
Board Characteristics and Financial Reporting Quality of Listed Insurance Companies in Nigeria: Moderating Role of Profitability

Zanna Dalatu Gubio

Terzungwe Nyor

*** Onipe Adabenege Yahaya**

Department of Accounting, Faculty of Management Sciences, Nigerian Defence Academy, Kaduna.

zdalatu@yahoo.com

tnyor@nda.edu.ng

* yoadabenege@nda.edu.ng (Corresponding Author)

Abstract

This study investigates the moderating effect of profitability on the relationship between board characteristics and financial reporting quality among listed insurance companies in Nigeria. Drawing on agency theory, the study examines board independence, board diligence, and board gender diversity as predictors of financial reporting quality, with profitability as a moderating variable. Firm size and leverage are included as control variables. A causal research design was employed using secondary data from 17 insurance firms listed on the Nigerian Exchange Group over a ten-year period. Descriptive and inferential statistics were conducted using STATA 15.1, with earnings management (Modified Jones Accrual Model) serving as a proxy for financial reporting quality. The results reveal that board diligence significantly enhances financial reporting quality, while board independence and gender diversity do not have direct significant effects. However, profitability significantly moderates the relationship between gender diversity and financial reporting quality, indicating that gender-diverse boards are more effective in loss-making firms. Firm size and leverage showed no significant impact on financial reporting quality. The study concludes that board effectiveness in improving financial reporting quality is contingent on both internal governance practices and financial performance. It recommends enhancing functional board independence, institutionalizing board diligence through regulatory codes, and promoting meaningful gender diversity, particularly in low-profit firms. Context-specific governance reforms and continuous board training are also advised. These findings offer practical implications for policymakers and regulators in emerging markets seeking to improve financial transparency and corporate accountability in sectors with governance vulnerabilities such as insurance.

Keywords: Board independence, board diligence, board gender diversity, financial reporting quality.

1. Introduction

In today's business environment, financial reporting quality is essential for enhancing transparency, accountability, and investor confidence. High-quality financial reports enable investors and other stakeholders to make informed decisions, reducing the risk of misinformation and market inefficiencies (Ball & Shivakumar, 2005). With increasing corporate complexity and global capital mobility, the demand for reliable and comparable financial information has intensified (Cascino et al., 2014). Consequently, firms that maintain consistent transparency in financial reporting foster investor trust and contribute to long-term economic stability (Verrecchia, 2001). The collapses of high-profile firms such as Enron,

WorldCom, and Satyam, which were rooted in distorted and manipulated financial disclosures, continue to highlight the consequences of poor financial reporting practices (Healy & Palepu, 2001). At the core of high financial reporting quality is the minimization of earnings management. To this end, regulators and standard-setters, such as the International Financial Reporting Standards (IFRS), have placed increasing emphasis on strengthening global reporting standards to restore credibility, improve capital allocation, and enhance market liquidity (Dechow et al., 2010).

Corporate governance, particularly the role of the board of directors, has emerged as a key mechanism in safeguarding financial reporting integrity. Prior literature underscores the significance of board characteristics such as independence, diligence, and gender diversity in ensuring that management acts in the best interest of shareholders and upholds financial transparency (Adams & Ferreira, 2009; Klein, 2002; Gul et al., 2011). However, the extent to which these board attributes enhance financial reporting quality may depend on firm-level conditions such as profitability.

Despite the widespread attention to board composition and financial reporting quality globally, there exists a notable gap in the literature concerning the interplay between board characteristics and financial reporting quality, particularly within Nigeria's insurance sector a highly regulated yet underperforming segment of the market. While a number of studies have examined governance variables in isolation such as Ajibulu et al. (2021), Eriabie & Izedonmi (2016), and Ogeide et al. (2021), few have contextualized their effectiveness within firm-specific conditions such as profitability.

Profitability, which reflects a firm's ability to generate earnings, could potentially moderate the relationship between governance mechanisms and financial reporting quality. This moderating role of profitability remains largely unaddressed in both Nigerian and broader African corporate governance research. Moreover, prior investigations tend to treat governance attributes and financial reporting quality as linear and direct relationships, overlooking the possibility that profitability may amplify or attenuate board effectiveness. This omission leaves a significant gap in the understanding of how internal firm performance conditions interact with governance structures to influence reporting integrity.

Nigeria presents a compelling case for this study due to numerous corporate governance failures and a series of financial scandals involving companies like Cadbury Nigeria Plc. (2006), Oceanic Bank Plc. (2011), and multiple insurance firms including Niger Insurance and Standard Alliance (2022). This study is both timely and relevant given the persistent corporate governance and financial disclosure challenges plaguing Nigeria's insurance sector. Despite the implementation of regulatory reforms by agencies such as the National Insurance Commission (NAICOM), public trust and investor confidence remain low. The consistent underperformance of insurance stocks on the Nigerian Exchange (NGX) with the Insurance Index declining by -15.09% in 2022, even as the broader market grew by 16.36% (ThisDay, 2022) points to deep-rooted governance inefficiencies. Specific instances such as the sharp depreciation of Regency Insurance PLC's share value by 51% in the same year, and the collapse or near-collapse of several insurers, underscore the urgency of addressing the sector's structural weaknesses.

The study is further justified by the limited empirical focus on the Nigerian insurance industry in existing corporate governance literature. Although board characteristics such as independence, diligence, and gender diversity have been widely examined in global contexts, their interaction with firm-level factors particularly profitability remains underexplored within Nigeria. Profitability, which reflects a firm's capacity to generate earnings, may influence the effectiveness of board mechanisms in safeguarding financial reporting quality. Prior studies (e.g., Zhao et al., 2023; Zhang & Li, 2023) suggest that more profitable firms are better

equipped to implement robust governance practices; however, the extent to which profitability moderates' governance outcomes remain a significant empirical question.

This study offers a nuanced contribution by investigating profitability as a moderating variable in the relationship between board characteristics and financial reporting quality. In doing so, it not only fills a methodological gap but also enhances the practical relevance of governance research. The findings are expected to inform policy decisions by regulators like NAICOM, assist firms in designing more effective board structures, and offer investors clearer signals for evaluating governance quality. In addressing the aforementioned gaps, this study is poised to answer the questions as to how do board characteristics specifically independence, diligence, and gender diversity influence the financial reporting quality of Nigerian insurance companies and to what extent does profitability moderate the relationship between board characteristics and financial reporting quality? In this regard, the main objective of this study is to examine the moderating effect of profitability on the relationship between board characteristics proxied by board independence, board diligence and board gender on financial reporting quality.

2. Literature Review

This section critically examines the current body of literature relevant to the moderating role of profitability on the relationship between board characteristics and financial reporting quality of listed insurance companies in Nigeria. Key concepts, prevailing theory and empirical literature were discussed.

2.1 Conceptual and Theoretical Reviews

Financial reporting quality (FRQ) refers to the degree to which financial statements reflect a firm's true financial position and performance, free from distortion, bias, or manipulation. Financial statements serve as the primary channel through which organizations communicate their financial activities to external stakeholders, including shareholders, creditors, employees, regulators, and the general public. The credibility of these reports is crucial for ensuring efficient capital allocation and maintaining investor confidence. High-quality financial reporting is expected to possess key attributes such as objectivity, accuracy, timeliness, transparency, relevance, verifiability, comparability, understandability, and unambiguity. According to the International Accounting Standards Board (IASB, 2008), the primary objective of financial reporting is to provide useful financial information to existing and potential investors, lenders, and other creditors for decision-making purposes. Nyor (2013) emphasizes that relevance in financial reporting enables users to make predictions and validate past decisions, thereby enhancing economic decisions.

Scholars have offered diverse definitions of financial reporting quality depending on research context and objectives. Jonas and Blanchet (2000) define it as the provision of transparent, non-deceptive information to stakeholders. Verdi (2006) and Tang (2008) describe it as the extent to which financial reports convey accurate and fair depictions of a firm's operations and future cash flows. Similarly, Biddle et al. (2009) argue that FRQ is a measure of how well financial data communicates insights into firm performance. Various empirical models have been used to assess FRQ, including accrual-based models (e.g., Jones, 1991; Dechow et al., 1995), value relevance models, qualitative characteristics models, and specific disclosures in annual reports (Abdulmalik & Che-Ahmad, 2016). Among these, accrual models are the most widely used and include the Modified Jones Model, Kothari Model, and DeAngelo Model. This study adopts the Modified Jones Model, which estimates discretionary accruals as a proxy for earnings management, thus serving as an inverse measure of FRQ. Building on these theoretical foundations, financial reporting quality in this study is defined as the extent to which firms accurately and transparently disclose financial outcomes covering revenues,

expenses, assets, liabilities, changes in equity, and material notes so that stakeholders can make sound economic decisions.

Board characteristics refer to the composition and behavior of a company's board of directors and are critical components of corporate governance. Effective board oversight can reduce agency costs and improve the quality of financial disclosures by ensuring that management acts in the best interests of shareholders. In this study, board characteristics are proxied by board independence, board diligence (measured by meeting frequency), and board gender diversity.

Board independence is defined as the proportion of directors who are non-executive and have no significant financial or familial ties to the company. Independent directors are expected to act objectively, offering unbiased oversight and strategic guidance. According to Shafi et al. (2020), independent directors bring credibility, reduce the potential for managerial opportunism, and enhance the monitoring role of the board. Regulatory frameworks such as the Nigerian Code of Corporate Governance (2018) and the SEC Code (2011) emphasize that independent directors should not possess any material stake in the firm direct or indirect ownership must not exceed 0.01% and 0.1%, respectively. Empirical evidence supports the link between board independence and financial reporting integrity. For example, Klein (2002) and Peasnell et al. (2005) found that independent boards are associated with reduced earnings manipulation and better reporting outcomes. In this study, board independence is operationalized as the ratio of independent directors to total board members.

Board diligence, reflected by the frequency of board meetings, is a practical measure of the board's engagement and oversight capability. Regular meetings allow directors to review financial statements, discuss performance issues, evaluate risks, and hold management accountable. These meetings are essential for informed decision-making, effective strategic planning, and ensuring compliance with corporate policies and regulations. The governance literature asserts that boards that meet more frequently are better able to monitor management, thereby reducing the likelihood of earnings manipulation (Vafeas, 1999). Hence, the frequency of board meetings is considered a proxy for the board's monitoring effectiveness. In this study, board diligence is measured by the number of board meetings held annually.

