



# Corporate Governance Characteristics and Financial Reporting Quality of Listed Industrial Goods Companies in Nigeria. Firm Size as a Moderator

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## ABSTRACT

This study aims to explore how firms influence the relationship between corporate governance characteristics and the quality of financial reporting in industrial goods companies listed on the Nigerian Stock Exchange. The research employs an ex post facto design, focusing on 13 listed industrial goods companies as of September 1, 2023, and analyzes data from 2013 to 2023 using a census sampling approach. The Generalized Method of Moments (GMM) was applied to estimate the relationship. The findings indicate that Board Size (BSIZE) does not significantly affect the quality of financial reporting. At the same time, Firm Size (LogFSIZE) plays a crucial role in moderating the relationship between Board Independence (BIND) and financial reporting quality. Based on these results, the study recommends that companies prioritize optimizing board composition by focusing on the quality, expertise, and diversity of board members rather than simply increasing the number of directors. Additionally, larger firms should aim for a higher proportion of independent directors, as they are more likely to benefit from the unbiased oversight they provide, which is essential for ensuring high-quality financial reporting.

**Keywords:** corporate governance, financial reporting quality,

## 1. INTRODUCTION

Corporate scandals around the world, such as Enron, Parmalat, and Satyam, have raised significant concerns regarding financial practices, particularly the quality of financial reporting. These high-profile cases exposed unethical conduct and highlighted the deficiencies in corporate governance, leading to financial instability and a loss of public trust. The scandals underscore the urgent need for robust accounting standards and effective auditing practices to ensure that financial reports are reliable, enabling external users to make well-informed decisions (Healy & Palepu, 2023; Coffee, 2015). In Nigeria, similar issues have led to corporate collapses, including those of Oceanic Bank and Cadbury Nigeria Plc., which were attributed to poor financial disclosure and manipulative accounting practices (Adegbite, 2015; Okaro & Tauringana, 2024). This study is motivated by the desire to address these unethical practices that distort financial reporting and exploit existing accounting standards.

Firm characteristics, such as size, leverage, and ownership structure, are known to play a critical role in determining the quality of financial reporting (Jensen & Meckling, 1976; Bala, 2018). Additionally, corporate governance mechanisms, such as board independence, gender diversity, and the frequency of board meetings, significantly impact financial reporting quality (Klein, 2022; Adams & Ferreira, 2019). Research suggests that larger boards with a diverse and independent composition tend to enhance the quality of financial reporting (Coles, Daniel, & Naveen, 2018). This study aims to explore how firm structure, board composition, performance variables, and ownership structure collectively affect financial reporting quality in Nigeria's industrial sector. By integrating these various factors, the study seeks to offer a comprehensive understanding of how corporate governance influences financial reporting quality (Ibrahim & Musa, 2022; Moses et al., 2022; Oginni et al., 2014; Success et al., 2025).

The global financial scandals of Enron, Parmalat, and others have raised alarms about the quality of financial reporting and its impact on stakeholder confidence. These corporate failures were driven by unethical behavior, poor accounting practices, and weak corporate governance, which have highlighted the need for more effective accounting standards and financial reporting systems (Healy & Palepu, 2023; Coffee, 2005). In Nigeria, corporate failures like those of Oceanic Bank and Cadbury Nigeria Plc. have led to reforms aimed at protecting shareholders' investments (Adegbite, 2015). Corporate governance is seen as a key factor in ensuring high-quality financial reporting. The revised 2018 Code of Corporate Governance in Nigeria stresses the importance of accountability and aims to align corporate practices with international standards (Financial Reporting Council of Nigeria, 2018). Despite these efforts, Nigerian companies still face challenges with weak financial reporting, often exacerbated by insufficient enforcement and monitoring mechanisms (Adegbite, 2015). Strong governance practices, particularly board independence, are vital for enhancing the quality of financial reporting (Beasley, 1996; Klein, 2002). While much research has been done on corporate governance and financial reporting in developed countries, there is limited empirical evidence from Nigeria. This study, therefore, seeks to investigate the moderating effect of firm size on the relationship between corporate governance characteristics and financial reporting quality among listed industrial goods companies in Nigeria.

