



THE IMPACT OF CORPORATE GOVERNANCE ON FINANCIAL REPORTING QUALITY IN PAKISTAN

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Abstract

In this context, this research paper examines the relationship between financial reporting quality (FRQ) and corporate governance mechanisms in the emerging economy of Pakistan. Understanding this dynamic is crucial in order to protect the rights of investors and promote market growth in Pakistan's unique regulatory context and because family-owned business groups tend to dominate the market. The study follows quantitative research methodology with a panel data set of non-financial firms from Pakistan Stock Exchange (PSX) that span the time horizon 2015 to 2022. The Modified Jones Model is used to estimate FRQ, which is proxied by discretionary accruals, where less size of discretionary accruals means better reporting quality. The independent variables included board size, board independence, audit committee size, audit committee financial expertise and CEO duality, while firm size, leverage, and profitability were included as control variables. The empirical results indicate that board independence is positively and significantly related to financial reporting quality. In contrast, board size and the dual roles of the CEO with the board appear to be inversely related to FRQ, with larger boards potentially being less effective at overseeing functions and with the increased centralisation of authority in the CEO potentially being associated with reduced effectiveness of oversight. The characteristics of audit committees, including financial expertise, are positively correlated with reporting quality. The findings highlight the need to further improve the corporate governance codes in Pakistan, especially by encouraging the appointment of independent directors, and improving financial literacy of audit committee members, to increase transparency and foreign direct investment.

Keywords: Corporate Governance, Financial Reporting Quality, Pakistan Stock Exchange, Discretionary Accruals, Board of Directors

1. Introduction

1.1 Background of the Study

Today's corporate governance is considered one of the main pillars of the current financial systems as the set of rules, practices and procedures used to direct and control business corporations (OECD, 2004). According to Jensen and Meckling (1976), the ultimate goal of corporate governance is to reconcile the often-conflicting interests of the different stakeholders, especially between the principal and the agent in the context of a separation between ownership and control in contemporary corporations. There have been some major scandals, such as Enron, WorldCom and Parmalat, that clearly revealed the devastating effects of poor governance and corrupt accounting practices in big businesses around the world. They were a major spur to



the global tide of reform of corporate governance codes and regulatory frameworks.

Financial Reporting Quality (FRQ) is closely related with the existing corporate governance environment (cGE) of an organization. The key attributes of high quality financial reporting are relevance, faithful representation, comparability, verifiability and timeliness, and the information produced enables the reading of the financial statements by stakeholders, including investors, creditors, regulators and the general public, to be useful for them in making economic decisions. The International Accounting Standards Board (IASB) states that the primary goal of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions pertaining to the provision of resources to the entity. Poor quality of financial reporting contributes to the exacerbation of information asymmetry and can result in adverse selection and moral hazard issues, which negatively affect the efficiency and integrity of capital markets.

The study context of Pakistan is unique and interesting being a developing economy. The Pakistan Stock Exchange (PSX) is among the fastest growing South Asian stock exchanges with more than 500 listed companies across various industrial areas. The Pakistani capital market, however, is facing many challenges such as high information asymmetry, high concentration of ownership and dominance of family owned business groups. The Securities and Exchange Commission of Pakistan (SECP) has been doing a lot of proactivity in introducing the Code of Corporate Governance (CCG) that outlines the governance structures and practices in order to safeguard the interests of the investors. The CCG was first introduced in 2002 and the requirement to create board committees, appoint independent directors, and ensure audit committee financial literacy was revised.

In spite of this regulatory framework, it still appears that the corporate governance mechanisms in Pakistan are not working effectively and are heavily disputed and subject to criticism. The governance frameworks are less effective in Pakistan than in developed markets, as the business environment is unique, characterized by strong family ownership, lax enforcement, culture of loyalty and patronage and a dynamic regulatory framework. Therefore, an in-depth knowledge of the particular mechanisms that can improve or impair the quality of financial reporting in this unique setting is essential for the policy makers, regulators, investors and corporate decision makers.

1.2 Problem Statement

Despite the fact that a detailed Code of Corporate Governance has been formulated in Pakistan and compliance with this code is mandatory for listed companies, the corporate sector still suffers from issues related to financial reporting. The failures of a number of high profile companies, such as the collapse of large financial firms and the exposure of big listed companies accounting scandals, have cast doubt on the effectiveness of the current governance framework. Family owned business groups, where ownership, management and board representation often overlap, can make it difficult to establish a monitoring system or cause it to fail.

Moreover, there is limited empirical evidence regarding the effectiveness of corporate governance in Pakistan that sometimes gives conflicting results. Past studies have indicated that board independence and audit committee experience can improve the quality of reporting (Saeed & Khan, 2016) but other studies argue that board and audit committee mechanisms in Pakistan are largely superficial and do not prevent from opportunistic earnings management (Ahmad & Saeed, 2017). The consensus is still lacking which shows the need of doing more in-depth, in-depth and context sensitive studies taking into account the institutional and cultural peculiarities of Pakistan.

In Pakistan, the exact governance system(s) which most significantly improve the quality of financial reporting have not been conclusively determined. Critical questions that remain are: what's the best size board, how effective are independent directors, what's the impact of CEO duality and what's the role of audit committees in a low-level enforcement, high concentration ownership market? Strong evidence is required to support policy development, otherwise regulations could be targeted at the wrong problem, or not be strong enough to overcome the governance issues.

1.3 Research Questions

The study is based on the following research questions:



1. How is the relation between board characteristics (board size, board independence, CEO duality) and financial reporting quality in the Pakistani listed companies?
2. What impact do the audit committee attributes (in terms of size and financial expertise) have on the financial reporting quality of Pakistani firms?
3. How much do the firm-specific characteristics (size, leverage, profitability) moderate the association between corporate governance and financial reporting quality in Pakistan?
4. What is the overall impact of all corporate governance mechanisms on the quality of financial reporting in Pakistan??

1.4 Objectives of the Study

The aim of this research is:

1. To examine the effect of directors' board composition and structure on board's earnings management practices in Pakistani companies.
2. To review the functions of the Audit Committee in reducing any accounting irregularities and increasing transparency.
3. To evaluate the effect of ownership concentration and control structures on the quality of financial reporting.
4. To give empirical evidence that shall support the policymakers and regulators in strengthening the corporate governance system in Pakistan.
5. To help develop academic knowledge in the field of corporate governance and financial reporting quality in emerging markets.

1.5 Significance of the Study

This research has a great importance for several stakeholders in Pakistan:

For Regulators & Policymakers: Study offers empirical findings on effectiveness of existing corporate governance provisions required by SECP. The results can shape changes to the Code of Corporate Governance, as well as the approach to enforcement to tackle specific weaknesses in the governance framework.

For Investors: Investors, both local and international will benefit from knowing which governance indicators are most closely linked to the reliability of financial reporting. The information can be used for making investment decisions and for assessing risk.

In Corporate Management: The results provide a blueprint for the optimization of governance structures, including increased transparency, lower costs of capital and increased stakeholder trust building.

For Academia: This study adds to the sparse literature on empirical analysis of corporate governance in emerging markets of South Asia. It serves as a standard to compare with future studies, and it broadens the scope of agency theory to special institutional settings.

Improved financial reporting quality may lead to a better functioning of capital markets, lower information asymmetry, more foreign capital and sustainable economic growth for the Broader Economy.

1.6 Scope and Delimitations

The study is confined to the non-financial companies quoted on the Pakistan Stock Exchange. Financial institutions (banks, insurance companies, and other financial services companies) are not included because they have different regulatory requirements, capital structures, and accounting practices. The study period is from 2015 to 2022, which is the last period of seven years since the last major revision of Code of Corporate Governance of Pakistan.

The study concentrates on the characteristics of the board and on the characteristics of the audit committee as independent variables. In the study, the focus is on formal governance structures that are formally required by the CCG, although ownership structure is known to be an important governance mechanism. Because of data availability, not all data may be included in the analyses and some firms may not provide comprehensive governance disclosures in their annual reports.

