Pakistan Journal of Applied Economics, Vol.35 No.2, (1-24), Winter 2025

CORPORATE GOVERNANCE REFORMS AND FINANCIAL PERFORMANCE: Evidence from Pakistan's Non-Financial Sector

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Abstract

The main purpose of this study is to assess the impact of changes in corporate governance practices, introduced by the Companies Act 2017 (which replaced the Companies Ordinance, 1984), on the financial performance of non-financial sector companies in Pakistan. The research study implements a quantitative method to analyse how specific corporate governance variables influence financial performance. The annual data from 2017 to 2022 employed, focusing on 63 non-financial companies listed on the stock exchange. The research relies on panel data to produce an extensive time-based assessment of the examined variables. The analysis demonstrated that corporate governance elements, particularly board composition and ownership patterns, have a direct impact on the financial outcomes of Pakistani non-financial firms. CEO ownership proved to have a negligible impact on the study results. This research contributes to the existing literature by focusing on the non-financial sector in Pakistan, a relatively under-explored area, providing insights into the specific corporate governance factors that drive financial success in this context. The study's scope, primarily focused on Pakistan's non-financial sector, suggests the need for broader research encompassing various industries, including financial institutions, for a more comprehensive understanding of corporate governance's impact.

Keywords: Corporate Governance, Financial Performance, Non-Financial Sector, Board Characteristics.
JEL Classification: G34, G32, L25, C23.

I. Introduction

Corporate governance (CG) is believed to be the system of rules, patterns, and operations following which the operation of the company is guided and controlled, and the primary purpose of the mentioned framework is to ensure the maximisation of shareholder value and the sustainability of the organisation in the long run (Constantatos et al., 2024). It is not only concerned with the efficient utilisation of resources

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but also with the establishment of investor confidence by overseeing the major management decisions (Al-Gamrh et al., 2020). The functionality of the corporate governance system has much to do with the performance of the company in terms of its financial performance, which is normally evaluated using indicators such as the Return on Assets (ROA), the Return on Equity (ROE) and the Earnings per Share (EPS). High-quality management and allocation of resources caused by proper governance finally culminate in corporate value and performance (Shah et al., 2023).

The ownership structure of a firm and the structure of the board of directors are generally recognised as one of the essential components of corporate governance structure (Fakhfakh & Jarboui, 2022). The board will align strategic objectives with company operations and eliminate conflicts of interest among management staff, and the ownership structure will solve the conflicts among shareholders (Jensen & Meckling, 2019). Collectively, these governance mechanisms are designed to mitigate agency problems that arise between corporate leaders and owners due to misaligned incentives and information asymmetries (Khatib et al., 2022). Although most pioneering work of the research on this matter has been conducted in developed economies (Ellili, 2023). There is an emerging and dire need to comprehend such dynamics in an emerging market context, such as Pakistan (Ahmad, 2018).

Emerging markets have one of the areas that have pronounced academic interest because of their unique governance issues. Institutional features of these markets often include concentration of family ownership, a lack of well-developed capital markets and high volatility in the political-economic environment, unlike their counterparts in developed countries, whose ownership models are more widely distributed (Shakri et al., 2024). This setting leads to a peculiar agency problem, which can not be characterised as the traditional principal-agent conflict but as a more urgent principal-principal conflict between the controlling and minority shareholders (Khan et al., 2022). As a result, the current trend in this field can be defined as a joint action of both researchers and regulators to develop the codes of governance which are effective within these local contexts, which are specific and complex (Athar et al., 2023).

This leads to the following central research problem of the study: there is a significant gap in the empirical knowledge of corporate governance in Pakistan following the momentous shift in corporate governance entailed by the passage of the Companies Act, 2017, which replaced the Companies Ordinance, 1984. The whole aim of this legislative reform was to bring corporate practice up to date and to make it more transparent. Despite this reform, there remains a lack of comprehensive empirical work examining how a broad set of governance mechanisms relates to the financial performance of firms operating under the new regulatory regime (Rahman et al., 2023). Existing studies on corporate governance in Pakistan either focus on specific industries or rely on data from before the full implementation of the 2017 Act, therefore; a systematic assessment of the non-financial sector in the post-reform era is still largely missing (Dawood et al., 2023).

The issue needs immediately attention because the non-financial segment is the core of the Pakistani economy, comprising more than 90 per cent share of the market capitalisation of the KSE-100 index (Rehan et al., 2023). These firms are therefore vital to the health of the national economy in terms of their performance and stability. Evidence-based explanations of the governance characteristics that can lead to improved performance are critical to the Pakistani policy maker in order to narrow down the regulatory framework so that it can lead to a more integrated market, thereby attracting investment (Goel, 2018). Such empirical evidence is essential for investors seeking to mitigate risk and make well-informed capital investment decisions by operating in a market with volatility and asymmetry of information (Miao et al., 2023). The effectiveness of the reforms adopted in 2017 is still assumptive, and the concerned stakeholders lack a guiding map of the existing relationship between governance and performance.

