

# Corporate Governance, Board Attributes, and Financial Performance: A Study of Listed Insurance Companies in Nigeria

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## Abstract

**Purpose:** This study aimed to examine the effect of corporate governance and board attributes on the financial performance of listed insurance companies in Nigeria.

**Theoretical Framework:** This research is based on the Stakeholder Theory, which was originally introduced by Professor Edward Freeman in 1984. According to this theory, companies are ethically responsible for acknowledging and fulfilling the concerns of diverse stakeholders, such as employees, suppliers, customers, government entities, investors, and the community.

**Design/ Methodology/Approach:** The research employed both ex-post facto and panel research designs to gather data from the audited annual reports of the selected insurance companies quoted on the Nigerian Exchange Group, covering a span of eleven (11) years from 2012 to 2022. The study's sample size was ten (10) insurance companies which were determined by purposive sampling techniques. Data analysis utilized both descriptive and inferential statistical methods.

**Findings:** The study's findings showed that board size and board independence had a statistically significant positive influence on Tobin Q but had a positive but not statistically significant effect on return on equity. Board diversity exhibited a significant positive effect on both returns on equity and Tobin Q. The research results indicate that board diversity and board independence are crucial factors influencing the financial performance and market value efficiency of insurance companies in Nigeria.

**Practical Implications:** For insurance companies and policymakers, these findings highlight the importance of promoting board diversity and independence as they are positively associated with financial performance and market value efficiency. While a larger board size might enhance market value efficiency, its impact on ROE is less reliable. It is essential for insurance firms to consider these governance factors in their decision-making processes.

**Keywords:** Corporate Governance, Board Attributes, Board Size, Board Independence, Board Diversity, Financial Performance.

## 1. Introduction

In recent times, the Nigerian insurance sector has witnessed impressive advancements and changes. This progress can be attributed to various factors, including regulatory changes, the growth of the middle-class population, and an increased understanding of the significance of having insurance coverage. As the industry continues to expand, it becomes crucial to emphasize the utmost importance of corporate governance in maintaining stability, transparency, and accountability within the sector (Musa & Onipe, 2023). The board of directors, as a critical element of corporate governance, assumes a central role in overseeing strategic decision-making, managing risks, and ensuring the company's long-term financial success (Appah & Tebepah, 2023).

The insurance sector holds immense importance in fostering economic growth, stability, and managing risks. As a pivotal component of the Nigerian economy, the insurance industry has experienced notable progress and evolution in recent times. Nevertheless, the performance of insurance companies is shaped by an array of internal and external factors, among which corporate governance practices play a significant role. The efficacy of corporate governance mechanisms, particularly the characteristics of the board of directors, is essential in guaranteeing the integrity, openness, and responsibility of insurance companies (Mustapha et al., 2018).

The significance of implementing efficient corporate governance measures to secure the prosperity and continuity of organizations cannot be emphasized

enough. Among the key components, boards of directors assume a vital responsibility in supervising a company's strategic vision and decision-making procedures (Lasisi, 2022). This investigation concentrates on the Nigerian insurance industry, which has experienced a remarkable expansion in recent times. The essential role of well-operating corporate boards is widely acknowledged in corporate governance, and it holds significant sway over the achievements and triumphs of organizations. Within the insurance industry, where the management of risks, financial stability, and strategic decision-making are of utmost importance, the significance of boards becomes even more pronounced. Nigeria, being one of Africa's prominent economies, has experienced remarkable growth in its insurance sector throughout the years (Yusuf et al., 2022).

Numerous studies (Adebayo et al., 2020; Al-Homaidi et al., 2022; Aluoch, 2023; Oddhiambo, 2021; Olayinka et al., 2022; Peter et al., 2022, among others) have extensively examined the connection between board attributes and firm performance in various settings. However, there is either a lack of research or limited focus on the insurance industry in Nigeria. As a result, this study aims to address this research gap by specifically investigating how board attributes impact the financial performance of listed insurance companies in Nigeria. The primary objective of this research is to investigate how board characteristics relate to financial performance, aiming to improve corporate governance practices in the Nigerian insurance sector. Consequently, it becomes crucial to analyze the connection between board attributes and financial performance within the specific context of the Nigerian insurance industry. This analysis aims to contribute to the industry's sustained growth and stability (Umukoro et al., 2019). Scholars believe that the composition and traits of the board of directors have a significant impact on organizational decision-making, strategic direction, and overall performance (Olaoye et al., 2022).