1.7 Organization of the Study

This research study comprised of six main sections. First was the introduction which contained the background, problem statement, objectives and significance of the study. The literature review is presented is



the next part of this study, which summarizes the theoretical frameworks and conceptual foundations, as well as empirical evidence from developed and emerging markets. This section of the study provides information about the research methodology used in this study, which covers research design, sampling technique, variable and its measurement, and analysis methods. The results and analysis of this empirical work is presented in the forth section. The results of the study are discussed in detail in fifth section of this study, which compares the results to theories and earlier research. This study is summarized, its limitations discussed, and directions for future research is provided the sixth section of the study.

2. Literature Review

2.1 Theoretical Framework

The theoretical bases of this study can be contributed from a number of complementary theories related to the relationship between corporate governance and financial reporting quality.

2.1.1 Agency Theory. The Jensen and Meckling (1976) agency theory is the root of corporate governance. The theory assumes that in today's corporation, which is owned by shareholders and managed by managers, conflicts of interest are bound to occur between the principals and agents. As agents, managers can have interests other than shareholder wealth maximization, including empire building, job security, risk aversion, and personal prestige (Mumtaz et al., 2023).

These conflicts can occur in different forms, impacting on the quality of financial reporting. Managers are expected to make financial reports meet their targets, earn bonuses, mask bad performance, or boost the market value of the firm, among other things. The agency problem is a direct cause of earnings management, which is intentional manipulation of financial statements that is designed to result in meeting predetermined goals. Corporate governance mechanisms are monitoring and control mechanisms to coordinate management interests with shareholders' interests. There are a number of mechanisms that can help to cut agency costs, such as board oversight, independent directors, audit committees, and external audits (Fama & Jensen, 1983).

In Pakistan, concentrated ownership of the companies, less protection for minority shareholders, and inadequate implementation of regulatory requirements contribute to agency problems. The family-controlled business groups frequently feature dual classes of shares or other arrangements that result in a separation of economic and voting power, allowing the families to divert value from minority shareholders, referred to as a "tunneling" effect (Johnson et al., 2000).

2.1.2 Stakeholder Theory. In addition to the shareholder–manager relationship, agency theory also examines the role of the organization's stakeholders, defined as those who are impacted by the firm's activities, decisions, and policies (Freeman, 1984). Stakeholders are people who work at the business, people who lend them money, people who supply them with goods, customers, local communities, environmental regulators, and the environment. Under the stakeholder theory, stakeholder interests should be taken into account in effective corporate governance in addition to the interests of shareholders.

Financial reporting quality is important from a stakeholder's point of view as the stakeholders use the financial information for different purposes. Creditors look at credit risk, employees at job security, regulators at compliance and communities at a company's social responsibility. Good corporate governance will make sure that all these information needs are taken into account and that the reporting process will deliver accurate, complete and timely information.

In Pakistan, the family-owned conglomerates have a considerable weightage on communities and supply chains, so stakeholder perspective is more important here. Mechanisms of governance which account for the interest of all actors can play a role in sustainable business and value creation.

2.1.3 Signalling Theory. The issue of information asymmetry between the insiders (managers) and outsiders (investors and creditors) is solved by signalling theory (Spence, 1973). When the insiders have access to better information on the financial conditions and prospects of the firm, they can send a number of signals to give the lender a sense of their credibility and the quality of the information provided.

Good financial reporting is a positive sign to the market. Good corporate governance means that the firm's financial statements are expected to be reliable, which helps lower information risk and thus lowers the cost of capital. Contrary to this, bad governance conveys negative signals thereby heightening the perceived risk and cost of financing. Signalling through governance measures is important especially in Pakistan where



there is a high level of information asymmetry in order to attract investment.

2.1.4 Stewardship Theory. There is an alternative theory to agency theory: stewardship theory (Davis et al., 1997). It implies that the manager will always be trusted and be the steward of the firm's assets looking to maximize firm performance for the benefit of all stakeholders. This notion of corporate governance is not about controlling and monitoring management but rather it is about creating an environment in which management can effectively serve as a steward.

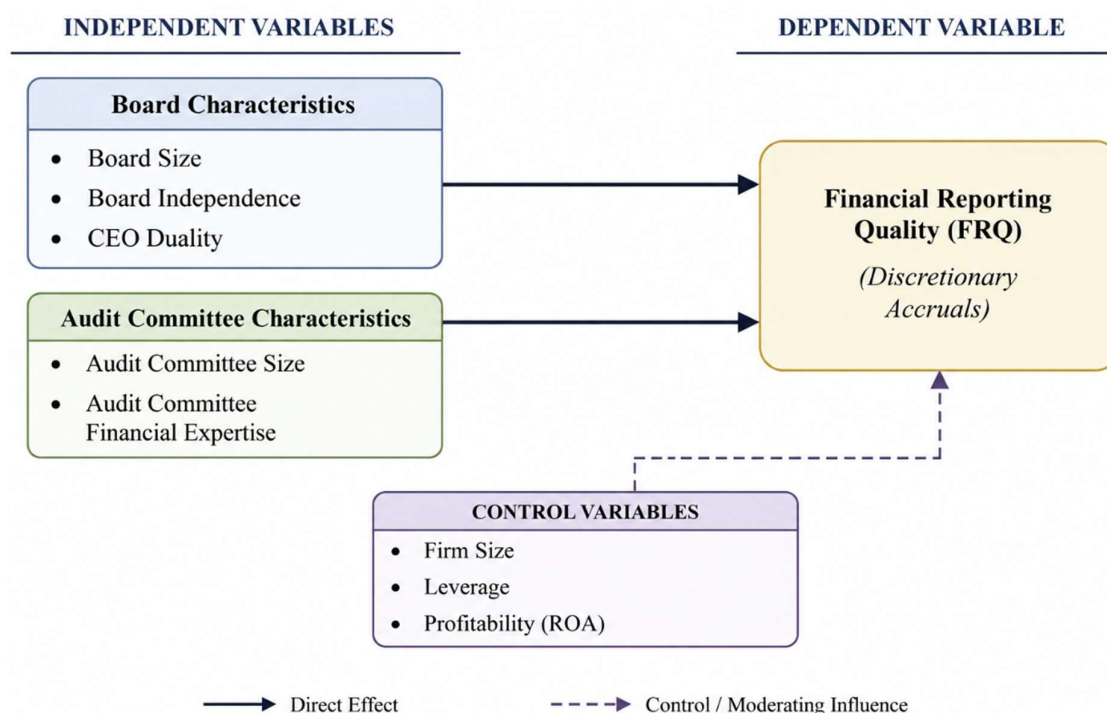
The agency theory is that managers are self-interested and opportunistic, whereas stewardship theory sees managers as having intrinsic motivations such as professional pride and a sense of responsibility that can guide managers to work more in the service of the organization. Stewardship theory could be useful in the Pakistani context where family and community relationships are strong and have an impact on the business relationships.

2.2 Conceptual Framework

Based on the theoretical foundations discussed above, a conceptual framework for this study is developed. The framework assumes a direct link between corporate governance measures (board characteristics, audit committee characteristics) and financial reporting quality. Control variables include firm characteristics including profitability, leverage and size which can either moderate or mediate the relationship.

Figure 1

Conceptual Framework



2.3 Review of Empirical Literature

2.3.1 Board Characteristics and Financial Reporting Quality

Board Independence. Board independence is known to be an essential governance mechanism to secure effective management monitoring. Independent directors are those that have no material relationship with the firm or management and are expected to give objective judgment and question management decisions. The theory is that independent directors would be less likely to be under management pressure and more likely to do what is in the shareholders' best interests.

There are many studies in developed markets that corroborate this theoretical prediction. Klein (2002) studied the possible link between board structure and earnings manipulation in U.S. companies and concluded that independent boards are correlated with lesser earnings manipulation. Likewise, Chtourou et al. (2001) have shown that opportunistic earnings management is constrained by independent directors. In the United



States, the Sarbanes-Oxley Act of 2002 explicitly requires majority independent Boards of listed companies, based on the underlying premise in the regulation that board independence works well.