To fill this gap, the research performs a technical empirical investigation of the interdependence of vital governance instruments linked to the profitability of non-financial businesses listed in the Pakistan Stock Exchange over the time frame 2017-2022. The proposed study is a novel contribution, as many of the existing papers are among first to present a detailed analysis of the relationship between a large set of governance variables board characteristics (size, independence and diversity) and structure of ownership (institutional, foreign, and CEO); and performance of firms in the current regime of regulation (Farooq et al., 2023). This study presents evidence at the right time and enhances ideas of a better understanding of the effectiveness of the modern corporate governance system in Pakistan, as it uses a rich data set of the post-reform phase (Khan & Mahmood, 2023). Such targeting of the non-financial sector is methodologically made because such a separate standard of operations and reporting provides an easier understanding of their situation, regardless of the confusing impact on the financial sector (Alvi & Arif, 2023).

The results of this research offer practical and implementable insights for a wide range of stakeholders. The results suggest that particular governance structures, like having bigger and more independent boards, more diverse boards regarding gender, and higher levels of institutional and foreign ownership, positively affect a firm's performance. From an investor's perspective, the proof illustrates the corporate governance of the listed non-financial companies more clearly and shows them how to integrate governance metrics into their investment evaluations. For policymakers and scholars, the study supplies updated empirical evidence on corporate governance in a major emerging market, which can inform domestic regulatory reforms and contribute to international debates on governance in similar institutional settings. Overall, this work enriches the academic understanding of the governance–performance relationship in Pakistan and highlights how stronger corporate governance systems can support a more stable and resilient economy.

The significance of the study is supported by existing literature, which highlights a research gap—discussed in Section II—regarding the relationship between

corporate governance and firm performance. Section III explains the study's methodology, including the analytical tools used to achieve the research objectives. The results produced through these tools are presented in Section IV. Section V provides the discussion of the findings, while the article's conclusion and policy recommendations are given in Section VI, followed by limitations and future directions in Section VII.

II. Literature Review

1. Theoretical Foundation

This study primarily relies on Agency Theory, a pillar of foundational corporate finance, which was first conceptualised by Jensen and Meckling (1976). It addresses the basic problem of managerial control being separated from ownership. When managers decide how to run a firm, they might benefit from private advantages to the detriment of shareholders. When firm value is diminished, agency costs arise from the asymmetric information and the conflict of interest (Fama & Jensen, 1983). To minimise these costs, firms need governance mechanisms with boards of directors and ownership structures that control agency theory mechanisms, which ensure that decisions made by managers capture the shareholders' values and interests (Shleifer & Vishny, 1997).

In Pakistan, where corporate ownership is highly concentrated and mainly controlled by family business groups, agency theory is highly relevant (Khan & Kamal, 2023a). In this situation, the main agency problem is not the classic manager–shareholder problem, but a principal–principal problem (Type II), where controlling shareholders expropriate corporate resources and thus wealth from minority shareholders (Khan et al., 2022). This is why agency theory is applicable in assessing how corporate governance mechanisms can protect minority shareholders and improve the firm's value in the concentrated ownership environment of Pakistan.

The Agency-Based Theory, a cornerstone of corporate finance first formalised by Jensen and Meckling (1976), serves as the primary theoretical foundation for this study. It explains the fundamental conflict of interest that arises when managerial control (agents) is separated from ownership (principals). Managers may pursue their own private benefits at the expense of shareholders when information asymmetry and conflicting interests are present, generating agency costs that ultimately reduce firm value (Fama & Jensen, 1983). To mitigate these costs, firms require effective corporate governance mechanisms such as independent boards and appropriate ownership structures that monitor managers, align incentives, and ensure that decisions reflect shareholders' interests (Shleifer & Vishny, 1997).

Agency theory is particularly relevant in Pakistan because corporate ownership is highly concentrated and dominated by family business groups (Khan & Kamal, 2023a).

In such an environment, the main agency problem shifts from the traditional manager–shareholder conflict to a principal–principal conflict (Type II), where controlling shareholders may expropriate corporate resources at the expense of minority shareholders (Khan et al., 2022). Agency theory, therefore, provides a suitable framework for examining how corporate governance mechanisms can safeguard minority investors and enhance firm performance in Pakistan's concentrated ownership setting.

Table 1 summarises the key finance theories discussed in this section and highlights their implications for the role of the board of directors.

a) Firm Performance and Board Attributes

i) Board Size

The board of directors functions primarily as an internal control system within an organisation. In order for the board to manage agency issues, it must be structured and staffed in a manner suited to enhance an organisation's financial outcomes.

