



The Effect of Corporate Governance on Firm Financial Performance with Mediating Role of Earnings Management: Evidence from Pakistan Stock Exchange

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ABSTRACT

The paper investigates the impact of Corporate Governance on firm financial performance in Pakistani listed firms, with earnings management acting as a mediator. The study employed 191 non-financial companies that are listed on the Pakistan Stock Exchange from 2010 to 2019. Several diagnostic tests were run before applying the panel data model to the Ordinary Least Squares (OLS). The four variables used as proxies for Corporate Governance are board size, board independence, audit committee size, and ownership concentration. Financial performance may be approximated by the return on assets (ROA), while earnings management can be approximated by the discretionary accrual (DA). The research relied on Kothari et al., 2005 to determine DA rates. Findings suggest that Board Independence and Audit Committee size are important corporate governance factors for influencing earnings management. Earnings management is also intrinsically linked to a company's performance. The research used a four-stage mediation process developed by (Baron & Kenny, 1986). As earnings management was shown to be the only mediator between board independence and company financial performance, this finding suggests that the presence of independent directors boosts firm performance by reducing earnings management. Earnings management has no effect on the remaining corporate governance variables studied. It is Pakistan's first study to use earnings management as a mediating factor and to calculate discretionary accruals using the Kothari, Leone, and Wasley (2005) method. According to the study, board independence improves a firm's financial performance only by limiting management's earnings management activities

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1. Introduction

Businesses flourished with tremendous growth at the start of the twenty-first century, ignoring the concept of political borders and boundaries. Investors are more concerned with the security of their investments after the common global financial scandal enhanced the investment risk many folds. Several corporations' financial problems have caused investors to lose faith in the reliability of financial reports (Zgarni, Hlioui, & Zehri, 2016). An efficient corporate governance structure is essential for a company to safeguard the interests of its stakeholders. To wit: (Gulzar, 2011). Countries around the world started efforts to cope with these scandals in the future. The United States was enacted the first CG legislation in 1977 (the FCPA), and the Sarbanes-Oxley Act was passed in 2002 to control future economic frauds. The United Kingdom presented Cadary report 1992 to safeguard the interest of business firms, following that, in 2003, the Higgs, Smith, and Turnbull reports were used to revise the combined code of

CG. In 1999, the Organization for Economic Co-operation and Development (OECD) unveiled its first set of governance principles, which were later updated in 2004.

In this regard, a number of research studies on Corporate Governance and its impact on corporate performance have been conducted by academics. Some studies have linked a firm financial performance to managers' manipulation of financial results, a technique known as earnings management. The abrupt failure of major businesses including Freddie Mac, WorldCom, Enron, Barlow Clowes, Satyam Computers, and Daewoo has drawn researchers' attention to the problem of earnings management.

Earnings management is an approach that best describes management actions that may affect contractual outcomes or deceive stakeholders as an outcome of misrepresentations in companies' financial reporting (Dao, 2021). Research studies were carried out to investigate the possible link between these financial frauds. The research studies of (Higson & Kassem, 2013; Jones, 2010; Perols & Lougee, 2011), proved that EM is a form of financial reporting fraud. According to these research studies, the weakness of corporate governance structures and the presence of earnings management practices are pre-cursors to the deterioration of a business company's financial conditions and, eventually, the failure of these corporate entities. According to (Agustia, Muhammad, & Permatasari, 2020; Lacina, Lee, & Kim, 2018), managers may engage in self-interested actions such as the carefully planned alteration of financial reporting components to hide the real economic situation of businesses for personal gain or other purposes.

Good governance, according to agency theory, boosts a company's bottom line. Good corporate governance is crucial to a company's financial success, as stated by Black, De Carvalho, and Gorga (2012); Brown and Caylor (2006); Griffin, Guedhami, Kwok, Li, and Shao (2014). Nevertheless, (Klein, 2002) research showed that this correlation between improved governance and financial success is not always present. However, there is still a lot of doubt amongst investors about the existence of a connection between sound corporate governance and a company's bottom line.

2. Literature Review

2.1. Board Size and Earning Management

Scholars attempted to discover a link between board size and earnings management. In this regard, (Ching, Firth, & Rui, 2006; Githaiga, Muturi Kabete, & Caroline Bonareri, 2022; Sedighi & Vafadust, 2011; Swastika, 2013) discovered that corporate governance variables such as the board of directors size have a positive relationship with earnings management. Ching et al. (2006); Swastika (2013) explored the connection between board size and earnings management and revealed a positive connection between the two.

Nevertheless, Peasnell, Pope, and Young (2001); Xie, Davidson, and Dadalt (2003) looked at an adverse relationship between board size and discretionary accruals. Elghuweel, Ntim, Opong, and Avison (2017) also looked at the impact of corporate governance (board size) on earnings management (EM) in Oman. Mwangi and Nasieku (2022) study similarly examined how the size of a company's board of directors affected earnings management in Nigerian businesses. Both studies fail to demonstrate any considerable link between these variables in their respective studies.

H1. Earnings management (EM) and board size have a positive and statistically significant association.