Board gender diversity refers to the representation of women on the board of directors. Increasing female participation on corporate boards has gained global attention as a means of enhancing governance quality. Women are often seen as more risk-averse and ethically conscious, characteristics that can lead to more conservative and accurate financial reporting (Gul et al., 2008). Sirnidi et al. (2011) assert that boards composed of both men and women are more dynamic and effective, while Wang (2015) highlights the role of gender diversity in improving decision-making and innovation. In the Nigerian context, however, female representation on corporate boards remains limited. Enofe et al. (2015) noted that women comprised only 31% of directors in listed firms, pointing to a significant gender imbalance. For the purpose of this study, board gender diversity is measured by the proportion of female directors to total board members.

Profitability represents a firm's capacity to generate income relative to its costs and assets. It is one of the most fundamental indicators of a firm's financial health and operational efficiency. Verma (1988) refers to profitability as the firm's "earning power," which directly influences investment attractiveness and stakeholder confidence. Profitability is commonly measured using metrics such as return on assets (ROA), return on equity (ROE), gross profit margin, and net profit margin. ROA, calculated as net income divided by total assets, reflects how efficiently a company utilizes its resources to generate profits (Turel & Turel, 2012). ROE, on the other hand, assesses how effectively a firm converts shareholders' equity into net earnings. Among these, ROA is considered the most suitable for comparing performance across firms with varying capital structures and is therefore adopted in this study. In the context of

this research, profitability serves as a moderating variable that may influence the strength or direction of the relationship between board characteristics and financial reporting quality. Profitability may enhance a firm's ability to invest in governance mechanisms and facilitate better oversight practices, thereby potentially amplifying the board's effectiveness. Consistent with Francis et al. (2005), firms are classified as profitable (coded as 0) or loss-making (coded as 1) to test for moderating effects.

This study is anchored primarily in Agency Theory, originally articulated by Jensen and Meckling (1976), which explains the principal-agent relationship between shareholders and corporate managers. Within this framework, managers may pursue personal interests that conflict with those of shareholders, leading to agency costs. Effective corporate governance mechanisms particularly those related to board structure and conduct are essential to mitigating this conflict.

Empirical studies such as Mustapha et al. (2022), Ali and Zhang (2023), and Miller and Zhao (2024) align with agency theory by demonstrating that independent boards are more likely to uphold shareholder interests and improve financial reporting quality (FRQ). The oversight role of independent directors constrains managerial discretion, reduces the risk of financial misreporting, and promotes accountability. The theory also supports the inclusion of board diligence as a governance mechanism. As shown by Chen and Li (2023) and Miller and Wang (2024), diligent boards characterized by frequent meetings and active oversight serve to limit managerial opportunism. According to agency theory, such diligence strengthens the board's monitoring function and increases the likelihood of producing high-quality, transparent financial statements. In addition, board gender diversity fits well within the agency framework by enhancing the board's independence of thought and decision-making. Studies such as Ali and Zhang (2023) and Miller and Wang (2024) empirically support this view, noting that gender-diverse boards improve the board's capacity to oversee financial reporting and ensure ethical conduct. These outcomes resonate with agency theory's assumption that broader representation on boards can lead to better governance outcomes and reduced agency costs.

Furthermore, the inclusion of profitability as a moderating variable draws from extensions of agency theory and is supported by theory of managerial discretion and resource-based perspectives. Scholars like Shleifer and Vishny (1997) and Wang and Zhang (2023) suggest that firm performance influences the extent to which boards can effectively monitor management. In profitable firms, agency costs tend to be lower because the financial incentives to manipulate earnings are reduced, thereby enhancing the effectiveness of governance mechanisms such as board independence and diligence. Conversely, in less profitable firms, financial pressures may lead to managerial behavior that undermines financial reporting quality, regardless of governance structure.

Beyond agency theory, this study is also informed by Resource Dependence Theory (Pfeffer & Salancik, 1978), which provides a complementary lens by viewing the board as a critical provider of strategic resources, information, and legitimacy. A diverse and independent board enhances not only internal governance but also the organization's connection to external stakeholders and regulatory environments. This perspective is particularly relevant in emerging markets, such as Nigeria, where external governance structures may be weaker, and the board's resource role becomes more pronounced (Jones et al., 2022; Chen & Lee, 2024). Collectively, the empirical literature supports a theoretical model that draws primarily from agency theory, while integrating resource dependence and context-sensitive governance theories. These perspectives justify the study's focus on board independence, diligence, and gender diversity, as well as the moderating role of profitability in shaping financial reporting outcomes among listed insurance firms in Nigeria.

2.2 Empirical Review

The relationship between board independence and financial reporting quality (FRQ) has received extensive scholarly attention, especially due to its perceived role in enhancing transparency and reducing managerial opportunism. Theoretically anchored in agency theory, independent directors are expected to offer unbiased oversight and protect shareholder interests by improving the accuracy of financial disclosures. A number of recent studies support this view.

For instance, Alghamdi (2023) and Ali and Zhang (2023) found that board independence significantly improves FRQ, particularly in emerging markets where governance structures are still evolving. These studies suggest that independent directors are less susceptible to managerial influence, and thus are more likely to challenge aggressive earnings management practices. Similarly, Chen and Lee (2024) and Miller and Zhao (2024) observed a strong positive relationship between board independence and FRQ in more regulated environments like China and the EU. Their findings point to the enhanced effectiveness of independent directors when regulatory oversight is stringent, thereby improving compliance and deterring financial misreporting.

However, the literature also presents mixed evidence, especially when contextual and firm-level characteristics are considered. For example, Sharma and Kumar (2025), in a study of U.S. firms, reported that board independence was not always significantly related to FRQ. They argued that while independent boards may promote governance in principle, the actual influence on reporting outcomes could be muted by other mechanisms, such as the strength of internal controls or the presence of active audit committees. Likewise, Chen and Lee (2024) found that in Chinese state-owned enterprises, the impact of independent directors on financial reporting was statistically insignificant. The study attributed this to political interference and limited autonomy of the board, suggesting that the institutional context and ownership structure can significantly affect the effectiveness of board independence. Jones et al. (2022) further emphasize that the relationship between board independence and FRQ is highly context-dependent, varying across industries, regulatory environments, and even firm size.

Within the Nigerian context, Mustapha et al. (2022) investigated the moderating role of institutional ownership on the relationship between corporate governance mechanisms (board size and independence) and FRQ in non-financial firms. Their findings revealed that institutional ownership significantly strengthened the relationship between board independence and FRQ, but not between board size and FRQ. While this study shares some methodological similarities with the present research such as the focus on Nigerian firms and the use of moderation it differs in scope by excluding industry-specific nuances, particularly in highly regulated sectors like insurance, and omitting board attributes such as diligence and gender diversity.

The current study, therefore, builds upon these earlier works by focusing exclusively on the Nigerian insurance sector, a domain marked by historical governance failures and persistent investor skepticism. Importantly, it also introduces profitability as a moderating variable, an aspect that has received limited attention in prior literature. While many studies have examined the direct effect of board independence on FRQ, few have considered how a firm's financial performance might condition this relationship. This omission is critical, as profitability could influence how actively independent directors engage with financial oversight, especially in struggling firms where reputational risk is higher.

The empirical results of this study indicate that board independence does not significantly affect financial reporting quality among listed insurance firms in Nigeria. This finding contrasts with the dominant narrative in international literature and aligns more closely with the mixed evidence from Sharma and Kumar (2025) and Chen and Lee (2024). One plausible explanation is that within Nigeria's insurance sector where enforcement of governance codes may be

inconsistent, independent directors may lack the authority, expertise, or incentives to challenge entrenched management practices. Furthermore, without complementary mechanisms such as robust audit committees or regulatory enforcement, board independence alone may not be sufficient to ensure high-quality reporting.

While the existing empirical literature offers substantial insights into the general relationship between board independence and financial reporting quality (FRQ), several critical gaps remain, particularly when contextualized within specific industries and economic environments. First, much of the current research tends to generalize findings across industries without accounting for sector-specific dynamics. The insurance industry, in particular, presents a unique case due to its stringent regulatory requirements, risk-sensitive operations, and complex financial reporting structures. These factors may influence how board independence impacts financial reporting outcomes, yet this sector has received comparatively limited attention in governance research.

Second, there is a notable paucity of empirical studies focusing on emerging economies such as Nigeria. In such contexts, the existence of board independence in form does not always translate to functional effectiveness due to weak institutional enforcement, limited regulatory oversight, and pervasive governance challenges. This raises important questions about whether the positive associations between board independence and FRQ observed in developed markets hold true in less mature institutional settings.

This study addresses these gaps by providing empirical evidence from Nigeria's insurance sector and by incorporating profitability as a moderator, offering a more nuanced understanding of when and how board independence can influence FRQ. The study's findings suggest that relying solely on formal independence criteria may be insufficient and that additional focus should be placed on board training, regulatory accountability, and interaction with other governance structures to improve financial disclosure outcomes. By addressing these gaps, this study contributes to the literature by providing a sector-specific, contextually grounded, and interaction-sensitive analysis of board independence and financial reporting quality in Nigerian listed insurance companies.

H01: Board independence has no significant effect on financial reporting quality of listed insurance companies in Nigeria

Board diligence defined as the frequency, consistency, and quality of board oversight has been increasingly recognized as a crucial determinant of financial reporting quality (FRQ). A diligent board demonstrates commitment to effective governance by proactively engaging in oversight functions, particularly regarding the accuracy and transparency of financial disclosures. This includes regular board meetings, detailed reviews of financial statements, and critical evaluations of management's financial decisions.

Several empirical studies support the assertion that diligent boards contribute positively to financial reporting quality. For instance, Chen and Li (2023), in their study of Chinese publicly listed firms, found a significant positive relationship between board diligence and FRQ. They concluded that frequent board meetings are indicative of more active oversight, which helps in identifying accounting irregularities and preventing earnings manipulation. Diligent boards were also seen as more likely to demand accountability from executives, thereby enhancing the credibility of financial statements.

Similarly, Miller and Wang (2024) examined firms across the U.S. and Europe and reaffirmed the importance of board diligence in improving reporting outcomes. Their study found that companies with more active and engaged boards tended to exhibit higher financial statement accuracy, particularly when combined with robust internal controls. Notably, the positive effects were amplified in financially stable firms, where directors could focus more on long-term governance rather than crisis management.

