

## CORPORATE GOVERNANCE AND ITS IMPACT ON MARKET RETURN AND MARKET CAPITALIZATION IN BANKING SECTOR OF PAKISTAN

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**Abstract:** This study investigated the influence of corporate governance practices on bank market return and market capitalization in Pakistan. A sample of 19 commercial banks was selected using a simple random sampling method, and data was collected from 2010 to 2020. The study employed pooled OLS, Fixed Effect, and Random Effect models to analyze the relationship. The findings revealed mixed results concerning the impact of corporate governance variables on market return. The regression results highlight the influential role of director compensation and audit meetings on market capitalization, revealing a significant positive correlation with higher firm values. In contrast, variables such as board size, board composition, independent directors, and audit committee size and independence exhibit a lack of statistical significance in their impact on market capitalization. Moreover, board independence demonstrates statistical significance solely under the pooled OLS and Fixed Effect models. Similarly, variables including board size, board composition, director compensation, audit committee meeting frequency, and audit independence display no significant association with market return. These findings align with previous research in the field.

**Keywords:** Pakistan; Banks; Corporate Governance; Market Return; Market Capitalization

### 1 INTRODUCTION

The banking sector is an essential pillar of the national economy and plays an important role in the financial system. As the stability and sustainable growth of the economy increasingly rely on the financial system, ensuring the safety and soundness of financial institutions becomes imperative. Among these institutions, banks play a vital role (Abbasi et al., 2022). to efficiently aid in the growth of a nation's financial and economic system, banks must maintain stability. Sustainable profitability is of utmost importance in this regard, as it ensures the soundness and financial stability of banks (Garcia-Herrero et al., 2009).

This study's main goal is to investigate the variables that affect banks' market returns and market capitalization, with an emphasis on how corporate governance practices affect Pakistani banks' and financial institutions' operational performance. Market return and market capitalization have been chosen as performance evaluation measures because it has been widely acknowledged by scholars such as Thoraneenitiyan (2010), Sagar and Rajesh (2008), and Zhang and Longyi (2009) that relying solely on financial statement indicators does not provide a comprehensive and effective assessment of banks. Thoraneenitivan (2010) pointed out that even banks with strong financial metrics suffered during the 2008 global financial crisis, which was identified as the intense economic downturn since the Great Depression. This crisis was attributed to failures in governance and inadequate legislation. Hence, the inclusion of these new dimensions in the study will offer valuable insights for decision-makers in enhancing governance practices.

The market return of banks refers to the overall banking performance in the financial markets, specifically the change in the value of bank stocks or the investors' yield who invest in bank securities. This measure is influenced by the enforcement of sound corporate governance practices. In a study conducted by Dang, Thu, Nguyen, and Tran (2020), it was found believing there is a connection between a business's financial performance and the response from investors in the stock market. This positive response leads to a growth in the company's stock price, which ultimately



results in a higher market return and market capitalization. The adoption of sound corporate governance procedures is associated with increased business performance, and increased social disclosure, as pointed out in studies by Dang et al. (2020), Husnaini and Basuki (2020), and Kurnia et al. (2020). The increase in stock prices indicates that the company's value and market return have increased as a consequence.

Good corporate governance is still a major problem in emerging nations like Pakistan (Nisar & Asif, 2023). The Pakistan corporate governance legislation, which was enacted in 2002, regulates the activities of publicly traded companies in Pakistan, which represent a significant economic pillar. Numerous firms began enacting corporate governance laws in their organizations (Hussain & Safdar, 2018). In spite of thorough research on the governance practices of firms in various settings, there is still a need for further investigation in Pakistan regarding this area.

### **1.1 Problem of the study**

Taking into account the essential role that financial institutions play in the overall growth of the economy and prosperity of a nation (Abbas et al., 2022; Ehigiamusoe & Samsurjan, 2021), researchers have extensively explored various corporate practices that can enhance the performance of banks (Khanifah et al., 2020; Orazalin & Mahmood, 2019; Haris et al., 2019; Felicio, 2018). Multiple studies carried out in the context of Pakistani financial institutions, such as Haris et al. (2019), Sheikh et al. (2018), and Nawaz (2017), have focused on the significant corporate governance characteristics and attributes to assess their impact on bank performance. However, most of these studies relied solely on financial statements to evaluate performance, despite the recognition that financial statements alone may not provide a comprehensive measure of bank performance (Thoraneenitivan, 2010). In response to this limitation, Haris et al. (2019) proposed the inclusion of alternative performance dimensions, including metrics such as Market Capitalization and Market Return. Therefore, this study in particular aims to address this area of research gap by investigating the market capitalization and return, which are proposed performance indicators, and the effect of corporate governance.

### **1.2 Research Questions**

These questions are being attempted to be answered by this study

1. What is the impact of corporate governance on the market return of banks in Pakistan?
2. How does corporate governance influence the market capitalization of banks in Pakistan?

### **1.3 Research Objectives**

1. To investigate the influence of corporate governance on the market return of banks in Pakistan.
2. To investigate the influence of corporate governance on the market capitalization of banks in Pakistan.

### **1.4 Significance of the research**

Investigating the connection between bank governance procedures and performance indicators is crucial for understanding the stability of financial institutions and promoting economic growth (Purewal & Haini, 2022). While previous research has focused on financial statements as performance indicators, the goal of this research is to add to the body of knowledge by studying new measures such as market capitalization and return, which were proposed by (Thoraneenitivan, 2010; Sagar & Rajesh, 2008; Zhang & Longyi, 2009). By looking into how these performance measurements and corporate governance are related, this research will offer valuable insights for policymakers and help banks optimize their corporate governance decisions to enhance performance.

## **2 Corporate governance and Banks in Pakistan**

In Pakistan's banking industry, corporate governance has been a key factor in promoting growth, stability, and progress. Studies have underscored the favorable corporate governance's impact on business performance, thereby contributing to the economic progress of nations. Recognizing the critical role of financial institutions and markets in fostering economic growth, it becomes imperative to understand the governance procedures governing the Pakistani banking sector. Studies had unveiled that the practices of corporate governance played a pivotal role in



determining the success of firms, thereby contributing to the overall economic development of nations (Škare & Hasić, 2016). The banking sector, being a key player in fostering economic expansion, recognized the crucial need to establish effective governance procedures for its stability (Purewal & Haini, 2022).

As with any story, conflicts arose in the banking sector, stemming from both internal and external aspects of governance (Compaoré et al., 2020). To ensure the long-term viability of banks, corporate governance procedures were deemed essential in fostering a healthy and productive relationship between shareholders and management (Adams & Mehran, 2012). This realization was particularly pronounced in emerging economies like Pakistan, which had experienced the tumultuous aftermath of the East Asian financial crisis. Renowned scholar Omran (2004) defined corporate governance as "the public and private organizations that oversee the interaction between those who make investments and those who run the firm," underscoring its significance in the Pakistani context.