2.2. Ownership Concentration and Earnings Management (EM)

Consolidated or block ownership has been shown to improve board oversight in prior studies (Shleifer & Vishny, 1997). Except discretionary accruals to be negatively associated with ownership concentration due to the fact that ownership concentration may limit management's dishonest activities (Warfield, Wild, & Wild, 1995). Research by Fera, Pizzo, Vinciguerra, and Ricciardi (2022) examined the effect of minority directors on the use of earnings management techniques by companies with concentrated ownership. In highly concentrated ownership arrangements, minority directors may encourage stronger director responsibility than independent directors, since the results show a negative association between minority directors and earnings management but no relationship between the latter and independent directors.

The prevalent practice of concentrated ownership in China is a major roadblock to improved corporate governance and transparency. Proper controls and checks are more difficult to create in government organizations since both the major shareholder and the regulator are government institutions. Yet, concentrated ownership may not encourage insiders to act in their best interests, which might lead to more aggressive profit management (Cornett, Marcus, & Tehranian, 2008). Many authors (Brown & Caylor, 2006; Davidson, Goodwin-Stewart, & Kent, 2005; Koh, 2003) have pointed out the importance of this phenomenon (2007) Mwangi and Nasieku (2022) found no evidence of a causal relationship between share ownership and profit maximization.

H2. The relationship between concentrated ownership and earnings management is negative and statistically significant.

2.3. Board Independence and Earnings Management (EM)

Board independence is an important feature of corporate governance in which the board of directors includes some directors from outside the company. Sedighi and Vafadust (2011) revealed that the rate of earning management is directly related to board independence. On the other hand, Pandey and Kumar (2022), proved that large board sizes as well as independent boards is efficient in restricting the use of earnings management practices in India and China. Furthermore, Idris, Siam, and Nassar (2018) also looked at how family ownership affected the relationship between board autonomy and profit management. The study found that privately owned businesses had more independent boards of directors than publicly traded ones, which lowered the impact of profits management. On the other hand, Githaiga et al. (2022) examined the effects of board independence and other board features on the East African Community. The results demonstrate that board independence negatively and significantly affects earnings management.

H3: The Earnings Management (EM) and board of director's independence are negative and significantly associated.

2.4. Audit Committee Size (ACS) and Earnings Management (EM)

Most of the research scholars proved that the presence of the Audit Committee has become a symbol of a firm's good health. As Hamdani and Albar (2016), explored that Audit Committees maintain checks or carry out research on the board of directors' functions while handling company affairs. Similarly, Sedarmayanti (2012), proved that the Audit Committee has several duties, including evaluating internal controls, assessing the firm's accounting policies, and ensuring compliance with government regulations. NGO and Le (2021) looked analyzed data from the Vietnam Stock Exchange for businesses listed between 2015 and 2018 and found a negative relationship between the size of audit committees (ACS) and the quality of earnings management (EM). Klein (2002), found that the size and knowledge of the audit committee were two potential barriers to effective profit management. While looking at what factors affect earnings management, Lin and Hwang (2010) discovered an inverse relationship between the size of audit committees and earnings management.

H4. The size of the audit committee (ACS) is negatively and significantly related to the earnings management (EM).

2.5. Corporate Governance and Firm Financial Performance

2.5.1. Board size

The number of board members was determined by counting the individuals that are currently on the board. According to the agency theory's point of view, a more effective board of directors is one that consists of fewer people (Elbadry, Gounopoulos, & Skinner, 2015). An association between board size and the effectiveness metric Tobin's Q was discovered in their research. Comparatively small board sizes were also associated with a superior business performance by Cheng, Evans, and Nagarajan (2008). Vo and Phan (2013) found a negative relationship between board size and performance for Vietnamese enterprises. The effect of board structure on the profitability of India's software sector was studied by (Singh & Bansal, 2022).

The relevance of corporate governance for firm's performance was further shown by the finding of Amjad, Abbass, Hussain, Khan, and Sadiq (2022) that expanding the size of the board would boost company performance (ROA). To back up the connection between BoD qualities and financial success in SMEs, Roffia, Simón-Moya, and Sendra García (2021) performed a study (SMEs). This evidence lends credence to the agency theory's contention that reducing the size of the board of directors may boost a company's efficiency. When examining the correlation between board size and business financial success, however, Guest (2009) and Darko, Aribi, and Uzonwanne (2016) came to different conclusions.

H5: The size of the Board of Directors and a company's financial performance are statistically significantly and negatively correlated.

2.5.2. The Audit Committee Size

Alqatamin (2018) revealed that the size of the audit committee, along with other corporate governance qualities, was significantly correlated with firm performance. Similarly, Zraiq and Fadzil (2018) found a positive, although weak, correlation between audit committee size and ROI. Studies on the correlation between audit committee size and company performance have generally come up empty. This includes work by Darko et al. (2016), Almoneef and Samontaray (2019); Darko et al. (2016); Khalifa H (2018); Rahman and Saima (2018); Singh and Bansal (2022) among others.

H6: The ACS and the business's financial success are statistically significant and positively associated.