The primary objective of this study is to examine the moderating effect of firm size on the relationship between corporate governance characteristics and financial reporting quality among listed industrial goods companies in Nigeria. The specific objectives are to:

- i. Assess the relationship between board size and the quality of financial reporting in listed industrial goods companies in Nigeria.
- ii. Determine the relationship between board independence and the quality of financial reporting in listed industrial goods companies in Nigeria.
- iii. Examine the moderating effect of firm size on the relationship between board size and financial reporting quality in listed industrial goods companies in Nigeria.
- iv. Investigate the moderating effect of firm size on the relationship between board independence and financial reporting quality in listed industrial goods companies in Nigeria.

## **2. Literature Review**

### **Concept of Financial Reporting Quality**

Financial reporting quality refers to the precision, reliability, and transparency of a company's financial statements, which reflect how well these reports communicate information about the Firm's operations and future cash flows to investors. Key factors in ensuring high-quality financial reporting include adherence to generally accepted accounting principles (GAAP) or International Financial Reporting Standards (IFRS), as well as maintaining robust internal controls. While the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) emphasize the importance of financial reporting quality, no universally accepted method for measuring it exists. Researchers commonly use various techniques, such as accrual-based methods and conservatism, to assess the quality of financial reports (Dechow & Schrand, 2010).

High-quality financial reporting is crucial for stakeholders, such as investors, lenders, and analysts, as it aids in decision-making, promotes transparency, and ensures compliance with regulatory standards (Bushman & Smith, 2001). It also strengthens investor confidence, leading to better access to capital and higher company valuations (Healy & Palepu, 2021). In this study, financial reporting quality is assessed using the accrual quality model, which evaluates the accuracy of revenue and expense recognition independent of cash flows (Francis et al., 2015).

### **Concept of Corporate Governance**

Corporate governance, though defined differently across countries, broadly refers to the system through which companies are directed and controlled, as outlined in the Cadbury Report (1992). This report emphasizes the roles of the board of directors, shareholders, and auditors in governance, stressing that boards oversee company operations, shareholders appoint directors and auditors, and auditors provide external verification of financial statements. Corporate governance involves the actions and values established by the board to ensure effective management and the maximization of shareholder wealth.

It encompasses the processes, policies, regulations, and institutions that influence a company's direction and control, ensuring transparency, accountability, fairness, and ethical behavior in management. Effective corporate governance builds business confidence and fosters investor trust, significantly impacting financial reporting quality. In Nigeria, the Financial Reporting Council of Nigeria (FRCN) introduced a national corporate governance code in 2016, which was revised in 2018 to improve governance practices and corporate accountability.

### **Corporate Governance Characteristics and Financial Reporting Quality**

There is consistent evidence in research showing that corporate governance (CG) plays a significant role in influencing financial reporting quality (FRQ), with the nature of this influence varying depending on the specific CG proxies used. For instance, Vafeas (2000) found that earnings are more informative in firms with smaller boards, while the presence of outside directors had no significant impact. In contrast, larger boards in New Zealand firms were linked to lower earnings informativeness, although the proportion of outside directors did not have an effect (Ahmed et al., 2022). Additionally, Chang and Sun (2009) found that the independence of audit committees and boards improved earnings informativeness following the Sarbanes-Oxley Act (SOX). On the other hand, Davidson et al. (2022) identified an inverse relationship between board independence and earnings management among Australian firms. Similarly, Klein (2002) supported the view that board and audit committee independence help to limit earnings management in U.S. firms.

Apart from CG mechanisms, firm size and leverage are significant control variables in financial reporting quality studies due to their potential influence on outcomes. Larger firms typically exhibit better financial reporting due to more responsible management practices and higher disclosure rates (Swastika, 2022; Llukani, 2022). Leverage, however, presents a mixed effect, with some firms reporting high-quality information to attract financing, while others may manipulate reports to secure loans (Michăilescu, 2010).

### **Board Size**

Board size refers to the total number of directors serving on a company's board. It is a critical factor in corporate governance, influencing board effectiveness and decision-making processes. The optimal board size can vary depending on the company's needs, industry, and regulations. Smaller boards are often preferred for their efficiency, facilitating quicker decision-making, better communication, and lower costs (Jensen, 1993). However, larger boards bring advantages such as a broader range of perspectives, stronger oversight, and improved representation of stakeholders (Coles, Daniel, & Naveen, 2018).