Defining the appropriate size for a board of directors remains a complex issue. While proponents of larger boards cite the potential for a wider range of experience and the ability to make more strategic connections, enhance quality control, and provide oversight, sceptics argue that larger boards impede effective communication, coordination, and foster free-riding, which in turn exacerbate agency issues (Hermalin & Weisbach, 2012). Many in the academic community maintain that smaller, more cohesive boards enhance decisiveness and improve outcomes (Mak & Kusnadi, 2005). Recent research from Pakistan also supports the theory that smaller boards improve organisational performance, which indicates the strategic value of decision speed in

TABLE 1

Finance Theories

Theory	Role of Board	Implications for the board
Agency	Managerial control	Incorporating an independent directorate allows shareholders to retain equity interest, exercise control rights and monitor performance.
Resource Dependency	Look for external resources	Additionally, co-optation, where companies appoint board members with strong external connections, serves as a strategic approach to accessing valuable external resources and networks.

Source: Authors' estimation.

that context (Khan & Mahmood, 2023). This sustained discourse clearly indicates a need for more research, particularly concerning Board size and organisational performance in Pakistan.

H1: *The size of the board of directors significantly affects a firm's financial performance.*

ii) Board Independence

There is a pivotal role of independent non-executive directors (NEDs) in regard to efficient oversight. They are impartial, unlike in the agency theory, which, therefore, makes a better assessment of the operations of the managers and monitors the interests of the shareholders (Hasan et al., 2022). This is in the effort of limiting the opportunistic nature and holding the individual responsible (Fama, 1980). The empirical tests in most of the environment showed that there is positive relationship that exists amid board independence and firm performance (Salancik et al., 1978). Though subsequent studies have reported that there is no significant correlation between the two or even a negative correlation (Agrawal & Knoeber, 1996); as it has been observed that NEDs do not carry with them firm-specific knowledge. The main question in this situation is whether the directors on the boards of families are independent in such a market as Pakistan (Shah et al., 2023).

H2: Board independence significantly impacts a firm's financial performance.

iii) Board Diversity

An expanding body of international research indicates that board diversity, especially gender diversity, enhances corporate governance. Female directors contribute diverse perspectives, elevate the quality of board discussions, and improve oversight and attendance, all of which are linked to stronger financial performance (Bhatia & Gulati, 2023; Carter et al., 2003). Gender-diverse boards are associated with greater innovation and a better understanding of diverse market conditions (Liu & McConnell, 2013). This perspective is supported by recent studies in emerging markets, making it a vital component of modern governance analysis (Miao et al., 2023).

H3: Board diversity significantly affects a firm's financial performance.

b) Firm Performance and Ownership Composition

A firm's ownership structure represents one key facet of corporate governance since it impacts how managerial ownership incentives are aligned as well as the nature

and extent of agency problems that may emerge. More specifically, the level of ownership concentration and the identity of the major stakeholders are particularly relevant to the agency conflicts that may arise.

i) Ownership Concentration

At least for some extent of ownership concentration, large block shareholders (blockholders) will have the incentives to monitor managers and, thus, the agency costs that may arise will likely be minimised (Javid & Iqbal, 2008). Nonetheless, even concentration to some extent will lead to principal–principal conflicts, where controlling owners will capture private benefits of control to the detriment of minority shareholders (Young et al., 2008). Hence, the literature on concentration and firm performance is mixed, where some show concentration and performance positively correlate (Rehman & Hassan, 2020) and others show negative and/or non-linear results, particularly in cases where minority shareholders are weakly protected legally (Filatotchev et al., 2013).

H4: Ownership concentration significantly affects a firm's financial performance.

ii) CEO Ownership

One of the classic solutions suggested by agency theory is to use equity ownership, which ties the financial interests of the CEO and shareholders together. An argument based on the "convergence-of-interests" hypothesis is that the higher the ownership stake of the CEO, the more likely their decisions align with the goal of maximising wealth for all shareholders (Becht et al., 2003). Conversely, the "entrenchment" theory argues that after a CEO attains a large enough stake in the firm, they are in a position to avoid accountability and thus withdraw their interests from the firm (Aliahmadi, 2024). The conflicting empirical results on the subject are explained by this intricacy.

H5: CEO ownership has a significant impact on a firm's financial performance.

iii) Foreign Ownership

Higher corporate governance and better firm performance, especially in the emerging markets, are commonly associated with foreign investors. They also help in enhancing oversight and transparency as a result of importing governance practices of more developed systems (Aydin et al., 2007). Besides, their involvement may enable the firm to reach international funds and high technologies, which eventually will improve the company's competitiveness and financial performance (Khanna & Palepu, 2000).

H6: Foreign ownership significantly influences a firm's financial performance.

iv) Ownership by Institutions

Investment banks and pension funds are examples of institutional investors that are frequently viewed as competent watchdogs that can improve governance quality and discipline management (Khan, 2011). They have the knowledge and motivation to interact with boards and promote policies that increase long-term value since they are significant and involved shareholders (Shleifer and Vishny, 1997).