The outcomes of this paper have significant implications for various stakeholders. For insurance companies, the paper gives an important look into the role of board attributes in shaping financial performance. It highlights the importance of selecting and maintaining an optimal board composition to ensure effective oversight and strategic decision-making. Regulators can benefit from the study by identifying areas where corporate governance regulations may need to be strengthened or modified to enhance board effectiveness and promote financial stability within the insurance industry. Investors and analysts can utilize the findings to make informed decisions regarding investments in listed insurance companies. Understanding the roles of board attributes on financial performance can assist in assessing the quality of corporate governance and the potential

risks and returns associated with specific companies. Furthermore, this study contributes to the broader academic literature on corporate governance, particularly in emerging economies, by providing empirical evidence from the Nigerian insurance sector.

The rest of this article follows a structured layout: The next section offers a detailed review of relevant literature related to corporate governance, board attributes, and firm performance. It delves into relevant theories and empirical studies supporting the relationship between board attributes and financial performance. The subsequent section outlines the research methodology adopted, encompassing sample selection, data collection, and analysis techniques. Following that, the article presents the results and findings, followed by a discussion covering implications, limitations, and suggestions for future research. Finally, the article concludes by summarizing the study's key contributions and its significance for the Nigerian insurance industry.

## **2. Literature Review**

### **2.1 Conceptual Review**

#### **2.1.1 Corporate Governance**

Corporate governance refers to the system of regulations, practices, and procedures that guide the direction and control of a company (Bala et al., 2022). It is a fundamental concept within the realms of business and finance, encompassing the frameworks, processes, and practices through which companies are directed, controlled, and operated (Basyith, 2016). Its purpose is to establish and maintain a harmonious equilibrium between the concerns of a wide range of parties involved, encompassing shareholders, executives, staff members, clientele, suppliers, and society at large (Dada et al., 2023). The primary objective of corporate governance is to ensure that organizations are managed with responsibility and ethics, emphasizing accountability, transparency, fairness, and integrity. By implementing effective governance structures and mechanisms, companies strive to bolster their long-term sustainability, manage risks, and generate value for both shareholders and other stakeholders (Balagobei & Keerthana, 2023).

#### **2.1.2 Board Characteristics**

Board characteristics pertain to the diverse attributes and qualities that shape the makeup, structure, and operations of a company's board of directors (Akinleye et al., 2019). These features encompass a broad spectrum of factors, including the size, composition, diversity, independence, expertise, and experience of board members, as well as the roles and responsibilities they undertake. Essentially, board characteristics encompass the traits and qualities of corporate boards that are accountable for overseeing the overall management of the firm. The

performance and stability of companies are closely interconnected with the decisions made by the management and the process of firm governance (Appah, 2022).

### **2.1.2.1 Board Size**

The board's size indicates the count of directors currently serving on it. The ideal board size is a topic of debate, as both larger and smaller boards offer their own pros and cons. A larger board may bring a wider range of perspectives and diverse expertise, but it can also create challenges in decision-making, coordination, and communication (Dada et al., 2023; Ugwu et al., 2021). Conversely, smaller boards may enable faster decision-making but might lack diverse viewpoints. Board size denotes the count of directors who are appointed or elected to oversee the strategic direction, decision-making, and overall governance of a company (Umukoro et al., 2019). Determining the optimal board size involves considering the specific needs and circumstances of each company. Factors like industry complexity, company development stage, desired diversity level, and compliance with relevant regulations and standards should be taken into consideration. Companies may also periodically assess and adjust their board size to align with changing needs and objectives (Olayinka, 2021).

### **2.1.2.2 Board Independence**

Board independence pertains to the degree to which directors on a company's board are free from any conflicts of interest and can act in an impartial and unbiased manner. Independent directors are individuals who lack substantial relationships with the company, its management, or its significant shareholders that could compromise their ability to exercise independent judgment and fulfill their fiduciary duties to shareholders (Emilolobo et al., 2019). The concept of board independence is a fundamental element of corporate governance. Independent directors are responsible for providing a checks-and-balances mechanism on management's decisions, safeguarding shareholders' interests, and contributing to effective oversight of the company's operations (Dada et al., 2023). Their independence ensures that board discussions and decisions remain unbiased, and transparent while prioritizing the overall well-being of the entire company. (Jonah, 2023). The independence of board members is critical for ensuring objective decision-making and effective management oversight. Independent directors have no affiliations with the company's management or major shareholders, enabling them to offer an impartial perspective and act with a focus on maximizing benefits for shareholders. (Umukoro et al., 2019).