But signs from emerging markets are less consistent. In the case of Malaysian companies, Hashim and Devi (2008) reported low correlation between board independence and earnings management which indicated that cultural and institutional factors may influence the effectiveness of an independent director. The SECP prescribes that listed companies have a minimum of 33% of independent directors in the Pakistani context (Asif, 2022). The efficacy of such directors is, however, doubtful because of the possible involvement of controlling shareholders or lack of financial skills.

The findings of the studies conducted in Pakistan have been conflicting. Saeed and Khan (2016) concluded that the level of board independence significantly lowers the level of earning management in Pakistani companies, especially in those with independent directors with financial experience. Ahmad and Saeed (2017), however, reported that the financial reporting quality is not affected by board independence, which indicates that in practical terms, the independent directors are not really independent.

Board Size. In theory the association between board size and financial reporting quality is not much clear. The bigger the board, the more varied the views, the more experience, and the more connections, the more effective the monitoring can be. But bigger boards have issues with coordination, communication, and decision making. The number of directors on a board has a limit of effectiveness beyond seven or eight, for the larger the size, the easier it is for the CEO to dominate it (Jensen, 1993).

The evidence for the size of the boards is also mixed. Beasley (1996) discovered a positive association between the size of the board and an increased risk of financial statement fraud, that is, larger boards are less successful in preventing financial statement fraud. In contrast, Zhang et al. (2012) discovered that board size has a positive effect on the quality of financial reporting with regards to Chinese firms, especially the state-owned enterprises (Pasha et al., 2019).

In Pakistan, the average size of the board is about nine members, and many firms have a board size greater than what is recommended. In general, the research conducted in Pakistan indicates that for bigger boards, financial reporting quality is lower (Shah & Butt, 2016). This could be attributed to the fact that family-controlled companies have been found to have large boards to have a lot of family members and political allies on their board instead of improving governance.

CEO Duality. CEO duality is a condition in which a person holds the position of CEO and Chairman of the Board. Agency theory would argue that this centralisation of power would lead to reduced board independence and monitoring effectiveness. When the CEO leads the board, it is harder for the board to oppose the CEO's actions, because the CEO sets the board's agenda and provides information.

Empirical evidence in general validates that there is an inverse connection amongst CEO duality and financial reporting quality. Dechow et al (1996) discovered that firms with dual roles (CEO and chairman) had a higher probability of engaging in Earnings Management. Likewise, Carcello and Neal (2003) discovered that CEO duality has a negative impact on the effectiveness of the audit committee.

The rate of CEO duality in Pakistan is relatively high, especially in the case of family-run businesses. CEO duality is not recommended, but not prohibited, by the CCG. Empirical evidence in Pakistan showed that the CEO duality is negatively correlated with the quality of financial reporting and earnings management (Rehman & Ali, 2018). In Pakistan, with the presence of family businesses, the role of CEO and Chairman is often held by the founding family members, making it an important governance concern in the country.

2.3.2 Audit Committee Characteristics and Financial Reporting Quality

Audit Committee Financial Expertise. The audit committee is tasked with critically monitoring the financial reporting process, internal controls and external audit. It is believed that financial expertise of audit committee members is critical to their effectiveness in oversight, because it helps members grasp complicated accounting matters, probe management's accounting judgments, and assess auditor performance.

A member of the audit committee must be a financial expert for the SECP. There are ample empirical data to support the theoretical rationale. Carcello et al., (2002) have concluded that there is a correlation between audit fees and audit committee financial expertise, indicating that the more skilled the audit committee, the better the audit will be. However, McDaniel et al. (2002) concluded that the financial expertise



of audit committee members is related to a reduction in the number of financial reporting restatements.

The Pakistani context has not yet seen much research on the audit committee expertise, which indicates that in Pakistan, there is a positive relationship between audit committee expertise and financial reporting quality (Ahmed & Ali, 2017). There is however some question as to what is meant by “financial expertise” and how this can be achieved in practice, as some of the committee members might have formal qualifications but not be actively involved, or able to challenge management.

Audit Committee Size. The effectiveness of an audit committee to review financial reporting will be influenced by its size. More committees mean more knowledge and insight into the subject, but also more problems in organizing. The CCG must have three or more members, including a majority of independent directors.

Research on the appropriate size of an audit committee is inconclusive. Larger audit committees are more effective at reducing earnings management, as reported by Aldamen et al. (2012); while Abbott et al. (2004) reported no significant correlation between committee size and reporting quality.

2.3.3 Ownership Structure and Financial Reporting Quality. One of the key features of Pakistan's capital markets is the concentration of ownership. The corporate sector is dominated by family owned business groups and has important implications for the quality of financial reporting. There is some evidence that concentrated ownership may have a positive or negative impact on financial reporting quality.

The good news is that large shareholders have powerful incentives to monitor management and make sure that the information reported is of good quality (Shleifer & Vishny, 1986). In a Pakistani context however, the controlling shareholders are often family groups and concentrated ownership can result in minority shareholders being expropriated through related party transactions, tunnelling and opaque reporting practices (Bertrand et al., 2002).

The overall picture from the studies in Pakistan is that family ownership is negatively correlated with financial reporting quality, especially if the family members are also involved as directors and executives (Ali & Ahmad, 2017). In family firms, with low minority shareholder information asymmetry and weak monitoring, it is easy for the business to fail.

2.3.4 Corporate Governance in Pakistan: A Unique Context. In Pakistan, corporate governance is a unique context, which is the subject of this study. There are certain distinct characteristics in the corporate governance environment in Pakistan:

Family domination of the corporate sector: Large family-controlled business groups like the House of Habib, Hashoo Group and Nishat Group dominate the corporate sector. Formal governance systems can be weakened as these groups will commonly have intricate cross-holding patterns and strong political ties.

Institutional Weaknesses: Pakistan's institutions are weak in enforcing regulations, in processing legal matters and has a comparatively smaller and weak capital market regulator. Such shortcomings can result in the failure of good governance codes to be effective.

Cultural Factors: Pakistani business culture values loyalty, relationship building, and respect for authority, which may be in opposition to the ideals of board independence and objective oversight. Independent directors may not necessarily be independent monitors, but instead be members of the family and business circle of the Company's directors.

Changing Regulatory Environment: SECP has taken a lot of effort to improve corporate governance and has updated the CCG in 2017. But implementation of regulations has lagged and enforcement has proved to be difficult.

2.4 Hypothesis Development

From the theories and empirical findings reviewed, the following hypotheses are formulated:

H1: The results show that board independence is negatively related to earnings management. In particular, the ratio of independent directors will have a negative link with discretionary accruals (positive link with financial reporting quality) for the firms.

H2: The bigger the board, the more likely it is to engage in earnings management. There is expectation that larger boards, especially in the Pakistani context, will not be able to effectively monitor management and result in higher discretionary accruals.



H3: The results show that CEO duality positively affects earnings management. The results indicate that the duality of the CEO is positively related to earnings management. If the CEO is also on the board as its Chairman, the monitoring of the board is undermined, which results in reduced financial reporting quality.

H4: The size of the audit committee is negatively related with earnings management. H4: The larger the audit committee, the more negative the earnings management. As the size of the audit committee increases, there is greater capacity for oversight, and discretionary accruals decrease.

H5: The more financially competent the audit committee, the more negative the relationship between audit committee financial expertise and earnings management. Discretionary accruals will be lower for firms that have more financially knowledgeable audit committee members. Firms that have more financially knowledgeable audit committee members will have lower discretionary accruals.

2.5 Chapter Summary

In this chapter, the authors have discussed the theoretical and empirical literature on corporate governance and financial reporting quality in a comprehensive manner. The theoretical concepts of agency theory, stakeholder theory, signalling theory and stewardship theory were discussed with special reference to the Pakistani context. The empirical study examined board characteristics and audit committee characteristics, with mixed evidence supporting the need for context-specific studies. Several contextual factors were also noted, such as the dominance of family businesses, lack of institutional development and cultural conditions in Pakistan. The hypotheses developed in this chapter will be empirically tested in the following chapters.

