



Proceeding Paper

# The Mediator Effect of Corporate Social Responsibility Disclosure on the Relationship between Corporate Governance and Bank Performance <sup>†</sup>

Ibrahim Alnohoud \*, Maisarah Binti Mohammed Saat and Suresh A/L Ramakrishnan

Department of Accounting and Finance, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru 81310, Malaysia

- \* Correspondence: akibrahim@graduate.utm.my
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**Abstract:** The performance of banks is one of the critical indicators for investors and a testament to the success of the economic cycle. Bank performance is the mediator between society and the state through loans to institutions and individuals. Thus, when corporate governance is activated and corporate social responsibility disclosure is disclosed in a banking environment, these are proven factors that lead to better performance. This study used the Baron and Kenny approach to test the mediator effect. The result of this study confirmed that corporate social responsibility disclosure acts as a mediator between corporate governance and bank performance.

Keywords: CSRD; bank performance; corporate governance



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#### 1. Introduction

In general, corporate social responsibility disclosure (CSRD) has become a research subject for all organizations worldwide. It has gained increasing interest from scholars and practitioners around the world in recent years. Many strongly argue that corporations should not be judged solely based on their commercial success and economic efficiency, but that they should also be socially responsible. CSRD encompasses the notion that a profit-seeking company should expand the scope of its objectives and priorities beyond increasing the assets of its investors. It implies that corporations should balance their financial and non-financial objectives with their host society's best interests, and in particular the natural environment, workers, and consumers [1].

In the last few decades, companies have been trying to achieve a competitive advantage and overcome competitors by investing in social responsibility. In recent years, this has been enhanced due to changes in investor behavior and attitudes towards society. Thus, corporate social responsibility disclosure (CSRD) has frequently been used as a parameter in research to measure CSR practices. However, CSRD in Jordan has received only a small amount of attention from the Amman Stock Exchange (ASE) companies in their annual reports. The most revealed items were those relating to human resources and involvement in the social community. In contrast, Jordanian companies need for more attention with relation to environmental disclosure [2].

Several factors may influence bank performance, including CSRD, which is the company's responsibility to investors and other stakeholders such as staff, consumers, government, society, and the environment. CSRD can be used as a measure of the willingness of the company to fulfil stakeholder expectations effectively. The considerable emphasis placed on the societal role of business these days is due to the widespread conviction that proportions of corporate achievement must not focus only on profit. The firm should also align with the needs of shareholders and society as a whole; the social part of the duty of

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any corporation in the 21st century is more critical than ever. In recent times, CSRD has become a characteristic concern of the sector, impacting corporate profits and credibility [3].

There has been extensive research into the relationship between CSRD and bank performance, including samples to date from developed countries and non-financial firms. Findings from studies linked to the CSRD and bank performance relationship can be categorized as positive, negative, or insignificant. The positive relationship between corporate social responsibility disclosure and bank performance has been supported by many researchers [4–7].

# 2. Literature Review

In this review, we examine research on corporate social responsibility and its impact on bank performance. We also research all decisions about corporate social responsibility and financial efficiency, since we recognize that bank performance is the most important element in strengthening and supporting corporate social responsibility, ensuring profitability for every firm and bank. Corporate social responsibility is often referred to as corporate conscience, corporate citizenship, or responsible business, and is incorporated into business models as a form of corporate self-regulation. Today, everywhere we look, businesses the world must adopt more socially responsible practices. Numerous scholars and authors have carried out studies on corporate social responsibility and bank performance worldwide. The fundamental conclusion of the literature is that corporate social responsibility in every area of life plays a role in financial efficiency. The underlying literature is centered on specific national financial panel research on the financial results of banks. In this article, we analyze various research papers from Jordan, Malaysia, Yemen, United Kingdom, Bangladesh, India, Nigeria, and Pakistan [8] to explore the disclosure of corporate sustainability (CS) practices and analyze the connection between sustainability performance and financial performance in the Asian context, considering companies from India and Japan. The current study was focused on secondary data obtained from the annual reports and CS reports of 28 and 35 Indian and Japanese non-financial firms listed between 2009 and 2014. To measure the sustainability disclosure score based on the context of Global Reporting Initiatives [9], content analysis (binary coding system) was used. To calculate financial efficiency, market-to-book ratios were used. The study shows that in Japanese companies, the average degree of transparency is higher than in Indian companies. The study found that the effect of CS performance on financial performance is positive and significant for both nations, using the regression model.