### **2.1.3.3 Board Diversity**

Board diversity refers to having a variety of individuals from different backgrounds,

perspectives, and experiences serving on a company's board of directors. This encompasses diverse characteristics, such as gender, ethnicity, age, professional expertise, cultural background, and educational qualifications (Adegboyegun & Igbekoyi, 2022). The concept of board diversity acknowledges the value of different viewpoints and encourages a more inclusive and representative decision-making process within the organization. Recently, the significance of board diversity has gained widespread recognition (Tafadzwa & Fortune, 2019). Companies have been increasingly recognizing the advantages of a diverse board composition. The focus on board diversity has intensified as organizations aim to establish more inclusive and representative leadership structures. Having diversity in terms of gender, ethnicity, age, professional background, and experiences enriches board discussions and enhances the decision-making process (Gatehi & Nasieku, 2022).

### **2.1.3 Financial Performance**

Financial performance pertains to the measurement of a company's achievements and profitability based on its financial statements and key financial indicators (Adewara et al., 2023; Nguyen et al., 2023). It evaluates the company's capacity to generate revenue, control expenses, produce profits, and create value for its shareholders and other stakeholders (Kolawole et al., 2023; Kumo et al., 2023). Analyzing financial performance involves assessing various financial metrics and ratios to acquire an understanding of a company's financial well-being and effectiveness. This assessment is crucial for investors, shareholders, lenders, and other stakeholders to make well-informed decisions (Dagunduro et al., 2022). It helps gauge the company's ability to generate profits, manage risks, repay debts, and create value over time. Comparing the financial performance against industry benchmarks and historical trends provides a broader understanding pertaining to the financial status of a company and its competitiveness in the market (Adewara et al., 2023; Dada et al., 2023; Haruna et al., 2019). In this study, the financial indicators including return on assets (ROA), return on equity (ROE), and Tobin's Q (TQ) was utilized in evaluating the financial performance of the firms under investigation.

#### **2.1.3.1 Board Characteristics and Financial Performance**

Board characteristics have garnered widespread recognition as influential factors in shaping the financial results of a company. Prior studies have delved into the relationship between board attributes and financial results, shedding light on the mechanisms through which boards can impact a firm's financial performance (Adegboyegun & Igbekoyi, 2022; Dada et al., 2023; Kumo et al., 2023). One pivotal board characteristic is board

composition, which refers to the diversity and expertise of its members. Research suggests that boards with diverse backgrounds, skills, and experiences tend to bring a broader array of perspectives and insights to decision-making processes, leading to enhanced financial performance (Ahmed et al., 2023; Gatehi & Nasieku, 2022).

Furthermore, the existence of impartial or unaffiliated individuals on the board, who have no affiliations with the company or its management, is associated with improved financial outcomes. Independent directors can provide objective oversight, bolster accountability, and mitigate potential conflicts of interest (Musa & Onipe, 2023). Emilolobo et al. (2019) also argued that another significant board characteristic is board size, highlighting differing opinions on the ideal board size's impact on financial performance. Some studies (Bala et al., 2022; Gatehi & Nasieku, 2022; Jonah, 2023) suggest that larger boards facilitate better monitoring and offer a wider range of expertise, leading to enhanced financial performance. Conversely, other research indicates that smaller boards may be more efficient in decision-making and coordination, resulting in improved financial outcomes.

## **2.2 Theoretical Framework**

This research is based on the Stakeholder Theory, which was originally introduced by Professor Edward Freeman in 1984. According to this theory, companies are ethically responsible for acknowledging and fulfilling the concerns of diverse stakeholders, such as employees, suppliers, customers, government entities, investors, and the community (Dagunduro et al., 2022; Nguyen et al., 2023). The theory posits that a company's prosperity depends on meeting the requirements of all stakeholders, rather than prioritizing the interests of shareholders alone. However, meeting the diverse and sometimes conflicting interests of all stakeholders can be challenging. The study seeks to explore how the principles of the Stakeholder Theory intersect with corporate governance practices and how they influence financial performance (Kumo et al., 2023).

