

# Adapting Corporate Governance for Sustainable Organizational Performance: A Case Study of the Banking Sector in Pakistan amid the COVID-19 Pandemic

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## ABSTRACT

**Purpose** - Corporate governance is a crucial aspect of creating a corporate culture that emphasizes transparency, fairness, and openness. The COVID-19 pandemic has caused a global financial crisis, which has increased attention to corporate governance issues. In light of this, the objective of this study is to examine the impact of corporate governance on the sustainable organizational performance of the banking sector in Pakistan particularly in the context of COVID-19.

**Study Design/Methodology/Approach** - This research analyses the annual reports of sample banks and uses secondary data from 2016 to 2022; therefore, there is no doubt about the reliability and validity of the data. This study measured firm sustainable financial performance based on accounting data, using return on assets, return on equity, and earnings per share. The suggested model was investigated by the generalized method of moments through the Arellano-Bond Dynamic Panel-Data estimator.

**Findings** - The overall findings of the study reveal that corporate governance components such as board size, audit committee independence, number of board meetings, and chief executive officer duality have a significant impact on organizational performance. Furthermore, the Fixed Affect model indicates that CEO duality has no discernible effect on organizational sustainable performance, while board size, audit committee independence, and the frequency of board meetings all positively affect it.

**Practical and theoretical implications**- This study has implications for all stakeholders of the banking system, economic policymakers, and academicians by highlighting the importance of components of corporate governance that enhance overall organizational performance. Theoretically, compliance with corporate governance regulations should lower agency costs, which will improve the overall business's performance now and in the future.

**Originality/Novelty**- This study indicates that the use of corporate governance practices enhances and improves the overall sustainable performance of the banking sector. This study adds value to the existing body of literature by considering corporate governance and its association with organizational performance, particularly from the COVID-19 perspective.

**Keywords:** Corporate Governance, COVID 19 Pandemic, Return on Assets, Return on Equity, Earnings per share, GMM

**JEL Classification:** G3, O16

## 1 | INTRODUCTION

Every company's management often seeks to optimize the firm's performance and worth to boost the wealth of the shareholders. The owners (principals) of the company are its shareholders, and their goal is to maximize their return on investment ([Abdullah & Tursoy, 2023](#)). The interests of other stakeholders including employees, suppliers, managers, and creditors should also be preserved and maximized. As a result, the firms must guarantee that all stakeholders' interests are protected. The duty of managers (agents) of a company is to act in the best interests of all the different stakeholders ([Abdullah & Tursoy, 2023](#)). To preserve the interests of both the principal and the agent, the management of the businesses must overcome several obstacles. The agency problem is one of the firm's most significant challenges. Conflict of interest between the owner (principal) and manager (agent) is an essential dilemma of management ([Suharyono & Hs, 2023](#)). To serve the fundamental goal of boosting the company's sustainable performance and shareholder wealth, the corporation and corporate governance of the organizations make sure that the interests of many stakeholders are considered ([Saygili et al., 2021](#)). So, each and every organization in Pakistan now considers performance to be a strategic concern as well as in the interest of stakeholders ([Suharyono & Hs, 2023](#)). One of the most advanced areas of economics study over the past few decades focuses on the firm's organizational performance (efficiency).

Corporate governance simply describes how openly and truthfully enterprises are operated, with each party having an interest in a company managing business operations in line with their rights and obligations ([Suharyono & Hs, 2023](#)). In recent decades, corporate governance has attracted the attention of several academics all around the world ([Nizam et al., 2022](#)). Corporate governance, as described by the CCGC (Code Corporate Governance Committee) of the United Kingdom in 2002, is the process by which businesses are directed and governed. One such technique for achieving this objective and defending the interests of numerous business stakeholders is corporate governance. Corporate governance essentially means abiding by the law's requirements and acting morally. The framework of corporate governance encourages the efficient use of resources and also requires accountability for the stewardship of those resources ([Aggarwal & Management, 2013](#)). The shareholders, board of directors, and management make up the three main elements of corporate governance ([Kavadis & Thomsen, 2023](#)). Due to several high-profile corporate scandals and failures over the past ten years, including those involving unethical business practices such as Enron, Taj Company, WorldCom, Waste Management Inc., Satyam, Marconi and Polly Peck International, among others, the topic of corporate governance has received increased attention ([Kabwe & Science, 2023](#)). The audit committee, board of directors, audit committee independence, chief executive officer duality, and frequency of board meetings of the corporation are used to evaluate corporate governance processes. Corporate governance has a substantial impact on a company's sustainable performance, whereas management ownership has no such impact ([Gargantini et al., 2023](#)). Finally, corporate governance is influenced in a variety of ways, and the COVID-19 epidemic is one of the most significant elements that have been considered during the past four years.