It was widely acknowledged that corporate governance procedures held the potential to positively influence business behavior and structural dynamics within Pakistan. Recognizing this, The central bank of Pakistan, commonly known as a State Bank of Pakistan (SBP), took a proactive stance and issued regulations to revamp the regulatory system within the banking industry. In a pioneering research endeavor, Khalid and Hanif (2005) delved into the advancements, measures, trends, and developments within Pakistan's banking industry. Their findings revealed that the SBP had assumed the role of a vigilant supervisor and regulator, leading to increased effectiveness in recent years. Furthermore, the regulatory and legislative framework governing the activities and roles of commercial banks underwent a comprehensive overhaul and restructuring.

When Pakistan's Securities and Exchange Commission unveiled its first Code of Corporate Governance in March 2002, the narrative underwent a fundamental transformation. This landmark development aimed to enhance the regulatory framework and ensure its enforcement. The publication of a corporate governance framework in Pakistan marked a crucial step towards fostering enhanced governance procedures. The framework emphasized the implementation of international corporate governance principles and norms. One particular area of concern was the directors' board, vested with the duty and responsibility of ensuring acceptable disclosure practices to shareholders. This included the implementation of robust external and internal audits for listed firms in Pakistan.

In conclusion, the story of governance procedures and practices in the Pakistani banking industry highlighted its indispensable role in promoting stability and driving economic growth. Through the Securities and Exchange Commission's (SEC) proactive attitude and the State Bank of Pakistan's (SBP) adoption of the Code of Corporate Governance, the nation embarked on a journey to establish sound governance practices. As the story continued to unfold, it held the promise of a brighter and more transparent future for the banking sector, fostering trust and confidence among stakeholders.

### 3 RELATED LITERATURE AND HYPOTHESIS DEVELOPMENT

#### 3.1 Corporate governance and Bank Market Return

Corporate governance has a vital role in shaping the performance of banks and their market returns. It encompasses a set of principles and practices that ensure transparency, accountability, and ethical conduct within financial institutions. Effective corporate governance is of great significance with relation to the Pakistani banking industry, where the trust and confidence of investors are essential for market stability and growth. Supporting the significance of corporate governance on bank market returns, Buachoom (2022) found that investors in the stock market rely on efficient and publicly available information provided through corporate governance practices when making investment decisions. The study found that stock prices are significantly impacted by corporate governance procedures, suggesting that investors trust and value the transparency and effectiveness of these practices.



In line with the crucial role of effective corporate governance, Su and Song (2022) emphasized its contribution to a more stable and predictable stock price performance. Transparency and ethical behavior, inherent in good corporate governance, can foster investor confidence and mitigate volatility in stock returns. Furthermore, Ameila et al. (2021) highlighted that good corporate governance can moderate the price-earnings ratio's impact on stock returns. By maintaining effective governance structures and practices, banks can influence market perceptions and ensure that stock prices reflect fundamental value rather than speculative fluctuations. These results highlight the important role that corporate governance plays in the Pakistani banking sector and how it affects market returns. Policymakers, regulators, and market players must have a thorough grasp of the corporate governance and the success of the bank market in order to create effective frameworks that support stability and sustainable growth.

According to Lee (2007), good management practices, including firm objectives, financial planning, resource allocation, and ethical conduct, significantly impact a company's stock return. Bhagat and Jefferis (2002) argue that excellent corporate governance safeguards companies from financial difficulties, providing access to financing, minimizing capital costs, maintaining a healthy financial position, and enhancing stakeholder satisfaction (Ateeq et al., 2022).

The effectiveness of organizations is positively correlated with corporate governance, according to empirical studies. While Matama (2005) finds a link between stock prices, returns, and corporate governance practices, Bebchuk, Cohen, et al. (2009) find that businesses with strong corporate governance practices often outperform those with weak governance processes. According to a governance index created by Gompers et al. in 2003, corporate governance and stock market success are significantly correlated, with "Democracy" businesses generating extraordinary returns of 8.5 percent annually. In their respective studies, Corporate governance and business value are positively correlated, according to Drobetz et al. (2004) and Cheung et al. (2007).

According to Mitton (2002) and Lemmon and Lins (2003), companies with poor corporate governance experience lower stock returns during recessions due to CEO compensation issues. Weak internal control and bad news hoarding negatively affect stock returns and profitability. In a weakening economy, Companies with inadequate corporate governance are prone to experience larger declines in stock returns. Additionally, research by Hunjra et al. (2020) shows that CEO and board size have inverse implications on stock price crash risk, while management ownership has a favorable effect on the risk of stock price decline.

Empirical research has been done on the association between board size and performance. According to Yermack (1996), there is a negative correlation between board size and firm success in large publicly listed US corporations. According to Eisenberg et al. (1998), similar inverse connections are observed in small and medium-sized Finnish enterprises. Bhagat and Black (2002) assert that changes to performance metrics have no impact on the inverse relationship between board size and performance. Mak and Li (2001) show evidence that the estimating method influences the link between board size and performance, emphasizing the need of taking endogeneity into account.

According to research by Suhadak et al. (2019), the effectiveness of the company is positively impacted by the presence of independent directors on a board. boards when the majority of the directors are independent, according to Cotter and Shivdasani (1997), increase shareholder returns and employ defensive tactics to increase shareholder value. According to Rosenstein and Wyatt (1990), stock prices often rise when corporations select more outside directors.

In conclusion, the data points to the possibility that stock market returns may be strongly impacted by corporate governance procedures and variables such CEO salary, internal control, the number of independent directors on the board and its size. This study's findings support the hypothesis that corporate governance has a positive effect. on Pakistani banks' stock market returns.

On the basis of the discussion mentioned above, the following hypotheses were developed:

H0: Corporate governance has no impact on the stock market return of banks in Pakistan.

H1: Corporate governance has a positive impact on the stock market return of banks in Pakistan.

### **3.2 Corporate governance and Bank Market Capitalization**

Gaining insight into how corporate governance is related to market capitalization of banks is crucial in comprehending the dynamics of the financial sector. In many cases, the stock prices of banks have a significant influence on their overall market value. As stock prices rise, it often results in a rise in the market capitalization of banks, indicating the importance of examining the factors that drive firm value. Recent research by Shahzad et al. (2023) has highlighted the crucial function of effective corporate governance practices in raising business value.

It is essential to examine the relationship between corporate governance and business valuation within the context of the Pakistani banking industry. In this sense, recent literature offers insightful information. For instance, Liew et al.'s investigation of the connection between director salary and business value in the year 2022 revealed a positive link between the two variables. Similar to this, Pamungkas (2023) reinforced the idea that businesses with effective corporate governance processes typically exhibit higher business value. These studies highlight the part good corporate governance plays in raising enterprise value. This conclusion emphasizes how strong corporate governance frameworks are required in the banking sector of Pakistan to promote long-term growth and wealth creation.