Effective corporate governance structures play a pivotal role in integrating stakeholder interests into decision-making processes. By considering stakeholders' perspectives and expectations, companies can improve their governance mechanisms, fostering transparency, accountability, and ethical behavior. These factors have the potential to positively impact financial performance (Kolawole et al., 2023). While acknowledging the complexity of satisfying all stakeholder interests, the study emphasizes the importance of stakeholder engagement and governance practices that prioritize

stakeholder concerns. By doing so, companies can improve their reputation, build trust, and create long-term value. These outcomes can lead to enhanced financial performance by attracting investments, fostering customer loyalty, managing risks, and driving innovation (Ahmed et al., 2023).

## **2.3 Empirical Review**

Appah and Tebepah (2023) conducted a study to investigate the impact of various corporate governance mechanisms on the financial performance of consumer goods manufacturing companies in Nigeria. The research spanned from 2011 to 2020 and focused on exploring the connections between board size, board independence, board compensation, and board diligence with return on equity. The results revealed that board size had an insignificant negative association with return on equity, whereas board independence demonstrated a significant negative correlation. In contrast, board compensation displayed a significant positive relationship, and board diligence exhibited a significant negative relationship with return on equity.

Another study by Lasisi (2022) focused on how corporate governance features influenced corporate risk reporting in publicly traded financial services firms in Nigeria. The research encompassed all 52 publicly listed financial services companies as of October 2021, and a subset of 39 firms was chosen through a judgmental sampling method. The findings indicated a positive correlation between board size and corporate risk reporting. However, independent directors and board gender were found to have no significant effect. Furthermore, the study revealed an inverse relationship between board activity and profitability with corporate risk reporting, and the size of the business showed a positive correlation with corporate risk reporting.

In a study conducted by Appah (2022), focused on examining how corporate governance characteristics affected tax planning in pharmaceutical firms listed in Nigeria between 2015 and 2020. The study comprised 11 pharmaceutical companies, and an analysis of their financial statements revealed the following findings: Board size and board financial expertise showed a positive correlation with tax savings, but the impact was not significant. Board compensation and board meetings had a negative relationship with tax savings, but the effect was not significant. Gender diversity on the board had a negative influence on tax savings, but it was not statistically significant. Board financial expertise had a positive and significant impact on the book-tax difference. In contrast, board size, gender diversity, board compensation, and board meetings had a negative relationship with the book-tax difference, but these effects were not statistically significant.

Olayinka (2021) conducted a study concerning corporate governance and economic sustainability reporting in Nigeria. The study utilized descriptive and inferential statistics to analyze the data and identified board size, board ownership, and the presence of female directors as significant factors influencing sustainability reporting in Nigeria. These factors were found to have a negative relationship with sustainability reporting. The study also emphasized the importance of independent directors in the context of sustainability reporting. In another study by Al-Homaidi et al. (2021) focusing on Indian-listed companies, the research examined the correlation between corporate governance logistics and profitability. The sample comprised thirty-three firms, and the analysis took into account the role of the board of directors and the audit committee. The findings indicated a positive relationship between the composition of the board of directors, the audit committee, and firm profitability. This positive relationship was measured using return on assets (ROA) and earnings per share (EPS).

Umukoro et al. (2019) conducted a study to explore the impact of board expertise on sustainability reporting in listed banks in Nigeria. The research involved regression analysis using data collected from ten deposited money banks in Nigeria during the period from 2014 to 2016. The findings revealed that highly influential directors had a more significant influence on the sustainability reporting of firms compared to non-executive and executive directors, who exhibited a lower influence. In a separate study, Tafadzwa and Fortune (2019) investigated the relationship between corporate sustainability disclosure and return on investment. The data for this research were obtained from ten sustainability reports of mining companies listed on the Johannesburg Stock Exchange (JSE) over a five-year period from 2010 to 2014. The analysis, conducted using multiple regression, indicated a negative relationship between environmental disclosure and return on investment.

In a research conducted by Bala et al. (2022), the scholars explored how corporate governance attributes affected the financial performance of consumer goods companies listed in Nigeria. The results indicated that the sampled firms demonstrated subpar financial performance. Board independence had a notable and positive impact, while gender diversity had a significant negative effect on return on assets (ROA). However, the study found that board size had a negative but inconsequential influence on ROA. Likewise, Gatehi and Nasieku (2022) investigated the impact of board characteristics on the financial performance of non-financial firms listed on the Nigerian Stock Exchange.

The study revealed that board size and independence had no statistically significant effects, whereas board diversity, specifically gender diversity, had a significant influence on financial performance.