2.5.3. Board Independence

As board independence is seen as an essential component of sound corporate governance, several research have been conducted to determine if there is a relationship between board independence and firm performance. In the studies carried out by Arora and Sharma (2016); Sarpong-Danquah, Gyimah, Afriyie, and Asiamah (2018); Singh and Bansal (2022) for the Indian manufacturing industry, Ghanaian manufacturing industry, and Indonesian manufacturing industry, respectively, there was a positive correlation between board independence and financial performance. Moreover, Abdulfattah (2018) study did not discover any proof that the performance of UAE-listed companies is significantly impacted by board independence.

H7: Board independence (BIND) is positively and significantly related to firm financial performance (FFP).

2.5.4. Ownership Concentration

Block-holders are shareholders who own at least 5% of a company's issued shares when it comes to ownership concentration. In addition, dominant shareholders may be able to abuse the company's resources and direct management in a way that is adverse to the interests of minority shareholders if there is a significant concentration of ownership (Darko et al., 2016). The results of empirical studies examining the effects of different types of ownership have been contradictory. A higher concentration of ownership, they argued, would be detrimental to performance as measured by ROA and Tobin's Q. (Fauzi & Locke, 2012). The findings of the Reyna, Vázquez, and Valdés (2012) study demonstrated that companies listed on Zimbabwe Stock Exchange with relatively high concentrated ownership found to outperform organizations with low concentrated ownership measured by ROA and Tobin's Q in financial reports.

H8: The concentration of ownership is inversely related to the financial performance of a company.

2.6. Gaps in Existing Literature

According to a review of the literature, the challenges of corporate governance and its impact on EM have been hotly debated in advanced economies for period of time (Ali Shah, Butt, & Hassan, 2009), with one finding in p, in particular, citing that EM is not a particularly useful identifier of financial success for businesses. In another example, Abbasi, Jhatial, and Halepota (2018) examined the impact of CG on the financial performance of the Pakistan International Airlines Company Ltd. (PIACL) from 2002 to 2016. Researchers Kamran, Zhao, Ali, and Sabir (2018) compared the manufacturing industries of 857 Chinese and 150 Pakistani businesses

listed on the public market between 2012 and 2016. The modified Jones Model was used to quantify discretionary accruals (Jones, 2010). Findings suggest that Earnings Management techniques may mediate the relationship between stringent financial regulations and a firm's worth, as measured by Tobin's Q and stock return in both countries. Ali, Noor, Khurshid, and Mahmood (2015) examined the effect of company size on discretionary accruals for fifty selected textile businesses operating in Pakistan between 2004 and 2013. The dependent variable in the study was earnings management. This study also employed a modified Jones model to evaluate earnings management through discretionary accruals. Asim and Ismail (2019) also investigated the impact of leverage on earnings quality in Pakistan's manufacturing sector. 159 non-financial entities listed on the Stock Exchange of Pakistan were used in the study. The Modified Jones Model was also used in this study (1995). Growth, company size, and Return on Assets are three control variables, whereas leverage is an independent variable (ROA). Latif and Abdullah (2015) looked at how well corporate governance reduced expense management in Pakistani companies. The Modified Jones Model (1995) was also employed in this research to evaluate earnings management. A conclusion was drawn using data collected from 102 firms between 2003 and 2012. In addition, the controversy is still open in many developing countries, including Pakistan, and needs further investigation. The research Kothari et al. (2005) introduces a novel earnings management technique that plays a mediating function between corporate governance and financial success. The first thing to keep in mind is that the goal of this research is to examine how various viewpoints on corporate governance and earnings management relate to one another. The second part looks at how corporate governance affects a company's performance, with earnings management serving as a mediator. Because to the R² and f-statistics, as well as the fact that it was appropriate for the Pakistani setting, we decided to utilise the Kothari in this instance. In addition, previous research has shown that the Kothari et al. (2005) EM model is more profitable than the Modified Jones model for Asian businesses. The 2005 Kothari model attempts to improve the accuracy of accrual model projections in two ways: 1) by include an intercept, and 2) by factoring in past performance. The lack of an intercept in Jones (1991) and Modified Jones (2010) model estimates may contribute to their misspecification. To mitigate misspecification issues due to heteroscedasticity in the residuals and a lack of variables, Kothari et al. (2005) included a constant component in their model. In addition, Kothari et al. (2005) state that one may expect next year's sales changes to be zero since revenue changes contain the random walk characteristic. (Adibah Wan Ismail, Anuar Kamarudin, van Zijl, & Dunstan, 2013) suggested that the Kothari et al. (2005) model is more credible, effective, and dependable for evaluating (EM) operations than competing models. Notwithstanding the justification given above, the precise aims of the research ultimately decide which approach is most appropriate for a given study (Marai & Pavlović, 2014). Given that accounting methods that are acceptable in one country could not be applicable in another, it is crucial to keep this in mind while developing and implementing the model for EM detection. As a result, an evaluation of the country, region, and firms is necessary.