However, empirical findings are not universally consistent. Sharma and Gupta (2025), in a study of U.S. firms during periods of financial distress, found that board diligence did not significantly enhance FRQ. They posited that external pressures such as earnings expectations, market volatility, or internal financial challenges can undermine even the most active board's ability to enforce transparent reporting. This highlights the possibility that board diligence alone may not be sufficient to counteract strong opportunistic incentives, especially when firms are under performance stress. Likewise, Ali and Zhao (2024) investigated board diligence in heavily regulated industries across Europe and observed an insignificant relationship with financial reporting quality. They argued that in sectors where regulatory oversight is strong and external audits are mandatory, the marginal utility of frequent board meetings diminishes. In such contexts, compliance is driven more by external institutions than internal board efforts, reducing the relative influence of board diligence on financial outcomes.

Despite these varied global insights, studies focusing on the Nigerian context particularly the insurance sector remain scarce. Given the recurring governance issues and declining investor confidence in Nigerian insurance firms, understanding how internal governance mechanisms like board diligence affect FRQ is both timely and essential. The sector's history of delayed financial disclosures and misstatements makes it particularly vulnerable to weak board oversight. Addressing this gap, the present study provides new empirical evidence by analyzing 17 listed insurance companies in Nigeria over a ten-year period (2013–2022). Financial reporting quality was measured using the Modified Jones Accruals Model, and board diligence was proxied by the number of board meetings held annually. The results reveal a statistically significant positive effect of board diligence on FRQ, reinforcing the idea that regular board engagement is a key factor in ensuring accurate and timely financial reporting.

This finding contributes to the ongoing debate in the literature by demonstrating that, at least within the Nigerian insurance context, board diligence remains a meaningful driver of reporting quality especially in environments where regulatory enforcement is weaker, and internal governance mechanisms play a more prominent role. The results suggest that frequent board meetings may provide directors with more opportunities to scrutinize financial statements, question managerial assumptions, and intervene early in the reporting process. While prior studies have largely focused on board diligence in global contexts with varying institutional strengths, this study is among the few to empirically examine its effect within Nigeria's insurance sector, where governance structures are still evolving.

H₀₂: Board diligence has no significant effect on financial reporting quality of listed insurance companies in Nigeria.

Board gender diversity has gained significant scholarly attention as a component of effective corporate governance, particularly in its potential role in enhancing financial reporting quality (FRQ). A gender-diverse board is presumed to offer a broader range of perspectives, improve decision-making quality, and reinforce ethical considerations in corporate oversight. These dynamics are considered particularly valuable in financial reporting processes, where judgment, transparency, and integrity are critical.

Empirical evidence on the effect of gender diversity on FRQ has, however, produced mixed outcomes. On the positive side, Ali and Zhang (2023) found that gender-diverse boards were significantly associated with higher-quality financial reporting in Asian firms. They attributed this effect to the greater diligence and ethical sensitivity that female directors often exhibit, which discourages earnings management and fosters a culture of accountability. Their study underscores the importance of diverse viewpoints in financial decision-making, especially in emerging markets where governance mechanisms may be weaker. Similarly, Miller and Wang (2024) reported that gender diversity on boards positively influenced FRQ, particularly in firms with moderate profitability and weaker regulatory oversight. Drawing from a global sample, their findings suggest that in environments where external governance mechanisms are not as

robust, the internal oversight function of a gender-diverse board becomes even more critical. Female board members were seen as instrumental in improving transparency, promoting disclosure accuracy, and reducing the likelihood of financial manipulation.

Despite this, other studies present a more cautious picture. Chen and Li (2024), examining firms in the European Union, found that while gender diversity contributed to improved board governance, it did not have a statistically significant impact on FRQ. They argued that in regions with strong regulatory frameworks and mandatory disclosure standards, the marginal contribution of board diversity may be muted. Essentially, formal institutional controls may already guarantee high reporting quality, thus reducing the observable impact of board characteristics such as gender composition. In a similar vein, Sharma and Gupta (2025), analyzing U.S. firms, found no significant relationship between gender diversity and FRQ. They suggested that while diversity may enhance board deliberations, other factors such as directors' financial expertise and overall board effectiveness may be more decisive in determining financial reporting outcomes. This reinforces the idea that gender diversity alone may not guarantee improvements in FRQ without complementary governance elements such as board diligence, audit quality, and financial literacy among board members.

These mixed findings point to a broader consensus in the literature: the influence of gender diversity on financial reporting is often context-dependent, varying across institutional, cultural, and sectoral settings (Xie et al., 2003; Jones et al., 2022). While gender diversity may be impactful in under-regulated or less profitable environments, its role may diminish where regulatory or market forces already compel accurate disclosure. This contextual nuance is particularly important in the Nigerian insurance industry, where governance structures remain fragile and investor confidence has been eroded by recurring financial misstatements and delayed disclosures. The present study addresses a notable gap in the literature by empirically investigating how board gender diversity affects FRQ in Nigerian insurance firms, and more importantly, how this relationship is moderated by firm profitability a variable largely overlooked in prior studies.

Using data from 17 listed insurance companies over a ten-year period (2013–2022), the study found that gender diversity on its own did not significantly affect FRQ. However, the interaction term between gender diversity and profitability was significant, suggesting that the effect of board gender diversity on FRQ is conditional on the firm's financial performance. Specifically, gender-diverse boards were more effective in loss-making firms, where the risks of earnings management and misleading financial disclosures are typically higher. Although prior research has highlighted the potential benefits of gender diversity in enhancing financial reporting quality (FRQ), much of this literature has concentrated on developed markets or broad, cross-industry firm samples. As a result, important nuances related to sector-specific dynamics and profitability-based variations have been largely overlooked. This study advances the literature by focusing specifically on the Nigerian insurance industry, a sector characterized by high regulatory demands and financial risk exposure. By narrowing the scope to this unique context, the research provides deeper insights into how gender diversity operates within a high-risk, emerging market environment.

In addition, the study introduces firm profitability as a moderating variable, offering a more comprehensive understanding of the conditions under which gender diversity impacts FRQ. The findings suggest that gender-diverse boards may exert a stronger influence in firms experiencing financial distress or operating at a loss context where ethical oversight and transparent reporting are most crucial. This perspective moves beyond the simplistic assumption that gender diversity uniformly enhances reporting quality, instead showing that its effectiveness is conditioned by firm-specific and institutional factors. As such, the study contributes to both theory and practice by emphasizing the context-dependent nature of board diversity and its implications for financial governance.

H₀₃: Board gender diversity has no significant effect on financial reporting quality of listed insurance companies in Nigeria.

Profitability plays a central role in the broader discourse on financial reporting quality (FRQ), as it reflects a firm's financial health and influences managerial behavior toward financial disclosure. In general, profitable firms are perceived to have stronger incentives to present truthful and transparent financial reports. The rationale is straightforward: firms with healthy financial outcomes have less need to manipulate earnings, face fewer pressures to meet debt obligations or external expectations, and often have more resources to invest in internal controls and audit functions. As such, profitability is frequently associated with higher financial reporting quality.

Recent empirical studies support this view but also caution that the relationship between profitability and FRQ is not always linear or universally positive. For instance, Wang and Zhang (2023), in their study on Asian firms, confirmed a positive relationship between profitability and financial reporting quality. However, they noted that as profitability increases beyond a certain threshold, the marginal effect on FRQ diminishes. Their explanation is that managers in highly profitable firms may become complacent or even exploit their firm's strong market position to obscure certain accounting practices, particularly in the absence of strong board oversight. Similarly, Chen and Li (2024) found that moderate profitability correlates more strongly with high-quality financial reporting than extremely high or low profitability. Moderately profitable firms tend to be more vigilant in financial disclosure to retain investor confidence and regulatory credibility. In contrast, highly profitable firms may encounter less external pressure to maintain transparency, while loss-making firms may have greater incentives to manipulate earnings in an attempt to present a more favorable image to the market or creditors.

In contrast, Sharma and Gupta (2025) present a more skeptical view of profitability as a driver of FRQ. Their global industry-level study found that even profitable firms may engage in earnings management, especially in sectors like technology and pharmaceuticals where high expectations from analysts and investors drive managerial short-termism. Their research highlights the importance of complementary governance mechanisms, such as audit committees and board vigilance, to constrain opportunistic reporting regardless of profitability levels.

From these varied findings, it becomes clear that profitability alone does not guarantee high-quality financial reporting. Instead, its effect is mediated by factors such as industry dynamics, investor expectations, governance strength, and regulatory oversight. This reinforces the argument that profitability should be considered not merely as an independent predictor but as a moderating factor that influences how board characteristics affect FRQ. While the link between profitability and financial reporting quality has been explored globally, there is a paucity of research examining this relationship within the Nigerian context, particularly in the insurance industry. This sector has faced recurrent challenges related to delayed audited reports, poor disclosure practices, and dwindling investor confidence raising concerns about the quality of financial reporting and the effectiveness of corporate governance.

This study bridges the gap by empirically examining profitability as a moderating variable in the relationship between board characteristics (independence, diligence, and gender diversity) and financial reporting quality. Using Modified Jones Accruals as a measure of FRQ and a ten-year panel dataset from 17 listed Nigerian insurance firms, the study offers sector-specific insights into how profitability shapes governance outcomes. The findings reveal that profitability does not independently enhance reporting quality, but it moderates the relationship between gender diversity and FRQ. Specifically, gender-diverse boards had a more positive impact in loss-making firms, suggesting that in financially distressed situations, diverse perspectives and stronger ethical oversight may be crucial in curbing earnings manipulation.

However, profitability did not significantly moderate the effects of board independence or diligence on FRQ. This nuanced result highlights the importance of considering contextual firm characteristics, such as profitability, in evaluating the effectiveness of corporate governance mechanisms. It also underscores that loss-making firms, where incentives for manipulation are highest, may derive the greatest benefit from robust and diverse board structures.

H₀₄: Profitability has no significant moderating effect on the relationship between board characteristics and financial reporting quality of listed insurance companies in Nigeria.

The interaction between board independence and financial reporting quality (FRQ) has received substantial empirical attention in the governance literature, but growing interest now centers on how firm profitability moderates this relationship. Theoretically, independent directors are expected to act as objective monitors of financial reporting, enhancing the reliability and transparency of financial statements. However, the effectiveness of this oversight is increasingly recognized as conditional on contextual variables profitability being a key one.

Several studies affirm that profitability can strengthen the effectiveness of board independence. For instance, Ali and Zhang (2022) and Chen and Li (2023) found that in financially stable firms, independent directors were more successful in curbing earnings manipulation and upholding high reporting standards. Their findings suggest that profitability reduces the pressure on management to distort financial reports, thereby enabling independent board members to perform their oversight functions more effectively.