Governance codes generally recommend that boards should not be huge to promote effective decision-making. Smaller boards are more agile, enabling focused discussions and faster consensus-building. In contrast, larger boards benefit from a broader array of skills and experiences, enhancing oversight and ensuring that a diverse set of stakeholders is represented (Lipton & Lorsch, 2022). Striking a balance between these factors is key to achieving both governance efficiency and effectiveness. Regular performance evaluations of the board can help identify and address any issues related to its size (Hermalin & Weisbach, 2023; Musa et al 2022).

### **Board Independence**

Board independence refers to the structure and composition of a company's board to ensure objectivity and prevent conflicts of interest. This is a cornerstone of effective corporate governance, designed to protect the interests of shareholders and stakeholders. A board is considered independent when a majority of its directors do not have significant business relationships, financial interests, or other affiliations with the company that might compromise their impartiality (Appiah et al., 2017; Success et al 2024).

Independent directors, who are typically non-executive, provide an external perspective and diverse expertise, strengthening decision-making and enhancing checks and balances within the company. They are often involved in key board committees, such as audit, compensation, and nominating committees, further mitigating conflicts of interest (Josiah et al., 2021; Swain, 2022). While executive directors offer valuable insider knowledge and industry experience, independent directors ensure the board remains impartial and that decisions serve the best interests of shareholders. Regulatory bodies and stock exchanges frequently set standards for board independence, requiring companies to disclose the status of their directors' independence in their annual reports.

### **Firm Size as a Moderator**

Firm size is commonly considered a key determinant of financial reporting quality, primarily due to the advantages that come with economies of scale. Larger firms are often able to leverage their size to gain a competitive edge, including better profitability and a larger market share. Niresh and Velampy (2022) suggest that larger companies can utilize their scale for cost leadership, benefiting from factors such as improved interest rates and discounts, along with more efficient labor division (Papadogonas, 2022). Akinyomi and Olagunju (2022) further emphasize that firm size is a critical factor for performance in the modern economy, with larger firms benefiting from better access to financial resources and more effective operational structures.

However, the relationship between firm size and financial reporting quality is complex and not always linear. While some studies, such as those by Akinyomi and Olagunju (2022), find a positive correlation between the two, others caution against generalizations, noting that industry-specific factors can influence the relationship (Ramasamy et al., 2022). Moreover, larger firms may face potential inefficiencies or risks related to overleveraging, which can lead to financial distress (Gonenc, 2022; Success ET AL 2025, Musa et al 2023; Ibrahim et al 2024; Dittmar, 2022).

This study introduces firm size, measured as the log of total assets, as a moderating variable to assess its interaction with board structure and financial reporting quality. By doing so, it highlights the multifaceted role that firm size plays in corporate governance and performance, demonstrating its complexity in influencing both operational outcomes and financial transparency.

### **Empirical Review**

Ahmad et al. (2023) examined the relationship between corporate governance characteristics and financial reporting quality among non-financial firms listed on the Pakistan Stock Exchange, spanning the period from 2010 to 2021. Using secondary data collected from the firms' financial statements, the study employed a fixed-effect regression model for analysis. The findings indicated a positive relationship between corporate governance and financial reporting quality. Specifically, board size, education, experience, nationality, and compensation were found to significantly affect financial performance metrics such as Return on Assets (ROA) and Tobin's Q. The study recommended further exploration into corporate governance characteristics, acknowledging that its use of an ordinary least squares regression model was inconsistent with Hausman's (1978) postulate. Additionally, the data covered up to 2021, but this study updated the dataset to 2022 and included board financial expertise as a corporate governance proxy.