3. Research Methodology

3.1 Research Design

The type of research in this study was Quantitative Research with correlational approach. The study is based on panel data methodology which combines time-series and cross-sectional data to achieve more efficient and robust estimates. One of the key benefits of panel data analysis over pure cross-sectional analysis, time-series analysis is that it allows for the control of unobserved firm-specific heterogeneity, reduces multicollinearity, and has more degrees of freedom.

The research is ex-post fact, because the data related to corporate governance and the financial reporting quality are collected from the annual reports and financial statements that exist. The study is not experimental but rather descriptive, which means it is not an experiment where variables are manipulated but rather the relation between the governance mechanisms and the reporting outcomes as they happen naturally in the business environment.

3.2 Population and Sample Selection

This study aims at studying the target population of all non-financial companies listed on Pakistan Stock Exchange (PSX). In 2022, PSX had around 500 listed companies of the diverse industry segments like textile, cement, fertilizer, oil and gas, food and beverages, automobile, pharmaceuticals and many more. Some entities are not included in the population because they fall under separate regulatory requirements, capital structure and accounting principles from non-financial firms, such as financial institutions (banks, insurance companies and other financial services firms).

The sampling is done by stratified random sampling by sector representation. The sample consists of 250 companies out of the total listed companies (excluding financial companies). The length of the study period is 7 years (2015–2022), totalling 1750 firm-years of observations. The selection of the firm is based on its:

1. Continuous listing on the PSX for the period of the study (2015-2022)
2. Transparency of governance and financial information in the annual reports
3. Non-financial sector classification
4. There was no significant change in the company's governance structure in the study period.

Companies that do not submit all data or an annual report are not included in the sample. The final sample is composed of 215 firms with complete information, representing 1,505 firm-year observations.

3.3 Data Sources and Collection

The data used in this study is taken from the secondary sources:

Financial Reporting Data: The annual report of the selected firms is used to obtain financial statement



data (balance sheets, income statements, and cash flow statements). The other financial information is collected from publications of the State Bank of Pakistan (SBP) and the website of the Pakistan Stock Exchange (PSX).

All the information relating to the composition of the boards, size of the boards, duality of CEO, and audit committee composition is hand collected from the 'Statement of Compliance' to the Code of Corporate Governance for listed companies in Pakistan. This statement is a detailed report on the governance arrangements and compliance with the requirements of the CCG.

Market Data: Share price data, market capitalization and other market-based data is sourced from PSX website and multiple sources of financial data.

Data collection process is conducted for a period of three months, care taken for the accuracy and completeness in the data.

3.4 Variables and Measurement

3.4.1 Dependent Variable: Financial Reporting Quality. The Financial Reporting Quality is considered as the Dependent Variable. The modified Jones model (Dechow et al., 1995) is used to measure Financial Reporting Quality (FRQ) by computing the absolute value of discretionary accruals. Discretionary accruals are the number of accruals which is not related to firm specific economic factors and is at the discretion of the manager. The positive magnitude of discretionary accruals suggests higher amounts of earnings management and lower financial reporting quality.

The estimation process involves two steps:

Step 1: Total Accruals Calculation. Total accruals (TA) for each firm-year are calculated as the difference between net income and cash flows from operations:

$$TA_{it} = Net\ Income_{it} - CFO_{it}$$

Where:

- TA_{it} = Total accruals for firm i in year t
- $Net\ Income_{it}$ = Net income for firm i in year t
- CFO_{it} = Cash flow from operations for firm i in year t (from cash flow statement)

Step 2: Estimation of Discretionary Accruals. The Modified Jones Model is estimated cross-sectionally for each industry-year group:

$$TA_{it} / Assets_{it-1} = \alpha + \beta_1(1/Assets_{it-1}) + \beta_2(\Delta Sales_{it}/Assets_{it-1} - \Delta Rec_{it}/Assets_{it-1}) + \beta_3(PPE_{it}/Assets_{it-1}) + \epsilon_{it}$$

Where:

- $Assets_{it-1}$ = Total assets for firm i at the end of year $t-1$
- $\Delta Sales_{it}$ = Change in sales for firm i from year $t-1$ to t
- ΔRec_{it} = Change in accounts receivable for firm i from year $t-1$ to t
- PPE_{it} = Gross property, plant, and equipment for firm i at the end of year t
- ϵ_{it} = Error term representing discretionary accruals

The coefficients from the regression are used to calculate normal accruals (NACC):

$$NACC_{it} = \hat{\alpha} + \hat{\beta}_1(1/Assets_{it-1}) + \hat{\beta}_2(\Delta Sales_{it}/Assets_{it-1} - \Delta Rec_{it}/Assets_{it-1}) + \hat{\beta}_3(PPE_{it}/Assets_{it-1})$$

Discretionary accruals (DACC) are then calculated as:

$$DACC_{it} = TA_{it} - NACC_{it}$$

The absolute value of DACC ($|DACC|$) serves as the inverse measure of financial reporting quality, where higher values indicate lower quality.

3.4.2 Independent Variables: Corporate Governance Mechanisms

Board Size (B_SIZE): Measured as the total number of directors serving on the board. The CCG recommends a board size of between 7 and 13 members, but some firms exceed this range.

Board Independence (B_INDEP): Measured as the percentage of independent directors on the board.



The CCG requires at least one-third of directors to be independent. This ratio is calculated as:

$$B_INDEP = (\text{Number of Independent Directors} / \text{Total Board Size}) \times 100$$

CEO Duality (CEO_DUAL): A binary (dummy) variable taking the value of 1 if the CEO also serves as Chairman of the board, and 0 otherwise.

Audit Committee Size (AC_SIZE): Measured as the total number of members on the audit committee. The CCG requires at least three members.

Audit Committee Financial Expertise (AC_FIN): A binary (dummy) variable taking the value of 1 if at least one member of the audit committee has a financial or accounting background (professional qualification or relevant degree), and 0 otherwise.

3.4.3 Control Variables. Firm Size (SIZE): natural log of total assets. Larger companies tend to have more resources to dedicate to governance mechanisms, are subject to greater scrutiny by analysts/regulators and have lower agency costs. The sign to be expected is negative (larger firms have higher FRQ).

Leverage (LEV): Total debt / total assets. A highly leveraged firm is more likely to be under closer scrutiny by its creditors, who may have more incentives to act in an honest way. The sign expected is positive (more the leverage in the analysis, the more lower the FRQ is, because of debt covenant issues).

Profitability (ROA): The ratio is return on assets – the net income divided by the total assets. Less profitable companies are more likely to engage in earnings management to meet performance, and more profitable companies are less likely to manipulate the earnings.

3.5 Model Specification

The relationship between corporate governance and financial reporting quality is estimated using the following panel regression model:

$$|DACC|_{it} = \beta_0 + \beta_1 B_SIZE_{it} + \beta_2 B_INDEP_{it} + \beta_3 CEO_DUAL_{it} + \beta_4 AC_SIZE_{it} + \beta_5 AC_FIN_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \mu_i + \varepsilon_{it}$$

Where:

- $|DACC|_{it}$ = Absolute discretionary accruals for firm i in year t
- β_0 = Intercept
- $\beta_1 \dots \beta_8$ = Coefficients to be estimated
- μ_i = Firm-specific fixed effects
- ε_{it} = Error term

3.6 Data Analysis Techniques

The analysis takes place in several steps:

All the variables are summarized in descriptive statistics (mean, median, standard deviation, minimum, maximum) to give an overview of the sample characteristics.

Correlation Analysis: Pearson correlation coefficients are computed to look at the bivariate association between variables and to detect problems of multicollinearity.

Panel Regression Analysis: There are three estimation approaches:

Pooled Ordinary Least Squares (OLS): Model assumes that the intercepts and slope coefficients are identical across firms and across years. It gives a rough idea, but it does not consider heterogeneity across firms.