Peter et al. (2022) conducted a study to explore the influence of corporate governance mechanisms on the financial performance of consumer goods companies listed in Nigeria. The research revealed that top management team and CEO characteristics had a significant positive impact on return on equity, while audit committee independence and external auditors' independence had a significant negative effect. In another investigation, Yusuf et al. (2022) examined the effect of corporate governance on the financial performance of publicly traded Nigerian insurance companies. The findings indicated that several corporate governance elements, such as board size, board meetings, board independence, and audit committee size, had a significant impact on return on assets. Additionally, Adebayo et al. (2020) studied the influence of corporate governance characteristics on listed non-financial firms in Nigeria. The findings demonstrated a negative relationship between board size, board meetings, and board independence with intellectual capital. Conversely, firm size exhibited a positive and significant association with intellectual capital.

In general, substantial research (Al-Homaidi et al., 2021; Appah & Tebepah, 2023; Bala et al., 2022; Gatehi & Nasieku, 2022; Lasisi, 2022; Olayinka, 2021; Peter et al., 2022; and Umukoro et al., 2019) has been conducted on the relationship that exists between board characteristics and company performance in various contexts. However, there is a lack of specific or limited studies that focus on the insurance industry in Nigeria. Therefore, this study aims to address this research gap by examining how board attributes impact the financial performance of listed insurance companies in Nigeria. Based on these objectives, the null hypotheses will be formulated as follows:

**H<sub>01</sub>:** The financial performance of listed insurance companies in Nigeria is not significantly influenced by the size of the board.

**H<sub>02</sub>:** The financial performance of listed insurance companies in Nigeria is not significantly influenced by the independence of the board.

**H<sub>03</sub>:** The financial performance of listed insurance companies in Nigeria is not significantly influenced by the diversity of the board.

## **2.4 Conceptual Framework**

This study sought to shed light on how board characteristics can enhance the financial performance of the listed insurance companies in Nigeria.

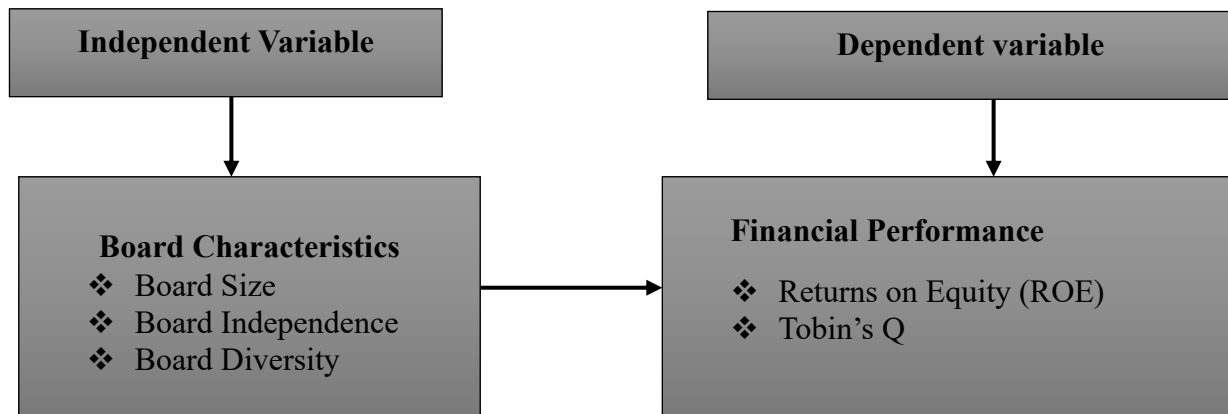


Figure 2.1 presents a Conceptual Framework illustrating the interplay between Board Attributes and the Financial Performance of listed insurance companies on the Nigerian Exchange Group.

Source: Author's Concepts (2023)

### 3. Research Methodology

This study adopted an ex-post facto and panel research designs to gather data from the annual audited reports of listed insurance companies in Nigeria. The data was obtained through secondary sources. The research covered a period of eleven (11) years, from 2012 to 2022. The study's population consisted of ten (10) insurance companies quoted on the Nigerian Exchange Group profile as of December 31, 2022. These companies were purposively selected as the sample size because of the completeness of available data. The choice to focus on the insurance sector was based on the fact that previous studies conducted in Nigeria did not adequately consider insurance companies. The collected data were analyzed using descriptive and inferential statistics methods, including mean, median, mode, and standard deviation. Additionally, panel regression analysis was used to assess the impact of board characteristics on the financial performance of listed insurance companies in Nigeria.