In Pakistan, both authorities and industry actors recognize the importance of corporate governance. Banking is one of Pakistan's main service-based sectors. The banking business is regarded as one of the most important sectors of the economy, and it has been heavily impacted by the COVID-19 epidemic. The pandemic

has resulted in financial uncertainty, reduced economic activities, and increased risks ([Qadri et al., 2022](#); [Qadri et al., 2023](#)). The State Bank of Pakistan has issued several directives and guidelines to improve corporate governance practices in the banking sector ([Nizam et al., 2022](#)). The Securities and Exchange Commission of Pakistan published the Corporate Governance Code in March 2002 to promote ethical business practices. The Corporate governance code is a compilation of "best corporate governance practices" that are followed by every organization listed on Pakistan's stock exchange, and it will also aid in protecting shareholder interests ([Nizam et al., 2022](#)). Moreover, the chairman and participants have also taken significant steps to enhance their governance practices, such as establishing independent audit committees, separating the roles of the CEO and chairman, and appointing independent directors.

The literature shows that corporate governance practices positively and negatively impact organizational performance, but some studies have mixed ([Abdullah & Tursoy, 2023](#); [Al-Faryan & Alokla, 2023](#); [Waris et al., 2023](#)). Several studies have found a significant positive relationship between corporate governance practices and organizational performance indicators, such as return on assets, return on equity, and net income ([Aggarwal & Management, 2013](#)). Therefore, it is essential to continue to strengthen corporate governance practices in the banking sector of Pakistan to ensure sustainable growth and development. As a result, by studying the impact of corporate governance qualities on the sustainable performance of commercial banks in Pakistan, this study will also add value to the existing body of knowledge with respect to corporate governance practices in the banking sector of Pakistan. Pakistan was chosen as an area for this study because it is still developing and has ineffective enforcement of accounting standards.

Studies are scarce on the relationship between corporate governance and organizational sustainability. However, experts have yet to adequately explore the influence of corporate governance on sustainable performance in light of the global calamity caused by COVID-19. Second, most of the studies have included only single variables (board of directors, board size, CEO duality, number of board meetings, audit committee independence, and their impact on sustainable performance). This study aims to explore the impact of corporate governance practices on sustainable performance in the commercial banking sector of Pakistan with respect to this arena of the COVID-19 pandemic. The objective of this study is to include as many variables as possible to avoid the problem of omitted variables. The study will specifically examine the influence of different critical corporate governance components, i.e., board of directors, board size, CEO duality, number of board meetings, and audit committee independence, on sustainable performance.

Based on the above explanation, the following are the key objectives of this study:

1. To examine the effect of corporate governance on the sustainable financial performance of banks in Pakistan.
2. To examine the ramifications of the board of directors and a number of board meetings on the sustainable financial performance of the banking sector in Pakistan.
3. To examine the impact of au of an audit committee and its independence on the sustainable financial performance of the bank sector in Pakistan.
4. To access the effects of CEO duality on the sustainable financial performance of banks in Pakistan.

## 2 | LITERATURE REVIEW

The overflow of the COVID-19 epidemic has a significant impact on the world economy and financial markets as a result it decreases the sustainable performance of the South Asian banking sector ([Qadri et al., 2023](#)). Corporate governance is a critical element in ensuring the accountability, transparency, sustainability, and sustainable performance of financial institutions, notably commercial banks ([Zaitul et al., 2023](#)). The correlation between corporate governance and sustainable performance makes intuitive sense, yet there is a dearth of evidence on this topic and a wide range of results. The majority of the studies discovered a positive correlation, while many of them show a negative relationship, but few have a mixed relationship ([Abdullah & Tursoy, 2023](#); [Al-Faryan & Alokla, 2023](#); [Waris et al., 2023](#)). In conclusion, effective corporate governance practices are crucial for the long-term sustainable performance of the banks and for preserving the integrity, stability, and sustainability of the whole financial system. Therefore, the relationship between corporate governance and the sustainable performance of companies has been the subject of several studies. A lot of literature is available on the said topic but only a few have in developing and emerging economies. The most recent study conduct in Pakistan on the topic of corporate governance and bank performance: evidence from the banking sector of Pakistan ([Athar et al., 2023](#)). In which the author stated that good corporate governance improves the overall performance of the banking sector of Pakistan.