Additionally, since Pakistan's Code of Corporate Governance(PCCG) was adopted in 2012, there hasn't been much study on how CG and EM affect a company's financial performance. This occurs as a result of the Code of Corporate Governance's delayed implementation until 2012. Thirdly, there is no proof that earnings management has ever been the subject of study in Pakistan that examined it as a moderating function and a reaction to changes in company performance. Earning management is estimated in the fourth dimension of the present research utilizing a technique that Kotheri et al. had not before used in the Pakistani setting (2005). Lastly, by using already-available data from Pakistan, lengthy sample period and a much higher number of enterprises are applied. In contrast to other research in the field, which utilized sample data from 102 organizations, smaller numbers of firms , and a small range of sectors, this study analyzed data from 191 businesses from 2010 to 2019.

2.4. Agency Theory

The Agency Theory is the leading theory in the field of Corporate Governance. It focuses the need for legal and practical separation between a company's owners and management so that the latter may act as an agent for the shareholders' goals of "wealth maximization" (Klein, 2002). So, according to Agency Theory, management makes decisions that benefit itself rather than its shareholders. Separation has allowed Agency Theory to enter the marketplace. It is clear from the published works that Agency Theory is being applied to many different disciplines. Due to the main agent association's inherent bias, the agency's prices have increased. Studies

have shown that instituting governance measures may help bring peace to the principal-agent relationship, save costs associated with the agency relationship, and keep the interests of shareholders secure (Davidson et al., 2005). According to the Demsetz and Lehn (1985), CG approaches are not able to boost company performance on their own, but rather they correct the principal-agent issue by keeping tabs on management and overseeing financial reporting.

3. Methodology

3.1. Research Design

The research is logical and positivist in character; a theory is put to the test in light of hypotheses produced, and then either confirmed or disproved by means of an experiment (Bryman, 2008). Positivists believe that reality is objective and exists regardless of our presence in it. It is direct experience, unfiltered by our senses and subject to universal rules. Positivists and realists have the same ontological stance. All aspects of reality, including the social and natural ones, are of interest to positivists. The link between an occurrence and its cause may be seen in nature and used to confidently predict subsequent events.

3.2. Sampling Size and Procedure

In order to examine the link between internal CG mechanisms and ROA with the mediating role of EM, the study's sample businesses were selected from companies listed on the Pakistan Stock Exchange (PSX) (KSE). There were 408 nonfinancial companies in the study's target group at PSX. To choose 12 sectors and 191 non-financial business entities, a purposeful sampling technique was used (Enofe, Iyafekhe, & Eniola, 2017). Based on independent factors like board size, board of director independence, ownership concentration, and audit committee size, as well as mediating variables like discretionary accrual and dependent variables like ROA, the purposive technique is used to choose non-financial enterprises. As a consequence, we used the purposive approach to satisfy all of the study's criteria.

3.3. Dependent Variable

In this research, the dependent variable is firm financial performance. Danoshana and Ravivathani (2013); Kiel and Nicholson (2003) evaluated the financial performance of their respective businesses in order to do so used return on assets (ROA).

3.4. Mediating Variable

The study used earnings management as mediating variable calculated based on the Kothari model (2005) as follows.

Step 1: Total accruals are calculated:

$$TAC_{it} = NI - CFO$$

Accruals in total are denoted by the abbreviation TAC.

NI stands for "Net Income".

Cash flow from operations is known as CFO.

Step 2 involves calculating non-discretionary accrual, as shown by equation 2.

Equation 2: The accompanying illustration is the performance-matched accruals model developed by Kothari et al. Equation 2 is a regression of the computed total accrual (Equation 1) on changes in sales to predicted coefficients. Regression of the calculated total accrual (Equation 1) on changes in revenues minus changes in receivables, plant, gross property, equipment, and return on assets yields estimated coefficients.

The estimated coefficients (, 1, 2, and 3) were easily calculated by putting them into the Kothari et al. (2005) model (equation 2). Furthermore, when estimating discretionary accruals for a specified period, equation 3 reveals the distinction between equations 1 and 2. To clarify the distinction between equations 1 and 2, use the equation Discretionary accruals = Total accruals - Non-discretionary accruals (Kothari et al., 2005).

As a result, as explanatory variables, this study utilized Kothari et al. (2005) economic model, in addition to the model's suitability to the Pakistani economy as measured by R-Square and the proxy based on prior research. Thus, on the appropriate page, equations 2 and 3 are provided for evaluating discretionary accruals in publicly listed corporations in Pakistan between 2010 and 2019.

Equation No. 2: The β_1 , β_2 , and β_3 were calculated using a performance-matched accruals model (Kothari et al., 2005).

$$TAC_{it} = \alpha (1 / TA_{it-1}) + \beta_1 (\Delta REV_{it} - REC_{it}) / TA_{it-1} + \beta_2 (PPE_{it} / TA_{it-1}) + \beta_3 ROA_{it-1} + \varepsilon_{it}$$

Where:

- TAC_{it} = Total accruals of firm i at the end of year t
- TA_{it-1} = The book value of total assets of firm i at the end of year $t-1$
- $(\Delta REV_{it} - REC_{it}) / TA_{it-1}$ = Sales revenues of firm i in year t less receivable in year $t-1$ scaled by TA_{it-1}
- PPE_{it} / TA_{it-1} = gross property, plant and equipment of firm i at the end of year t scaled by TA_{it-1}
- ROA_{it-1} is return on assets of firm i at for the year t
- α , β_1 , β_2 & β_3 are estimated parameters
- ε_{it} is the residual