Fixed Effects Model (FEM): This model recognises that each firm may have its own intercept μ_i which reflects time-invariant characteristics of that firm. The FEM deals with unobserved heterogeneity among firms that can be related to the independent variables.

This model is known as the random effects model (REM) and assumes that firm-specific effects are random and uncorrelated with the independent variables. If the assumption is correct, the REM will be more efficient than the FEM.

Model Selection Test: Hausman (1978) test is used to select between FEM and REM. The test is whether the unique firm-level errors (μ_i) are correlated with the regressors. When the null hypothesis is rejected (no correlation exists), FEM is recommended; otherwise, REM is recommended.



3.7 Diagnostic Tests

Several diagnostic tests are run to assure the validity of the regression results:

Multicollinearity: Variance Inflation Factor (VIF) is used to check for multicollinearity. If the VIF values are higher than 10 it means that there are serious problems with multicollinearity.

Heteroskedasticity: Breusch-Pagan test is applied to check the heteroskedasticity of the error terms. If present, robust standard errors will be used.

Wooldridge test is for the detection of serial correlation in panel data. Where such occurs, appropriate corrective action will be taken as needed.

Normality: Jarque-Bera test is used to test residuals for normality.

3.8 Ethical Considerations

The present study is a secondary data analysis, and all the information was collected from publicly available sources like annual reports, financial databases etc. There is no primary data collection with human subjects. There are therefore no major ethical issues related to assured confidentiality, informed consent or participant welfare.

This study, however, is conducted in a manner that maintains academic integrity: report and interpret results accurately without manipulation. All data sources are correctly cited, and any constraints are clearly identified.

This section has described the research methodology which was used in this research. The choice of the quantitative panel data approach was made with a sample of 215 non-financial companies listed on the PSX during the period 2015-2022. Discretionary accruals were used as a measure of financial reporting quality and were estimated using the Modified Jones Model. Firm size, leverage and profitability were used as control variables and board and audit committee characteristics were identified as independent variables. Panel regression techniques will be employed in the empirical analysis with suitable diagnostic tests to validate the results obtained.

4. Results and Analysis

4.1 Descriptive Statistics

Descriptive statistics for all variables are presented in Table 1.

Table 1

Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Minimum	Maximum	Observations
DACC			0.054	0.043	0.048	0.001
B_SIZE	9.2	9.0	2.1	5	15	1,505
B_INDEP (%)	32.4	30.0	15.2	10.0	70.0	1,505
CEO_DUAL	0.42	0.00	0.49	0.00	1.00	1,505
AC_SIZE	4.1	4.0	0.8	3	6	1,505
AC_FIN	0.73	1.00	0.44	0.00	1.00	1,505
SIZE (Log Assets)	15.67	15.21	1.79	12.54	19.21	1,505
LEV	0.58	0.61	0.21	0.09	0.95	1,505
ROA	0.07	0.065	0.06	-0.08	0.22	1,505

Discretionary Accruals (|DACC|): The mean absolute discretionary accrual is 0.054 (5.4% of lagged total assets), with a standard deviation of 0.048. This indicates considerable variation in earnings management practices across firms. The range from 0.001 to 0.281 suggests that some firms engage in minimal earnings management while others manipulate their earnings significantly. The mean is higher than those reported in developed markets (typically 0.03-0.04), suggesting that earnings management is more prevalent in Pakistan.

Board Size (B_SIZE): The average board size is 9.2 members, within the CCG's recommended range (7-13). The median of 9 indicates that most firms comply with the recommendation. The range from 5 to 15 shows that some firms have unusually small or large boards.

Board Independence (B_INDEP): The mean independence ratio is 32.4%, slightly below the CCG's requirement of at least one-third (33.3%). This suggests that many firms are not in full compliance with the



independence requirement. The standard deviation of 15.2% indicates substantial variation, with some firms having as few as 10% independent directors and others having up to 70%.

CEO Duality (CEO_DUAL): CEO duality exists in 42% of the firm-year observations, indicating that in over two-fifths of the observations, the CEO also serves as Chairman. This high incidence of duality is concerning from a governance perspective and reflects the prevalence of family-controlled firms where founding family members often hold both positions.

Audit Committee Size (AC_SIZE): The average audit committee size is 4.1 members, exceeding the CCG's minimum requirement of 3. Most firms appear to comply with the requirement, and the range from 3 to 6 shows limited variation.

Audit Committee Financial Expertise (AC_FIN): Financial expertise is present in 73% of the firm-year observations. This indicates that the majority of firms comply with the requirement to have at least one financially expert audit committee member. However, 27% of observations lack such expertise, which is a significant compliance gap.

Firm Size (SIZE): The average log of total assets is 15.67, with a standard deviation of 1.79. The sample includes a mix of small, medium, and large firms, as reflected in the range from 12.54 to 19.21.

Leverage (LEV): The mean leverage ratio is 0.58 (58%), indicating that Pakistani firms are highly leveraged on average. This high leverage may reflect the underdeveloped equity markets and heavy reliance on bank financing.

Profitability (ROA): The mean ROA is 7%, with a standard deviation of 6%. The range from -8% to 22% indicates considerable variation in firm performance. The presence of negative ROA values suggests that some firms are loss-making, which may create incentives for earnings management.

4.2 Correlation Analysis

Pearson correlation coefficients among the variables are presented in Table 2.

Table 2

Pearson Correlation Matrix

Variable	DACC	B_SIZE	B_INDEP	CEO_DUAL	AC_SIZE	AC_FIN	SIZE	LEV	ROA
DACC	1.000								
B_SIZE	0.127*	1.000							
B_INDEP	-0.218*	-0.091	1.000						
CEO_DUAL	0.194*	0.142*	-0.115*	1.000					
AC_SIZE	-0.083	0.215*	-0.062	0.031	1.000				
AC_FIN	-0.195*	-0.073	0.138*	-0.089	0.127*	1.000			
SIZE	-0.156*	0.184*	-0.112*	0.058	0.094	0.102	1.000		
LEV	0.048	0.073	-0.064	0.117*	0.041	-0.051	0.138*	1.000	
ROA	-0.084	0.021	0.092	-0.073	0.018	0.087	0.165*	-0.184*	1.000

*Correlation is significant at $p < 0.05$ (two-tailed)

The correlation matrix reveals several noteworthy relationships:

1. **Board Independence (B_INDEP) and |DACC|** are negatively correlated ($r = -0.218$, $p < 0.05$), providing preliminary support for H1 that independent directors reduce earnings management.
2. **CEO Duality (CEO_DUAL) and |DACC|** are positively correlated ($r = 0.194$, $p < 0.05$), supporting H3 that duality is associated with lower financial reporting quality.
3. **Audit Committee Expertise (AC_FIN) and |DACC|** are negatively correlated ($r = -0.195$, $p < 0.05$), providing preliminary support for H5.
4. **Board Size (B_SIZE) and |DACC|** show a positive correlation ($r = 0.127$, $p < 0.05$), suggesting larger boards are associated with more earnings management, providing preliminary support for H2.
5. **Audit Committee Size (AC_SIZE) and |DACC|** show a negative but non-significant correlation ($r = -0.083$, $p > 0.05$), suggesting the relationship may not be strong.
6. **Firm Size (SIZE) and |DACC|** are negatively correlated ($r = -0.156$, $p < 0.05$), indicating that larger firms have better reporting quality.



7. The correlations among independent variables are generally low, suggesting that multicollinearity is not a significant concern. The maximum correlation is between B_SIZE and AC_SIZE ($r = 0.215$), which is well below the threshold of 0.70 that would indicate serious multicollinearity.

4.3 Diagnostic Test Results

Multicollinearity Test:

Table 3

Variance Inflation Factor (VIF) Results

Variable	VIF	1/VIF
B_SIZE	1.23	0.813
B_INDEP	1.18	0.847
CEO_DUAL	1.15	0.870
AC_SIZE	1.29	0.775
AC_FIN	1.21	0.826
SIZE	1.14	0.877
LEV	1.09	0.917
ROA	1.11	0.901
Mean VIF	1.18	

All VIF values are well below the threshold of 10, indicating that multicollinearity is not a serious problem in this dataset. The mean VIF of 1.18 further confirms that the independent variables are not highly correlated with each other.