### 3.1 Model Specification

The econometric model was formulated following a similar approach as Ahmed's (2019) previous research, which investigated the connection between the financial performance of multinational companies listed in Nigeria and their board structure. Building on this previous study, the model for this research is presented as follows:

$$FP = B_0 + B_1BSIZE + B_2BINDE + B_4BGEND + \epsilon_{it}$$

Where:

FP = Financial Performance

BSIZE = Board Size

NINDE = Board Independence

BGEND = Board Diversity

$\epsilon_{it}$  = Error term

$\beta_0$  = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4$  represent the coefficients of the unknown variables.

The *a-priori* expectation is that  $\beta_1, \beta_2, \beta_3 > 0$ , which implies that a positive relationship is anticipated between the explanatory variables and the explained variable

Table 1: Operationalization, Explanation, and Quantification of Variables.

SN	Variables	Acronym	Role	Measurements	Source
1	Financial Performance	FP	Dependent		
1a	Returns on Equity	ROE	Dependent	Measured as earnings after tax divided by total equity (%).	Musa and Onipe (2023)
1b	Tobin's Q	TQ	Dependent	Measured as market capitalization divided by total assets.	Kaldor (1966)
2	Board Characteristics	BDC	Independent		
2a	Board Size	BSIZE	Independent	Measured as the total members of the board of directors.	Haruna et al. (2019)
2b	Board Independence	BINDP	Independent	Measured as the number of non-directors and non-executive directors in the board size (%)	Jonah (2023)
2c	Board Diversity	DGEND	Independent	Measured as the representation of individuals from different demographic, professional, and experiential backgrounds on the board.	Olayinka (2021)

Author's Compilation (2023)

4. Analysis of Data and Discussion of Results

4.1 Descriptive Statistics

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std Dev	Variance	Min	Max	Skewness	Kurtosis
ROE	110	0.981895	0.5812176	0.3378139	0.031	2.898	0.6806834	3.450966
TOBINQ	110	0.6287	0.2742594	0.0752182	0.02	1.33	0.2020859	2.81384
BSIZE	110	6.87	1.962004	3.849459	0	12	-0.0955557	3.832237
BINDE	110	0.619184	0.1094434	0.1197786	0.3333	0.8571	0.0188259	2.895591
BGEND	110	0.166267	0.1617296	0.2615646	0	0.8	1.131823	4.414345

Source: Researcher's Computation (2023)

Table 2 provides descriptive information for both the variables being studied (dependent variables: ROA, Tobin's Q) and the factors under consideration (independent variables), which include board size, independence, and diversity. The average return on equity (ROA) for insurance firms is 0.981895, indicating that, on average, these companies generate over 98.1895% profit from their equity. The data exhibits low dispersion (0.5812176) with values ranging from 0.031 to 2.8981. The distribution is right-skewed (0.6806834) and shows a leptokurtic kurtosis of 3.450966. On the other hand, the average Tobin's q (TOBINQ) is 0.6287, indicating that insurance companies are performing well and achieving good returns with a high market value compared to their total asset value. The standard deviation is 0.2742594, with the lowest TOBINQ value at 0.02 and the highest at 1.33. The data distribution is right-skewed (0.2020859) with a platykurtic kurtosis of 2.81384.

Additionally, the average board size across insurance companies is 6.87, indicating that, on average, the board of directors consists of approximately 7 members. The dispersion among the assessed companies is low (1.962004), and the number of board members can range from 0 to 12. The distribution of this variable is left-skewed (-0.0955557) with a leptokurtic kurtosis of 3.832237. The mean value of board independence is 0.619184, suggesting that 61.9184% of boards of directors are independent non-executive members. This value can range from 33.33% to 85.71% across the insurance companies examined. The distribution of this variable is right-skewed (0.0188259) with a platykurtic kurtosis of 2.895591. Lastly, the mean value of board diversity is 0.166267, indicating that 16.6267% of board members possess diverse skill sets. This value has a low dispersion of 0.1617296, ranging from 0 to 0.8. The shape of the distribution is right-skewed (1.131823) with a leptokurtic kurtosis of 4.414345.

4.2 Board Characteristics and firm performance

4.2.1 Board Characteristics and Tobin's Q

Table 3: RSE Estimate on Effect of Board Characteristics on TQ.