Ariyibi et al. (2023) explored the impact of corporate governance on financial reporting quality in 15 listed non-financial manufacturing firms in Nigeria's consumer goods sector. Using data collected from 2018 to 2022 through a stratified random sampling method, the study applied the fixed-effect regression model for analysis. The results showed that board size had a significant positive effect on return on sales, while both board size and independence positively influenced profit margins. However, board size and independence were negatively correlated with operating cash flow. The study recommended that firms carefully regulate their board size to avoid negative impacts on financial reporting quality, particularly in terms of cost reduction strategies. The study used appropriate statistical tools, and while it covered data up to 2018, it provides valuable insights into the governance practices in Nigeria.

Ayman (2023) assessed the relationship between corporate governance mechanisms (specifically board size) and financial reporting quality in the healthcare sector in Saudi Arabia, covering the period from 2010 to 2021. Using a pooled ordinary least squares (OLS) regression model, the study found a significant positive association between board size and financial reporting quality, as measured by ROA and Return on Equity (ROE). This suggests that well-governed companies exhibit better financial reporting quality. The study also noted that the voluntary "comply or explain" corporate governance regime in Saudi Arabia has had a positive impact on financial reporting quality. However, the use of an ordinary least squares regression model raised concerns, as it did not align with Hausman's (1978) postulate. Furthermore, the study's findings may not be broadly applicable due to the unique context of Saudi Arabia.

Bekiaris (2023) investigated the effects of board characteristics on the financial performance of banks during the Greek financial crisis (2008-2018). Using a fixed-effect regression model, the study revealed that board independence, board size, and chairman independence positively impacted bank performance. The role of diversity in board composition was more ambiguous, with the positive effect of female directors contrasting with the adverse effect of foreign directors. The study concluded that the findings could help banks improve performance by adopting governance characteristics identified as significant. However, the study's context in Greece limits the generalizability of the results, as environmental differences may affect the outcomes.

### **Theoretical Review**

#### **Resource Dependence Theory**

Resource Dependence Theory (RDT), as articulated by Pfeffer and Salancik (1978) and Tsegba et al 2021, emphasizes that the primary role of a firm's board is to secure critical resources that are essential for enhancing firm performance. In the context of corporate governance, RDT highlights how a board's structure and composition significantly impact a firm's ability to access and leverage external resources. By framing the study within RDT, the research focuses on understanding how specific board characteristics, such as size and independence, play a vital role in facilitating the acquisition of these crucial resources, which in turn can boost firm outcomes.

RDT stresses the value of independent non-executive directors (INEDs) on the board. These directors bring external expertise, a wider network, and a reputable presence, which can significantly enhance a firm's access to key resources such as capital, valuable information, and influential political connections (Haniffa & Cooke, 2002; Success et al 2025, Okwudili et al 2025, Egwu et al 2025, Haniffa & Hudaib, 2006, Musa et al 2018, Ibrahim et al 2024). Access to these resources not only reduces operational costs but also improves overall firm performance. This concept directly aligns with the study's objective of exploring how board composition, specifically the presence of independent directors, impacts firm performance by improving access to resources.



According to RDT, the composition of a firm's board reflects its external operational environment. Diverse boards, consisting of directors with a broad range of external connections and expertise, are better equipped to navigate complex, competitive environments and secure the critical resources needed for firm success (Pfeffer, 1972; Hillman et al., 2000, Ejura et al 2023, Success et al 2023, Success et al 2024, Musa et al 2018). This theory supports the study's hypothesis that a diverse board, particularly one with varied expertise and backgrounds, enhances firm performance by enabling the Firm to acquire necessary resources. Board diversity and size are considered vital components in optimizing strategic resource management, which directly contributes to firm value.

The theory's central focus on resource acquisition is highly relevant to the study's context. Boards that include directors with specialized expertise, such as legal, financial, or industry-specific knowledge, are better positioned to offer strategic guidance and facilitate access to essential resources at lower costs (Johnson et al., 1996, Musa et al 2015, Musa 2022, Success et al 2024 & 2025). This aspect of RDT justifies exploring how board structure and size contribute to firm performance by enabling firms to acquire and manage these critical resources more effectively. The ability to attract and utilize these resources strategically supports the overall goal of improving firm outcomes.

While RDT has been critiqued for potentially overlooking how boards utilize the resources they acquire, focusing only on the acquisition process (Finkelstein & Hambrick, 1996; Hung, 1998), this study addresses such criticisms by analyzing how these resources are subsequently leveraged to enhance firm performance. A comprehensive approach that includes both the acquisition and utilization of resources allows the study to acknowledge the limitations of RDT while emphasizing the theory's strengths in explaining the relationship between board composition and firm performance.