However, this moderating effect is not uniform across all firms or industries. Hassan and Ahmed (2024) show that in less profitable firms especially those under performance pressure the positive influence of board independence may be undermined by the opportunistic behavior of management seeking to mask financial underperformance. In such settings, even independent directors may struggle to restrain financial misreporting due to limited access to internal information or reliance on biased managerial narratives. Furthermore, Sharma and Gupta (2025) argue that external factors, such as regulatory enforcement and industry characteristics, also shape how profitability interacts with board independence. In sectors where regulatory frameworks are strong, the role of independent directors may remain effective regardless of profitability. However, in contexts where governance enforcement is weak or profit pressure is high, profitability becomes a critical enabler of good financial reporting practices. This observation is especially relevant in emerging markets like Nigeria, where regulatory effectiveness and corporate transparency vary considerably across industries.

Despite this growing body of evidence, there remains a notable gap in sector-specific analyses of this relationship, particularly within Nigeria's insurance industry a sector plagued by persistent financial reporting delays, questionable governance practices, and declining investor confidence. Prior literature has largely examined board independence and FRQ in broader corporate contexts, without isolating the influence of firm profitability on this dynamic within financially vulnerable sectors. This study addresses this gap by evaluating the moderating role of profitability in the relationship between board independence and financial reporting quality using a panel dataset of 17 listed Nigerian insurance companies from 2013 to 2022. Profitability is operationalized as a binary variable (1 for loss-making firms; 0 for profitable firms), while FRQ is measured using the Modified Jones Accruals Model. Contrary to expectations from international evidence, the results show that board independence has no significant direct or interaction effect on FRQ, suggesting that independence alone is insufficient to drive reporting quality in Nigeria's insurance sector particularly in the absence of stronger profitability or institutional enforcement.

The finding that profitability does not significantly moderate the effect of board independence on FRQ implies that independent directors in the Nigerian insurance sector may lack the structural capacity or informational advantage to constrain earnings manipulation

especially in loss-making firms, where financial pressure is intense. This underscores the need for complementary governance mechanisms (e.g., active audit committees, regulatory oversight, board financial expertise) to enhance the effectiveness of independent directors.

Given the mixed findings in prior research and the unique institutional setting of Nigeria's financial market, this study contributes by showing that the moderating effect of profitability is highly context-specific. It challenges the assumption that board independence universally enhances reporting quality and highlights the limitations of relying solely on board structure without considering firm-level financial realities.

H₀₅: Profitability has no significant moderating effect on the relationship between board independence and financial reporting quality of listed insurance companies in Nigeria

The moderating role of profitability in the relationship between board diligence and financial reporting quality (FRQ) has gained increasing relevance as stakeholders seek a deeper understanding of how internal governance mechanisms interact with firm performance to influence reporting outcomes. While board diligence measured by active oversight, frequency of meetings, and engagement in financial matters has been empirically linked to improved FRQ, the influence of profitability on this relationship remains under-explored, especially in emerging market contexts.

Jones and Smith (2023) and Choi and Lee (2024) argue that diligent boards enhance financial transparency by ensuring that management adheres to reporting standards and ethical practices. In this sense, profitability may either amplify or dampen the effectiveness of board diligence. For profitable firms, strong financial performance can reduce the need for aggressive earnings management, thereby making diligent oversight more effective. On the other hand, in loss-making firms, financial pressures may incentivize management to engage in creative accounting, thereby challenging the board's capacity however diligent to safeguard FRQ. Yet, the empirical evidence remains mixed. For instance, Jones and Smith (2023) observed that in highly profitable firms, board diligence tends to be more strategically focused, potentially resulting in indirect improvements in FRQ. Conversely, in low-profitability firms, directors may be preoccupied with crisis management or cost controls, leaving less room for detailed financial oversight. Similarly, Park and Kim (2025) found that in industries with stable profit margins, board diligence contributed to consistent reporting quality, but this effect diminished in firms operating under financial stress. Importantly, profitability has also been shown to moderate how diligent boards behave across sectors with varying levels of financial risk. Choi and Lee (2024) note that in volatile industries, where earnings manipulation is more likely, diligent oversight is essential, and its impact is significantly influenced by financial performance. This line of argument has special resonance for the Nigerian insurance sector, which has suffered repeated instances of financial misreporting, undercapitalization, and poor governance, often linked to loss-making positions and managerial opportunism.

Despite global interest in the interaction between board diligence and profitability, very few studies have empirically tested this relationship within Nigeria's insurance industry, where concerns over financial transparency and board performance persist. Prior literature often assumes that diligent boards universally enhance FRQ, yet these assumptions may not hold in low-performing or distressed firms. The current study fills this gap by examining how profitability moderates the relationship between board diligence and financial reporting quality among 17 listed insurance firms in Nigeria over a ten-year period (2013–2022).

By measuring board diligence through board meeting frequency and using the Modified Jones Accruals model to assess FRQ, this study reveals that board diligence significantly enhances financial reporting quality. However, the moderating effect of profitability on this relationship is found to be insignificant. This suggests that even though diligent boards generally contribute to improved reporting, profitability does not strengthen or weaken this effect within the Nigerian insurance sector. This finding contrasts with global evidence that

associates profitability with stronger governance outcomes. The divergence may reflect weak institutional enforcement, limited board training, or the financial instability typical of Nigeria's insurance sector, where even diligent boards may struggle to enforce reporting standards in the face of persistent losses and insufficient regulatory discipline. The lack of a significant moderating effect highlights a critical governance challenge. Profitability alone does not enhance board diligence effectiveness in weak institutional environments. This underscores the need for policy interventions that not only promote board engagement but also equip directors with the tools, training, and independence necessary to navigate financial pressures especially in loss-making firms where the temptation to manipulate earnings is greatest.

As such, while this study reaffirms the direct importance of board diligence in improving financial reporting quality, it cautions against over-reliance on profitability as a contextual booster. Instead, strengthening regulatory monitoring, director competence, and audit committee collaboration may provide a more reliable path to reporting integrity in Nigeria's financial sector.

H₀₆: Profitability has no significant moderating effect on the relationship between board diligence and financial reporting quality of listed insurance companies in Nigeria.

Board gender diversity has been widely acknowledged in corporate governance literature as a driver of more ethical, inclusive, and transparent decision-making, all of which contribute to improved financial reporting quality (FRQ). Diverse boards especially those inclusive of female directors are often associated with stronger oversight, broader stakeholder representation, and lower tolerance for financial manipulation. However, the moderating role of profitability in this relationship adds an additional layer of complexity, particularly in industries or regions characterized by weak governance infrastructure.

Scholars such as Williams and Green (2023) and Khan and Wang (2025) suggest that the impact of board gender diversity on FRQ may be conditional on a firm's financial performance. Their findings indicate that in less profitable firms, gender-diverse boards are more influential in improving FRQ, possibly because women directors may be more risk-averse and focused on compliance, which becomes especially critical in periods of financial stress. On the other hand, Zhao and Liu (2024) observed that in highly profitable firms, gender-diverse boards were better equipped to leverage their strategic oversight role to promote accountability, thus strengthening financial reporting quality. These contrasting findings suggest that profitability may either amplify or moderate the governance benefits of gender-diverse boards, depending on the firm's financial context and external pressures.

This nuanced relationship is particularly important in emerging markets like Nigeria, where institutional weaknesses, financial instability, and historically male-dominated boardrooms create governance challenges. In such settings, the presence of female directors may serve not only as a signal of progressiveness but also as a critical check on managerial opportunism, especially during financial downturns. In contexts where loss-making firms are more prone to earnings manipulation, gender-diverse boards could provide the additional scrutiny needed to enforce honest reporting and protect stakeholder interests.

Despite increasing global attention to gender diversity in boardrooms, little empirical research has examined how profitability moderates this relationship in Nigeria's insurance sector a sector that remains under-regulated and often underperforms in governance assessments. Existing literature has predominantly focused on developed economies, with limited insight into how gender-diverse boards operate in financially distressed firms in developing markets. This study fills this gap by investigating the moderating effect of profitability on the relationship between board gender diversity and financial reporting quality among 17 listed insurance firms in Nigeria over a ten-year period (2013–2022). By operationalizing FRQ through the Modified Jones Accruals model and using profitability (coded as 1 for loss-making firms and 0 otherwise) as the moderator, the study provides novel

insight into how financial performance conditions the effectiveness of gender-diverse governance.

The findings reveal that board gender diversity alone has no significant direct effect on financial reporting quality. However, the interaction between profitability and gender diversity is statistically significant, suggesting that gender-diverse boards are more effective in enhancing FRQ within loss-making firms. This supports the argument that gender diversity plays a more pronounced governance role when firms are under financial strain, reinforcing the need for inclusive board structures, especially in firms facing heightened financial risk.

The significant moderating role of profitability underscores the context-dependent value of board gender diversity. For loss-making firms, where incentives for earnings manipulation are stronger, gender-diverse boards appear to play a corrective role by fostering ethical financial practices and greater accountability. On the contrary, in more profitable firms, the presence of female directors may not significantly influence reporting quality, potentially due to reduced pressure for financial misrepresentation or more robust internal controls already in place. This study therefore advocates for targeted governance reforms. Regulatory bodies such as the National Insurance Commission (NAICOM) and Nigerian Exchange Group (NGX) should not only mandate gender diversity thresholds but also offer support structures such as training and mentorship to ensure that women directors are empowered to perform their roles effectively, especially in financially vulnerable firms. In addition, profitable insurance companies should not grow complacent in governance efforts; rather, they should actively leverage board diversity as a strategic asset for maintaining high financial reporting standards.

H₀₇: Profitability has no significant moderating effect on the relationship between board gender diversity and financial reporting quality of listed insurance companies in Nigeria.

3. Methodology

This study adopts a causal research design to investigate the relationship between board characteristics and financial reporting quality of listed insurance companies on the Nigerian Exchange (NGX), using profitability as a moderating variable. The variables include financial reporting quality (measured by earnings management model: Modified Jones Model), board characteristics (measured with board independence, diligence, and gender diversity), profitability (profit or loss), and control variables: firm size and leverage. The research is grounded in positivist philosophy, which emphasizes objectivity and the use of quantitative methods to test hypotheses. Data from secondary sources which is in tandem with quantitative research were extracted from the published audited financial statement of the sampled companies for periods of ten years (2013-2022). The population comprises the 20 listed insurance companies in Nigeria as at 31st December, 2023. following filtering test due to incomplete data, a sample size of 17 firms was used as provided in Table 1.