Equation No. 3: Using the coefficient from Kothari et al. (2005), performance matched accruals model, we can compute discretionary accruals.

$$DA_{I,t} = TA_{it} / A_{i,t-1} \text{ Minus } [a_i (1 / A_{i,t-1}) + b_{1,i} (\Delta REV_{i,t} - \Delta REC_{i,t} / A_{i,t-1}) + b_{2,i} (PPE_{i,t} / A_{i,t-1}) + b_{3,i} (ROA)]$$

Where:

- $DA_{I,t}$ = Discretionary accruals for firm
- $TA_{it} / A_{i,t-1}$ = Total accruals
- $a_i (1 / A_{i,t-1}) + b_{1,i} (\Delta REV_{i,t} - \Delta REC_{i,t} / A_{i,t-1}) + b_{2,i} (PPE_{i,t} / A_{i,t-1}) + b_{3,i} (ROA)$ = Non-discretionary accruals by the Kothari (2005) model.

Using parameters β_1 , β_2 , and β_3 , the performance matched accruals model created by Kothari et al. (2005) is utilized to calculate discretionary accruals.

$$DA_{I,t} = TA_{it} / A_{i,t-1} \text{ Minus } [a_i (1 / A_{i,t-1}) + b_{1,i} (\Delta REV_{i,t} - \Delta REC_{i,t} / A_{i,t-1}) + b_{2,i} (PPE_{i,t} / A_{i,t-1}) + b_{3,i} (ROA)]$$

Where:

- $DA_{I,t}$ = Discretionary accruals for firm
- $TA_{it} / A_{i,t-1}$ = Total accruals
- $a_i (1 / A_{i,t-1}) + b_{1,i} (\Delta REV_{i,t} - \Delta REC_{i,t} / A_{i,t-1}) + b_{2,i} (PPE_{i,t} / A_{i,t-1}) + b_{3,i} (ROA)$
= Non-discretionary accruals by the Kothari (2005) model.

3.5. Independent Variable

3.5.1. Board size

For every corporation, the Board of Directors is the highest governing body (BOD). According to studies conducted by (Krishnan & Visvanathan, 2008), board capacity is proportional to the natural log of the number of board members.

3.5.2. Independence of the Board of Directors

The makeup of the board of directors is determined by the number of independent directors. According to PCCG, independent directors are those who have no ties to the company's management, and who have no relationships that might compromise their capacity to exercise independent judgment or to look out for the company's shareholders' best interests.

3.5.3. Audit Committee Size (ACS)

The term "size of the audit committee" (ACS) refers to the total number of board members that serve on the audit committee.

3.5.4. Ownership Concentration

Block-holder concentration occurs when a small number of shareholders possess at least 5% of a company's outstanding shares.

4. Data Analysis and Discussion

4.1. Descriptive analysis

Descriptive statistics of all variables of the study is given below in Table 1.

Table: 1 Descriptive statistics

Name of variable	Obse	Mean	Std. Dev.	Mini	Maxi
BS	1906	8.091	1.685	5	21
BIND	1906	1.021	1.232	0	11
OWNCONS	1907	63.801	18.892	12	98
ACSIZ	1893	3.392	.813	2	14
ROA	1910	5.353	10.366	-98.231	90.205
DA	1910	.031	.205	-4.273	1.094
LVG	1910	6.433	86.945	-647.934	2846.714
FS	1910	3.751	.634	1.894	5.824
AGE	1910	41.930	14.572	15	85

Table:2 The CG and EM regression findings

DA	Coeff.	Std.Err.	t-value	p-value	[95% Conf. Interval]	Sig.	
BS	0.00	.0041	0.021	.9852	-.0084	.0082	
BIND	-.008	.0043	-2.162	.0312	-.0163	-.0013	**
OWNCONS	0.00	.0012	-0.753	.4544	-.0024	.0014	
ACS	-.005	.0082	-2.665	.0125	-.0224	.0114	**
Lvg	-.026	.0192	-1.376	.1715	-.0635	.0113	
FS	.128	.0223	5.7867	0	.0844	.1712	***
FAGE	0.00	.0055	-0.117	.9166	-.0093	.0094	
Constant	-1.155	.2885	-4.017	0	-1.723	-.5915	***
Mean (dependent variable)	0.0021		SD dependent variable.		0.1421		
Value of R-squared.	0.0222		No. of obs.		1888		
Result of F-test.	3.8541		Prob>F.		0.0002		
Akaike crit.	-2336.73		Bayesian_crit(BIC).		-2275.75		

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

4.2. Result discussion of Board of Director Size and EM

Table 2's findings disproved the hypothesis that a larger board would better oversee profitability. Table 2 displays findings that are consistent with those found by Bradbury, Mak, and Tan (2006); Y. K. Susanto (2016), who studied the impact of corporate governance on EM in the oil and gas industry. There seems to be no connection between corporate governance and earnings management because of the limited link between earnings management and board size and managerial ownership.