The authors of [10] reported the relationship between the operations of CSR and the financial results of publicly traded companies in Malaysia, along with data from the 2009–2013 annual reports. With the aid of these results, the researchers clarified that Malaysian top-100 businesses are supportive and active in CSR operations and further found that CSR operations play a critical role in enhancing financial support.

The authors of [11] defined the impact of corporate social responsibility on the performance of Yemeni non-financial organizations. Three components of CSR—economic, legal, and ethical—were shown to have a positive and meaningful relationship with each other using different statistical methods and results. In addition, after review, it was found that there was no statistically significant gap between SOEs and private companies concerning the extent of periodic implementation of corporate social responsibility activities.

The authors of [12] identified the effect of corporate social responsibility adoption on corporate financial performance from Jordanian banks in Jordan. Researchers used the model calculated by multiple regression in this article. According to quantitative analysis, a significant relationship exists between bank levels, bank size, the level of risk, the level of all advertisement expenses, and CSR. In the banking sector of Jordan, CSR is also described as the most important.

The authors of [13] examined the effect of corporate social responsibility on the financial results of Islamic and traditional banks in different Asian countries. The secondary data was obtained from the annual reports of the respective banks. This analysis was

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quantitative. Correlation and regression methods for data processing purposes were used. The study results indicate that the overall positive and meaningful relationship between corporate social responsibility and financial performance is focused on regression and rigorous research.

On the other hand, some studies have determined the relationship between corporate social responsibility disclosure and financial efficiency to be insignificant. The authors of [14] reported the effect of CSR on the profitability of the business and country in Nigeria had been established. They obtained results through ordinary least square analysis that indicated the negative relationship between the financial performance measure of the business and expenditure on social responsibility and concluded that profitability is high in Nigeria, but organizations do not spend much. The authors of [15] analyzed the effect of corporate governance and corporate social responsibility on the financial performance of the banking sector as reported on the Indonesian stock exchange. Secondary data is used in this descriptive analysis in the form of annual corporate financial reports. Census techniques with an observation period of 5 years, from 2012 to 2016, were chosen for the survey. Multiple regression models were used in the data analysis methodology. The study findings indicate that corporate social responsibility, as calculated by the Return on Investment, has no major impact on financial efficiency (ROA).

**Hypothesis H1:** the mediating effect of corporate social responsibility disclosure on the relationship between corporate governance and bank performance.

## 3. Materials and Methods

The authors of [16] reported that three different data collection strategies were suggested: (1) quantitative; (2) qualitative; and (3) mixed approaches.

- 1. Quantitative research is empirical research in which the data is presented in numerical form; this method is appropriate for studying programs, behaviors, and social interactions. It is separated into two categories: primary and secondary data [17].
- 2. Qualitative research is empirical research in which the data is not presented in numerical form; as a result, qualitative research is well suited to social phenomena and introduces inventive new research methodologies [17].
- 3. Mixed methods research is a method of gathering and interpreting data that combines qualitative and quantitative methodologies in one study [17].

Data can be analyzed in terms of numbers by using a quantitative analysis method. The result can be evaluated and interpreted using numerical methods. In this process, data is defined, as well as the relationship between the variables and the outcome. Various data analysis tools were used to determine the financial results of banks after the data had been cleaned and pre-processed. These models were used to capture the impact of corporate governance on bank performance. The role of corporate social responsibility disclosure was investigated as a mediator variable in the relationship between corporate governance and bank performance.

# 3.1. Sampling, Research Population, and Period of Study

The present study analyzes corporate social responsibility in Jordanian bank data collected from the entire population of conventional banks. The study excludes Islamic banks because Islamic banks have different regulations and rules. As a country in the Middle East, Jordan has a diverse culture and different laws from other developed countries [18]. A total of 13 conventional banks in Jordan were assessed through the period of 2011 to 2019. This period is considered important for banking in Jordan for several reasons. Firstly, during this period, problems arose in the Arab countries surrounding Jordan, such as Syria and Iraq, and simultaneously lead to the increased consumption of resources; the Jordanian economy experienced risk exposure, thus leading to few employment opportunities; and a greater increase in the number of poor people than necessary, which caused restraint from the banking sector to stand with the government in minimizing these problems by

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supporting small and medium enterprises. Initially, this study mainly relies on secondary data, which have been extracted from the annual report.