Additional studies that looked at the connection between corporate governance and company value provided insightful findings. Companies that have a strong commitment to ethical business practices and high standards of corporate governance have reduced equity capital costs, claim (Ullah et al., 2019). They urged businesses to adopt excellent governance practices and demonstrate a commitment to corporate ethics in order to decrease their cost of equity and boost company value. According to Caike and Krauter (2014), strong corporate governance has been connected to market value, with businesses listed in high-quality corporate governance sectors being valued higher than those in regular trading segments.

Corporate social responsibility (CSR), business value, and corporate governance were all studied by Jo and Harjoto in 2011. They discovered a close relationship between CSR and corporate governance, stressing the significance of moral business conduct and openness in guaranteeing a company's success. According to Chen et al. (2010), firms are incentivized to improve their governance structures in order to attract outside funding, which can minimize the cost of equity financing. They came to the conclusion that improved corporate governance eventually results in higher firm value.

Additionally, research by Core et al. (2006), Bebchuk et al. (2009), and Renders and Gaeremynck (2012) highlight the favorable correlation between good corporate governance and business value. Renders and Gaeremynck (2012) discovered that effective corporate governance increases a company's worth in their investigation of the effects of voluntary corporate governance and agency issues on European listed enterprises. By concentrating on the impact of internal corporate governance procedures and board structure on company value, Lei and Song (2012) highlighted the need of independent board structures for success.

The existence of an Audit Committee has been revealed to improve the business's financial performance and the quality of reporting (Wild, 1994; Menon and Williams, 1994; Carcello et al., 2002; Felo et al., 2003; Carcello and Neal, 2003; Choi et al., 2004; Van der Zahn and Tower, 2004; Karamanou and Vafeas, 2005; Defond et al., 2005; Zha, 2006; Chan and Li, 2008; Bruynseels and Cardinaels, 2014). Rahman and Ali's (2006) lack of a compelling connection between the audit committee's independence and earnings management in publicly listed Malaysian companies raises the notion that managerial dominance is restricting the effectiveness of boards.

In conclusion, understanding the connection between corporate governance and the market capitalization of banks is crucial in comprehending the dynamics of the financial sector, including the Pakistani banking industry. The reviewed literature provides valuable insights into this relationship, highlighting the significance of strong corporate governance practices in growing firm value. Market capitalization is a crucial measure of company worth, and a growing body of research consistently shows a link between strong corporate governance practices and firm value. Using this



information and assuming a positive association between corporate governance and market capitalisation, we arrive to the following hypothesis:

H0: There is no significant impact of corporate governance on Bank Market Capitalization in Pakistan.

H1: There is a positive and significant impact of corporate governance on Bank Market Capitalization in Pakistan.

#### 4 RESEARCH METHODOLOGY

In this section of the study, a well-defined and comprehensive strategy is presented to explain the dataset's nature and sources, the process of variable creation, and the selection of estimation procedures. It also covers the sample design and selection process, along with an outline of the tools and procedures employed in this study. Moreover, it specifies the specific group of people targeted for the study and the sample size derived from that population. The following chapter provides illustrative examples of the methodologies employed to evaluate the study. In the conclusion, this research study's main objective is to employ panel data analysis to look at the link between corporate governance and bank performance in Pakistan.

##### **4.1 Research Approach**

Since this study follows a deductive approach, it has utilized the hypothetico-deductive method to derive conclusions based on existing theories and literature. The findings of this study are primarily influenced by the stewardship and agency theories developed by Schoorman and Donaldson (1997), serving as a fundamental framework for analysis.

##### **4.2 Methodological Choice**

The study employed a single-method approach, focusing solely on quantitative data collection. The data were analyzed using various regression models, models with fixed effects, random effects, and pooled OLS, with the results subsequently interpreted. The Hausman test was used to compare fixed and random effect regressions in order to identify the best model for imbalanced panel data. The random effect model was chosen for this investigation after each of the three models was thoroughly analyzed and tested. After using the Hausman estimate, the random effect model was chosen as the preferred option for this study.

##### **4.3 Time Horizon**

The study employed a panel or longitudinal data collection approach, gathering data from various financial institutions over a span of ten years (2010-2020). This allowed for the inclusion of variables from different institutions over the specified timeframe.

##### **4.4 Population**

The banking system in Pakistan comprises 35 commercial banks, seven investment banks, and 11 microfinance banks. However, this study specifically focuses on commercial banks due to their similar nature of activities, involvement in lending and deposits, and alignment with the objectives of the research. The exclusion of microfinance and investment banks is attributed to their distinct operational characteristics and their treatment by the State Bank of Pakistan (SBP). Furthermore, foreign banks were also omitted from the study due to the unavailability of their data. Among the remaining 30 commercial banks, 11 were further excluded due to inconsistent and missing data. Finally, the study's sample comprises of the remaining 19 banks, which represent approximately 54.22% of the total number of commercial banks, covering the period from 2010 to 2020.

##### **4.5 Sampling**

This study employed a simple random sampling method, a widely recognized statistical technique that ensures a representative sample from the population of commercial banks. By giving each bank an equal chance of selection, this method eliminates bias and guarantees that the chosen banks are a fair representation of the larger population. The sample frame comprised 35 commercial banks meeting specific criteria, such as operating within the same market and being subject to identical banking regulations, ensuring comparability and attributability of performance differences to variations in corporate governance practices. Various measures were taken to ensure sample reliability and validity, including eliminating duplicate entries, verifying data authenticity, and



ensuring an adequate sample size for robust statistical analysis. By utilizing a well-defined sampling technique, the study minimizes bias, enhances the accuracy of findings, and increases their generalizability.

#### **4.6 Sources of data collection and procedure**

This study employed a secondary method of data collection to gather comprehensive data on corporate governance, industry-specific and bank-specific variables, country-specific variables, and performance indicators for commercial banks in Pakistan from 2010 to 2020. To capture the multifaceted aspects of corporate governance, data from various sources were utilized, including annual reports of commercial banks containing statements of compliance, corporate profiles, and director reports, as well as the Pakistan Credit Agency (PACRA) database, previously used by Haris et al. (2019), to ensure a comprehensive data collection process. The State Bank of Pakistan's (SBP) database was used as the source for bank and industry specific variables. Country-specific variable data spanning the study period were sourced from the World Bank. Performance metrics, including Market Capitalization and Market Return, were collected from the Pakistan Stock Market using similar methods as employed by Hasan and Omar (2015) and Bezwada (2020). Rigorous measures were implemented to ensure data reliability and validity, including authenticity verification and duplicate entry checks.

#### **4.7 Operationalization definition of variables**

Corporate Governance (CG) variables encompass Board Size, Board Composition, Director Compensation, Board Independence, Audit Meeting, Audit Independence, and Audit Committee Size.