Table 1

Population and Sample Size of the Study

S/N	Study Population (20)	Sample (17)	Date of Listing
1	African Alliance Insurance PLC	Selected	17 th September 2009
2	AllCO Insurance PLC	Selected	3 RD December, 1990
3	AXA Mansard Insurance PLC	Selected	19 th November 2009
4	Consolidated Hallmark Ins. PLC	Selected	22 nd February, 2008
5	Cornerstone Insurance PLC	Selected	13 th August, 1997
6	Guinea Insurance PLC	Selected	17 th January, 1991
7	International Energy Ins. PLC	Not Selected*	13 th July, 2007
8	Lasaco Assurance PLC	Selected	14 th June, 1991
9	Linkage Insurance PLC	Selected	18 th November, 2003

10	Mutual Benefit Insurance PLC	Selected	28 th May, 2002
11	NEM Insurance PLC	Selected	5 th September, 1990
12	Niger Insurance PLC	Not Selected***	1 st September, 1993
13	Prestige Assurance Co PLC	Selected	3 rd December, 1990
14	Royal Exchange Assurance PLC	Not Selected*	3 rd December, 1989
15	Regency Alliance Insurance PLC	Selected	27 th May, 2008
16	Sovereign Trust Assurance PLC	Selected	29 th November, 2006
17	SUNU Assurance Nigeria PLC	Selected	18 TH July, 2007
18	Universal Insurance PLC	Selected	2 nd November, 2009
19	Veritas Kapital Assurance PLC	Selected	17 th December, 2009
20	WAPIC Insurance PLC	Selected	31 st August, 1990

Source: (<https://ngxgroup.com>) 2025 & respective company's profile.

Note: * = Missing data for one year and *** = Missing data for three years.

The model of this study will be underpinned by Agency theory and adapted from the work of Mustapha (2022) as follows:

$$FRQ_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 BDSZ_{it} + \hat{\alpha}_2 BDIN_{it} + \hat{\alpha}_3 BDSZ * INSO_{it} + \hat{\alpha}_4 BDIN * INSO_{it} + \hat{\alpha}_5 iit + \dots \dots \dots (1)$$

For the purpose of this study, the model is structured as follows (using the modified Jones discretionary accrual model):

Model 1: Direct

$$FRQ_{i,t} = \beta_0 + \beta_1 BI_{i,t} + \beta_2 BD_{i,t} + \beta_3 BG_{i,t} + \beta_4 P_{i,t} + \beta_5 FS_{i,t} + \beta_6 LEV_{i,t} + \epsilon_{i,t}$$

Model 2: Indirect

$$FRQ_{i,t} = \beta_0 + \beta_1 BI_{i,t} + \beta_2 BD_{i,t} + \beta_3 BG_{i,t} + \beta_4 P_{i,t} + \beta_5 (BI_{i,t} * P_{i,t}) + \beta_6 (BD_{i,t} * P_{i,t}) + \beta_7 (BG_{i,t} * P_{i,t}) + \beta_8 FS_{i,t} + \beta_9 LEV_{i,t} + \epsilon_{i,t}$$

Whereas: $FRQ_{i,t}$ = Financial Reporting Quality measured by the Modified Jones Accruals Quality Model; $BI_{i,t}$ = Board Independence; $BD_{i,t}$ = Board Diligence; $BG_{i,t}$ = Board Gender Diversity; $P_{i,t}$ = Profitability (Moderating Variable); $FS_{i,t}$ = Firm Size (Control Variable), $LEV_{i,t}$ = Leverage (Control Variable); and $\epsilon_{i,t}$ = Error term.

In other to measure the dependent variable (financial reporting quality), this study adopted the Modified Jones Accruals Model (MJA). The model is operationalized as:

$$((\text{Profit_After_Tax} - \text{Net_Cash_Flow_Operations}) / \text{L1.Total_Asset}) - (1 / \text{L1.Total_Asset}) - ((\text{D1.Revenue} - \text{D1.Trade_Receivable}) / \text{L1.Total_Asset}) - (\text{PPE_Fixed_Asset} / \text{L1.Total_Asset})$$

The definitions, measurements sources and prior expectations of each variable used in this study are provided in Table 2.

Table 2

Variable, definitions, measurements and sources

Variables	Definitions	Measurements	Sources	Expectation
Financial Reporting Quality (Dependent Variable)	Financial reporting quality is defined as the precise manner in which organizations shows information about their business activities as it relates to their revenues, expenses, assets, liabilities, changes in equity, cash flows and material disclosures in form of notes with the aim of faithfully informing shareholders	Modified Jones Accrual Model $((\text{Profit_After_Tax} - \text{Net_Cash_Flow_Operations}) / \text{L1.Total_Asset}) - (1 / \text{L1.Total_Asset}) - ((\text{D1.Revenue} - \text{D1.Trade_Receivable}) / \text{L1.Total_Asset}) - (\text{PPE_Fixed_Asset} / \text{L1.Total_Asset})$	Jones = (1991)	

about their business operations.

Board Independence (Independent Variable)	Members of the board who directly or indirectly do not have significant financial interest and/or so related/connected to the organization in which they serve as board members.	Percentage of non-executive directors of the board to the company's board size.	Mustapha et al. (2022)	+
Board Diligence (Independent Variable)	Total number of times the board holds meetings during an accounting period.	Frequency of board meetings.	Adams and Ferreira (2009)	+
Board Gender Diversity (Independent Variable)	The representation of women on the board.	Percentage of women representation on the board.	Klein (2002)	+
Firm Size (Control Variable)	The measure of firm capacity based on its total assets	Natural logarithm of total assets	Zhang and Li (2023)	-
Leverage (Control Variable)	The use of borrowed funds to amplify potential returns on investment.	(Total liabilities/Total Assets) *100	Ross et al. (2013)	-
Profitability (Moderator)	Firm's ability to generate earnings relative to its expenses and other relevant costs.	Loss making firms coded as 1 and otherwise as 0.	Francis et al. (2005)	+/-

Source: Researcher's compilation, 2025.

The data was analyzed using descriptive statistics, Pearson's correlation co-efficient and the Ordinary Least Square regression (OLS). Descriptive statistics was used to describe the mean, standard deviation, maximum and minimum values of the variables. Pearson's correlation co-efficient was also used to explain the direction of the relationship between the dependent and independent variables, whereas, OLS regression analysis was used to determine the strength of the relationship between the variables. These analyses were carried out with the aid of STATA version 15.1.

4. Results and Discussion

This section emphases on descriptive statistics, correlation matrix, post estimation techniques, regression results, interpretation of the results and policy implication and recommendations on the findings.

Descriptive Statistics

Descriptive statistics for both the independent and dependent variables of interest were analyzed in Table 3.

Table 3

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FRQ	170	-.171	.177	-1.032	.448
BI	170	67.083	12.227	33.333	91.667
BD	170	4.924	1.337	2	10
BG	170	17.405	13.01	0	57.143
P	170	.171	.377	0	1
FS	170	11.191	.844	9.029	13.308
LEV	170	49.898	23.464	.041	128.36

Source: STATA 15.1, 2025.

Table 3 provides a comprehensive summary of the key variables utilized in the study. These variables relate to corporate governance and financial reporting quality. They include: Financial Reporting Quality (Dependent Variable) measured by the MJA: Modified Jones Accruals Quality; Board Characteristics proxied by BI: Board Independence; BD: Board Diligence and BG: Board Gender Diversity (Independent Variables); P: Profitability (Moderating Variable); FS: Firm Size (Control Variable), LEV: Leverage (Control Variable), highlighting their central tendencies, variability, and distribution properties. It reports the mean, maximum, minimum, standard deviation and number of observations (N). These measures are essential for understanding the behavior of the data and evaluating its suitability for further analysis. Also, the following is an in-depth analysis, variable by variable:

Financial Reporting Quality (Dependent Variable) measured by the MJA: Modified Jones Accruals Quality has a Mean of -0.171 ; Std. Dev of 0.177 ; Min/Max: $-1.032/0.448$. The negative mean implies a bias toward income-decreasing accruals. With a relatively high standard deviation compared to the mean, firms exhibit significant disparities in managing earnings. The extreme range and the high standard deviation relative to the mean underscore the outliers, potentially from firms with exceptional accrual behavior. This variability necessitates further investigation into the specific firms responsible for extreme values.

Board Independence (BI): Mean: 67.083 ; Standard Deviation: 12.227 ; Min/Max: $33.333/91.667$. On average, about 67% of boards are independent, indicating strong governance practices. However, the lower bound at 33% suggests some firms operate below governance best practices.

Also, Board Diligence (BD): Mean: 4.924 ; Standard Deviation: 1.337 ; Min/Max: $2/10$. Board meetings average nearly five annually, reflecting moderate activity. The range from 2 to 10 meetings suggests variability in how firms prioritize board diligence. Furthermore, Board Gender (BG): Mean: 17.405 ; Standard Deviation: 13.01 ; Min/Max: $0.57/143$. Insight: The mean of 17.4% reflects low board gender diversity. The zero minimum underscores the absence of women on some boards, raising concerns about inclusivity. Firms with a maximum value of 57.1% represent outliers adopting gender-diverse policies.

Profitability (P): Mean: 0.171 ; Standard Deviation: 0.377 ; Min/Max: $0/1$. With profitability coded as a binary variable, the mean of 0.171 suggests a majority of firms reported profits during the study period. Firm Size (FS): Mean 11.191 ; Standard Deviation: 0.844 ; Min/Max: $9.029/13.308$. The log-transformed firm size data indicates relative uniformity. Larger firms likely dominate the dataset, as the mean is closer to the higher end of the range. Also, Leverage (LEV) Mean: 49.898 ; Standard Deviation: 23.464 ; Min/Max: $0.041/128.36$. An average leverage of approximately 50% implies balanced capital structures. However, the wide range from near-zero to 128% suggests certain firms operate under substantial financial risk.

In summary, the descriptive statistics table highlights key patterns and characteristics in the data, offering critical insights into the distribution, variability, and suitability of variables for

analysis. These findings guide the selection of robust statistical techniques and validate the data's readiness for regression and hypothesis testing.

Correlation Matrix

In examining the association among the variables, this study employed the Pearson correlation coefficient (correlation matrix) and the results are presented in Table 4.

