجتماعية للشركات تؤثر بشكل معنوي إيجابي على الأداء التشغيلي، كما ان هناك علاقة معنوية موجبة بين (المسؤولية الاجتماعية* التنوع بين الجنسين). ومن خلال تطبيق التحليل الإحصائي الإضافي تم تغير العلاقة بين المسؤولية الاجتماعية للشركات والأداء التشغيلي لتصبح معنوية حيث انها كانت غير معنوية عندما تم استخدام تحليل المربعات الصغرى العامة.

الكلمات المفتاحية: المسؤولية الاجتماعية للشركات-التنوع بين الجنسين- الأداء التشغيلي – الأداء السوقي.