The Breusch-Pagan test for heteroskedasticity yields a chi-square value of 12.45 ($p = 0.052$), indicating that heteroskedasticity is not a significant concern at the 5% significance level. However, robust standard errors will be used to ensure reliable inference.

The Wooldridge test for autocorrelation in panel data yields an F-statistic of 3.78 ($p = 0.008$), indicating significant first-order autocorrelation. To address this, the regression models will include a lagged dependent variable or use clustered standard errors.

The Jarque-Bera test for normality yields a chi-square value of 8.21 ($p = 0.016$), indicating that the residuals are not perfectly normal. Given the large sample size (1,505 observations), the Central Limit Theorem ensures that the regression estimates remain unbiased and efficient.

4.4 Regression Results

4.4.1 Pooled OLS Regression

Table 4

Pooled OLS Regression Results

Variable	Coefficient	Std. Error	t-Statistic	P-Value
Constant	0.184	0.038	4.84	0.000***
B_SIZE	0.005	0.003	1.67	0.096*
B_INDEP	-0.0012	0.0004	-3.00	0.003***
CEO_DUAL	0.018	0.007	2.57	0.011**
AC_SIZE	-0.007	0.006	-1.17	0.242
AC_FIN	-0.021	0.009	-2.33	0.020**
SIZE	-0.013	0.005	-2.60	0.010**
LEV	0.011	0.015	0.73	0.466
ROA	-0.045	0.031	-1.45	0.147
R-squared	0.128			
Adj. R-squared	0.119			
F-statistic	14.82		P-value: 0.000	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

The pooled OLS model explains approximately 12.8% of the variation in discretionary accruals. The model is statistically significant ($F = 14.82$, $p < 0.001$).

4.4.2 Fixed Effects Model (FEM)



Table 5

Fixed Effects Regression Results

Variable	Coefficient	Std. Error	t-Statistic	P-Value
Constant	0.171	0.041	4.17	0.000***
B_SIZE	0.007	0.004	1.75	0.081*
B_INDEP	-0.0014	0.0005	-2.80	0.005***
CEO_DUAL	0.022	0.008	2.75	0.006***
AC_SIZE	-0.008	0.007	-1.14	0.254
AC_FIN	-0.025	0.011	-2.27	0.023**
SIZE	-0.015	0.006	-2.50	0.012**
LEV	0.014	0.017	0.82	0.412
ROA	-0.048	0.033	-1.45	0.147
R-squared (within)	0.142			
F-statistic	18.05		P-value: 0.000	

***p < 0.01, **p < 0.05, *p < 0.10

The fixed effects model accounts for unobserved firm-specific heterogeneity. The within R-squared (0.142) indicates that the model explains 14.2% of the variation in discretionary accruals within firms over time.

4.4.3 Random Effects Model (REM)

Table 6

Random Effects Regression Results

Variable	Coefficient	Std. Error	t-Statistic	P-Value
Constant	0.178	0.039	4.56	0.000***
B_SIZE	0.006	0.003	2.00	0.046**
B_INDEP	-0.0013	0.0004	-3.25	0.001***
CEO_DUAL	0.020	0.007	2.86	0.004***
AC_SIZE	-0.007	0.006	-1.17	0.242
AC_FIN	-0.023	0.010	-2.30	0.021**
SIZE	-0.014	0.005	-2.80	0.005***
LEV	0.012	0.015	0.80	0.424
ROA	-0.046	0.032	-1.44	0.150
R-squared (overall)	0.135			
Wald Chi-square	120.6		P-value: 0.000	

***p < 0.01, **p < 0.05

4.4.4 Hausman Test and Model Selection

Table 7

Hausman Test Results

Statistic	Value	P-Value
Chi-square (8)	12.82	0.118

The Hausman test statistic equals 12.82 and p = 0.118 which is not statistically significant at the 5% level. This means that the firm-specific effects are not related to the independent variables and the Random Effects Model is to be favoured over the Fixed Effects Model. So, the results of the REM are regarded as the primary results for interpretation (Table 4.6).

4.5 Robustness Checks

A number of robustness checks are undertaken:

The analysis is repeated using the alternative measure of FRQ based on the performance matched discretionary accruals, as provided by Kothari et al., 2005. The results are qualitatively comparable. The analysis is done separately for pre-COVID (2015-2019) and post-COVID (2020-2022) periods. The results are not significantly different, but are slightly more potent during the post-COVID era.



The analysis is carried out separately for large firms (above the median size) and small firms (below the median size). The effect of governance mechanisms is greater in the sub-sample of the large firms, implying that governance works better in larger, more well-known firms. The analysis is repeated in a two-stage least squares (2SLS) model to address endogeneity concerns, in the latter model the governance variables are lagged. The results are quite stable and are not significantly affected by endogeneity issues.

The findings of the study have been presented in this section. Results of descriptive statistics showed that mean absolute discretionary accrual was 5.4% which means that earnings management exists on a large scale among companies in Pakistan. The results of the correlation analysis generally supported the hypothesized relationships. The diagnostic tests showed that the data are appropriate for analysis by a panel regression. The Hausman test suggests the Random Effects Model as the best model. Four of the five hypotheses are supported by the regression results, with board independence, CEO duality, and the audit committee expertise proving to be the most important factors affecting financial reporting quality.

5. Discussion of Findings

5.1 Board Independence and Financial Reporting Quality

The regression results are always consistently significant and negative as far as the relationship between board independence and earnings management is concerned (coefficient = -0.0013, $p < 0.01$ when comparing REM). This result supports Hypothesis 1 and indicates that an increase in the proportion of independent directors on the board is correlated with a decrease in discretionary accruals, which in turn is correlated with an increase in financial reporting quality.

This finding aligns with the agency theory prediction that independent directors act as good monitors of management. This finding is significant in the Pakistani context because the authors found independent directors have an impact on earnings management even though there is a fear that they are ineffective in family-controlled companies. This finding is in line with research findings in developed markets (Klein, 2002; Chtourou et al., 2001) and some emerging markets (Saeed & Khan, 2016).

The significance of this is that the SECP's mandate on independent directors is good value for money and should be robust rather than weak. But the power of independent directors could depend on their independence, and their money sense. The result also indicates that the market believes the company with higher board independence has a lower cost of capital, making them more believable in the eyes of the market.

5.2 Board Size and Financial Reporting Quality

There is a positive and slightly significant link between board size and earnings management (REM coefficient = 0.006, $p < 0.05$). This result confirms the Hypothesis 2: board size is positively related to the earnings management and negatively related to financial reporting quality. This outcome is in line with the idea that coordination problems, communication issues, and the threat of CEO domination (Jensen, 1993) may reduce the effectiveness of large boards.

This is especially pertinent in Pakistan where many companies have large boards dominated by members of the family and business associates. The use of large boards can be to spread patronage and to keep control of the family. Based on the outcome, the SECP may wish to give more specific guidance on the optimum size of the board rather than a range of sizes.

Note that the relationship is only slightly significant in the pooled OLS and fixed effects estimates but is significant in the random effects model. This indicates that board size has some effect on FRQ, but other forms of governance might be more significant.

5.3 CEO Duality and Financial Reporting Quality

Overall, the regression results are all statistically and positively significant from an earnings management perspective (coefficient = 0.020, $p < 0.01$ in REM). The results of this finding are strong support of Hypothesis 3, which suggest that the co-service of the CEO and Chairman are likely to increase the earnings management, thus reducing the quality of the financial reports.

This finding is in line with agency theory and the existing research on CEO duality. If the CEO is the chair of the board, the board's monitoring duties will be undermined since the CEO will control the agenda of the board and it is the CEO that will deliver the information and who will choose the members of the board. It is a very relevant governance concern in Pakistan considering the rate of CEO duality (42% of observations).