H7: Institutional ownership significantly affects a firm's financial performance.

v) Control Variables and Firm Performance

In addition to the core corporate governance indicators, established literature recognises that firm-specific characteristics significantly influence financial performance. To isolate the effects of governance, this study incorporates three widely used control variables: firm size, leverage, and age.

The Firm Dimensions (SIZE)

A common control in performance studies is size. Greater market power, improved access to finance markets, and economies of scale help larger businesses become more profitable (Ahmad, 2018). They may, however, also experience increased agency expenses and inefficiencies in the bureaucracy.

The Leverage (LVG)

The role of leverage is multifaceted. In line with trade-off theory, moderate leverage can increase firm value through tax shields. From an agency theory perspective, debt can act as a disciplinary mechanism by reducing free cash flow (Jensen, 1986). Conversely, high leverage increases financial risk and potential bankruptcy costs, which can depress performance (Hakimah et al., 2019).

Firm Age (AGE)

A firm's age reflects its experience and life-cycle stage. Older, more established firms may be more stable, but they can also be prone to organisational rigidity, while younger firms might be more agile and innovative (Ahmad, 2018). We control for these life-cycle effects.

Table 2 represents relevant literature which plays a supporting role for our main hypothesis. A review of the literature reveals that while the link between corporate governance and firm performance is well-documented globally, there are significant gaps concerning Pakistan, particularly in the period following the Companies Act of 2017. Most of the previous research has focused on developed economies or has relied on outdated data from Pakistan, usually considering only a limited set of governance variables. Empirical findings, which tend to be contradictory, further highlight the need for a more comprehensive and updated analysis (Hasan et al., 2022). This study seeks to fill this gap by using recent post-reform period data, conducting an extensive examination of the governance frameworks and how they correlate with the financial performance of Pakistan's top non-financial industries. This approach aims to offer an analysis on the effectiveness of governance in a large developing market.

On the basis of the above discussion and identified literature gaps, the following hypothesis was made:

Hypothesis: Corporate Governance mechanisms have a significant influence on firms' Financial Performance.

III. Methodology

This section presents the research design, describes the methodology, data sources, and the timeframe of the study. It defines all variables operationally, outlines the econometric models applied for analysis, and explains the statistical methods used to test the proposed hypotheses.

1. Data

The study population consists of all non-financial companies that are listed on the Pakistan Stock Exchange (PSX). In accordance with the Companies Act of 2017, the analysis will be limited to the years following the 2017–2022 reform, offering a contemporary perspective on corporate governance. The 63 companies made up the final sample, given the availability of fully operational, consistent, and thorough data on all variables. The primary source of data was the companies' yearly financial reports, with additional information gleaned from the DataStream database. In order to concurrently examine cross-sectional changes among firms and time-series changes inside firms across the research period, a sorted panel data set was constructed.

2. Variable Measurement

In order to pass a robustness test, financial performance (the dependent variable) is measured using three distinct metrics: return on assets (ROA), return on equity (ROE), and earnings per share (EPS). The main corporate governance systems, which

TABLE 2

Summary of Literature Review

Author	Country/ Sector	Independent Variable	Dependent Variable	Findings
Juliao et al., 2023	America	Board size	Firm's Performance	Pos. (Sig.)
Waheed and Malik, 2019	Pakistan	Board size	Firm's Performance	Pos. (Sig.)
Mweta & Mungai (2018) discovered	Nigeria	Board size	Firm's Performance	Pos. (N.S.)
Becht et al. (2003)	Germany	CEO Ownership	Firm's Performance	Pos. (N.S.)
Salancik et al., (1978)	Germany	Independent Director	Firm's Performance	Pos. (N.S.)
Agrawal & Knoeber (1996)	India	Independent Director	Firm's Performance	Neg. (Sig.)
Aydin et al., 2007	KSA	Foreign Ownership	Firm's Performance	Pos. (Sig.)
Rizqia et al., 2013	Jordan	Foreign Ownership	Firm's Performance	Pos. (N.S.)
Carter et al., 2003	USA	Board Diversity	Firm's Performance	Pos. (Sig.)
Heugens et al., 2009	Asia	Ownership Concentration	Firm's Performance	Pos. (N.S.)
Filatotchev et al., 2013	Russia	Ownership Concentration	Firm's Performance	Neg. (Sig.)
Sciascia & Mazzola, 2009	Italy	Institutional ownership	Firm's Performance	Pos. (N.S.)
Rahman, M. A. (2024)	Bangladesh	Institutional ownership	Firm's Performance	Pos. (N.S.)

Source: Authors' estimation.