4.3. Results Discussion of Board of Director Independence and EM

A substantial effect of BINDP on EM is shown by the $\beta = -.008^{**}$ and $P = .031$ values in Table 2. Hence, there was a statistically significant negative connection between BODINDP and EM. Consistent with the literature, we found that board independence was correlated negatively and statistically significantly with earnings management (Githaiga et al., 2022; Pandey & Kumar, 2022). With a larger number of independent board members, businesses are better able to monitor their finances and reduce the probability of profits manipulation.

4.4. Results Discussion Audit Committee Size and EM

Table 2 shows that ACS has a significant and negative effect on EM, with a result of $\beta = -.005$ and a P-value of 0.000. The study's findings are similar to the results of Lin and Hwang (2010), who revealed a negative connection between audit committee size and earnings management while examining earnings management factors.

4.5. Results Discussion of Ownership Concentration and EM

Table 2 shows that when analyzing the effect of (OWNCONS) on EM, the result is inconsequential, with a p-value of 0.454 more than 0.05 ($p > 0.05$). Hence, in direction (a), (OWNCONS) was not significantly linked to EM. Similar findings were found by (Brown & Caylor, 2006), both of which concluded that there was no correlation between high levels of institutional ownership and earnings management. Similarly, Mwangi and Nasieku (2022) research found that factors including managerial ownership, institutional ownership, and ownership concentration had little impact on earnings management.

Table: 3 Regression results of EM and ROA

ROA	Coeff.	Std.Err.	t-value	p-value	[95% Conf. Interval]	Sig.
DA	.1512	.0123	12.283	0	.1275 .1751	***
Lvg	-.1622	.013	-16.954	0	-.184 -.1433	***
FS	-.0766	.014	-7.455	0	-.0963 -.0563	***
FAGE	.0016	.0026	0.513	.609	-.0032 .0064	
Constant	.856	.1395	6.112	0	.5781 1.123	***
Mean dependent variable.	0.05		SD dependent variable		0.10	
R-squared.	0.21		No. of the obs.		1910	
F-test.	119.86		Prob>F		0.00	
Akaike crit.(AIC).	-4945.21		Bayesian crit.(BIC).		-4816.43	

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

4.6. Results Discussion of analysis of EM and FFP

Table shows that there is a statistically significant relationship between EM and FFP, with a p value of 0.001 for a $\beta = .151$ *** result. Hence, Earnings Management (EM) demonstrated a positive and statistically significant relationship with FFP. Earnings management, as defined by Gunny (2010), is the efficient maximisation of a firm's worth, future profits, or profit quality. Earnings management improves corporate success in Indonesia, say researchers (Siregar & Utama, 2008; S. Susanto, 2016).

Table:4 Regression Results of ROA and CG Variables

ROA	Coeff.	Std.Err.	t-value	P.value	[95% Conf. Interval]	Sig.
BS	-.0052	.0024	-2.31	.1102	-.0091 -.0013	
BIND	-.0022	.0025	-1.19	.2332	-.0062 .0025	
ACS	.0043	.0044	0.89	.3734	-.0053 .0134	
OWNCONS	-.0013	0	-2.10	.0465	-.0014 0	**
Lvg	-.1682	.012	-16.69	0	-.1885 -.1482	***
FS	-.0585	.0121	-4.91	0	-.0815 -.0353	***
FAGE	.0013	.0021	0.38	.7044	-.0044 .0063	
Constant	.7094	.1531	4.65	0	.4132 1.0092	***
Mean of dependent variable	0.0531		SD dependent variable		0.1042	
R-squared.	0.1622		No. of the obs.		1888	
F-test.	32.6603		Prob>F		0.0002	
Akaike crit. (AIC).	-4733.7773		Bayesian crit.(BIC).		-4662.8012	

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

4.6. Result Discussion of Board Size and FFP (ROA)

Table displays the outcome, which is $\beta = -.005$ and $p > 0.05$, or .110. This meant that the link between BODSIZE and FFP was weak and inverse. Consistent with prior research by (Jenter, Schmid, & Urban, 2023), the research showed that the value of a corporation dropped when the minimum number of directors was raised. The findings provide credence to the theory that boards with more members need to compromise more in order to reach agreements, which in turn leads to fewer risky decisions and more consistent business outcomes. Guest (2009) claims that in the United Kingdom, there is no correlation between board size and business success.

This is due to the fact that there is no evidence linking the factors that affect board size to better firm performance.

4.7. Results Discussion of Ownership Concentration and FFP (ROA)

According to Table 4, there was an adverse relationship between ROA and concentrated ownership that was statistically significant. The findings of this study are consistent with those of Darko et al. (2016), who demonstrated that if there is an excessive concentration of ownership, large shareholders may be able to exert influence over the management of a company and use its resources to their advantage, which is bad for the interests of smaller shareholders. Furthermore, Fauzi and Locke (2012) claimed that an excessive concentration of ownership was harmful to performance (as assessed by ROA and Tobin's Q).

4.8. Results Discussion of Audit Committee Size and FFP (ROA)

Table 4 shows that there is no statistically significant correlation between the size of the Audit Committee and the financial performance of the company. The study's findings are consistent with those of previous research studies conducted by (Almoneef & Samontaray, 2019; Darko et al., 2016; Rahman & Saima, 2018).