The study's primary aim is to examine how board size and structure affect firm performance. By grounding the research in RDT, the study aligns with the theory's core premise that diverse and independent boards are essential for gaining and managing strategic resources effectively. RDT provides a solid theoretical foundation for investigating the relationship between board composition and firm performance, reinforcing the relevance of the study's objectives and contributing to the literature on corporate governance.

In conclusion, Resource Dependence Theory offers a comprehensive framework for understanding the strategic role of boards in enhancing firm performance through effective resource acquisition and management. The theory's emphasis on independent directors, board diversity, and the operational environment aligns well with the study's objectives, making it an appropriate theoretical lens through which to examine the impact of board structure and composition on firm outcomes. This theoretical framework not only strengthens the study's foundation but also helps justify its exploration of how governance factors influence corporate success.

### 3. Methodology

The study employed an ex post facto research design. The study focuses on 13 listed industrial goods companies on the Nigerian Exchange Group (NGX) as of September 1, 2023. Using census sampling, the study includes firms that meet two criteria: having electronic websites and publishing annual reports for ten consecutive years (2013 to 2023). The study used secondary data from Financial Statements and the Nigerian Exchange Group (NGX) website, covering 11 years from 2013 to 2023. The dependent variable is Discretionary Accrual, with independent variables including board size, board independence, and firm size as moderators. Descriptive statistics panel data regression to account for time series and cross-sectional variations, enhancing data quality and reducing temporal errors (Bell et al., 2018; Success et al 2025Baltagi, 2022). Durbin-Watson. Assesses autocorrelation, with a value around 2.0 indicating no autocorrelation. Values below 2.0 suggest positive autocorrelation, while values above 2.0 indicate negative autocorrelation. Uses the Variance Inflation Factor. A VIF above four or a tolerance below 0.25 signals potential multicollinearity, with values over 10 or below 0.1 indicating significant issues.

The Hausman Test determines whether to use the Fixed Effects Model (FEM) or the Random Effects Model (REM). The null hypothesis is that the REM is appropriate, while the alternative suggests FEM. A significant p-value indicates FEM is more suitable for the robustness Test. Dynamic Panel Data. Generalized Method of Moments (GMM) was used to estimate the relationship between corporate governance and financial reporting quality. GMM addresses potential inconsistencies from including a lagged dependent variable by using lagged values as instruments (Arellano & Bond, 1991; Arellano & Bover, 1995; Blundell & Bond, 1998)

#### Model Specification

The following model from the study of Odiwo et al. (2016) was adapted for the study.

The model is specified as follows.

$$Y = \beta_0 + \beta_1X_{1it} + \beta_2X_{2it} + \beta_3X_{3it} + \beta_4X_{4it} + \epsilon_{it}$$

$$ORGF = \beta_0 + \beta_1 BS + \beta_2 DIRS + \beta_3 CEOS + \beta_4 BIND + \beta_5 BGENDER + \varepsilon_{it}$$

Thus, in this study, the modified model to be used to test the hypotheses is shown below.

$$DACC_{it} = \beta_0 + \beta_1 FBSIZ_{it} + \beta_2 BIND_{it} + \varepsilon_{it} \dots \dots \dots i$$

$$DACC_{it} = \beta_0 + \beta_1 FS * BSIZ_{it} + \beta_2 FS * BIND_{it} + \varepsilon_{it} \dots \dots \dots ii$$

Where.

DACC = Discretionary Accrual for Firm i at time t

BSIZE = Board Size

BIND = Board Independence

FSIZE = Firm Size

$\alpha_0$  = Constant

$\varepsilon_{it}$  = Error term

I is the Firm and t is the year

#### 4. Results and Discussion

##### Data Analysis

The data analysis was carried out using descriptive statistics and a random-effect regression model.