Note: The 'Findings' column uses abbreviations for brevity and is colour-coded for quick visual interpretation. "Pos" stands for a positive relationship and "Neg." for a negative one, while "Sig." denotes a statistically significant result and "N.S" indicates it is not significant. Significant positive findings are highlighted in green, significant negative findings are in red, and all non-significant findings are colored in blue.

are characterised by ownership and board features, are identified using independent variables. Firm size, leverage, and age are all included in the model. The firm-idiosyncratic effect is screened using standard control variables to separate the impact of governance variable elements. The detailed operational definitions of each variable are shown in Table 3.

To ensure the data is suitable for regression analysis and to normalise distributions, certain variables were transformed. Specifically, Board Size, Firm Size, and Firm Age are measured using their natural logarithm. All other variables are expressed as ratios or percentages and used in their original level form.

3. Econometric Model and Estimation Strategy

The following general panel regression model is used to evaluate the relationship between corporate governance (CG) and financial performance (FP) in Equation (1):

$$FP_{it} = \beta_0 + \beta_1 * (CG_{it}) + \beta_2 * (Controlsit) + \mu_{it} \quad (1)$$

where,

FP_{it} is the financial performance metric (ROA, ROE, or EPS) for firm *i* at time *t*.
CG_{it} is the vector of corporate governance variables.
$Controls_{it}$ is the vector of control variables (Size, Leverage, Age).
μ_{it} is the error term.

Panel data regression approaches, which are especially useful in correcting for unobserved heterogeneity that could otherwise skew the results, are used. Choosing between the Fixed Effects (FE) and Random Effects (RE) models was a crucial methodological decision. The Hausman test was used to inform this choice. The test yielded p-values over 0.05 for each of the three models, as indicated in Table 6, indicating that there is no correlation between the explanatory variables and firm-specific effects. Because of its higher effectiveness in these circumstances, the Random Effects (RE) model was chosen as the main estimating method based on this result.

With respect to data stationarity, the dataset constitutes a short panel (T = 6), where the risk of spurious regression is substantially lower. Moreover, conventional panel unit root tests tend to have low statistical power in such settings, making their results inconclusive (Baltagi, 2008). Hence, employing the variables in their level or log-level form is consistent with established practices for short panels.

The issue of endogeneity, particularly the potential co-occurrence of financial performance and corporate governance practices, is acknowledged as a legitimate restriction in this study. Although dynamic estimate techniques like the Generalised Method of Moments (GMM) can be used to lessen these problems, their use depends on the

TABLE 3

List of Variables

Variable Name	Variable Nature	Operational Definition	Reference
Return on Assets - (ROA)	Dependent	Firm's profitability relative to total assets.	(Liew & Devi, 2020)
Return on Equity - (ROE)		The company's earnings ratio to total equity.	(Liew & Devi, 2020)
Earnings Per Share - (EPS)		Net profit for ordinary shareholders per average outstanding share.	(Liew & Devi, 2020)
Board Size - (BS)	Independent	Logarithm of the count of board directors.	(Saima, N., 2018)
Board Independence - (BI)		Independent directors as a percentage of total board members.	(Gherghina, Vintila, & Dobrescu, 2015)
Board Diversity - (BD)		Female board members as a percentage of total board size.	(Hatane, Supangat, Tarigan, & Jie, 2019)
Ownership Concentration - (OC)		Top ten shareholders' percentage of total shares issued.	(Oluwagbemiga, 2014)
CEO Ownership - (CO)		CEO's shareholdings as a percentage of total company shares.	(Sugosha & Artini, 2020)
Foreign ownership - (FO)		Foreign shareholders' percentage of total company shares.	(Sugosha & Artini, 2020)
Institutional Ownership/Ownership Structure - (OS)		Institutional shareholders' share percentage of total company shares.	(Sugosha & Artini, 2020)
Size of Financial Institution - (SIZE)	Controlled	Logarithm of total non-financial institution assets.	(Ahmad, 2018)
Leverage - (LVG)		The organisation's total liabilities to total assets ratio.	(Hakimah, Pratama, Fitri, Ganatri, & Sulbahrie, 2019)
Non-Financial firm age - (AGE)		Natural logarithm of the years since the organisation's establishment.	(Ahmad, 2018)

Source: Authors' estimation.

availability of reliable and powerful tools, which is typically challenging in the Pakistani market. Considering these restrictions, the study uses a static Random Effects model, which is a strong and informative baseline on its own, though it does not completely remove the problem of simultaneity. It is clearly mentioned as a weakness of the research, and suggestions are added to focus on the same in a more detailed manner in the future.

IV. Results and Analysis

In order to respond to the research question developed for the study, this part aims to assess the hypothesis of the suggested model through data analysis. The statistical program STATA, which is made especially for these kinds of assessment, is used to handle and analyse the data. The section is structured into two main sections: initially, a data screening process is conducted on the collected data, followed by an in-depth analysis of the research model using STATA, which includes descriptive statistics, diagnostic tests, and regression analysis. The study concludes with a summary that encapsulates the findings from the hypothesis testing.