Table 4

Correlation Matrix

Variables	FRQ	BI	BD	BG	P	FS	LEV
FRQ	1.000						
BI	0.123 (0.110)	1.000					
BD	0.178* (0.020)	0.092 (0.233)	1.000				
BG	-0.009 (0.911)	-0.054 (0.484)	0.116 (0.133)	1.000			
P	-0.144 (0.061)	0.036 (0.637)	0.049 (0.522)	-0.017 (0.829)	1.000		
FS	0.049 (0.523)	0.013 (0.869)	0.046 (0.554)	0.122 (0.112)	-0.137 (0.075)	1.000	
LEV	0.067 (0.385)	-0.079 (0.307)	-0.011 (0.885)	0.108 (0.162)	0.178* (0.020)	0.602* (0.000)	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: STATA 15.1, 2025.

Table 4 presents the correlation matrix for the key variables examined in this study. The correlation coefficients range from -1 to 1, with values closer to 1 indicating strong positive relationships, while values closer to -1 indicate strong negative relationships. Coefficients near 0 suggest no correlation between variables.

Board Independence (BI): Low Correlations: Weak and insignificant relationships with financial reporting quality and other variables. BI appears largely independent of earnings management and other governance practices. It may have a limited role in influencing financial outcomes in the dataset. Board Diligence (BD) shows positive correlation with MJA ($r = 0.178$, $p < 0.05$). Active boards (evidenced by diligence) have a small but significant influence on accrual-based earnings management. This aligns with theories suggesting that engaged boards mitigate opportunistic behaviors. Board Gender (BG) shows no significant correlations and insignificant relationships with all variables. The lack of correlation suggests that board gender diversity, as measured, does not significantly impact earnings management or financial metrics. This highlights the need for nuanced gender-related variables to capture board dynamics effectively.

Profitability (P) shows negative correlation with MJA ($r = -0.144$, $p < 0.1$). Firms with higher profitability may engage less in accrual-based earnings management, particularly using MJA model. However, the relationships are weak, suggesting other factors dominate earnings practices. Firm Size (FS) shows no strong correlations. Insignificant relationships with MJA, board characteristics, and profitability. Firm size does not appear to directly influence earnings management or governance variables in this dataset. However, it may interact with leverage to affect financial outcomes. Leverage (LEV) exhibits significant positive correlation with profitability, firm size, financial reporting quality (MJA) and Board Gender.

Furthermore, some relevant post-estimation tests were carried out and their results are contained in Tables 5 to 7, as follows:

Table 5

Multicollinearity Test

Variable	VIF	1/VIF
LEV	1.80	0.555134
FS	1.77	0.564406
P	1.16	0.864300
BG	1.03	0.966509
BD	1.03	0.969156
BI	1.03	0.971838
Mean VIF	1.30	

Source: STATA 15.1, 2025.

Table 5 shows the Variance Inflation Factor (VIF) and Tolerance Value for each of the independent variable. On the basis of the rule of thumb, where VIF is less than 10, is generally considered an indication that multicollinearity is not a problem. The VIF is a measure of how much the variance of the estimated regression coefficients is inflated due to multicollinearity. When the VIF is less than 10, it suggests that the independent variables are not highly correlated with each other. In this case, since all the variables have a VIF less than 10, this indicates that there is no significant multicollinearity among the variables in the model, and the coefficient estimates are likely to be reliable. For the Tolerance Value, a tolerance is the inverse of VIF, and it provides another perspective on multicollinearity. A tolerance value of less than 1 but not approaching 0 indicates that the independent variables are not excessively collinear. In this case, with tolerance values less than 1 for all variables, it confirms that there is no severe multicollinearity, but the variables are still reasonably independent from each other.

Since all the variables in the model have a VIF of less than 10 and a tolerance value greater than 0 but less than 1, it suggests that there is no significant multicollinearity in the data set. This means that the independent variables are not highly correlated with each other, and the regression model's coefficient estimates are likely to be stable and reliable. Therefore, there is no need for concern regarding multicollinearity.

Table 6

Heteroskedasticity Test Results

Heteroskedasticity	Result
Chi ² (1)	1.20
Prob>Chi ²	0.2742

Source: STATA 15.1, 2025.

Table 6 shows the results from the heteroskedasticity test which provides information about whether the variance of the residuals (errors) in the regression model is constant (homoscedasticity) or if it varies (heteroskedasticity). Chi²(1) of 1.2 reflects the degree of deviation from the null hypothesis of homoscedasticity. A lower value typically indicated less evidence of heteroskedasticity. Prob>Chi² of 0.2742. This is the p-value associated with the chi2 statistics. The p-value tests the null hypothesis that the residuals are homoscedastic (constant variance). A p-value greater than a common significance level (e, g. 0.05) suggests that we fail to reject the null hypothesis, indicating that there is no significant evidence of heteroskedasticity in the model. Therefore, the residuals likely have constant variance, and the assumption of homoscedasticity holds in this case.

Table 7*Panel Effects Test Results*

Panel effects	Result
Chibar ² (01)	0.180
Prob>Chibar ²	0.3351

Source: STATA 15.1, 2025.

Table 7 shows the results from the Panel Effects test (often used to decide between a random effects model and a pooled OLS model in panel data analysis). It provides insights into whether the individual effects (e. g. entity-specific effects in a panel data model) are significant or if a simpler pooled regression model should be used. Chibar²(01) of 0.18 is the test statistics for the panel effects test. It tests whether there is significant individual effects (heterogeneity) across entities (cross sectional units) in the panel data model. A value closer to 0 suggests that there is little evidence of individual effects, while a higher value would suggest that the individual effects are significant. The results also show a Prob>Chibar² of 0,3351. This is the p-value associated with the test statistics. It tests the null hypothesis that there are no significant individual effects (i.e. that a pooled OLS model is appropriate). A p-value greater than a typical significance level (such as 0.05) means that we fail to reject the null hypothesis.

Since the p-value (0,3351) is greater than the common threshold of 0.05, we fail to reject the null hypothesis of no individual effects. This suggests that there is insufficient evidence to support the presence of significant panel-level effects, and therefore, a pooled OLS model may be appropriate. The individual effects do not significantly contribute to explaining the variability in the dependent variable, so you could consider using a pooled model rather than a random effects model.

Ordinary Least Squares Regression

In testing the hypotheses for this study, we used Ordinary Least Squares regression.

Table 8*Ordinary Least Squares Regression Results*

FRQ	Model 1 (Basic Model)			Model 2 (Moderated Model)		
	Coef.	t	p	Coef.	t	p
BI	.0018264	1.66	0.100	.0019355	1.61	0.110
BD	.0246814	2.44	0.016	.022035	2.00	0.047
BG	-.000469	-0.45	0.652	-.0014582	-1.29	0.200
P	-.094573	-2.50	0.014	-.3840103	-1.49	0.138
FS	-.018352	-0.88	0.383	-.0179707	-0.86	0.394
LEV	.0012946	1.70	0.090	.0007547	0.94	0.347
BI*P	-	-	-	.0014017	0.46	0.645
BD*P	-	-	-	.0168063	0.64	0.526
BG*P	-	-	-	.0067769	2.22	0.028
_con	-.249691	-1.13	0.261	-.2050939	-0.92	0.361
Mean VIF	1.30					
Hetest	0.2742					
Panel effect	0.3351					
Model fitness	0.0231			0.0170		
R ²	0.0850			0.1160		
Obs	170			170		

Source: STATA 15.1, 2025.

Note: FRQ = Financial Reporting Quality (measured by the Modified Jones Accruals Quality; MJA); BI: Board Independence; BD: Board Diligence; BG: Board Gender Diversity; P: Profitability (Moderating Variable); FS: Firm Size (Control Variable), LEV: Leverage (Control Variable); BI*P: the interaction between P and BI (The moderating effect of P on BI); BD*P: the interaction between P and BI (The moderating effect of P on BD); BG*P: the interaction between P and BI (The moderating effect of P on BG); Parentheses are (1) bracket [] are p-values (2) **, ***, implies statistical significance at 5% and 1% levels respectively.

Table 8 provides Ordinary Least Squares (OLS) regression results for the Financial Reporting Quality (FRQ) in two versions: a basic model (Model 1) and a moderated model (Model 2). The following is a comprehensive analysis, highlighting the key similarities, differences, and insights from both models. Board Independence (BI): Model 1: Coefficient 0.0018264, $p = 0.100$, Model 2: Coefficient 0.0019355, $p = 0.110$. Insights: BI shows a positive but statistically insignificant effect in both models. Its minor change across models implies robustness to moderation effects.

Board Diligence (BD): Model 1: Coefficient 0.0246814, $p = 0.016$, Model 2: Coefficient 0.022035, $p = 0.047$. Insights: BD consistently exerts a significant positive impact on financial reporting quality. However, the coefficient diminishes slightly in Model 2, suggesting moderation effects reduce its influence. Board Gender (BG): Model 1: Coefficient -0.0004692, $p = 0.652$, Model 2: Coefficient -0.0014582, $p = 0.200$. Insights: BG's negative but statistically insignificant effect strengthens in Model 2, suggesting profitability (P) interacts to amplify its influence.

Profitability (P): Model 1: Coefficient -0.0945732, $p = 0.014$, Model 2: Coefficient -0.3840103, $p = 0.138$. Insights: Profitability is significantly negatively associated with earnings management in Model 1. In Model 2, the interaction terms likely absorb its standalone significance, rendering it insignificant. Firm Size (FS): Model 1: Coefficient -0.0183523, $p = 0.383$, Model 2: Coefficient -0.0179707, $p = 0.394$. Insights: FS has a consistently negative but insignificant impact, suggesting it does not play a substantial role in influencing earnings management. Leverage (LEV): Model 1: Coefficient 0.0012946, $p = 0.090$, Model 2: Coefficient 0.0007547, $p = 0.347$. Insights: LEV is marginally significant in Model 1 but becomes insignificant in Model 2, implying that moderation diminishes its influence.

Interaction Effects in Model 2

BI*P (Board Independence \times Profitability): Coefficient 0.0014017, $p = 0.645$. Insights: The interaction term is insignificant, indicating that profitability does not substantially alter the effect of BI on financial reporting quality. BD*P (Board Diligence \times Profitability): Coefficient 0.0168063, $p = 0.526$. Insights: Similarly, the interaction of BD and profitability lacks significance. BG*P (Board Gender \times Profitability): Coefficient 0.0067769, $p = 0.028$. Insights: This interaction is significant, suggesting that profitability moderates the relationship between board gender and financial reporting quality. It highlights that gender diversity becomes more influential under varying profitability conditions.

Policy Implications of Findings

This section discusses the empirical results of the study on the relationship between board characteristics and financial reporting quality (FRQ) of listed insurance companies in Nigeria, with profitability introduced as a moderating variable. The findings are interpreted in light of existing literature and relevant theoretical perspectives, highlighting areas of consistency and divergence while contextualizing the outcomes within Nigeria's corporate governance environment.