Industry-Specific Variable (IS) consists of Industry-Specific Concentration.

The Country-Specific Variable (CS) focuses on Economic Growth.

Market Capitalization (MC) represents the Market Value of Shareholders' Equity.

Market Return (MR) reflects the Stock Market Return of the Bank.

#### **4.8 Operationalization of variables**

The definition and measurement of the variables used in the study are both fully described in this section. It includes both independent and dependent variables, ensuring the reliability and correctness of the information obtained and the judgments made. The operationalization of the variables is presented in a very clear and condensed manner to enhance the study's overall quality.

#### **4.9 Measure of dependent variable**

This study examines two dependent variables: Market Return and Bank Market Capitalization. These variables are measured as follows:

**Market Return:** Market return represents the financial gain or loss on an investment over time. It can be computed by comparing the nominal change in the dollar value of an investment and expressing it as a percentage of the initial investment. Market return can be measured either as net results, considering costs, taxes, and inflation, or as gross returns, considering only the price change. The mathematical formula for measuring market return in this study is:

$$\text{Bank Stock Price Market Return} = (\text{Bank Current Year Stock Price} - \text{Previous Year Stock Price}) / (\text{Previous Year Stock Price})$$

**Bank Market Capitalization:** The total market value of a firm's outstanding shares of stock is referred to as market capitalization. The financial community uses it as a proxy for firm size rather than revenue or total assets. In acquisition scenarios, market capitalization is used to calculate the value of a business. The following equation illustrates the market capitalization of banks:

$$\text{Bank Market Capitalization} = \text{Number of outstanding shares} * \text{Bank Stock Price}$$

By employing these measurements, the study aims to provide a comprehensive analysis of market return, and bank market capitalization.

#### **4.10 Measure of Independent Variables**

In this study, the independent variables selected to examine corporate governance practices are as follows:

1. **Board Size:** This is a reference to a bank's entire board membership. For information sharing, monitoring senior management, and providing the CEO with strategic direction, the



size of the board is crucial. To determine the size of the board, the logarithm of the total number of board members is utilized.

2. **Board Composition:** A board's composition takes into account the various skills, expertise, networks, and knowledge that each director contributes. The performance of a corporation can be considerably impacted by a board that is well-rounded. The ratio of non-executive directors to all board members is used as a statistic in this study, which considers the percentage of non-executive directors.
3. **Director Compensation:** The annual retainer, supplemental retainers, and meeting-specific remuneration all make up the director's compensation. Benefits, retirement programs, stock option profits, and other types of compensation are not included. The logarithm of the total remuneration given to directors is used to calculate director compensation.
4. **Board Independence:** Directors who are independent are individuals who have no financial ties to the firm, are not on the executive team, and are not a part of daily activities. They provide monitoring, unbiased guidance, and adherence to rules of corporate governance. The benchmark used to assess board independence is the ratio of independent directors to total board members.
5. **Audit Meeting:** The audit committee's responsibility is to monitor and keep track of compliance, controls, and financial reporting. Discussions on financial statements and earnings announcements are covered in audit meetings with management and independent auditors. The logarithm of the total number of meetings is used to calculate the number of audit meetings.
6. **Audit Independence:** Effective audit committee monitoring of financial reporting requires independent directors. It guarantees objective assessment and oversight of directors' responsibilities. The logarithm of the total number of independent board members is used to calculate audit independence.
7. **Audit Committee Size:** The audit committee's members must be unbiased and knowledgeable in the subject because they are tasked with evaluating and supervising the financial reporting process. The total number of committee members' logarithms is used to calculate the audit committee's size.

By carefully analyzing these variables, the major objective of this study is to gain understanding of how corporate governance policies impact bank performance.

#### 4.11 Panel Data

Panel data analysis works on combining time series and cross-sectional units, allowing for examination of the same individuals or entities over time. The econometric model for panel data is represented by  $y_{it} = \alpha + \beta x_{it} + u_{it}$ , where  $y_{it}$  is the dependent variable,  $\alpha$  is the intercept, and  $\beta$  measures the rate of change in the dependent variable due to changes in independent variable.

Pooling all observations into a single regression is the simplest approach but disregards heterogeneity within the data, which can lead to inaccurate results. This study recognizes this limitation and employs not only the pooled OLS regression method but also random and fixed effects models to account for heterogeneity.

The developed models for this study are as follows:

$$MC_{it} = \beta_0 + \sum_1^n \beta_j CG_{it}^j + \sum_1^k \beta_k BS_{it}^k + \sum_1^n \beta_l IS_{it}^l + \beta_m CS_{it}^m + u_{it}$$

$$MR_{it} = \beta_0 + \sum_1^n \beta_j CG_{it}^j + \sum_1^k \beta_k BS_{it}^k + \beta_l IS_{it}^l + \beta_m CS_{it}^m + u_{it}$$

Where MC represents Market Capitalization, MR represents Market Return, i represents each bank, t represents time (year), and the superscript indicates the respective variable for bank i at time t.  $\beta$  represents the coefficients, and  $u_{it}$  is the residual or error term.

Variables related to corporate governance (CG) include board size, composition, director compensation, independence, audit meetings, independence of the audit committee, and size of the audit committee.

Bank Specific (BS) variables include Bank Size.

Industry Specific (IS) variable is Industry Concentration.



Country Specific (CS) variable is Economic Growth.

Given the focus on panel data analysis, this study employs various techniques, including Pooled OLS (Ordinary Least Square) Model, Random Effect Model, and Fixed Effect Model. These techniques aim to provide a comprehensive analysis of the relationships between variables and account for heterogeneity in the data.

#### **4.12 Pooled OLS Model**

Pooled OLS regression, also known as ordinary least squares regression without cross-sectional or time effects, refers to using a different sample for each period (year/month) of the panel data. According to Wooldridge (2010), the pooled OLS estimator overlooks the panel structure and estimates the intercept ( $\alpha$ ), slope ( $B$ ), and other parameters ( $\gamma$ ) without considering the panel data characteristics.

#### **4.13 Fixed effect Model**

An alternative approach to analyzing panel data involves incorporating varying intercepts based on cross-sectional groups while keeping the slopes constant. Fixed effect models consider the possibility that cross-sectional effects may have a stronger influence than temporal effects in the series. One type of fixed effect model maintains constant slopes while allowing the intercept to vary over time. This model captures temporal differences rather than cross-sectional variations. In another type of fixed effect model, the slope remains constant, but the intercept can change across both time and cross-section. Certain fixed effect models accommodate both cross-sectional and temporal variations in both the slope and intercept.