The descriptive Statistics are shown in Table 4. The sample of 63 enterprises expresses a non-homogeneous environment when taking governance and performance factors into account. The low profitability and wide range of returns among enterprises, as evident by substantial standard deviations, are represented by the mean ROA of 0.09 and ROE of 0.16. The wide range of earnings per share indicates that profitability fluctuates greatly, ranging from enormous losses to enormous gains. Relative stability exists in the board size, but there is significant variation in the board's independence and diversity, which are linked to different forms of governance. The patterns of ownership are found to have a high concentration and strong institutional influence, but CEO ownership and foreign ownership are quite diverse and indicate variation of strategic impacts on the operations of a firm. The size and leverage ratios are quite varied with a variety of firm sizes and different financial structures, both conservatively financed firms as well as highly leveraged firms. Mean firm age indicates a well-distributed level of older and younger firms, which might influence strategic agility and market positioning. All these statistics indicate a diverse sample with potential for many more to be analysed on these dimensions relative to firm valuation and performance.

Table 5 reports the diagnostic tests for the panel regression models, focusing on autocorrelation and heteroskedasticity. Autocorrelation is assessed using the Wooldridge test for serial correlation in panel data, which is more appropriate for our firm–year panel than the Durbin–Watson or Breusch–Godfrey tests typically applied to pure time-series regressions. The p-values of 0.70, 0.22 and 0.14 for Models 1–3 are all above the 5 per cent significance level, indicating no evidence of first-order serial correlation. Heteroskedasticity is examined using the Breusch–Pagan test, and

TABLE 4

Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	380	0.09	0.14	-0.20	0.95
ROE	380	0.16	0.20	-0.78	1.04
EPS	380	29.77	46.76	-82.98	438.64
BS	380	8.00	1.00	7.00	12.00
BI	380	0.27	0.11	0.00	0.57
BD	380	0.15	0.1	0.00	0.43
OC	380	0.66	0.21	0.08	0.99
OS	380	0.67	0.22	0.06	0.96
CO	380	0.01	0.03	0.00	0.16
FO	380	0.24	0.30	0.00	0.84
Size	380	82.47	135.40	0.06	662.70
Leverage	380	1.19	1.32	-2.60	11.49
Age	380	43.52	24.26	8.00	161.00

Source: Authors' estimation.

the corresponding p-values (0.31, 0.42 and 0.25) exceed 5 per cent, suggesting that heteroskedasticity is not a serious concern in any of the models.

The Hausman test results are presented in Table 6. P-values greater than 0.05 imply that we fail to reject the null hypothesis that the random-effects estimator is consistent. The p-values for Model I (ROA), Model II (ROE) and Model III (EPS)

TABLE 5

Diagnostic Tests (Wooldridge test for autocorrelation and Breusch–Pagan LM test for heteroskedasticity)

Model	Wooldridge test		*Breuch-Pagan Lagrange multiplier*	
	Auto-Correlation		Heteroscedasticity	
	X^2 - Value	Probability Value	f - Value	Probability Value
Model-1	0.81	0.7	0.29	0.31
Model-2	0.23	0.22	1.28	0.42
Model-3	1.24	0.14	1.09	0.25

Source: Authors' estimation based on study data.

TABLE 6

Hausman Test

Model	P-values	Hausman test accepted model
Model-I ROA	0.4944	Random effect model
Model-II ROE	0.1357	Random effect model
Model-III EPS	0.0839	Random effect model

Source: Authors' estimation based on study data.

are all above this threshold. Therefore, the random-effects specification is preferred to the fixed-effects specification for all three models. This suggests that unobserved firm-specific heterogeneity is not systematically correlated with the explanatory variables and that the random-effects models provide efficient and reliable estimates of the relationships of interest.

Tables 7, 8, and 9 display the outcomes of the Random Effects panel regression models. Return on Equity (ROE), Return on Assets (ROA), and Earnings per Share (EPS) are the three financial performance indicators that each table represents. Below is a discussion of the results for each model.

TABLE 7

Model - I ROA

Variable	Coef.	Std. Err.	t-statistics	P>z
BS	4.043	0.873	4.631	0.000
BI	1.159	0.441	2.628	0.009
BD	0.158	0.048	3.292	0.001
OC	1.120	0.657	1.705	0.008
OS	2.945	1.478	1.993	0.040
CO	0.139	0.064	2.172	0.059
FO	0.005	0.012	0.417	0.008
Size	0.001	0.001	1.000	0.000
Leverage	0.199	0.076	2.618	0.009
Age	-0.011	0.008	-1.375	0.149
Adjusted R-sq	0.7034			
Wald chi2(10)	265.41			
Prob > chi2	0.0000			

Source: Authors' estimation based on study data.