1. Board Independence and Financial Reporting Quality

The study found that board independence does not have a significant effect on financial reporting quality, thereby supporting Hypothesis 1. This finding contrasts with the conclusions

of several prior studies, such as Ali and Zhang (2023), who reported that independent directors were instrumental in reducing earnings manipulation across firms in Asia. Similarly, Chen and Lee (2024), and Huang and Zhao (2022) found that independent boards are typically associated with improved transparency and lower levels of opportunistic behavior by management. However, the lack of significance in the Nigerian context may be attributed to weak institutional enforcement mechanisms, where the formal presence of independent directors does not necessarily translate into functional independence. Uwuigbe et al. (2018) argued that independent directors in Nigerian firms often lack the authority, expertise, or freedom to effectively oversee financial reporting practices. Likewise, Adegbite (2015) highlighted that corporate governance structures in Nigeria are sometimes more symbolic than effective, making it difficult for independent directors to fulfill their oversight roles. This finding therefore challenges the universality of agency theory's assumptions, suggesting that in weaker institutional settings, board independence alone is insufficient for enhancing reporting quality.

2. Board Diligence and Financial Reporting Quality

The study supports Hypothesis 2 by establishing a positive and significant relationship between board diligence and financial reporting quality. This result aligns with previous empirical evidence, such as the work of Chen and Li (2023), who found that frequent board meetings and higher levels of director engagement were associated with more rigorous financial oversight and reduced earnings management. Similarly, Miller and Wang (2024) emphasized that board diligence enhances transparency, particularly in environments where external oversight mechanisms are limited. The theoretical justification for this finding can be drawn from resource dependence theory, which positions diligent boards as valuable internal governance mechanisms that bring monitoring capacity and problem-solving skills to the organization (Hillman & Dalziel, 2003). In the context of Nigerian insurance firms where operational inefficiencies and regulatory lapses are common frequent meetings likely allow boards to more actively scrutinize financial activities, ask probing questions, and hold management accountable, thereby enhancing the credibility of financial reporting.

3. Board Gender Diversity and Financial Reporting Quality

In support of Hypothesis 3, the study found that board gender diversity does not have a direct significant effect on financial reporting quality. This finding diverges from the conclusions of global studies such as Ali and Zhang (2023), who reported that gender-diverse boards were effective in reducing fraudulent financial reporting. Similarly, Miller and Zhao (2024) highlighted that the presence of female directors contributed to greater board accountability and better governance outcomes. The lack of significance in the Nigerian insurance sector may be due to the relatively low representation of women on corporate boards, which limits their potential influence. According to Terjesen et al. (2009), a critical mass of female directors is often necessary for gender diversity to yield meaningful governance outcomes. In contexts where gender diversity is more symbolic than functional, its impact on financial reporting quality may be negligible. This finding aligns with contingency theory, which suggests that the effectiveness of governance mechanisms—such as board diversity is conditional upon factors like empowerment levels, board dynamics, and organizational culture.

4. Moderating Role of Profitability in Board Independence FRQ Relationship

The results of the study show that profitability does not moderate the relationship between board independence and financial reporting quality, thereby supporting Hypothesis 4. This contradicts prior findings by Ali and Zhang (2022) and Hassan and Ahmed (2024), who observed that in more profitable firms, independent directors were more empowered to curtail earnings management due to better access to resources and reduced survival pressures. In the

Nigerian context, however, the effectiveness of board independence appears to be structurally limited regardless of profitability status. The implication is that profitability alone cannot strengthen the functional capacity of independent directors, especially in a sector where regulatory enforcement is weak and directors may lack financial literacy or influence. This finding further exposes the limitations of agency theory when applied in developing economies, and highlights the need to incorporate institutional context into governance models.

5. Moderating Role of Profitability in Board Diligence FRQ Relationship

The study also supports Hypothesis 5 by finding that while board diligence positively influences financial reporting quality, the moderating effect of profitability is not significant. This suggests that the impact of board diligence on FRQ is robust across firms, regardless of their profit levels, although its marginal utility may be lower in highly profitable firms. This result complements findings by Choi and Lee (2024), who argued that diligent boards remain critical even in profitable firms but noted that oversight urgency tends to decline when financial performance improves. The intrinsic value of board diligence lies in its ability to foster continuous oversight and accountability, characteristics that are vital regardless of financial conditions. While profitability may reduce the perceived need for active monitoring, the role of diligence does not become obsolete. Park and Kim (2025) similarly note that in highly profitable firms, management may experience fewer constraints, potentially leading to complacency unless diligently checked by the board.

6. Moderating Role of Profitability in Board Gender Diversity FRQ Relationship

Rejecting Hypothesis 6, the study finds that profitability significantly moderates the relationship between gender diversity and financial reporting quality. In particular, gender-diverse boards were found to be more effective in loss-making firms than in their profitable counterparts. This finding is consistent with Williams and Green (2023), who showed that female directors contributed more positively to governance outcomes in low-performing firms. Zhao and Liu (2024) also found that profitability amplified the positive effects of board diversity on financial reporting in firms experiencing financial constraints. This result is supported by resource dependence theory, which views gender diversity as a critical governance resource that becomes more valuable in times of crisis. Female directors often bring diverse perspectives, ethical sensitivity, and heightened risk awareness traits that are essential in mitigating earnings manipulation during periods of poor performance. Contingency theory also explains this interaction by emphasizing that governance effectiveness is not static but shaped by contextual variables, such as profitability and firm stability.

7. Profitability as an Overall Moderator of Board Characteristics FRQ

Finally, the study partially supports Hypothesis 7 by demonstrating that while profitability moderates the relationship between gender diversity and financial reporting quality, it does not significantly influence the effects of board independence or diligence. This nuanced result suggests that profitability selectively enhances the governance functions of certain board characteristics. In particular, gender-diverse boards seem to become more effective under conditions of financial distress, possibly due to their stronger orientation toward ethical conduct and inclusive scrutiny. This finding reinforces the position of Khan and Wang (2025), who argued that female directors exert greater influence in challenging conditions where oversight is most needed. It also implies that governance mechanisms are not universally effective but rather contingent on firm-specific financial realities. Thus, the strategic importance of board diversity under financial strain supports a tailored approach to board reform, especially in emerging markets.

5. Conclusion and Recommendations

This study examined the relationship between board characteristics and financial reporting quality among listed insurance companies in Nigeria, with profitability as a moderating factor. The board characteristics considered were board independence (BI), board diligence (BD), and board gender diversity (BG), while financial reporting quality was measured using earnings management models (Modified Jones Accrual Quality Model). Firm size (FS) and leverage (LEV) were used as control variables. Board independence showed a non-significant effect on financial reporting quality, indicating that independent directors may not have a strong impact on reducing earnings management in Nigerian insurance companies. Board diligence was found to be a significant determinant of financial reporting quality, suggesting that frequent board meetings enhance oversight and reduce earnings management. Board gender diversity was non-significant, suggesting that gender diversity on boards does not substantially influence financial reporting quality in this context. However, profitability moderates the influence of board gender on financial reporting quality (BG*P significant in Model 2). Firms with higher profitability might derive greater governance benefits from diverse boards. Firm size was non-significant and negative predictor of financial reporting quality, implying that firm's size has no significant impact on financial reporting quality. Leverage was also found to be non-significant, indicating that debt levels of firms will not reduce/increase better financial reporting practices.

The findings of this study both affirm and challenge existing literature, underscoring the need to contextualize governance theories within the operational realities of developing economies such as Nigeria. By introducing profitability as a moderating variable, the study reveals the conditional effectiveness of governance structures and their dependence on institutional strength, financial conditions, and board dynamics. The results offer theoretical contributions by refining agency, resource dependence, and contingency theories in light of empirical evidence. Practically, they inform regulatory and corporate policy, calling for performance-sensitive governance reforms, greater gender inclusiveness, and enhanced board training, particularly in sectors like insurance where weak oversight remains a persistent challenge.

Based on the study's findings and their implications for theory and practice, several actionable recommendations are proposed to enhance financial reporting quality (FRQ) within the Nigerian insurance sector and similar emerging market contexts: Strengthen the Functional Independence of Boards Given the insignificance of board independence on FRQ in this study, policymakers and regulators such as the National Insurance Commission (NAICOM) should move beyond formal compliance with independence criteria and emphasize functional independence. This includes developing and enforcing guidelines that ensure independent directors have relevant financial expertise, autonomy from management, and access to adequate resources to perform effective oversight. Institutionalize Board Diligence Through Governance Codes. The positive impact of board diligence on FRQ highlights the need to formalize director engagement as a critical governance standard. Regulatory bodies should require minimum attendance rates, mandatory financial oversight training, and regular performance evaluations of board members. Insurance companies should institutionalize robust meeting schedules, comprehensive agendas, and active board participation in reviewing financial statements. Promote Meaningful Gender Diversity.

The finding that gender diversity significantly improves FRQ in financially distressed firms suggests that gender-inclusive boards offer unique governance benefits, particularly under challenging conditions. Companies should go beyond token female representation by ensuring the appointment of qualified women with expertise in finance, risk management, and ethics. Quotas or incentive-based policies may also be considered to ensure a critical mass of female board members is achieved. Tailor Governance Interventions to Firm Profitability

Since profitability moderates the effect of gender diversity on FRQ but not that of other board characteristics, governance strategies should be customized based on firm performance. In low-profit or loss-making firms, emphasis should be placed on diverse and ethically-driven boards to counteract pressures for earnings manipulation. Regulators could also require firms in financial distress to adopt enhanced governance practices as part of recovery or restructuring programs. Integrate Contextual Governance Mechanisms in Regulatory Frameworks The study reinforces the importance of context especially institutional weaknesses in shaping board effectiveness. Regulatory frameworks should incorporate mechanisms that address these local challenges, such as requiring board certification programs, enhancing external audit quality, and improving transparency in board appointment processes. Sector-specific governance codes should also reflect the unique risks and operational structures of industries like insurance. Encourage Continuous Board Development and Capacity Building Training and continuous professional development for board members should be made mandatory. Emphasis should be placed on equipping directors especially independent and female members with technical knowledge of financial reporting standards, regulatory requirements, and ethical oversight. Collaborations between regulatory agencies, academic institutions, and professional bodies can facilitate such programs. Further Research and Cross-Market Comparative Studies given the context-specific nature of the findings, future research should conduct comparative analyses across different sectors and countries to assess the generalizability of the moderating role of profitability. Longitudinal studies examining changes in board dynamics over time in response to performance shocks could also provide deeper insights into governance adaptability in emerging markets.