Variables	RSE		
	Coefficient	t-value	p-value
BSIZE	0.0684263	3.72	0.000
BINDE	0.0128668	4.87	0.000
BGEND	0.0026814	2.24	0.027
Constant	-0.6826664	-2.50	0.014
R-Squared	0.3021		
Probability	0.0000		
Wooldridge test	0.2393		
Wald test for heteroskedasticity (p-value)	522.29(0.0000)		
VIF (mean)	1.20		

Source: Author's computation, (2023)

Table 3 displays the outcomes of the multiple regression analysis performed to investigate the causal relationship between board characteristics and firm performance. The study examined board size, board independence, diversity, and return on equity (ROE) as the dependent variables. The Wooldridge test for autocorrelation yielded a value of 0.2393, indicating the absence of first-order autocorrelation. The variance inflation factor (VIF) was well below the threshold of 10, indicating no multicollinearity among the independent variables. To examine the unit root, the Levin-Lin-Chu unit-root test was conducted, and the results indicated p-

values of 0.0001, 0.0000, 0.0000, 0.0000, and 0.0009 for Tobin's q, ROE, board size, independence, and diversity, respectively. These p-values suggest that all variables are stationary at the level. However, the Modified Wald test for heteroskedasticity revealed a p-value of 0.0000, indicating the presence of heteroskedasticity. Therefore, robust standard errors were used to correct for heteroskedasticity.

The R-Squared value is 0.3021, denoting that approximately 30.31% of the variance in the outcome can be accounted for by the model. The f-statistic resulted in a p-value of 0.0000, which is

below the significance level of 0.05, indicating that the model is effective in predicting the outcome. Regarding the individual coefficients, the board size coefficient is 0.0684263, implying that a unit increase in the number of board of directors corresponds to a 6.84263% increase in the value of Tobin's q. Furthermore, the board independence coefficient is 0.0128668, suggesting that a unit increase in the number of independent non-executive

directors results in a 1.28668% increase in Tobin's q. The board diversity coefficient is 0.0026814, indicating that a unit increase in the diversity of backgrounds among board of directors leads to a 0.26814% increase in the value of TQ. All the independent variables have p-values of 0.000, 0.000, 0.027, and 0.014, respectively, signifying that all variables have a statistically significant effect on the dependent variable (TQ).

#### 4.2.2 Board Characteristics and Return on Equity

**Table 4:** RSE Estimate on Effect of Board Characteristics on ROE

Variables	RSE		
	Coefficient	t-value	p-value
BFSIZE	0.0415596	1.59	0.116
BINDE	0.0016989	0.36	0.720
BGEND	0.013593	3.59	0.001
Constant	0.3651811	0.95	0.343
R-Squared	0.1583		
Probability	0.0012		
Wooldridge test for Autocorrelation	0.7675		
Wald test for heteroskedasticity (p-value)	168.84(0.0000)		
VIF (mean)	1.20		

**Source: Author's computation, (2023)**

Table 4 presents the analysis of results regarding the influence of board characteristics on return on equity. The Wald test was employed to assess the homoscedasticity or heteroskedasticity of the variable distribution. The test yielded a t-statistic of 168.84 with a p-value of 0.0000, indicating that the data points exhibit heteroskedasticity. To examine the presence of autocorrelation, the Wooldridge test was conducted, resulting in a value of 0.7675, which is higher than the threshold of 0.05. This suggests that there is no autocorrelation among the independent variables. The variance inflation factor (VIF) was found to be 1.20, indicating the absence of multicollinearity. The R-squared value, which signifies the number of variables and their significant contribution to explaining the variation in the output variable, is 0.1583 with a p-value of 0.0012. This indicates that 15.83% of the variance in the outcome can be explained by the model, and the model is statistically efficient.

The board size coefficient is 0.0415596, and its p-value is 0.116, implying that a unit increase in the total number of board members would result in a 4.15596% increase in return on equity. However, this effect is statistically insignificant. Regarding board independence, the Beta coefficient is 0.0016989, and the associated p-value is 0.720, indicating that a unit increase in the number of independent non-executive directors would lead to a statistically insignificant 0.16989% increase in return on equity. On the contrary, the board diversity Beta coefficient is 0.013593, and its p-value is 0.001, suggesting that a unit increase in board diversity would result in a statistically significant 1.3593% increase in return on equity.