#### **4.14 Random Effect Model**

A random constant term is included in the random effect model, a regression analysis method. Both cross-sectional and time series data must be included. The data will be analyzed using STATA, and the associations between variables will be evaluated using a variety of statistical approaches, including descriptive statistics, correlation analysis, multivariate techniques, inferential statistics, and multiple linear regressions.

**Table 1: Summary of Variables**

Variable	Notation	Description
<b>Dependent</b>		
Market Return	MRKTRETURN	Percentage change in bank's stock price from the previous year.
Total Capitalization	TOTALCPTLZTN	Market value of outstanding shares of the bank.
<b>Independent</b>		
Board Size	BSIZE	Logarithm of the total number of board members.
Board Composition	BCOMP	Ratio of non-executive directors to total members in the board.
Director Compensation	DRCOMP	Logarithm of the total compensation paid to directors.
Board Independence	BINDP	Ratio of independent directors to total members in the board.
Audit Meeting	ADTMNTNG	Logarithm of the total number of audit meetings.
Audit Independence	ADTINDP	Logarithm of the total number of independent members in the board.
Audit Committee Size	ADTCMTSIZE	Logarithm of the total number of members in the audit committee.

Variable	Notation	Description
<b>Control Variables</b>		
Industry Specific		
Industry Concentration	IC	Ratio of big five banks over all domestic banks.
Country Specific		
Economic Growth	GDPR	Annual percentage change in GDP.
Government Change	GOVTCHNG	Dummy variable indicating government change from 2010-2020 (1 if changed, 0 if not).

### Models

$$\begin{aligned}
 \text{MRKTRETURN}_{i,t} = & \beta_0 + \beta_1 \text{BSIZE}_{i,t} + \beta_2 \text{BCOMP}_{i,t} + \beta_3 \text{DRCOMP}_{i,t} + \beta_4 \text{BINDP}_{i,t} + \\
 & \beta_5 \text{ADTMTNG}_{i,t} + \beta_6 \text{ADTINDP}_{i,t} + \beta_7 \text{ADTCMTSIZE}_{i,t} + \beta_8 \text{IC}_{i,t} + \\
 & \beta_9 \text{GDPR}_{i,t} + \beta_{10} \text{GOVTCHNG}_{i,t} + \varepsilon_{i,t} \\
 \text{TOTALCPTLZTN}_{i,t} = & \beta_0 + \beta_1 \text{BSIZE}_{i,t} + \beta_2 \text{BCOMP}_{i,t} + \beta_3 \text{DRCOMP}_{i,t} + \beta_4 \text{BINDP}_{i,t} + \beta_5 \text{ADTMTNG}_{i,t} \\
 & + \beta_6 \text{ADTINDP}_{i,t} + \beta_7 \text{ADTCMTSIZE}_{i,t} + \beta_8 \text{INDUSTRYSPCF}_{i,t} + \beta_9 \text{COUNTRYSPCF}_{i,t} \\
 & + \beta_{10} \text{GOVTCHNG}_{i,t} + \varepsilon_{i,t}
 \end{aligned}$$

### 5 RESULT AND DISCUSSION

In this section of the study, Results of the total study are provided, with an emphasis on panel regressions, correlations, and descriptive statistics to examine the variables affecting market return and market capitalization. Three different models—Pooled OLS, Random Effect, and Fixed Effect—were considered for the analysis. After running the Hausman specification test, the research determined that the Random Effect model was the most appropriate model and selected it as the best model.

#### 5.1 Descriptive Statistics

Table 01 displays the findings of the descriptive statistics, which comprise a total of 187 bank-year data. The dependent and independent variables that were selected for the study are summarized together with their means, standard deviations, minimum values, and maximum values. The standard deviation reflects the degree of variation around the mean, whereas the mean shows the data's central tendency. The range method is also utilized to assess deviations from the mean, although it may overestimate outliers. The maximum value (max) represents the highest or most extreme figure in the data, while the minimum value (min) indicates the lowest value.

Only around 25 missing values were found in this research's data, which accounts for less than 1% of the total 2805 values for the 15 variables (187\*15). The average Market Capitalization is reported as 18.83. Dummy variables, represented by values of 0 and 1, are used to indicate a government change (GOVTCHNG), with 1 indicating a change and 0 otherwise. According to corporate governance standards, Pakistani banks have boards that are 8.95 on average, which is smaller than the average for commercial banks in the United States (Yulia, 2016), but comparable to the findings of Haris et al. (2019) and the Islamic Banks (8.88) in Asian nations.

The National Bank of Pakistan has the smallest board and MCB bank has the largest board as of the end of 2010. Bank boards in Pakistan range in size from 4 to 13 members. A predominance of outside directors is shown by the average board composition value of 0.52, which shows that 52% of the board members in Pakistani banks are non-executive directors. According to the board independence ratio of 0.315, Pakistani banks often have more independent directors on their boards than the State Bank of Pakistan's minimal requirement of three.

The average number of audit meetings per year is 5.62, meaning that Pakistani banks' audit committee members meet more frequently than the minimum of four sessions per year required by



law. An average of at least 4 independent directors can be found in Pakistani banks, according to the audit independence ratio of 0.47, which indicates that 47% of the audit committee's directors are independent. The audit committee's average size is 3.73, which indicates that Pakistani banks' audit committees typically contain at least 3 members.

**Table 01: Descriptive Statistics**

<b>Variable</b>		<b>Mean</b>	<b>Std.Dev.</b>	<b>Min</b>	<b>Max</b>	<b>Observations</b>	
<b>Dependent Variables</b>							
MKTRETURN	Overall	0.076	0.387	-0.704	2.558	N =	187
	Between		0.079	-0.102	0.208	n =	17
	Within		0.379	-0.673	2.439	T =	11
TOTALCAPTLZTN	Overall	18.836	1.416	14.684	22.072	N =	187
	Between		1.261	16.101	21.2	n =	17
	Within		0.708	16.59	20.594	T =	11
<b>Independent Variables</b>							
BSIZE	Overall	8.952	1.736	4	13	N =	187
	Between		1.561	6.636	12.455	n =	17
	Within		0.842	6.043	11.497	T =	11
BCOMP	Overall	0.525	0.139	0	0.857	N =	187
	Between		0.095	0.367	0.719	n =	17
	Within		0.104	0.158	0.908	T =	11
DRCOMP	Overall	9.446	1.356	5.704	12.227	N =	187
	Between		1.115	7.359	11.336	n =	17
	Within		0.814	7.051	11.567	T =	11
BIDNP	Overall	0.315	0.107	0	0.714	N =	187
	Between		0.067	0.166	0.404	n =	17
	Within		0.084	0.038	0.641	T =	11
ADMTMTNG	Overall	5.62	2.369	2	23	N =	187
	Between		1.869	4	10.636	n =	17
	Within		1.52	1.802	17.984	T =	11
ADTINDP	Overall	0.471	0.192	0	1	N =	187
	Between		0.135	0.265	0.652	n =	17
	Within		0.141	0.031	1.075	T =	11
ADTCMTSIZE	Overall	3.733	0.857	2	6	N =	187
	Between		0.721	2.909	5	n =	17
	Within		0.492	2.551	5.551	T =	11