### 2.1 | Corporate Governance and Organizational Financial Performance

Corporate governance is a framework for directing and controlling the activities of businesses ([Saeed & Faiz, 2018](#)). The National Committee on Corporate Governance (NCCG) defines corporate governance as rules, procedures, or guidelines that organizations use to function, regulate, and govern themselves. The existing literature shows that corporate governance is measured through different corporate governance components, which include the size of the board of directors, chief executive officer duality or ownership structure, board committees, the role of internal-external auditors, transparency, and shareholder rights ([Abdullah & Tursoy, 2023](#); [Nizam et al., 2022](#); [Sadiq et al., 2022](#)). This research used the roles of the audit committee and the board of directors to accomplish the objectives of the banks. This study also considered the size of the board of directors as well as the frequency of board meetings. In addition, the CEO board member was used to assess whether the CEO accepted the function of board chair or CEO duality. This study highlighted audit committee elements such as the existence of an audit committee and the committee's independence. Organizational sustainable performance can be measured in a variety of ways, as seen in their annual financial statements. Financial ratios are one of the best techniques for gauging the financial performance of companies ([Rezanti et al., 2023](#); [Sadiq et al., 2022](#)). This tool was used by financial analysts to assess the financial information contained in the companies' financial statements for the accounting period and discover more about the financial performance of the companies ([Rezanti et al., 2023](#); [Sadiq et al., 2022](#)). Return on Assets and Return on Equity (ROE) ratios are commonly used to assess a company's financial performance ([Rezanti et al., 2023](#); [Sadiq et al., 2022](#)). To conduct this research, three accounting-based indicators were employed as proxies for the financial performance of the selected companies: return on assets (ROA.), return on equity (ROE), and earnings per share (EPS). As a result, we have formulated our initial hypotheses, which is:

H0: *Corporate Governance has no significant effects on the sustainable financial performance of banks in Pakistan amid to COVID-19*

H1: *Corporate Governance has significant effects on the sustainable financial performance of banks in Pakistan amid to COVID-19*

## 2.2 | Audit Committee Independence and Organizational Finance Performance

In literature, corporate governance is assessed through various methods, including the board of directors' characteristics, audit committee characteristics, audit committee independence, frequency of board meetings, transparency, and shareholder rights ([Amrani et al., 2022](#); [El-Chaarani et al., 2022](#); [Shahzad et al., 2022](#)). The audit committee characteristics identified in this study were the presence of an audit committee and the independence of the audit committee. The independence of the audit committee refers to having independent directors who have no personal interest or financial stake in the company ([Sadiq et al., 2022](#)). In the [Sadiq et al. \(2022\)](#) study, the researcher discovered that audit committee independence and size both had a negative and minor impact on financial performance. Another hypothesis was created as a result of this.

H2 The presence of an independent audit committee had a significant impact on the sustainable financial performance of banks in Pakistan amid to COVID-19

## 2.3 | Board Size and Organizational Finance Performance

The corporate governance index has been used in numerous studies to look at the connections between the board of directors, ownership structure, audit committee, and board meetings ([Al-Ahdal et al., 2020](#); [Hermuningsih et al., 2020](#); [Rashid et al., 2020](#)). The size of the board of directors is frequently considered. Independent executive directors and non-executive directors make up the board of directors ([Al-Ahdal et al., 2020](#)). The bulk of recent research indicates that there is no direct connection between board size and business performance. In some instances, the board of directors is also the business's owner. The ownership structure is categorized, including supervisory boards, managerial boards, and ownership boards. When all forms of boards, are considered, ownership has a very favorable effect on business performance. However, state ownership significantly improves business performance, whereas managerial ownership has a negative correlation with firm performance. Finally, there is a favourable correlation between a supervisory board and company performance ([Al-Ahdal et al., 2020](#)). Given the mixed findings regarding the influence of board size on firm performance, this study aims to investigate the dominant effect of board size on the performance of Pakistani banks. As a result, the following hypothesis is proposed:

H3: *The board size has a significant impact on sustainable financial performance amid banks in Pakistan aimed at COVID-19*

## 2.4 | CEO Duality and Organizational Finance Performance

The association between CEO duality and corporate performance has been a topic of extensive discussion among researchers and scholars. This link is viewed from two main academic perspectives, namely agency and stewardship theory ([Mubeen et al., 2021](#)). According to [El-Chaarani et al. \(2022\)](#), stewardship theory implies that owners' interests are linked with managers, as managers are stewards of the organization and have control over organizational success. The author goes on to say that stewardship governance requires transparent and truthful communication between managers and owners. Conversely, agency theory describes the conflict between the owner and the manager. However, when a manager holds a dual executive position,

they tend to prioritize the business's profit, leading to a reduction in agency costs (Mubeen et al., 2021). Nevertheless, the majority of research documented in the literature suggests that CEO duality has an adverse impact on business performance, which leads to agency problems ([Wijethilake & Ekanayake, 2020](#)). Therefore, based on the study results mentioned above, we propose the following:

H4 *CEO duality has a significant impact on the sustainable financial performance of banks in Pakistan amid to COVID-19*

## 2.5 | Theoretical Background

Multiple theories explain the link between various aspects of corporate governance and sustainable organizational performance. These theories include the agency theory and the stewardship theory.