#### 4.3 Discussion of Findings

This research was conducted to investigate the influence of corporate governance and board characteristics on the financial performance of insurance companies listed in Nigeria. The study findings observed that board diversity had a statistically significant and positive effect on both return on equity (ROE) and Tobin's Q. This outcome suggests that insurance firms, having a diverse board of directors serving on the board of the company was associated with better financial performance, as indicated by higher ROE and Tobin's Q values. These findings also suggest that board diversity can contribute positively to the company's financial success and value creation for its shareholders. These observations align with previous research by Umukoro et al. (2019) and Gatehi and Nasieku (2022) among others.

Conversely, board size demonstrated a positive and significant effect on Tobin's Q, but it had a positive effect on return on equity (ROE) which is not statistically significant. This implies that a larger board size was associated with a higher Tobin's Q, indicating a positive impact on the company's market value relative to its assets. In other words, a larger board was linked to greater market value efficiency. On the other hand, the study found that a larger board size had a positive effect on Return on Equity (ROE), but this effect was not statistically significant. This means that while a larger board may contribute positively to ROE, the relationship between board size and ROE was not strong enough to be considered statistically significant. In practical terms, this suggests that the effect of board size on ROE may exist but is relatively weak or uncertain in a statistical

sense. These outcomes support the work of Homaidi et al. (2021) but differ from the findings of Appah and Tebepah (2023) and Bala et al. (2022). These findings are consistent with the *a-priori* expectations.

With regard to board independence, it exerts a positive and significant influence on Tobin's Q, but it shows a positive effect on return on equity (ROE) that is not statistically significant. This means that a higher degree of board independence was associated with a stronger positive impact on Tobin's Q, indicating increased market value efficiency. In other words, when a board is more independent, the company's market value relative to its assets tends to be higher. On the other hand, the study found that board independence had a positive effect on Return on Equity (ROE), but this effect was not statistically significant. This implies that while board independence might contribute positively to ROE, the relationship between board independence and ROE was not strong enough to be considered statistically significant. In practical terms, this suggests that the effect of board independence on ROE may exist but is relatively weak or uncertain in a statistical sense. This finding is consistent with the results of previous studies by Homaidi et al. (2021), Adebayo et al. (2020), Yusuf et al. (2022), and Bala et al. (2022), while contradicting the conclusions of Peter et al. (2022) and Gatehi and Nasieku (2022).

## **5 Conclusion and Recommendations**

This research investigated the impact of corporate governance and board characteristics on the financial performance of Nigerian-listed insurance companies. The findings revealed several significant relationships. Board diversity had a positive and statistically significant effect on both Return on Equity (ROE) and Tobin's Q, indicating that companies with more diverse boards tended to have better financial performance and market value efficiency. Conversely, board size showed a positive and significant influence on Tobin's Q, suggesting that larger boards were associated with higher market value efficiency. However, the positive impact of board size on ROE was not statistically significant. Board independence had a positive and significant effect on Tobin's Q, indicating increased market value efficiency, but its effect on ROE was positive yet not statistically significant. The research results indicate that board diversity and board independence are crucial factors influencing the financial performance and market value efficiency of insurance companies in Nigeria. However, the effect of board size on financial performance, particularly ROE, is less clear. These findings support and build upon previous research in this field.

### **Practical Implications:**

For insurance companies and policymakers, these findings highlight the importance of promoting board diversity and independence as they are positively associated with financial performance and

market value efficiency. While a larger board size might enhance market value efficiency, its impact on ROE is less reliable. It is essential for insurance firms to consider these governance factors in their decision-making processes.

### **Recommendations:**

Based on these findings, it is recommended that insurance companies should actively work on diversifying their boards and ensuring a higher degree of independence among board members. Policymakers should encourage governance regulations that promote diversity and independence within boards. Additionally, further research may be required to better understand the relationship between board size and financial performance in the context of insurance companies.

### **Suggestions for Future Studies:**

Future research in this area could delve deeper into the nuances of board size and its specific impact on various aspects of financial performance. Moreover, exploring the role of corporate governance and board characteristics in different industries and regions may provide a more comprehensive understanding of these relationships. Additionally, investigating the practical implementation of diversity and independence in board structures and its consequences on performance could offer valuable insights for businesses and policymakers.

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### **Disclosure Statement**

The authors declare that there are no competing interests to declare.

### **Data Availability Statement**

The data supporting the findings of this study are available from the corresponding author (Dagunduro, M. E.), upon reasonable request.

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