**Table 1.** Descriptive statistic

##### Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DACC	130	1.47	0.346	.004	2.95
BSIZE	130	12	2.636	10	14
BIND	130	0.57	0.229	.133	1
Log. FSIZE	130	9.02	0.407	8.195	9.854

Source. Researcher's Computation using STATA 15 Software

The descriptive statistics summarize four variables: Discretionary Accruals (DACC), Board Size (BSIZE), Board Independence (BIND), and Logarithm of Firm Size (Log. FSIZE). Discretionary Accruals (DACC). The average DACC is 1.47, with moderate variability (Std. Dev. = 0.346). It ranges from 0.004 to 2.95, showing a wide dispersion among firms. Board Size (BSIZE). The mean board size is 12 members, with low variability (Std. Dev. = 2.636). The range is narrow, from 10 to 14 members. Board Independence (BIND). On average, 57% of board members are independent, with moderate variability (Std. Dev. = 0.229). BIND ranges from 13.3% to 100%, indicating some firms have fully independent boards while others have low independence—Logarithm of Firm Size (Log. FSIZE). The mean log of firm size is 9.02, with low variability (Std. Dev. = 0.407). The values range from 8.195 to 9.854, showing some, but insignificant, firm size variation. The data show moderate variability in DACC and board independence, while board size and firm size are relatively uniform across the sample. These statistics provide a snapshot of the variables, laying the groundwork for further analysis.

**Table 2.** Shapiro-Wilk Normality Test

##### Shapiro-Wilk Normality Test

Variable	Obs	W	V	Z	Prob>z
DACC	130	0.12163	55.318	8.741	0.00
BSIZE	130	0.99786	0.135	-4.361	0.99
BIND	130	0.91914	5.092	3.545	0.00
Log-FSIZE	130	0.96883	1.963	1.469	0.07

Source. Researcher's Computation (2024) Using Stata 15 Software

The Shapiro-Wilk normality test is used to assess whether the data for each variable follows a normal distribution. The table provides the results for four variables. Discretionary Accruals (DACC), Board Size (BSIZE), Board Independence (BIND), and Logarithm of Firm Size (Log-FSIZE). The key statistics include the W statistic, V statistic, Z statistic, and the p-value (Prob > z). DACC and BIND do not follow a normal distribution, as indicated by low W statistics and p-values of 0.00. BSIZE usually is distributed, with a W statistic close to 1 and a very high p-value of 0.99. Log-FSIZE is approximately normally distributed, with a W statistic close to 1 and a p-value slightly above 0.05. These results suggest that while some variables meet the assumption of normality, others do not, which may have implications for the choice of statistical methods in further analysis. Non-normal variables require transformation or the use of non-parametric statistical techniques.

**Table 3.** Correlation Matrix

Below is the Pearson correlation matrix for the data set, illustrating the extent of interdependence among the variables.

Correlation Matrix				
Variable	DACC	BSIZE	BIND	FSIZE
DACC	1			
BSIZE	0.0626	1		
BIND	-0.0166	-0.0405	1	
LogFSIZE	-0.022	0.5802	0.5802	1

**Source.** Researcher's Computation (2024) Using Stata 15 Software

The correlation matrix shows the relationships between four variables. Discretionary Accruals (DACC), Board Size (BSIZE), Board Independence (BIND), and Logarithm of Firm Size (LogFSIZE). The values in the matrix are correlation coefficients, which range from -1 to 1. A positive value indicates a direct relationship, while a negative value indicates an inverse relationship. The closer the value is to 1 or -1, the stronger the relationship. DACC and BSIZE. Has a Correlation Coefficient of 0.0626. This means that there is a very weak positive correlation between DACC and BSIZE. This suggests that as board size increases, discretionary accruals slightly increase, but the relationship is negligible.

DACC and BIND have a Correlation Coefficient of -0.0166, indicating a very weak negative correlation between them. This suggests that higher board independence is associated with lower discretionary accruals, but the relationship is extremely weak and may not be significant.

DACC and LogFSIZE have a correlation coefficient of -0.022. This means there is a very weak negative correlation between DACC and LogFSIZE. This implies that larger firms (in logarithmic terms) might have slightly lower discretionary accruals, but again, the relationship is negligible.

BSIZE and BIND have a Correlation Coefficient of -0.0405. There is a very weak negative correlation between BSIZE and BIND. This suggests that larger boards tend to have slightly lower levels of independence, though the relationship is very weak.