### 2.5.1. Agency Theory

Agency theory is the earliest and most significant theory that supports the corporate governance framework. It establishes a contractual link between company management and shareholders. The agency theory identifies three types of issues or problems that the companies face ([Abdullah & Tursoy, 2023](#)). The effort problem is about whether the managers strive to maximize shareholders' wealth; the differential risk problem, is about the different viewpoints of the principal and managers of taking risks; and the asset management problem, is about insiders who control the assets of the company, are all problems needed to be solved. Agency theory suggests that corporate governance reduces agency costs by regulating the interests of executives and appointing an independent board of directors to protect corporate assets ([Abdullah & Tursoy, 2023](#)). The existing literature shows a favorable connection between an independent board of directors and an organization's sustainable performance.

### 2.5.1. Stewardship Theory

Many scholars have debated that there is a connection between CEO duality and organizational sustainable performance ([Mubeen et al., 2021](#)). According to [Abbas et al. \(2019\)](#), the dual job of a CEO has better organizational performance. CEO duality can improve organizational sustainable performance by aligning with shareholder interests. A CEO's dual position enhances administrative efficiency, communication, and managerial flexibility, as a result, the overall sustainable performance of the organization improves. The top management of the company, board of directors, or senior management attempts to increase the revenue of their companies by reducing agency costs and holding dual roles in a business organization ([Mubeen et al., 2021](#)).

## 3 | METHODOLOGY & DESIGN

### 3.1 | Data Description and Measurement

The financial data of the 20 commercial banks operating in Pakistan from 2016 to 2022 were collected from two sources: the Pakistan Exchange website and the official websites of the selected banks. The use of secondary data collection is reliable and durable, as the data is publicly available from both sources. Additionally, data related to corporate governance was also collected from the annual reports of the banks and worldwide governance indicators, including audit committee independence, and instrumental variables are a number of board meetings and CEO duality. These instrumental variables are selected because they are

theoretically related to corporate governance and firm performance but are not directly influenced by current firm performance, making them suitable for addressing endogeneity in our model. The population of the study consists of all commercial banks operating in Pakistan during the given period, with one bank excluded due to the unavailability of financial data. Organizational sustainable performance was measured based on accounting data using financial ratios such as return on assets, return on equity, and earnings per share. Corporate governance was measured through various components, including the board of directors, board size, audit committee independence, CEO duality, and the number of board meetings.

### 3.2 | Variables of the Study

The variables and their description used in this study are listed as follows:

**Table 1**

*Variable Descriptions*

| Variable                        | Type  | Sign | Definition                                                               | Source                                                     |
|---------------------------------|-------|------|--------------------------------------------------------------------------|------------------------------------------------------------|
| Return on Assets                | D*    | ROA  | Return on Assets, in %<br>EBIT / Total Assets                            | (Ade Khadijatul Z. HRP et al., 2022; Amrani & Najab, 2023) |
| Return on Equity                | D*    | ROE  | Return on Equity, in %<br>EBIT / Total Equity                            | (Ade Khadijatul Z. HRP et al., 2022; Amrani & Najab, 2023) |
| Earnings Per Share              | D*    | EPS  | Earnings per share, in %<br>EBIT / Total Number of<br>Outstanding Shares | (Ade Khadijatul Z. HRP et al., 2022)                       |
| Audit Committee                 | I**   | AC   | 1 if a firm has an audit<br>committee, otherwise 0.                      | (Shahzad et al., 2022)                                     |
| Audit Committee<br>Independence | I**   | ACI  | 1 if a firm has an independent<br>director for audit, otherwise 0.       | (Sadiq et al., 2022)                                       |
| Board Size                      | I**   | BS   | Number of board members                                                  | (Amrani & Najab, 2023)                                     |
| Number of Board<br>Meetings     | IV*** | NBM  | Number of board meetings per<br>annum                                    | (Waris & Haji Din, 2023)                                   |
| CEO Duality                     | IV*** | CEOD | 1 if the CEO and the chair are<br>the same, otherwise 0.                 | (Amrani & Najab, 2023)                                     |

*\*D represents Dependent Variable, \*\* I represent Independent Variable, IV\*\*\* represent instrumental variables (Sources: Self-created by Author based on existing literature)*

The study focuses on examining the relationship between corporate governance and the organizational sustainable performance of commercial banks in Pakistan. The dependent variables of the study are ROA, ROE, and EPS, which measure the sustainable organizational financial performance of the banks. The independent variables are AC, ACI, BS, and NBM, and CEOD are instrumental variables. These represent the characteristics of the audit committee, audit committee independence, board size, number of board meetings, and CEO duality, respectively. Table 1 presents the descriptive statistics of these variables over the entire study period from 2016 to 2022 for a total of 20 commercial banks in Pakistan. Overall, these variables serve as crucial indicators in evaluating the relationship between corporate governance and the sustainable performance of commercial banks in Pakistan. EBIT means the earnings before interest and Tax.