4.9. The Mediation of Earnings Management between CG variables and FFP

The goal of mediational models is to provide light on the chain of causality that begins with an independent variable and ends with a dependent variable. A mediator acts as an intermediary between an independent (x) and dependent (y) variable (y). Mediating between corporate governance factors (the independent variable) and financial-focal performance (the dependent variable) is EM.

Table: 5 The Mediation of Earnings Management between Board size and FFP

	Coeff.	Std.Err.	Z	P>Z	95 % Conf.	Interval
Structural						
DA	0.0052	0.0033	1.6601	0.0962	-0.0013	0.0104
_cons	-0.0063	0.0235	-0.2802	0.7782	-0.0512	0.0383
ROA						
DA	25.3462	1.0194	24.8702	0.0000	23.3485	27.3445
BS	0.6763	0.1222	5.5603	0.0000	0.4382	0.9154
_cons	-0.8833	1.0052	-0.8804	0.3801	-2.8545	1.0883
Var (e.DA)	0.0401		0.0013	0.0382	0.0434	
Var (e.ROA)	79.8512		2.5873	74.9393	85.0853	

Table:6 Result of Testing Significance of Indirect Effect

Estimates.	Delta.	Sobel.	Monte Carlo.
Indirect effect	00.1152	00.1151	00.1172
Std. Err	00.0692	00.0692	00.0702
z-value	01.6612	01.6613	01.6822
p-value	00.0974	00.0973	00.0923
Conf. Interval	-0.021 0.251	-0.021 0.251	-0.017 0.257

4.10. Result discussion of Mediation of Earnings Management between Board size and FFP

Based on the Baron and Kenny method of testing mediation, Table 5 shows the results of the mediation. Table 5 displays the findings. Da:bs (X->M) $\beta=0.005$ and $p=0.096$ in Step I; roa:da (M->Y) =25.346 and $p=0.000$ in Step 2. Since STEP I or STEP 2 (or both) are not significant, mediation is not possible. The result of Monte Carlo test insignificant, and STEP I is significant, showing direct-only no mediation. This is similar to Zhao, Lynch, and Chen's method of assessing mediation in STEP I - roa:bs (X -> Y) with $\beta=0.676$ and $p=0.000$. Most notably, no known work has examined the mediating role of FFP between the associations of BODSIZE and EM, making it difficult to compare this conclusion to other research. The Mediating Role of EM in the Board Independence and FFP Connection.

Table: 7 The Connection between Board Independence and FFP and EM Mediation

	Coeff.	Std.Err.	Z	P>Z	[95%Conf.	Interval]
Structural (DA)						
BIND	0.0081	0.0043	2.1402	0.0322	0.0012	0.0153
_cons	0.0223	0.0065	3.7402	0.0000	0.0114	0.0342

ROA						
DA	25.5344	1.0280	24.8400	0.0000	23.5193	27.5482
BIND	0.0943	0.1670	0.5600	0.5763	-0.2354	0.4223
_cons	4.4912	0.2690	16.7000	0.0000	3.9643	5.0183
Variable (e.DA)	0.0401		0.0012	0.0383		0.0432
Variable(e.ROA)	81.1321		2.6282	76.1413		86.4503

LR test of the model v/s saturated: chi2(0) = 0.00, Prob > chi2 = .

Table: 8 Result of testing Significance of indirect effect

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.2041	0.2042	0.2062
Std. Err.	0.0962	0.0963	0.0962
z-value	2.1311	2.1313	2.1534
p-value	0.0331	0.0331	0.0311
Conf. Interval	0.016, 0.391	0.016 0.391	0.022 0.398

4.11. Result discussion of Mediation of Earnings Management between Board Independence and FFP

Based on the Baron and Kenny method of testing mediation, Table 7 shows the results of the mediation. The results are shown in Table 6. step 1: DA:BIND (X -> M) with $p = 0.032$ and $\beta = 0.008$ ROA:DA (M -> Y) in Step 2 with $p = 0.000$ and $\beta = 25.534$ ROA:BIND (X -> Y) at Step 3 with parameters of 0.09 and 0.576.

There is full mediation since STEPs 1, 2, and the Sobel's test are all significant whereas STEP 3 is not.

The method Zhao, Lynch, and Chen use to test mediation Indirect-only mediation is shown by STEP 1 - ROA:BIND (X -> Y) with $\beta = 0.094$ and $p = 0.576$ and the Monte Carlo test above is significant and STEP 1 is not significant (full mediation).

Most significantly, it is difficult to compare this conclusion with other research since no known study has looked at the mediating role of FFP in Pakistan or a comparable institutional setting in a developed or developing nation.