# 3.2. Research Process

Preliminary consideration, procedure, and data analysis and interpretation were the three phases of this study's research process. The first step was a preliminary evaluation, which involved deciding the study target. Literature analysis and research design are two critical aspects of any research project. The second stage was concerned with the procedure e the data collection and data were collected from the annual reports of Jordanian banks from 2011 to 2019. Moreover, the researchers used the content analysis of items disclosed in the annual report according to the global report initiatives [9]. In the last stage of data analysis and interpretation, the Baron and Kenny approach was used [19], and a discussion of the result follows according to the objective of this study.

## 3.3. Baron and Kenny Approach

## 3.3.1. Mediator Variable

This study utilized the standard procedure of [19] to analyze the mediating effects of corporate social responsibility disclosure on the association between corporate governance and bank performance. It is explained with the following procedure:

In the first stage, Y as the dependent variable is regressed on X as the independent variable.

$$Y = \alpha 0 + \beta 1 X + \varepsilon \tag{1}$$

Equation (1) examines the relationship between corporate governance and bank performance, where *Y* is bank performance and *X* is corporate governance.

In the second stage, M as the mediator variable regresses on X, which acts as an independent variable.

$$M = \alpha 0 + \beta 2X + \varepsilon \tag{2}$$

Equation (2) examines the relationship between corporate governance on corporate social responsibility disclosure, where *M* is corporate social responsibility disclosure and *X* is corporate governance.

At the final stage, *Y* as the dependent variable is regressed on *X*, which is the independent variable, and *M* as the mediator simultaneously.

$$Y = \alpha 0 + \beta 3M + \beta 4X + \varepsilon \tag{3}$$

Equation (3) examines the relationship between corporate governance with corporate social responsibility disclosure on bank performance, where Y is Bank performance, M is corporate social responsibility disclosure, and X is corporate governance.

Equation (3) represents the role of corporate social responsibility disclosure as a mediator in relationship between corporate governance and performance. This equation stands for bank performance and regresses on corporate social responsibility disclosure (*M*) and corporate governance (*X*).

#### 3.3.2. Sobel Test

Another common approach to mediation analysis results from an inference coefficient approach, or Sobel Test [20]. However, the authors of [19] proposed the Sobel Test to test the value of the indirect path (a \* b) and find out whether the discrepancy between the total effect and the direct effect is statistically significant. This Sobel Test aims to check whether a mediator converts the effect of an independent variable into a dependent variable.

Average error and coefficient among independent variables and mediators and average error and coefficient between the mediator and dependent variable were used for testing the mediating effect by the Sobel Test. After applying the Sobel Test, results would indicate whether corporate social responsibility disclosure is a mediator or not.

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Figure 1 shows the effect of corporate social responsibility disclosure as a mediator variable on the relationship between corporate governance and bank performance. X acts as an independent variable, Y shows the dependent, and M stands as a mediator variable. C and SE stand for coefficient and standard error, respectively.

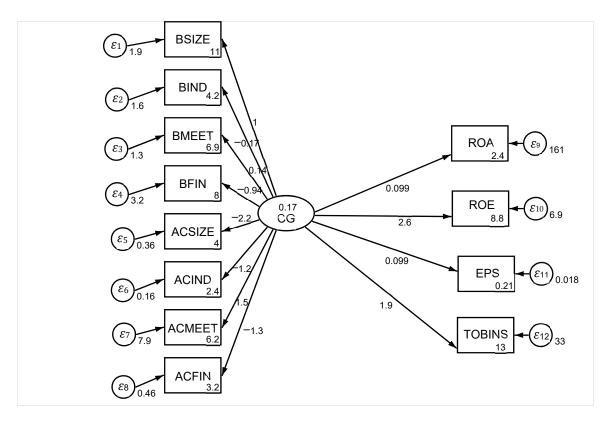


Figure 1. Result of corporate governance and bank performance.

#### 3.3.3. Mediator Variable

This section aims to describe the role of corporate social responsibility disclosure as a mediator variable between corporate governance and bank performance in conventional banks separately. The approach of Baron and Kenny [19] and the Sobel test [20] have been used for this reason.