### 3.3 | Study Design and Model

The study model of Bhagat and Bolton (2019) was adopted by the researcher, which proposed a linear relationship between corporate governance and firm sustainable performance. Equation 1 demonstrates that firm performance is dependent on the CG framework, along with other control variables.

$$FP = f(CG + X) \quad (I)$$

The equation for firm performance is represented by *FP*. The corporate governance measure for firm *j* at time *t* is *CG*. Other control variables such as leverage, firm size, and board composition are included in vector *X*. To test the hypotheses of the study, equations 2, 3, and 4 were developed based on Bhagat and Bolton (2019) linear association model between corporate governance and firm financial performance. Three equations have been developed for analysis as follows:

The first model describes how several aspects of corporate governance relate to the sustainable performance of banks as determined by ROA and instrumental variables are NBM & CEOD, the instrumentals rank of this equation is 2:

$$ROA_{(i,t)j} = AC_{(i,t)j} \beta_1 + ACI_{(i,t)j} \beta_2 + BS_{(i,t)j} \beta_3 + NBM_{(i,t)j} \beta_4 + CEOD_{(i,t)j} \beta_5 + C_{(i,t)j} \beta + \mu_{i,t} \quad (II)$$

The second model describes how several aspects of corporate governance relate to the sustainable performance of banks as determined by ROE and instrumental variables are NBM & CEOD, the instrumentals rank of this equation is 2:

$$ROE_{(i,t)j} = AC_{(i,t)j} \beta_1 + ACI_{(i,t)j} \beta_2 + BS_{(i,t)j} \beta_3 + NBM_{(i,t)j} \beta_4 + CEOD_{(i,t)j} \beta_5 + C_{(i,t)j} \beta + \mu_{i,t} \quad (III)$$

The third model describes how several aspects of corporate governance relate to the sustainable performance of banks as determined by EPS and instrumental variables are NBM & CEOD, the instrumentals rank of this equation is 2:

$$EPS_{(i,t)j} = AC_{(i,t)j} \beta_1 + ACI_{(i,t)j} \beta_2 + BS_{(i,t)j} \beta_3 + NBM_{(i,t)j} \beta_4 + CEOD_{(i,t)j} \beta_5 + C_{(i,t)j} \beta + \mu_{i,t} \quad (IV)$$

Where;

Return on assets at time *t* for firm *j*, measured in %

Return on equity (ROE) at time *t* for firm *j*, measured in %

Earnings per share (EPS) at time *t* for firm *j*, measured in %

$AC_{(i,t)j}$  is variable, 1 if the firm has an audit committee and 0 otherwise.

$ACI_{(i,t)j}$  is variable, 1 if the firm has an independent director on the audit committee and 0 otherwise.

$BS_{(i,t)j}$  is the size of the board of directors for firm *j* at time *t*

$NBM_{(i,t)j}$  is the number of board meetings per annum for firm *j* at time *t*

$CEOD_{(i,t)j}$  is variable, 1 if the chief executive officer (CEO) also serves as chair of committee 0 otherwise.

$C_{(i,t)j}$  represents the constant term in the equation

*j* denotes the firms being studied, while *t* represents the time period under consideration

$\epsilon$  represents the stochastic error term

The research model employed in this study aims to investigate the relationship between corporate governance and the financial performance of commercial banks listed on the Pakistan Stock Exchange. The dependent variables used to measure financial performance are Return on Assets, Return on Equity (ROE), and Earnings per Share (EPS), while the independent variables include audit committee (AC), audit committee

independence (ACI), board size (BS), and number of board meetings (NBM) and CEO duality (CEOD) are instrumentals variables. These variables were selected based on their significance and previous literature in the field of corporate governance.

### 3.4 | Data Treatment

The current study examined the association between corporate governance and company sustainable financial performance by utilizing the generalized method of moments (GMM, robust) with the Arellano-Bond Dynamic Panel-Data estimate approach. This approach is beneficial in reducing the problem of endogeneity that arises between corporate governance and company performance. Furthermore, the Arellano-Bond Dynamic regression approach also resolves the issue of unobservable heterogeneity. In the previous research of Akbar et al. (2016), the author's ordinary least square (OLS.)regression and random Effect fixed effect regression are subject to the question of generalizability. To solve the problem, the research further evaluates the collected data using the generalized method of moments (GMM) model. The majority of researchers employed GMM in their studies to analyze panel data (Taqi et al., 2021).

## 4 | RESULTS and ANALYSIS

### 4.1 | Model Measurement

Table 2 presents an overview of the sample data used in this study. Descriptive statistics are reported for both the independent and dependent variables over the entire study period from 2016 to 2022, covering a total of 19 commercial banks in Pakistan. The maximum, minimum, and average values of the research are provided below.