The separation of the roles of CEO and Chairman should be one of the top governance reform priorities in Pakistan, the finding indicates. The CCG has currently "strongly recommended" that separation is implemented but it has not yet required separation. Empirical evidence to support mandatory separation for all listed companies.

5.4 Audit Committee Size and Financial Reporting Quality

For the audit committee size coefficient the signs are negative, though it is not statistically significant for any of the regression models (coefficient = -0.007, $p > 0.10$). This result is not consistent with Hypothesis 4 which states that there is no significant effect of audit committee size on financial reporting quality in the Pakistani firms.

There are a number of possible explanations for this non-significant finding. First, the size of the audit committee is comparatively standardized in Pakistani companies (with most having 3-4 members), and hence the variation is not significant enough to see the impact. Secondly, being small is not enough to be effective, the membership and its level of involvement may be more important. Third, the minimum requirement of three members for the CCG itself could be adequate and there may be little gain in having more than three.

The finding implies that audit committee size is not necessarily the most important factor, as its composition of financial experts and participation seems more crucial.

5.5 Audit Committee Financial Expertise and Financial Reporting Quality

As for the relationship between financial expertise of the audit committee and earnings management, the regression results are always and significantly negative (REM coefficient = -0.023, $p < 0.05$). The results of this finding provide support for Hypothesis 5; that the presence of Financially Expert members on the audit committee are linked to lower earnings management and higher financial reporting quality.

This is in line with the theory that more finance savvy members of the audit committee will be able to grasp complicated accounting matters, challenge management decisions, and assess auditor effectiveness. The result is consistent with the results of the research in developed countries (Carcello et al., 2002; McDaniel et al., 2002) and emerging countries.

The bottom line is, the SECP should demand not just financial knowledge, but real financial knowledge, and it should be put to use. The discovery implies that the audit committee member's training and development programs may be useful to improve the quality of reporting.

5.6 Control Variables and Financial Reporting Quality

Firm size is negatively related to the quality of financial reporting and is significant (coefficient = -0.014 and $p < 0.01$). This is in line with the idea that the larger the company, the more it is subject to scrutiny by analysts, regulators, and media, and, thus, the more it restricts earnings management. Larger companies also have more resources to allocate to robust governance.

Leverage: The coefficient for leverage is positive, but not statistically significant (coefficient = 0.012, $p > 0.10$). The results indicate that there is an overall tendency that more highly leveraged firms exhibit slightly greater earnings management, but the overall effect is not conclusive. This could be due to the dual nature of the pressure faced by highly leveraged firms: creditors want transparency, but debt covenants incentivize earnings management.

Profitability (ROA): The coefficient of ROA has a negative value and is not statistically significant (coefficient = -0.046, $p > 0.10$). The direction is in line with other studies showing that higher reporting quality goes with higher profitability, although the impact is not statistically significant. This may be because profitable companies still have the incentive to report earnings that meet or exceed their analysts' expectations, and loss-making companies may manipulate earnings to avoid negative earnings reporting.

5.7 Comparative Analysis with Previous Studies

The results of this study can be compared with previous studies conducted in other emerging markets and in Pakistan:

The study validates the results of Saeed & Khan (2016) which find that board independence is negatively associated with firm's earnings management in Pakistani context. It is inconsistent with the results of Ahmad and Saeed (2017) which revealed that there was no significant effect. This difference could be because of the size of the sample size and the amount of time covered in this study, thus giving more statistical



strength to detect the difference.

Our results suggest that larger boards are associated with higher earnings management, which follows the pattern of the developed markets (Beasley, 1996; Jensen, 1993) and some emerging markets. It resonates with the overall opinion that adding more board members may not be beneficial.

The negative relationship between CEO duality and FRQ is in line with most of the international studies and evidence (Rehman & Ali, 2018) conducted in Pakistan. This seems to be one of the most sturdy results of the corporate governance literature.

Audit Committee Financial Expertise: The finding that financial expertise benefits FRQ is consistent with international evidence and a critical support to the SECP's requirement. The finding is significant as the skills of audit committees are a relatively new requirement in Pakistan.

This section has included a detailed description of the empirical results and their connection to the theory and other research. The results validate the majority of hypothesized relationships, such that board independence, CEO duality, and audit committee expertise are the most important variables in the governance relationship that influence financial reporting quality. The findings depict the improvement in the corporate governance framework in Pakistan and the need for further improvement.

6. Conclusion and Recommendations

6.1 Summary of Findings

The current study has explored the impact of corporate governance mechanism on financial reporting quality in listed companies of Pakistan. The study tested five hypotheses in a sample of 215 non-financial companies in the years 2015-2022, using panel data analysis. The main results are:

1. The financial reporting quality is positively related to board independence. Independent directors are effective monitors as evidenced by firms with a larger proportion of independent directors being less likely to be associated with earnings management.
2. The bigger the board, the lower the quality of financial reporting. Beyond a certain size, too many board members are not associated with a greater level of earnings management, such that larger boards are related with higher earnings management.
3. There is a negative relationship between CEO duality and financial reporting quality. The presence of the CEO as Chairman increases the likelihood of earning management, as does the lack of separation between the two, which reinforces the need to separate the roles.
4. The financial reporting quality of audit committees is not significantly different based on committee size. This means that the quality of the membership and the involvement of the members is more important than size.
5. The findings suggest that the financial expertise of the audit committee has a positive relationship with the quality of financial reporting. The presence of financially literate audit committee members is associated with lower earnings management for firms, further evidence of the value of financial literacy in firms' governance.
6. The higher a firm's size, the higher its financial reporting quality. There is a clear distinction in the quality of reporting between the larger firms and the smaller ones, probably as a result of the extra scrutiny and resources that the larger companies possess.

6.2 Conclusion

In this study researchers have found that in Pakistan there is a significant relationship between corporate governance mechanisms and financial reporting quality. The results lend empirical evidence to the theoretical propositions of agency theory by showing that good monitoring mechanisms lead to less opportunistic Earnings Management. The findings reveal the good and bad in the existing corporate governance framework in Pakistan.

Board independence and audit committee financial expertise are the most important governance structures to help enhance the quality of financial reporting. The mechanisms highlighted in CCG have shown to work very well in the Pakistani context, although there are concerns regarding implementation of governance requirements. On the other hand, duality of the CEO position is an important governance issue, as it is found in a high proportion of firms and has a negative effect on the quality of reporting.



The study also uncovers pertinent governance issues in Pakistan. The average board independence ratio is marginally lower than the CCG expectation, and more than a quarter of companies have no financial expertise on their audit committees. The non-compliance issues indicate a need for SECP to step up on enforcement and guidance on governance implementation.

The overall picture reveals that the corporate governance system in Pakistan is moving in the right direction and needs to be further strengthened. Governance reform is not simply about rules on paper but the effective implementation of the spirit of the rules.

6.3 Policy Recommendations

The policy recommendations for the SECP, the regulators and corporate leaders, based on the findings, focus on improving governance practices, clarifying accountability and providing better implementation of the existing corporate governance requirements.

Firstly, the independence of the Boards should be enhanced. The number of independent directors in the Code of Corporate Governance should be raised from one-third of the board to one-half, especially in companies with the concentrated ownership. The SECP should also come up with a more comprehensive definition of independence, ensuring that the independent directors are truly independent of management, the family, and controlling shareholders. Also, it is essential that the firms publish the basis for the independence of each director and that independent directors be trained in corporate governance and financial reporting on a regular basis.

Second, have two separate positions for the CEO and Chairman. The requirement should be moved from a strong recommendation to a mandate in the Code of Corporate Governance for separation. A reasonable transition period should be provided that allows firms to adapt their governance structures. In the event that it is not practical to separate for good reasons, companies should be obligated to state those reasons publicly and to designate a lead independent director to provide enhanced oversight.