These recommendations aim to bridge the gap between formal governance structures and their practical effectiveness, particularly in institutional contexts like Nigeria where board dynamics are often influenced by socio-political and economic constraints. By aligning governance reforms with firm-specific and sector-specific realities, regulators and firms can enhance financial transparency, improve investor confidence, and support long-term corporate sustainability.

References

- Abdulmalik, S. O., & Che-Ahmad, A. (2016). Audit fees, corporate governance mechanisms and financial reporting quality in Nigeria. *Business & Economics Review*, 26(1), 122–135.
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.
- Ajibulu, F. G., Yahaya, O. A., & Agbi, S. E. (2021). Board of directors and quality of financial reports of quoted banks: Evidence from Nigeria. *Umaru Musa Yar'Adua University Journal of Accounting and Finance Research*, 1(1), 79-99.
- Alghamdi, S. A. (2023). Corporate governance and earnings management in developing economies. *Journal of Emerging Market Economies*, 14(3), 215-237.
- Ali, M., & Zhang, J. (2022). The effect of board independence on financial reporting quality: The moderating role of profitability in emerging markets. *Journal of International Business and Economics*, 10(2), 85-102.
- Ali, M., & Zhang, J. (2023). The effect of board independence on financial reporting quality: Evidence from emerging markets. *Journal of Corporate Governance and Accountability*, 29(3), 175-190.
- Ali, M., & Zhang, J. (2023). Board gender diversity and financial reporting quality: Evidence from Asian firms. *Journal of Corporate Governance*, 20(3), 123-138.
- Ball, R., & Shivakumar, L. (2005). Earnings quality in UK private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics*, 39(1), 83-128.

- Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research*, 46(3), 467-498.
- Biddle, G., Gilles, H., & Verdi, R. (2009). How does financial reporting quality improve investment efficiency? *Journal of Accounting & Economics*, 48(2-3), 112-131.
- Cascino, S., Clatworthy, M., Garcia-Osma, B., Gassen, J., Imam, S., & Jeanjean, T. (2014). Who uses financial reports and for what purpose? *Accounting in Europe*, 11(2), 185-209.
- Chen, Z., & Lee, Y. (2024). Board independence and financial reporting quality in Chinese firms: A sectoral analysis. *Journal of International Business Studies*, 47(1), 40-59.
- Chen, Z., & Li, Q. (2024). The effect of board gender diversity on financial reporting quality in European firms. *European Accounting Review*, 31(2), 107-123.
- Chen, Z., & Li, Q. (2023). Profitability as a moderator in the board independence-financial reporting quality relationship: Evidence from China. *Journal of Corporate Governance and Accounting*, 28(3), 233-249.
- Choi, M., & Lee, J. (2024). Profitability and the governance quality of boards: The role of board diligence in financial reporting. *Journal of Accounting and Public Policy*, 43(1), 22-41.
- Davidson, R., Goodwin-Stewart, J., & Kent, P. (2005). Internal governance structures and earnings management. *Accounting & Finance*, 45(2), 241-267.
- DeAngelo, L. E. (1986). Accounting numbers as market valuation substitutes: A study of management buyouts of public stockholders. *The Accounting Review*, 61(3), 400-420.
- Dechow, P.M., Sloan, R.G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193-225.
- Dechow, P. M., Ge, W., & Schrand, C. M. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2-3), 344-401.
- Enofe, A. O., Aronnwan, E. J., & Abdua, H, S. (2013). Audit committee report in corporate financial statements users' perception in Nigeria. *European Journal of Accounting and Finance Research*, (1)1, 16-28.
- Eriabie, S. O., & Izedonmi, F., (2016). Impact of audit committee attributes on financial reporting quality in Nigerian quoted companies. *ICAN Journal of Accounting and Finance*, 59(1), 1-22.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2), 301-325.
- Financial Reporting Council of Nigeria. (2018). Nigerian code of corporate governance. Available at: <https://pwc-nigeria.typepad.com/files/nigerian-code-of-corporate-governance-2018-1.pdf>
- Francis, J. R., LaFond, R., Olsson, P. M., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, 39(2), 295-327.
- Gul, F. A., Srinidhi, B., & Tsui, J. S. L. (2011). Board gender diversity and the informativeness of stock prices. *Journal of Accounting and Economics*, 51(3), 314-338.
- Hassan, A., & Ahmed, M. (2024). The moderating impact of profitability on the board independence-financial reporting relationship: A global analysis. *International Journal of Accounting and Finance*, 14(1), 60-76.
- Healy, P., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3), 405-440.
- IASB (2008). *Exposure Draft on the improved Conceptual Framework for Financial Reporting: The objective of Financial Reporting and Qualitative Characteristics of Decision-useful Financial Reporting Information*. London.

- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jonas, G. J. & Blanchet, J. (2000). Assessing quality of financial reporting. *Accounting Horizons*, 14(3), 353-363.
- Jones, T., & Smith, L. (2023). The effect of board diligence on financial reporting quality: The moderating role of profitability. *Journal of Corporate Governance*, 11(2), 115-130.
- Khan, S., & Wang, L. (2025). Gender diversity and financial reporting quality in less profitable firms: A moderating analysis of profitability. *International Journal of Accounting*, 12(3), 50-67.
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375-400.
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163-197.
- Larcker, D. F., & Richardson, S. A. (2004). Fees paid to audit firms, accrual choices, and corporate governance. *Journal of Accounting Research*, 42(3), 625-658.
- Li, L., & Chen, X. (2024). The impact of profitability on financial reporting quality: A study of moderating factors. *Journal of International Accounting*, 19(2), 89-105.
- Miller, C., & Wang, L. (2024). Board gender diversity and financial reporting quality: A global perspective. *Journal of International Business and Accounting*, 32(2), 65-80.
- Miller, C., & Zhao, H. (2024). The relationship between board independence and financial reporting quality: Evidence from the European Union. *European Accounting Review*, 33(1), 95-114.
- Mustapha, L. O. (2022). Corporate governance mechanisms and financial reporting quality of listed non-financial institutions in Nigeria: Moderating effect of institutional ownership. *Nigerian Defence Academy Journal of Management Sciences Research*, 2(1), 342-352.
- Nyor, T. (2013). Financial reporting quality of Nigeria firms: Users perceptions. *International Journal of Business and Social sciences*, 4(13), 273-279.
- Ogbaisi, S. A., & Ezuem, M. D. (2021). Corporate governance and financial reporting quality of firms in Nigeria. *Samuel Adegboyega University Journal of Management and Social Sciences*, 6(3), 113-122.
- Ogbeide, S. O., Ogiugo, H. U., & Adesuyi, I. O. (2021). Corporate governance mechanisms and financial reporting quality of listed commercial banks in Nigeria. *Insights into Regional Development*, 3(1), 136-146.
- Ogbonnaya, A. K. (2020). Corporate governance structure and financial reporting quality of quoted Oil companies in Nigeria. *International Institute of Academic Research and Development (IIARD) Journal of Accounting and Financial Management*, 6(4), 37-51.
- Park, S., & Kim, Y. (2025). Industry-specific factors in the relationship between board diligence and financial reporting quality: The moderating role of profitability. *European Journal of Finance and Accounting*, 27(3), 198-214.
- Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: Do outside director's influence abnormal accruals? *Journal of Business Finance & Accounting*, 32(7-8), 1311-1346.
- Pfeffer, J., & Salancik, G. R. (1978). Social control of organizations. The external control of organizations: A resource dependence perspective. New York: Harper & Row, 1978.
- Securities and Exchange Commission (2011). Code of corporate governance for public companies in Nigeria. Available at: www.sec.gov.ng
- Shafi, M., Adamu, P. A., Ooi, C. K., & Kwong, W. C. G. (2020). Corporate governance and earnings management: Evidence from listed Malaysian firms. *Journal of Critical Reviews*, 7(2), 90-96.

- Sharma, P., & Gupta, V. (2025). Profitability, industry characteristics, and financial reporting quality: A global perspective. *International Journal of Accounting and Finance*, 14(3), 112-130.
- Sharma, R., & Kumar, S. (2025). Board independence and financial reporting quality: Evidence from the U.S. market. *International Journal of Accounting and Finance*, 13(2), 112-128.
- Sharma, R., & Gupta, V. (2025). Board independence and financial reporting quality: Exploring the moderating role of profitability in developed economies. *European Accounting Review*, 34(1), 112-130.
- Sharma, R., & Gupta, V. (2025). The impact of board gender diversity on financial reporting quality: Evidence from the U.S. market. *International Journal of Accounting and Finance*, 13(1), 78-92.
- Shleifer A., & Vishny, R. (1997). A survey of corporate governance. *Journal of Finance*, 52, 246- 253.
- Srinidhi, B., Gul, F. A., & Tsui, J. S. L. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, 28(5), 1610-1644.
- Tang, Q., Chen, H., & Zhijun, L. (2008). Financial reporting quality and investor protection: A global investigation, Working Paper. Available at: <http://ssrn.com/abstract, 1290910>, 3-50.
- Turel, A., & Turel, A. (2012). Financial characteristics of high-performance companies in Turkey: a comparative analysis of stable economy in the financial crisis era. *Journal of Banking and Finance*, 27(7), 1219-1243.
- Verdi, R. S. (2006). Financial reporting quality and investment efficiency. *Massachusetts Institute of Technology*.
- Verma, J. R. (1988). Indian financial sector reforms: a corporate perspective. *Vikalpa*, 23, 27-38.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Wang, L. (2015). Board gender diversity and accounting conservatism: Evidence from Finland. Master's Thesis, Oulu Business School. Retrieved from www.ssrn.com
- Wang, Y., & Zhang, H. (2023). Profitability and financial reporting quality: Evidence from Asian firms. *Asian Journal of Accounting and Economics*, 22(1), 56-74.
- Williams, A., & Green, S. (2023). Profitability and the role of board gender diversity in enhancing financial reporting quality. *Journal of Corporate Governance*, 18(2), 115-132.
- Xie, B., Davidson, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance*, 9(3), 295- 316.
- Zhao, J., & Liu, Q. (2024). The moderating effect of profitability on the relationship between board gender diversity and financial reporting quality: Evidence from European firms. *European Journal of Finance*, 30(1), 89-105.
- Zhang, X., & Li, D. (2023). Corporate governance and firm performance: The role of board independence. *Journal of Corporate Finance*, 74, 102211.