**Table 2**

*Descriptive Statistics*

| Variable | Obs. | Mean  | Std. Dev. | Min    | Max   |
|----------|------|-------|-----------|--------|-------|
| ROA      | 133  | .656  | 1.355     | -8.572 | 2.678 |
| ROE      | 133  | .116  | .33       | -3.179 | 1.688 |
| EPS      | 133  | 7.582 | 7.583     | -3.58  | 27.63 |
| AC       | 133  | .999  | .009      | .9     | 1     |
| ACI      | 133  | .827  | .38       | 0      | 1     |
| BS       | 133  | .528  | .315      | .1     | .98   |
| NBM      | 133  | .239  | .082      | .07    | .48   |
| CEOD     | 133  | .113  | .318      | 0      | 1     |

The descriptive statistics for the dependent and independent variables are presented in Table 2. The average value of financial performance measured by ROA is 0.656, with a range between -8.572 and 2.678. Similarly, the average value of financial performance measured by ROE is 0.116, with a range between -3.179 and 1.688. In addition, EPS has an average value of 7.582, with a range between -3.58 and 27.63. The independent variables related to banks and corporate governance, namely AC, ACI, BS, NBM, and CEOD, have average values of 0.999, 0.827, 0.528, 0.239, and 0.113, respectively. AC and ACI have particularly high average rates of 0.999 and 0.827. These descriptive statistics highlight the importance of studying and

empirically examining the impact of corporate governance variables on the financial performance of commercial banks in Pakistan in economic contexts.

#### 4.2 | Correlation Matrix

**Table 3**

*Correlation Matrix of Variables*

| Variables | ROA    | ROE    | EPS    | AC     | ACI   | BS     | NBM   | CEOD  |
|-----------|--------|--------|--------|--------|-------|--------|-------|-------|
| ROA       | 1.000  |        |        |        |       |        |       |       |
| ROE       | 0.092  | 1.000  |        |        |       |        |       |       |
| EPS       | 0.461  | 0.149  | 1.000  |        |       |        |       |       |
| AC        | -0.008 | 0.000  | 0.070  | 1.000  |       |        |       |       |
| ACI       | -0.108 | -0.015 | 0.064  | -0.040 | 1.000 |        |       |       |
| BS        | -0.028 | 0.006  | -0.206 | -0.034 | 0.055 | 1.000  |       |       |
| NBM       | 0.110  | -0.038 | 0.276  | 0.139  | 0.246 | -0.048 | 1.000 |       |
| CEOD      | 0.041  | -0.002 | -0.041 | -0.244 | 0.037 | 0.002  | 0.202 | 1.000 |

#### 4.2 | Model Testing

**Table 3** presents the results of the correlation matrix analysis, which examines the relationship between corporate governance and banking performance. The study finds a significant positive correlation between governance indicators, including audit committees, independent committees, board size, number of board meetings, CEO duality, and corporate financial performance. The analysis shows that the correlation coefficients ( $r$ ) for independent committees, number of board meetings, and CEO duality are 0.108, 0.110, and 0.041, respectively. These results indicate a positive relationship between the independent variables (independent committees, number of board meetings, and CEO duality) and the dependent variable (financial performance). Thus, the null hypothesis is rejected, and it can be concluded that there is a positive relationship among the variables examined in this study.

**Table 4**

*Results of GMM Model ROA as Dependent Variable*

| ROA                | Coef.    | St.Err. | t-value          | p-value | [95% Conf | Interval] | Sig |
|--------------------|----------|---------|------------------|---------|-----------|-----------|-----|
| L                  | .439     | .088    | 4.99             | 0       | .266      | .611      | *** |
| AC                 | -13.91   | 2.523   | -5.51            | 0       | -18.854   | -8.965    | *** |
| ACI                | -1.208   | .429    | -2.82            | .005    | -2.05     | -.367     | *** |
| BS                 | 1700.926 | 296.978 | 5.73             | 0       | 1118.859  | 2282.992  | *** |
| NBM                | 10.482   | 1.405   | 7.46             | 0       | 7.729     | 13.235    | *** |
| CEOD               | -1.082   | .47     | -2.30            | .021    | -2.003    | -.16      | **  |
| Mean dependent var | 0.579    |         | SD dependent var |         | 1.499     |           |     |
| Number of obs      | 102      |         | Chi-square       |         | 353.934   |           |     |
| J statistics       | 8.1      |         |                  |         |           |           |     |

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

**Table 5***Results of GMM Model ROE as Dependent Variable*

| ROE                | Coef.   | St.Err. | t-value          | p-value | [95% Conf | Interval] | Sig |
|--------------------|---------|---------|------------------|---------|-----------|-----------|-----|
| L                  | -.175   | .094    | -1.87            | .061    | -.358     | .008      | *   |
| AC                 | 2.369   | .857    | 2.76             | .006    | .689      | 4.049     | *** |
| ACI                | -.699   | .273    | -2.56            | .01     | -1.233    | -.164     | **  |
| BS                 | -57.997 | 99.671  | -0.58            | .561    | -253.349  | 137.354   |     |
| NBM                | -2.156  | .991    | -2.18            | .03     | -4.098    | -.214     | **  |
| CEOD               | -.003   | .303    | -0.01            | .993    | -.596     | .591      |     |
| Mean dependent var | 0.114   |         | SD dependent var |         | 0.375     |           |     |
| Number of obs      | 102     |         | Chi-square       |         | 39.321    |           |     |
| J statistics       | 7.3     |         |                  |         |           |           |     |