<b>Control Variables</b>							
INDUSTRYSPCFC	Overall	0.594	0.017	0.556	0.619	N =	187
	Between		0	0.594	0.594	n =	17
	Within		0.017	0.556	0.619	T =	11
GOVTCHNG	Overall	0.364	0.482	0	1	N =	187
	Between		0	0.364	0.364	n =	17
	Within		0.482	0	1	T =	11
COUNTRYSPCFC	Overall	3.526	2.069	-0.935	5.836	N =	187
	Between		0	3.526	3.526	n =	17
	Within		2.069	-0.935	5.836	T =	11

## 5.2 Correlations

The correlation analysis's findings are displayed in Table 02, which also indicates whether the variables under consideration are favorably or adversely connected to one another. The presence of multicollinearity in the data is also shown by the correlation analysis, which is indicated by a correlation value of higher than 0.80 between variables (Gujrati, 2003). However, as no correlation value in this research exceeds the threshold of 0.80, there is no indication of multicollinearity in the data.

The correlations that exist between the variables in the dataset are shown in the correlation matrix. The correlation coefficient between any two variables is represented by each cell in the matrix. A quick explanation of the correlation output is provided below:

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- (1) Market Return: This variable has a correlation of 1.000 with itself (which is expected). It serves as the reference point for the other variables.
- (2) Total Capitalization: there is positive correlation of 0.118 with Market Return, indicating a weak positive relationship between market return and total capitalization.
- (3) Board Size: There is a weak negative correlation (-0.039) with Market Return, suggesting a slight inverse relationship between board size and market return.
- (4) Board Composition: It shows a positive correlation of 0.077 with Market Return, indicating a weak positive association between board composition and market return.
- (5) Director Compensation: There is a weak negative correlation (-0.057) with Market Return, suggesting a slight inverse relationship between director compensation and market return.
- (6) Board Independence: It exhibits a weak positive correlation (0.055) with Market Return, indicating a slight positive association between board independence and market return.
- (7) Audit Meeting: There is a weak negative correlation (-0.036) with Market Return, indicating a somewhat unfavorable link between the number of audit meetings and market performance.
- (8) Audit Independence: It shows a weak positive correlation (0.037) with Market Return, indicating a slight positive association between audit independence and market return.
- (9) Audit Meetings: There is a weak negative correlation (-0.025) with Market Return, suggesting a slight inverse relationship between audit meetings and market return.
- (10) Industry Specific: It exhibits a moderate positive correlation (0.387) with Market Return, indicating a relatively stronger positive association between industry-specific factors and market return.
- (11) Government Change: There is a moderate positive correlation (0.210) with Market Return, suggesting a relatively stronger positive relationship between government change and market return.
- (15) Country Specific: It shows a weak positive correlation (0.121) with Market Return, indicating a slight positive association between country-specific factors and market return.

Overall, the correlations in the matrix provide insights into the relationships between the variables, allowing for an understanding of their interdependence and potential impact on market return. It



should be noted that the discussion above only highlights the positive and negative associations between the variables. However, It is crucial to take into account the degree of relevance of these relationships when examining the robustness of the panel data regression models, which were tested using pooled OLS, Random Effect, and Fixed Effect models. The results of the regression models may not necessarily be the same as the correlation analysis, and the significance level of the relationships will be discussed in more detail in the regression output.

**Table 02: Correlation matrix**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Market Return	1.000										
(2) Total Capitalization	0.118	1.000									
(3) Board Size	-0.039	-0.114	1.000								
(4) Board Composition	0.077	0.118	0.261	1.000							
(5) Director Compensation	-0.057	0.002	0.194	0.188	1.000						
(6) Board Independence	0.055	-0.078	-0.313	-0.699	-0.096	1.000					
(7) Audit Meeting	-0.036	0.096	-0.098	-0.058	0.060	-0.012	1.000				
(8) Audit Independence	0.037	0.071	-0.123	-0.242	-0.172	0.258	0.038	1.000			
(9) Audit Meetings	-0.025	-0.092	0.309	0.112	0.178	-0.175	0.275	-0.276	1.000		
(10) Industry Specific	0.387	0.059	-0.062	0.057	-0.224	-0.081	0.010	0.181	-0.005	1.000	
(11) Government Change	0.210	0.032	-0.009	0.057	-0.000	-0.019	0.037	0.032	-0.035	0.597	1.00
(15) Country Specific	0.121	0.061	0.70	0.0072	0.0372	-0.127	-0.006	-	0.1858	0.0762	0.6800
									0.78		
										0.0004	

#### Diagnostic test

Prior to utilizing the unbalanced dynamic panel data, several pre-estimation tests were conducted to verify its reliability. One of these tests entailed using an augmented Dickey-Fuller (ADF) test, a root test of the Fisher type, to determine the data's stationarity. The findings of the ADF unit root are shown in Table 3. As the p-values for each variable were found to be statistically significant, the hypothesis of a unit root was rejected, suggesting that the data exhibits stationarity.

#### 5.3 Stationarity test

**Table 3: Levin-Lin-Chu unit-root test for panel data**

Variable		Statistics	P-Value	
MRKTRETURN	Unadjusted t	-13.9972		
	Adjusted t*	-8.5043	0.000	
TOTALCAPTLZTN	Unadjusted t	-7.2851		
	Adjusted t*	-3.0321	0.0012	
BSIZE	Unadjusted t	-6.9242		
	Adjusted t*	-3.4685	0.0003	
BCOMPSTION	Unadjusted t	-20.6992		
	Adjusted t*	-19.7495	0.000	
DRCOMPNSTION	Unadjusted t	-5.8594		
	Adjusted t*	-4.189	0.000	
BINDPNDS	Unadjusted t	-9.2213		
	Adjusted t*	-1.587	0.056	



<b>ADTMNTNG</b>	Unadjusted t	-8.5289		
	Adjusted t*	-3.1545	0.0008	
<b>ADTINDPNCE</b>	Unadjusted t	-13.4369		
	Adjusted t*	-5.2442	0.000	(1 diff)
<b>ADTCMTSIZE</b>	Unadjusted t	-11.2802		
	Adjusted t*	-5.68	0.000	
<b>INDUSTRYSPCFC</b>	Unadjusted t	-12.97		
	Adjusted t*	-4.102	0.000	(1 diff)
<b>COUNTRYSPCFC</b>	Unadjusted t	-6.7253		
	Adjusted t*	6.1452	1	

#### 5.4 Normality of error

Normality is seen as crucial for fulfilling the requirements of multiple regression. It ensures the validity of p-values for t-tests and F-tests. One requirement of regression is that the residuals follow a uniform distribution and are independently generated. To assess the normality of residuals, a skewness and kurtosis test was used in the investigation. Indicating the size and direction of skew, skewness quantifies the asymmetry of the probability of random variables surrounding its mean. Kurtosis, on the other hand, describes how tall and sharp the center peak is in comparison to a typical bell curve.