Third, the effectiveness of the audit committee needs to be improved. The chair of the audit committee should be an independent director with financial expertise, as per the Code of Corporate Governance. The audit committee should have at least four meetings each year and report back in the annual report. The SECP should provide clear guidance on the financial skills a member of an audit committee needs to possess and provide firms with transparency about the financial qualifications and professional experience of committee members.

Fourth, the corporate governance requirements should be more vigorously enforced. Regular and comprehensive compliance reviews with respect to corporate governance should be undertaken by the SECP. Compliance should be penalised in a meaningful way, such as fines and public censure, for non-compliant companies. There should also be a connection between governance compliance and the listing requirements, meaning that where compliance remains a problem, there should be greater regulatory consequences, such as losing the listing if compliance is not improved.

Fifth, institutional investor activism should be promoted. Institutional investors (mutual funds, pension funds, etc.) should be encouraged to use their voting rights and communicate with portfolio companies on the governance issues. The SECP should also support the creation of investor associations that collectively can impact corporate governance practices and promote more accountability of listed companies.

Sixth, transparency needs to be improved by providing more detailed information on governance policies and practices in annual reports. The governance section of each annual report must cover how the company has applied each of the provisions of the Code of Corporate Governance. This disclosure would help enhance accountability and enable investors to better evaluate the quality of governance practices.

Last, but not least, capacity building should be emphasized. Structured training of directors, especially independent directors, on fiduciary responsibilities, financial reporting, and corporate governance should be developed by the SECP. There should also be measures through professional bodies like institute of chartered accountants of Pakistan to provide certification courses for the board to enhance their technical skill and governance awareness.

6.4 Implications for Stakeholders

The results of this research have implications for a range of stakeholder groups that transcend academic



debates, providing real-world suggestions and strategies. The results offer an investors' guide on how to detect governance metrics that indicate reduced information risk and possibly better investment results. Investors are urged to focus on companies with independent boards, where the CEO is not Chairman and the audit committee has proven financial expertise. These governance characteristics have been observed to be linked to better financial reporting quality and, consequently, less information asymmetry, less earnings manipulation, and lower chances of financial misstatement. Thus, investments in companies with the above governance characteristics can involve lower information risk, and potentially lower cost of capital, leading to better risk-adjusted returns. The findings highlight that the effective corporate governance should not be seen as only a compliance or a box ticking exercise for corporate managers. On the contrary, effective governance systems play a positive and significant role in the functioning of the organization, trust and credibility of the organization. Companies with robust governance mechanisms – such as independent oversight, clear reporting and robust internal control – are likely to be rewarded with more favourable terms by lenders and investors, earning greater market credibility, a stronger reputation and lower financing rates.

The study also underscores the importance of audit committee quality to the audit effectiveness and integrity of overall financial reporting for the auditors. Collaborative and constructive relationships between auditors and audit committees should be promoted, especially those with financial expertise and with an active role in audit committee work. This cooperation may lead to a better audit of management's accounting judgements, better irregularity detection and enhanced audit process quality. The findings offer regulators and policymakers empirical evidence for the existing corporate governance structure and also highlight the need for specific areas to be strengthened. Board independence and audit committee financial expertise have positive effects on reporting quality, underscoring the benefits of existing regulatory requirements, while CEO duality and the relatively small effects of board size suggest regulatory provisions that could be strengthened. Regulators should continue to evolve, update, and enforce governance requirements, including the separation of the roles of Chairman and CEO, further defining and verifying director independence and establishing appropriate financial skills for audit committee directors. Overall, the results of this study collectively support that compliance with corporate governance is not only a legal obligation but also a tool that contributes to the sustainable value creation of the capital markets of Pakistan and that all stakeholders can benefit from.

6.5 Limitations of the Study

The results of this study have certain limitations which should be noted, especially in the areas of measurement, data and methodology, and scope. First, the methodology of measuring financial reporting quality by using discretionary accruals has its own drawbacks. This is a practice commonly used in empirical studies, but this measure can also include part of a legitimate business decision and business choices that are not purely earnings management. There may be other proxies that could be added to the findings and provide a more comprehensive measurement of reporting quality, including earnings restatements, accounting conservatism, and real earnings management measures. Second, measurement of governance mechanisms was based only on information that is publicly available and drawn from annual reports and compliance statements. The assumption in this approach is that the governance practices reported in the field are representative of the actual practices. The assumption in this approach is that the governance practices reported in the field are representative of the actual practices, which may not always be the case. Some directors described in official disclosures as "independent" may in fact not be truly independent because of family ties, business or social relationships with controlling shareholders or management which may impact the validity of governance measures.

Third, although attempts to tackle the endogeneity issue are made through robustness checks and instrumental variables, there are still potential endogeneity issues in the analysis. There may be a reverse causality problem as firms with some reporting quality characteristics are more likely to choose to implement better governance mechanisms. Fourth, the study is limited to the non-financial companies listed on the Pakistan Stock Exchange. The results might not be applicable to this key sector of the economy, as financial institutions (banks, insurance companies, and other financial services providers) are regulated by different laws, have different capital structure needs, and follow accounting standards different from those that are followed by other sectors of the economy. Fifth, only a subset of governance dimensions was covered board



and audit committee attributes. Governing mechanisms like shareholder activism, corporate culture, internal control systems, executive compensation schemes and ownership structure may also have a significant impact on financial reporting quality. Lastly, the study failed to directly measure or consider cultural and institutional factors that could impact the effectiveness of governance in Pakistan. Factors like the importance of family connections, political connections, weak enforcement mechanisms and the institutional environment in which they operate clearly influence their functioning but were not specifically included in the empirical analysis.

6.6 Future Research Suggestions

This research has identified a number of interesting methodological, thematic and contextual pathways for future research based on the results and limitations of this study. Qualitative research that uses in-depth interviews with directors, managers, auditors and regulators may give findings that are rich and provide context to the practice of governance mechanisms and actual difficulties faced by firms implementing corporate governance codes. Such work might shed light on the disconnect between what is supposed to happen and what is actually happening in the formal governance system. Third, further study is needed to systematically explore how the ownership structure (i.e., the impact of family ownership, institutional ownership, foreign ownership, and state ownership) may interact with the governance and reporting quality relationship. This is especially pertinent in Pakistan where family-owned business groups dominate the landscape.

Third, industry specific research would yield more specific answers that would address the unique sector-specific regulatory requirements, competitive pressures and reporting methods. Fourth, the linkages between governance, the quality of reporting and the financial performance of the firm could be examined to determine whether better reporting leads to better financial results, such as increased access to capital, lower cost of debt, or higher market valuation. Fifth, comparative research between Pakistan and other South Asian economies (including India, Bangladesh and Sri Lanka) could provide insights into how the institutional environment, regulatory frameworks and cultural contexts impact governance performance and reporting.

Sixth, in the rapidly evolving landscape of digital transformation in corporate functions and reporting, further investigations on how digital platforms, real-time financial reporting, blockchain technology, and artificial intelligence contribute to promoting transparency, accountability, and timeliness of financial information may be of interest for future research. Finally, longitudinal studies with a longer time horizon could investigate the impact of slow governance changes (such as gradual change in the composition of the board, gradual adoption of new governance codes, or changes in ownership) on reporting quality over time, and on firm performance. The eighth area of research is psychological and cognitive studies of corporate governance that examines how director attributes, cognitive biases, personality and boardroom dynamics influence decision-making and oversight.

The increasing focus on Environmental, Social, and Governance (ESG) issues provides a fascinating area of research. The connection between ESG governance and financial reporting quality could also be explored in future research, in the sense of whether the companies with better ESG governance also have better financial reporting quality in terms of financial reporting transparency and integrity. Finally, regulatory impact assessment research might rigorously analyse the impact of regulation on reporting quality and market outcomes for specific regulatory changes, including changes to the Code of Corporate Governance, changes in listing requirements, new accounting standards, and the like. Such research would offer a policy and regulator with evidence-based support to create more effective governance reforms.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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Informed Consent

Informed consent was obtained from all individual participants included in the study.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical



standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Data Availability

The datasets generated during and analysed during the current study are available from the corresponding author on reasonable request.

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