\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1

**Table 6***Results of GMM Model EPS as Dependent Variable*

| EPS                | Coef.   | St.Err.  | t-value          | p-value | [95% Conf | Interval] | Sig |
|--------------------|---------|----------|------------------|---------|-----------|-----------|-----|
| L                  | .739    | .096     | 7.67             | 0       | .55       | .928      | *** |
| AC                 | -5.443  | 9.478    | -0.57            | .566    | -24.02    | 13.133    |     |
| ACI                | 1.254   | 2.02     | 0.62             | .535    | -2.704    | 5.213     |     |
| BS                 | 786.209 | 1146.477 | 0.69             | .493    | -1460.844 | 3033.262  |     |
| NBM                | 16.658  | 6.719    | 2.48             | .013    | 3.489     | 29.828    | **  |
| CEOD               | -1.743  | 1.957    | -0.89            | .373    | -5.578    | 2.093     |     |
| Mean dependent var | 7.660   |          | SD dependent var |         | 7.967     |           |     |
| Number of obs      | 102     |          | Chi-square       |         | 706.150   |           |     |
| J statistics       | 9.7     |          |                  |         |           |           |     |

\*\*\* p&lt;.01, \*\* p&lt;.05, \* p&lt;.1

Tables 4, 5, and 6 display the regression results of generalized method of moments (GMM) models used to investigate the relationship between corporate governance and sustainable organizational performance. The models use different measures of sustainable organizational financial performance, including ROA, ROE, and EPS. CG is gauged by characteristics of the audit committee (AC), audit committee independence (ACI), board size (BS), the number of board meetings (NBM), and CEO duality (CEOD). The study used annual data from 2016 to 2022 for financial firms listed on the Pakistan Stock Exchange, excluding controlling for variables such as liquidity or firm size. The computed Wald statistic F value of 27.11 suggests that there is evidence of long-run co-integration in your model. This means that the variables in your model are likely to be related in the long run, indicating a stable and significant relationship between them over time.

### Top of Form

This study used the generalized method of moments (GMM) through the Arellano-Bond Dynamic Panel-Data estimator to examine the influence of corporate governance on sustainable organizational performance. Refer to table 04; in the first regression, the study employed firm return on assets as a measure of the company's sustainable financial performance. The study's findings show that audit committee independence, board size, board meeting frequency, and CEO duality all had statistically significant coefficient values of -13.91, -1.208, 1700.926, 10.482, and -1.082, respectively. The study found that audit committee proves ependence, board

size, and the number of board meetings improve business performance. In contrast, the study reveals that CEO dualism has a negative impact on organizations' financial performance. Overall, a J-statistic of 8.1 indicates that your model's instruments are appropriate for addressing.

Similarly, in the second regression, refer to table 05; the study employed return on equity as a measure of company success. The study found that audit committee independence, board size, number of board meetings, and CEO duality had significant coefficient values of  $-0.175$ ,  $2.369$ ,  $-0.699$ ,  $-57.997$ ,  $-2.156$ , and  $-0.003$ , respectively. The results show a favourable correlation between board size, independence, number of meetings, and return on equity. Overall, a J-statistic of 7.3 indicates that your model's instruments are appropriate for addressing.

Similarly, the third regression, referred to table 06; employed earnings per share as a proxy for the financial performance of the company. The study found that the audit committee independence, board size, number of meetings, and CEO duality coefficient values are  $739$ ,  $-5.443$ ,  $1.254$ ,  $786.209$ ,  $16.658$ , and  $-1.743$ , respectively. This stated that the right board structure will boost earnings per share (firm financial performance). Furthermore, CEO duality and audit committee independence had persistent negative coefficient values of  $-5.443$  and  $-1.743$ , respectively, indicating a reduction in business sustainable finance performance in the presence of CEO duality. Overall, a J-statistic of 9.7 indicates that your model's instruments are appropriate for addressing.

Empirical studies have shown that the relationship between corporate governance variables and financial performance can be context-specific, with different variables showing varying levels of significance depending on the industry or regulatory environment. Additionally, multi-collinearity, which occurs when independent variables are highly correlated, can lead to unstable estimates and changes in significance. These theoretical and empirical considerations highlight the importance of carefully interpreting the significance of AC and BS in different equations and considering the broader context in which the analysis is conducted.