The following table displays the results of STATA's skewness and kurtosis tests for normalcy. In this scenario, there are 186 total observations listed in the table along with the probability of skewness, which is 0.328. Given that it is more than 0.05, the skewness p-value shows that it is asymptotically regularly distributed. Similar to the kurtosis, if the p-value is higher than 0.05, the kurtosis is similarly asymptotically distributed depending on the likelihood of kurtosis. Additionally notable is the chi-square value of 0.160, which is more than 0.05 and denotes significance at a 5% level. Therefore, the null hypothesis cannot be refuted. The skewness test for normalcy thus confirms the normal distribution of the residuals.

**Table 4: Skewness/Kurtosis tests for Normality**

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
Residuals	186	0.328	0.103	3.660	0.160

#### 5.5 Multicollinearity

The standard assumption of Ordinary Least Squares (OLS) states that independent variables should not exhibit linear correlation with each other. However, when independent variables are correlated, it gives rise to multicollinearity. Multicollinearity is not a problem specific to the model itself, but rather a characteristic of the data. While it is not possible to completely eliminate multicollinearity, it can be mitigated to some extent. It is important to identify which independent variables are causing the issue and to assess the degree of collinearity present.

As the degree of collinearity increases, it becomes harder to predict the regression coefficients. The issue of multicollinearity across all independent variables was resolved using the variance inflation factor (VIF) test. The VIF values for each variable are shown in Table 05 together with the mean VIF (1.787). If the mean VIF is less than the threshold value of 10, which is 10, then there is no visible multicollinearity among the variables. This might imply that the multicollinearity issue was satisfactorily addressed by the analysis.

**Table 5: Variance inflation factor**

	VIF	1/VIF
BSIZE	1.381	.724
BCOMP	2.47	.405
DRCOMP	1.343	.745

BINDP	2.486	.402	
ADTMNTNG	1.2	.833	
ADTINDP	1.341	.746	
ADTCMTSIZE	1.388	.721	
IDUSTRYSPCFC	2.572	.389	
GOVTCHNG	1.674	.597	
COUNTRYSPCFC	2.011	.497	
Mean VIF	1.787	.	

## 5.6 Heteroscedasticity

The assumption of homogeneity of residual variance is important in regression, stating that the residual variance should remain consistent. If the model is poorly fitted, the residuals will exhibit a pattern against the estimated values, referred to as "heteroscedastic" residual variance. In this study, the homogeneity of the model was examined utilizing the Breusch-Pagan test, which examines the constant variance null hypothesis.

The Breusch-Pagan test findings show that the p-value is less than 0.05, which causes the null hypothesis to be rejected and the alternative hypothesis to be accepted. This finding suggests the presence of heterogeneity and sensitivity of the variance in the model. Heterogeneity is a more common issue in cross-sectional and panel data. As a result, robust regression is employed in this study to account for heteroscedasticity, taking into consideration the standard errors and confidence intervals.

## 5.7 Model Selection

The Hausman test is frequently employed as a model specification test. When performing panel data analysis, which entails reviewing data across time, it assists in deciding between a random effects model and a fixed effects model. The alternative hypothesis asserts that a fixed effects model is more appropriate than a random effects model, which is what the null hypothesis claims. The test's main objective is to establish if the model's regressors and the unique errors are related. According to the null hypothesis, there is no relationship between the two. The optimal model for the panel data analysis was chosen in this study using the Hausman (1978) specification test.

**Table 6: Hausman (1978) specification test**

	Coef.
Chi-square test value	15.915
P-value	.102

The researcher does not reject the null-hypothesis based on the findings of the Hausman (1978) specification test, where the derived p-value is larger than 0.05. In light of this, it is determined that the random effect model is the one that best fits the analysis.

## 5.8 Regression Output

Table 7 displays the results of three regression models that explored the connection between market return and corporate governance characteristics, including Pooled OLS, Random Effect, and Fixed Effect. The Random Effect model is determined to be the most acceptable model based on the appropriateness test. The negative board size coefficient shows that market return and board size may be inversely related. Because this data is not statistically significant at the 5% or 10% level, the null-hypothesis cannot be ruled out. This finding is in line with studies by Wei (2003) and Lin (2007), which also found little indication of a strong correlation between board size and shareholder share prices.

Although slightly significant at the 10% level, the link between board composition and market return is likewise negligible in the Random Effect regression result. This result is in line with



Fiador's (2013) hypothesis that non-executive members on the board may be of limited benefit to investors. Pi and Timme (1993), Hermalin and Weisbach (1991), Belkhir (2006), and Adams and Mehran (2008) revealed similar findings that a majority of non-executive directors on business boards did not have any advantages.

On the other hand, in both the Pooled OLS and Fixed Effect regression models, the board independence variable shows significant relationships with market return at the 5% level, with marginal significance at the 10% level in the Random Effect model. This backs up the conclusions reached by Rosenstein and Wyatt (1990, 1997), who noted a favorable stock price response to the appointment of independent directors. The results of the Random Effect regression, however, support the assertion that the presence of board independence has little effect on stock prices. This result supports Wagner's (2010) assertion that board independence is less significant than board competency. Outside directors could be better at supervision, but they might not fully comprehend how the organization runs inside (Adams, 2012).

The coefficient for director compensation is positive but insignificant, indicating that board compensation is not perceived by investors in Pakistan as value-enhancing information affecting stock prices and bank valuation. This finding is in line with Elnahass et al. (2020), who found no significant evidence of the impact of board compensation on bank valuation in a sample of Islamic banks across 11 countries.

It is also shown that the audit committee's independence and how frequently it meets have no impact on market return. These results are in line with Hsu's (2007) research, which found no indication of a relationship between audit committee meeting frequency and independence and marketing performance. The findings of Gurusamy (2017), who discovered no connection between the size of the audit committee and market performance, are also consistent with the lack of significance in the audit committee size output.