In the first stage, *Y* as the dependent variable is regressed on *X* as the independent variable.

$$y = \alpha 0 + \beta 1X + \varepsilon \tag{4}$$

In the second stage, M as the mediator variable regresses on X, which acts as an independent variable.

$$M = \alpha 0 + \beta 2X + \varepsilon \tag{5}$$

At the final stage, *Y* as the dependent variable is regressed on *X*, which is the independent variable, and *M* as mediator simultaneously.

$$Y = \alpha 0 + \beta 3M + \beta 4X + \varepsilon \tag{6}$$

## 4. Results

The first condition of the Causal Steps Method confirmed that there is a significant relationship between corporate governance and bank performance, implying that companies with strong corporate governance are more likely to have better firm performance. Figure 2 and Table 1 show the results of the first condition of the Causal Steps Method, which confirmed that there is a significant relationship between corporate governance and bank performance (implying that companies with strong corporate governance are

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more likely to have better firm performance). This finding is in line with prior research, which has found that effective and good corporate governance leads to improved firm performance [21].

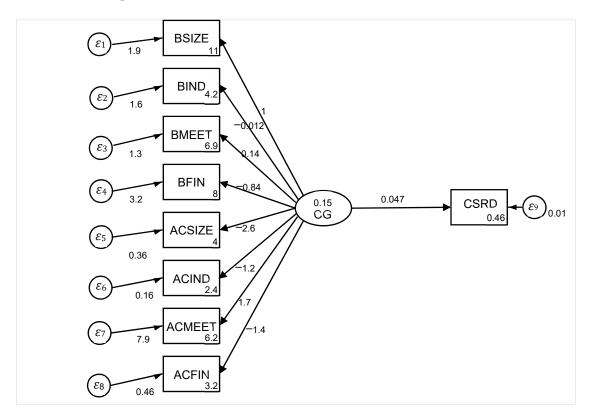


Figure 2. Result of corporate governance and corporate social responsibility disclosure.

**Table 1.** Result of corporate governance and firm performance.

STRUCTURAL	COEFFICIENT	P > Z
ROA < G	0.0987987	0.975
ROE < CG	2.632945	0.021
EPS < CG	0.099025	0.045
TOBIN'S < CG	1.932218	0.279

The second condition of the Causal Steps Method resulted in a significant association between corporate governance and corporate social responsibility disclosure as shown in Figure 2 and Table 2. This shows that firms with excellent corporate governance are more likely to demand high levels of corporate social responsibility. This finding is in line with legitimacy theory and earlier research [22].

Table 2. Result of corporate governance and corporate social responsibility disclosure.

Structural	Coefficient	P > Z	
CSRD < -CG	0.047006	0.0000	

The result of the Causal Steps Method's third condition, as shown in Figure 3 and Table 3, confirmed that there is a significant relationship between corporate social responsibility disclosure and bank performance, implying that companies with high corporate social responsibility disclosure are more likely to have better bank performance. This finding suggests that a high level of corporate social responsibility can help financial firms perform better, and is in line with earlier research [23].

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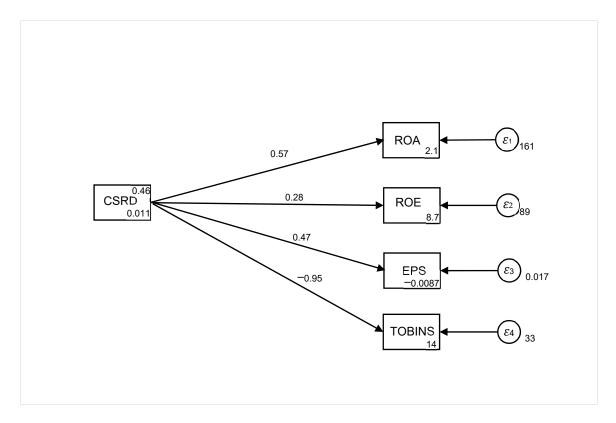


Figure 3. Result of corporate social responsibility disclosure and bank performance.