TABLE 8

Model - II ROE

Variable	Coef.	Std. Err.	t-statistics	P>z
BS	0.971	0.319	3.044	0.010
BI	0.072	0.034	2.118	0.033
BD	0.012	0.004	3.000	0.003
OC	0.176	0.052	3.385	0.001
OS	2.971	1.453	2.045	0.049
CO	0.004	0.003	1.333	0.138
FO	0.003	0.001	3.000	0.008
Leverage	0.012	0.006	2.000	0.042
Size	0.001	0.001	1.000	0.176
Age	-0.001	0.001	-1.000	0.060
Adjusted R-sq	0.7853			
Wald chi2(10)	310.15			
Prob > chi2	0.0000			

Source: Authors' estimation based on study data.

TABLE 9

Model - III EPS

Variable	Coef.	Std. Err.	t-statistics	P>z
BS	0.091	0.085	1.071	0.001
BI	0.087	0.042	2.071	0.038
BD	0.010	0.005	2.000	0.041
OC	0.134	0.064	2.094	0.036
OS	2.791	1.531	1.823	0.009
CO	0.006	0.005	1.200	0.181
FO	0.008	0.001	8.000	0.000
Leverage	0.171	0.007	24.429	0.000
Size	-0.009	0.007	-1.286	0.212
Age	-0.001	0.001	-1.000	0.228
Adjusted R-sq	0.7086			
Wald chi2(10)	270.88			
Prob > chi2	0.000			

Source: Authors' estimation based on study data.

The regression findings for the ROA determinants are shown in Table 7. With an Adjusted R-squared of 70.34 per cent, the whole model explains a considerable amount of the variance in ROA and is statistically significant (Prob > chi2 = 0.0000).

The results indicate that several corporate governance mechanisms have a positive and significant effect on ROA. Board size (4.043, $p < 0.01$), board independence (1.159, $p < 0.01$) and board diversity (0.158, $p < 0.01$) are all positively associated with asset profitability. These findings support hypotheses H1, H2 and H3, suggesting that larger, more independent, and more gender-diverse boards are more effective in monitoring the use of firm assets. Ownership structure variables are also important. The positive and significant coefficients for ownership concentration (1.120, $p < 0.01$), institutional ownership (2.945, $p < 0.05$), and foreign ownership (0.005, $p < 0.01$) provide evidence in favour of H4, H6 and H7, indicating that concentrated, institutional and foreign ownership stakes enhance firm performance. In contrast, CEO ownership ($p = 0.059$) is not statistically significant at the 5 per cent level, so H5 is not supported for ROA. Among the control variables, leverage shows a significant positive relationship with ROA, whereas firm age is not significant.

The results for ROE, presented in Table 8, largely mirror the findings for ROA. The model is highly significant and explains approximately 78.53 per cent of the variation in ROE (Adjusted R-squared).

In line with the earlier model, ROE is positively and significantly impacted by Board Size ($\beta = 0.971$, $p < 0.05$), Board Independence ($\beta = 0.072$, $p < 0.05$), and Board Diversity ($\beta = 0.012$, $p < 0.01$). Higher returns to shareholders are also positively connected with ownership concentration ($\beta = 0.176$, $p < 0.01$), institutional ownership ($\beta = 2.971$, $p < 0.05$), and foreign ownership ($\beta = 0.003$, $p < 0.01$). Once more, these findings favour Hypotheses H1, H2, H3, H4, H6, and H7. H5 is not supported by CEO Ownership ($p = 0.138$), which is statistically negligible, like the ROA model. In this paradigm, leverage, the control variable, is also important.

With EPS as the dependent variable, the findings are shown in Table 9. With an Adjusted R-squared of 70.86 per cent, the model's explanatory power is still high and statistically significant at the 1 per cent level.

All three performance measures show a remarkably consistent pattern of results. Ownership Concentration ($\beta = 0.134$, $p < 0.05$), Institutional Ownership ($\beta = 2.791$, $p < 0.01$), Foreign Ownership ($\beta = 0.008$, $p < 0.01$), Board Size ($\beta = 0.091$, $p < 0.01$), Board Independence ($\beta = 0.087$, $p < 0.05$), and Board Diversity ($\beta = 0.010$, $p < 0.05$) all have positive and statistically significant coefficients. This gives our theories about these governance mechanisms strong support across a number of performance metrics. Once more, CEO Ownership ($p = 0.181$) repeatedly fails to support H5 and has no discernible effect on EPS. In this model, leverage is a highly important control variable, although firm size and age are insignificant.