Table: 9 The Mediation of Earnings Management between Audit Committee Size and FFP

	Coef.	Std.Err.	Z	P>z	[95%Conf. Interval]
Structural					
DA					
ACS	-00.001	00.006	-00.180	00.856	-00.012 00.010
_cons	00.034	00.020	01.710	00.088	-00.005 00.072
ROA					
DA	25.606	1.023	25.040	0.000	23.602 27.610
ACS	1.348	0.252	5.360	0.000	0.855 1.841
cons	-0.010	0.879	-0.010	0.991	-1.732 1.713
variable (e.DA)	00.041		00.001	00.038	00.043
variable (e.ROA)	80.260		2.609	75.306	85.539

Table: 10 Result of testing Significance of indirect effect

Estimate	Delta value	Sobel test	Monte Carlo
Indirect effect	-00.026	-00.026	-00.023
Std. Err.	00.145	00.145	00.146
z-value	-00.182	-00.182	-00.158
p-value	00.856	00.856	00.874
Conf. Interval	-0.021 0.251	-0.021 0.251	-0.017 0.257

4.12. Result Discussion of Mediation of Earnings Management between Audit Committee Size and FFP

Table 9 displays the mediation outcome based on mediation process. The result shown in Table 7, STEP I - DA:ACS (X -> M), with $p = 0.85$ and $\beta = -0.001$ ROA:DA (M -> Y) in Step 2

with $p=0.000$ and $\beta= 25.606$ There is no mediation since neither STEP 1 nor STEP 2 (or both) are significant!

Zhao, Lynch, and Chen's technique for evaluating mediation The aforementioned Monte Carlo test is not significant, but STEP 1 is significant and shows direct-only nonmediation, with a significant value of $\beta=1.348$ and a p-value of 0.000. (no mediation). Most critically, it is difficult to compare this conclusion with other research since no known study has looked at the mediating role of EM in correlations between ACS and FFP in Pakistan or a comparable organizational setting in other nations.

Table: 11 The Mediation of Earnings Management between Ownership Concentration and FFP

	Coeff.	Std.Err	Z	P>Z	[95% Conf.	Interval]
Structural						
DA						
OWNCONC	0.0000	0.0000	1.0800	0.2800	-0.0000	0.0011
_cons	0.0141	0.0161	0.8400	0.4022	-0.0181	0.0452
ROA						
DA	25.5141	1.0262	24.8701	0.0000	23.5030	27.5250
OWNCONC	0.0252	0.0113	2.2703	0.0232	0.0031	0.0461
_cons	2.9972	0.7263	4.1303	0.0000	1.5742	4.4202
Var (e.DA)	0.0402		0.0011	0.0382	0.0432	
Var (e.ROA)	80.9802		2.6232	76.0001	86.2872	

Table: 12 Result of testing Significance of Indirect Effect

Estimate	Delta value	Sobel test	Monte Carlo
Indirect effect	00.0071	00.0071	00.0071
Std. Err.	00.0061	00.0061	00.0061
z-value.	01.0780	01.0780	01.0991
p-value.	00.2810	00.2810	00.2722
Conf. Interval.	-00.005, 00.019	-00.005, 00.019	00.005, 00.019

4.13. Result discussion of Mediation of Earnings Management between Ownership Concentration and FFP

Table 11 displays the mediation outcome mediation process. In STEP I - DA: WNCNC (X -> M), with $p = 0.280$ and $\beta= 0.000$, ROA:DA (M -> Y) in Step 2 with $p = 0.000$ and $\beta= 25.514$ There is no mediation since neither STEP 1 nor STEP 2 (or both) are significant.

Similar to this, Zhao, Lynch, and Chen used STEP I - ROA: OWNCONC (X -> Y) having $\beta=0.0252$ and $p=0.0232$ to test mediation. As STEP 1 is significant and the aforementioned result of Monte Carlo test is insignificant, this demonstrates direct-only nonmediation (no mediation)!

Most crucially, it is difficult to compare this conclusion with other research since no known study has looked at the mediating role of Earnings Management in Pakistan or a comparable organizational environment in a developed or developing nation.

5. Conclusion

The positive and significant association between corporate governance variable of ownership concentration firm financial performance proved that ownership concentration improve the financial performance of the business. As the concentrated owners have access to the record of the company and keep eyes on the affair of the business. Moreover, the research proved that earnings management also showed a positive relationship with firm financial performance, which means that by earnings management managers manipulate the financial figures in reporting the financial statements and result in high rate of return on assets.

Also, the study demonstrated that the corporate governance factors board independence and audit committee size had a considerable negative impact on management's compensation (EM). Hence, having more independent directors and directors on the audit committee may increase the potential of monitoring corporate affairs and decrease the likelihood of earnings manipulation.

Also, the summary of the mediation hypothesis—which includes the corporate governance framework, earnings management, and return on assets (ROA)—indicates that earnings management fully mediates the connection between BIND and ROA. This finding demonstrated that an independent board has little direct impact on performance, instead reining in managers' opportunistic conduct in financial statements. Moreover the corporate governance variable as ownership concentration shows significant association with firm performance but no mediation. This means that business firms with concentrated ownership will show better performance.

The research study have significance for Corporate Governance regulatory bodies and practitioners that board independence is an important attribute of corporate governance as it restating the opportunistic behavior of management. As it help in ensuring the real figures of financial statement that lead to restore the confidence of investors in financial reporting. It will also help the in fund raising for the business firm the country and will financially strengthen the business firms.

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