**Table 3.** Result of corporate social responsibility disclosure and bank performance.

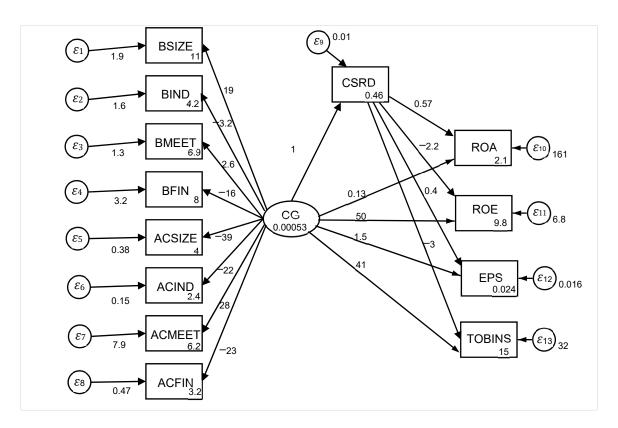
Structural	Coefficient	P > Z
ROA < CSRD	0.5744962	0.068
ROE < CSRD	0.2805739	0.0000
EPS < CSRD	0.4730511	0.0000
TOBIN'S < CSRD	-0.9463632	0.0000

Figure 4 and Table 4 shows the result of the last condition of the Causal Steps Method, which confirmed that corporate social responsibility disclosure mediates the relationship between corporate governance and bank performance. In addition, the effect of corporate governance on bank performance increases through corporate social responsibility as a mediator. Thus, the results support the mediating hypothesis that corporate social responsibility disclosure mediates the relationship between corporate governance and bank performance.

**Table 4.** Result of mediating role of corporate social responsibility disclosure between corporate governance and bank performance.

CSRD	Coefficient	P > Z	Standard Err.
CG	1	0.0000	0.0095563
BANK PERFORMANCE	Coefficient	P > Z	Standard Err.
ROA	0.568037	0.961	11.72002
ROE	-2.196829	0.377	2.485405
EPS	0.4008096	0.001	0.1203536
TOBIN'S Q	-2.976764	0.581	5.391648
CG WITH ROA	0.1302887	0.988	58.77497
CG WITH ROE	0.4992941	0.047	0.2514511
CG WITH EPS	1.455955	0.103	0.8928138
CG WITH TOBIN'S Q	0.4092057	0.264	0.3660848

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**Figure 4.** Result of mediating role of corporate social responsibility disclosure between corporate governance and bank performance.

According to Table 4, the mediating role of CSRD between corporate governance and bank performance since the *p*-value is significant.

Sensitivity Analysis (Sobel Test)

This section includes additional tests to see if the main finding of mediation models is consistent with other findings. In addition, this study uses the Sobel Test to confirm the result of the Casual Step Method. The following is the Sobel Test equation:

$$Z = \frac{ab}{\sqrt{(b^2 S E_a^2) + (a^2 S E_b^2)}}$$
 (7)

According to Table 5, the relationship between corporate governance and EPS is mediated by CSRD. *p*-values with one-tailed probability and two-tailed probability are significant but are insignificant for other variables.

**Table 5.** Result of mediating role of corporate social responsibility disclosure between corporate governance and bank performance by Sobel test.

Sobel Test	Coef.	Standard Error	One-Tailed Probability	Two-Tailed Probability
CG- CSRD-ROA	1 0.568037	0.0095563 11.72002	0.48067214	0.96134429
CG CSRD-ROE	1 -2.19682	0.0095563 2.485405	0.18838849	0.37677698
CG -CSRD-EPS	1 0.4008096	0.0095563 0.1203536	0.00043641	0.00087283
CG-CSRD-TOBIN'S Q	1 $-2.976764$	0.0095563 5.391648	0.29044410	0.58088821

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#### 5. Conclusions

More empirical research is required for improving the existing financial governance framework, before recommending rigor. Empirical evidence, for example, is required to evaluate the effect of each corporate governance variable on the financial performance of banks and their associated social responsibility disclosures. Furthermore, according to agency theory, corporate governance might be changed to make managers accountable to all stakeholders rather than just a small number of shareholders. The revisions have an impact on agency theory. The empirical findings of the study disclosed that corporate social responsibility disclosures act as mediators when bank performance is measured by earning per share, thus the hypothesis (H1) is affirmed. Moreover, several corporate governance measures have a significant impact on bank performance when corporate social responsibility disclosure is taken as a mediator variable. In the future, there are various potential prospects for more research and enhancements to be explored. The Jordanian Central Bank created the Bank Corporate Governance Code in order to strengthen the Jordanian banking system; this could serve as a point to begin investigation.

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