V. Discussion

This study explored the relationship between a wide range of corporate governance mechanisms and the financing performance of non-financial firms in Pakistan with reference to the post-reform era after the enactment of the Companies Act 2017. The three financial performance indicators (ROA, ROE and EPS) yield consistent results and indicate that specific corporate governance characteristics play an important role in explaining firm performance in the current post-reform environment.

The significant favorable influence of board characteristics on the company's performance is one of the most obvious and consistent findings. The resource dependency theory, which holds that large boards offer a wider range of experience, expertise, and external connections, which in turn improve a firm's strategic and operational performance, is supported by the positive correlation with board size (Farooq et al., 2023). This result is consistent with earlier studies at the national level, such as Waheed and Malik (2019), but it differs from international research studies that emphasise the potential for inefficiencies in the coordination of larger boards (Yermack, 1996).

Likewise, the observed positive impact of board independence and board diversity aligns with agency theory. Independent directors play a vital role in monitoring managerial behaviour (Hasan et al., 2022), while diverse boards, particularly in terms of gender, are linked to stronger oversight, richer perspectives, and more balanced decision-making (Miao et al., 2023). These findings are strongly supported by prior studies, including Shah et al. (2023) and Brown & Caylor (2006), reinforcing the view that greater independence and diversity within boards contribute to better financial performance, especially in the context of the Pakistani corporate environment.

During the empirical analysis, the ownership structure variables also provided clear evidence. The positive association between firm performance and ownership concentration, institutional ownership and foreign ownership is particularly noteworthy. The results for ownership concentration suggest that, in Pakistan, the monitoring benefits provided by large block shareholders outweigh the potential risks of expropriation faced by minority investors, which is consistent with Javid and Iqbal (2008). The positive effect of institutional ownership supports the view that sophisticated investors act as an effective external governance mechanism by closely monitoring management and demanding greater accountability (Junaid et al., 2020). Likewise, the favourable impact of foreign ownership aligns with a substantial body of evidence showing that foreign investors bring higher-quality governance practices and a certification effect that enhances firm value (Aydin et al., 2007; Farooq et al., 2022).

The most remarkable finding is perhaps the overall lack of significance of CEO ownership in all three performance models. The finding does not indicate the traditional theory of convergence of interests (agency theory) (Becht et al., 2003) and is inconsistent with some international evidence. However, it fully correlates with the investigations by Yasser and Mamun (2015) regarding the Pakistani society. The point is that

where ownership of the company is concentrated in the hands of a single family, the marginal incentive effect of the personal shareholding of the CEO may be so small relative to the dominant impact of the controlling family or institutional blockholders.

VI. Conclusion and Policy Recommendations

Considering the current regulatory framework, this study demonstrates that corporate governance is a significant predictor of the financial performance of non-financial enterprises in Pakistan. According to the study, the board's performance is significantly improved by its primary governance tools, which include the board's size, independence, diversity, ownership concentration, and the presence of institutional or international investors. One notable exception is CEO ownership, which was found to have no substantial effects and is hence inconsequential as a regulatory tool of governance in Pakistan's concentrated ownership settings. The aforementioned findings all emphasise how important sound governance practices are to increasing company value and protecting shareholders' interests in developing economies.

This study will provide a number of policy recommendations to different stakeholders. To investors, the findings are of great persuasion in the sense that they should not concentrate on the ownership of CEOs, but instead, should concentrate on firms that have well-maintained governance systems, such as the presence of independent and diverse boards and large institutional owners, when deciding to invest. The issue of investing in and developing efficient governance structures in Pakistan has an evident business case on the part of non-financial firms there. Focusing on attracting independent directors and making emphasis on diversity are not compliance measures, but also strategic, which relates to financial performance. Lastly, this study shows policymakers and regulators, such as the Securities and Exchange Commission of Pakistan (SECP), that there is still a need to promote board independence and formulate policies that can drive further inflow and sustainability of foreign and institutional investments because these are some of the inputs in the decision to make the corporate community stronger, and more financially healthy and prosperous.

VII.Limitations and Future Directions

The research has several limitations that also suggest directions for future work. First, the analysis focuses solely on the post-reform period and therefore does not provide a causal assessment of the impact of the 2017 legislative change. Future studies could adopt a comparative design that examines firms before and after the reform, even though such an approach would involve substantial data harmonisation challenges. Second, potential endogeneity between corporate governance and financial performance cannot be fully ruled out. Although the present model choice is supported by the diagnostic and significance tests, future research could employ dynamic panel

estimators, such as the Generalised Method of Moments (GMM), to address these concerns more rigorously.

The non-financial sector is also taken into account as a single group in the study. To examine the potential for variability in the consequences of governance mechanisms, future research may break down the analysis by industry (such as manufacturing, services, and technology). Finally, the non-financial sector in Pakistan is the boundary of the current study. The way forward is to broaden the study to include financial institutions and conduct a comparative examination of the function of corporate governance in other emerging economies in order to raise their level of comprehension.

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