**Table 07: The Impact of Corporate Governance Practices on Market Return**

Variable	Pooled OLS (1)	Random Effect (2)	Fixed Effect (3)
BSIZE	0 (0.985)	-0.005 (0.75)	0.001 (0.942)
BCOMP	0.654** (0.039)	0.628* (0.076)	0.618* (0.094)
DRCOMP	0.019 (0.494)	0.02 (0.464)	0.017 (0.536)
BINDP	0.29** (0.018)	0.885* (0.072)	0.291** (0.034)
ADTMTNG	-0.006 (0.485)	-0.007 (0.388)	-0.006 (0.456)
ADTINDP	-0.029 (0.855)	0.011 (0.941)	-0.009 (0.953)
ADTCMTSIZE	0.008 (0.761)	0.011 (0.688)	0.007 (0.804)
IDUSTRYSPCFC	14.464*** (0.000)	14.075*** (0.000)	14.297*** (0.000)
COUNTRYSPCFC	-0.056*** (0.002)	-0.056*** (0.003)	-0.056*** (0.003)
GOVTCHNG	-0.029	-0.024	-0.023

	(0.66)	(0.709)	(0.727)
Intercept	-8.465*** (0.000)	-8.846*** (0.000)	-8.207*** (0.000)
Mean dependent var	0.075	0.076	0.075
R-squared	0.234	0.224	0.227
F-test	4.554	4.78	4.417
Akaike crit. (AIC)	146.643	149.059	148.332
SD dependent var	0.387	0.387	0.387
Number of obs	186	187	186
Prob > F	0	0	0
Bayesian crit. (BIC)	182.126	184.601	183.816

The results of three panel data regression models (Pooled OLS, Random Effect, and Fixed Effect) that looked at how corporate governance affected market capitalization are shown in Table 8. Only Director Compensation and Audit Meetings were shown to significantly affect Pakistan's market capitalization among the factors examined. In line with research by Spizzirri (2014), Randy (2002), and Liew et al. (2022), the positive correlation for Director Compensation implies that greater compensation for bank directors is related to increased market capitalization and business values. According to the Ameer et al. (2010) and Beasley et al. (2000) recommendations, which emphasized the importance of frequent audit committee meetings in reducing financial fraud and possibly improving firm performance, a higher frequency of audit meetings is significantly correlated with market capitalization. This finding is supported by the positive coefficient for audit meetings. However, it was discovered that the Market Capitalization was unaffected by Board size, Board composition, or the existence of independent directors, which is similar with the findings of Bhat et al. (2018) and Yammeesri and Herath (2010). The findings of Afza and Nazir (2014) are supported by the Audit Committee independence coefficient, which was negative but not statistically significant and suggests that adding independent directors has little to no effect on the value of the company. In accordance with Chan and Li's (2008) study, which stated that the size of the audit committee becomes irrelevant when finance-trained directors are members of an independent audit committee, the size of the audit committee was also discovered to be inversely linked to market capitalization. According to Mohiuddin and Karbhari (2010), for the Audit Committee to be effective, it has to be made up of members who are qualified, unbiased, and have enough power. In summary, the results highlight the significant positive relationship between Director Compensation and Audit Meetings with Market Capitalization, while other governance variables such as Board size, composition, independence, and Audit Committee size were found to be insignificant in affecting firm value.

Table 08: The Impact of Corporate Governance Practices on Market Capitalization

Variable	Pooled OLS (1)	Random Effect (2)	Fixed Effect (3)
BSIZE	-0.093* (0.081)	-0.085 (0.118)	-0.084 (0.123)
BCOMP	0.562 (0.577)	0.621 (0.516)	0.934 (0.425)
DRCOMP	0.196*** (0.004)	0.189*** (0.005)	0.184*** (0.007)
BINDP	-0.335 (0.777)	-0.022 (0.94)	0.069 (0.839)
ADMTMTNG	0.108*** (0.003)	0.109*** (0.002)	0.11*** (0.002)

ADTINDP	-0.899 (0.162)	-0.923 (0.153)	-0.878 (0.184)
ADTCMTSIZE	0.052 (0.626)	0.05 (0.638)	0.049 (0.642)
IDUSTRYSPCFC	14.231 (0.122)	14.009 (0.13)	13.834 (0.135)
COUNTRYSPCFC	-0.004 (0.959)	-0.005 (0.941)	-0.007 (0.924)
GOVTCHNG	-0.187 (0.489)	-0.173 (0.528)	-0.169 (0.536)
Intercept	8.869 (0.12)	8.844 (0.115)	9.121 (0.105)
Mean dependent var	18.836	18.827	18.827
R-squared	0.121	0.115	0.117
F-test	3.544	3.283	3.406
Akaike crit. (AIC)	657.651	654.973	654.649
SD dependent var	1.416	1.414	1.414
Number of obs	187	186	186
Prob > F	0	0.001	0
Bayesian crit. (BIC)	693.193	690.456	690.132

## 6 Conclusion and Recommendations

The primary aim of this research was to examine the influence of corporate governance practices on the performance of banks in Pakistan. This study introduced new performance variables, in addition to the commonly used ones, to measure bank performance. While previous studies primarily focused on financial statements, this research took into account additional dimensions such as Market Return and Market Capitalization of Banks. A sample of 19 commercial banks was selected using a simple random sampling method as the secondary source of data collection. To ensure reliable and accurate results, banks with missing or inconsistent data were excluded from the analysis.

Overall, the findings indicate that the relationship between corporate governance variables and market return is mixed. The regression results suggest that board size and board composition have an insignificant impact on market return, while board independence shows significant associations but lacks significance when considering the Random Effect model. Director compensation also has an insignificant effect on stock prices. On the other hand, audit committee meeting frequency and audit independence exhibit no significant relationship with market return. In terms of Market Capitalization, only Director Compensation and Audit Meetings were found to have a significant effect, indicating that higher compensation for directors and more frequent audit meetings are associated with higher firm values. However, factors such as board size, board composition, the presence of independent directors, and audit committee size and independence were found to be insignificant in affecting Market Capitalization. These findings align with previous studies in the field.

### 6.1 Recommendations

1. Enhance board effectiveness: While board size and composition were found to have an insignificant impact on market return and market capitalization, it is still important to ensure that boards are composed of qualified and competent individuals who can contribute effectively to decision-making processes.



2. Strengthen board independence: Although board independence showed significant associations with market return in some regression models, it lost significance in the Random Effect model. It is crucial to maintain a balance between independence and expertise within the board, ensuring that independent directors possess sufficient knowledge and understanding of the institution's operations.
3. Consider alternative performance indicators: This study introduced new performance variables, such as Market Return and Market Capitalization, in addition to traditional measures. Future research could explore the use of these alternative indicators in assessing bank performance and their relationship with corporate governance practices.
4. Emphasize the role of audit committees: While audit committee meeting frequency and audit independence were found to be insignificant in relation to market return, it is still important to prioritize the effectiveness of audit committees. Frequent meetings and independent committee members can contribute to reducing financial fraud and potentially enhancing firm performance.
5. Continuous monitoring and evaluation: As the findings of this study align with previous research, it is crucial to continually monitor and evaluate the effectiveness of corporate governance practices in the banking sector. Regular assessments can help identify areas for improvement and ensure alignment with best practices.

By implementing these recommendations, banks in Pakistan can strengthen their corporate governance practices, potentially leading to improved performance and enhanced value for stakeholders.

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