## 5 | DISCUSSION

The COVID-19 epidemic has a significant influence on the sustainable organizational performance of developing economies ([Qadri et al., 2022](#)). Moreover, the pandemic had a considerable impact on the corporate world during this time ([Qadri et al., 2023](#)). The success of any organization, particularly in the banking industry, is significantly influenced by effective corporate governance practices. The study's findings imply that corporate governance practices have a major influence on how well Pakistan's commercial banks operate during the COVID-19 outbreak ([Qadri et al., 2023](#)).

In this study, the author includes different attributes of corporate governance such as audit committee, audit committee independence, board size, number of meetings, and CEO duality. We examined different measures of these corporate governance characteristics to investigate the effect of CG on the sustainable financial performance of the banking sector of Pakistan. However, most of the previous literature on the relationship between corporate governance and firms' financial performance ([Athar et al., 2023](#); [Suharyono & Hs, 2023](#); [Waris et al., 2023](#)). The results of GMM regression through the Arellano-Bond Dynamic Panel-Data estimator showed that there existed significant effects of corporate governance on firm sustainable financial performance of banks in Pakistan during the selected period. Subsequently, we could reject the null

hypothesis stating that there is no significant effect of corporate governance on the firm financial performance of banks in Pakistan aimed at the COVID-19 pandemic.

The second hypothesis supports that there is a connection between corporate governance and sustainable financial performance. This finding is consistent with the findings of recent studies ([Al-Faryan & Alokla, 2023](#); [Amrani et al., 2022](#); [Dănescu et al., 2021](#); [Mubeen et al., 2021](#)) who discovered a link between corporate governance and sustainable financial performance. Hence, Audit committees and their independence are integral parts of corporate governance, and they ensure the sustainable performance of firms. The previous study by Rashid et al. ([2020](#)) found that the audit committee's independence has a significant and positive impact on the sustainable performance of banks in Bangladesh. Hence, the hypothesis that the independence of the audit committee has a positive relationship with sustainable performance is accepted based on the study's findings ([Rashid et al., 2020](#)). It is a well-established fact that an independent audit committee, which operates independently from the company's business affairs, focuses solely on the overall performance of the organization.

Subsequently, the board size and the volume of board meetings are linked to sustainable organizational financial performance. Studies of Amrani et al. ([2022](#)) and Shahzad et al. ([2022](#)) confirmed that there is a positive association between board size and company financial performance. In general, smaller boards are typically easier to monitor and regulate, while larger boards often encounter difficulties with collaboration and communication, thus leading to poor performance. German companies are often controlled by one significant stakeholder, therefore, having a huge board might exacerbate the issues outlined before and harm the success of the company. Similarly, the size of the board had a significant influence on bank performance even in pandemic COVID-19 era. The findings of this study were consistent with the study of Amrani et al. ([2022](#)) and Shahzad et al. ([2022](#)), who discovered there is relationship between board size and sustainable financial performance. Therefore, the following hypothesis that board size has influence on sustainable performance was accepted.

However, organizational success is also affected by a variety of other elements such as organizational earnings, management, administrative control, and so on. Finally, the last objective of this study was to investigate the relationship between CEO duality and sustainable financial performance. The overall result of the GMM models indicates that there is no association between CEO duality and organizational financial performance. In this way, the last objective of the study is achieved. These findings were also consistent with prior literature, revealing that no significant relationship exists between CEO duality and firm financial performance ([Wijethilake & Ekanayake, 2020](#)). Therefore, based on these overall results and findings, the final hypothesis is also rejected.

Lastly, this study, like any empirical research, has certain limitations. First, it was based on a sample of Pakistan's banking sector from 2016 to 2022. Second, it was conducted during a specific situation, known as the COVID-19 perspective. Third, the study only included some components of corporate governance and overlooked significant components such as the gender diversity in the board of directors, the independence of managers from the board, the separation of CEO and Chairman, and financial advisory committees. Organizational sustainable performance is measured through ROA, ROE, and EPS while the performance of banks is also measured through other different factors including sales/revenue which are ignored. The use of

multiple proxies for a variable, such as financial performance, is a common practice to enhance the robustness of results. However, for the results to be considered robust, the different proxies should ideally yield similar results. In this study, the varying associations of the instrumental variables (IVs) with different proxies for financial performance suggest that the results may not be entirely robust. However, future research could explore these discrepancies further to improve the robustness of the findings.

Finally, this study will focus on the banking industry in Pakistan; future research will be conducted to investigate the influence of corporate governance practices on enterprises in other sectors of emerging economies.

## 6 | CONCLUSION

Based on the result above, it is concluded that corporate governance has a significant impact on ROA, ROE, and EPS. The overall results show that board size has a positive and significant effect on ROA, ROE, and EPS while the duality of CEO has no impact on the overall sustainable performance of the banks. The study's findings will help to build more effective policies targeted at increasing sustainable performance, especially from the perspective of the COVID-19 pandemic. Based on the analysis of the study, it is evident that the performance of Pakistan's commercial banks is significantly impacted by corporate governance practices.

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