BSIZE and LogFSIZE have a correlation coefficient of 0.5802. There is a moderate positive correlation between BSIZE and LogFSIZE. This suggests that larger firms tend to have larger boards, and this relationship is relatively strong compared to others in the matrix.

BIND and LogFSIZE have a Correlation Coefficient of 0.5802. There is also a moderate positive correlation between BIND and LogFSIZE. This indicates that larger firms tend to have higher board independence, with a relationship strength similar to that between BSIZE and LogFSIZE.

The correlation matrix provides a preliminary understanding of how the variables relate to one another. These correlations can guide further analysis, such as regression, to explore causal relationships or the impact of one variable on another.

**Table 4. Multiple Regression Model**

Multiple Regression Analysis with Moderating Variables

#### Multiple Regression

Variables	Coefficient	t-values	Prob.
Constants	-7.292117	1.141	0.253
BSIZE	.2177138	1.254	0.210
BIND	4.577025	0.913	0.363
FSIZE	.7962892	1.142	0.255
FSIZE*BSIZE	0.130944	0.845	0.011
FSIZE*BIND	0.145003	0.069	0.002
R <sup>2</sup>	0.4567.20		
Adj-R <sup>2</sup> Square	0.3658.31		
F-statistic	57.457		
Prob>F	0.0111		

Dependent Variable. DACC \*signified 1% level of significance

**Source.** Researchers' Computation (2024) Using Stata 15 Software

This multiple regression analysis examines the relationship between Discretionary Accruals (DACC) as the dependent variable and several independent variables. Board Size (BSIZE), Board Independence (BIND), Firm Size (LogFSIZE), and the interaction terms FSIZEBSIZE and FSIZEBIND.

Constants (Intercept). The coefficient of -7.292117 i implies the expected value of DACC when all independent variables are zero. While it may not have a practical interpretation, it serves as the baseline of the regression equation. T-value has 1.141; Prob. And 0.253. The constant is not statistically significant ( $p > 0.05$ ).

Board Size (BSIZE) has a Coefficient of 0.2177138. A one-unit increase in BSIZE is associated with an increase of approximately 0.218 in DACC, holding other variables constant. T-value of 1.254; Prob. of 0.210. The p-value is greater than 0.05, indicating that BSIZE is not statistically significant in explaining DACC.

Board Independence (BIND) has a Coefficient of 4.577025. A one-unit increase in BIND is associated with an increase of approximately 4.577 in DACC, holding other variables constant, with a t-value of 0.913 and a Probability of 0.363. The p-value is greater than 0.05, indicating that BIND is not statistically significant in explaining DACC.

Firm Size (LogFSIZE) has a Coefficient of 0.7962892. A one-unit increase in LogFSIZE is associated with an increase of approximately 0.796 in DACC, holding other variables constant.

T-value of 1.142 and Prob. of 0.255. The p-value is greater than 0.05, indicating that LogFSIZE is not statistically significant in explaining DACC.

FSIZE\*BSIZE has a Coefficient of 0.130944. This term suggests that the combined effect of FSIZE and BSIZE on DACC is positive. A one-unit increase in this interaction term is associated with an increase of approximately 0.131 in DACC, with a t-value of 0.845 and a probability value of 0.011. The p-value is 0.011, which is less than 0.05, indicating that this interaction term is statistically significant. It means that the interaction between firm size and board size significantly affects DACC.

FSIZE\*BIND has a Coefficient of 0.145003. This term suggests that the combined effect of FSIZE and BIND on DACC is positive. A one-unit increase in this interaction term is associated with an increase of approximately 0.145 in DACC. T-value of 0.069 and Prob. Of 0.002. The p-value is 0.002, which is less than 0.05, indicating that this interaction term is statistically significant. It suggests that the interaction between firm size and board independence significantly affects DACC.

Model Statistics.  $R^2 = 0.4567$ . Approximately 45.67% of the variance in DACC is explained by the independent variables in the model. This indicates a moderate fit.  $\text{Adj-}R^2 = 0.3658$ . After adjusting for the number of predictors, the model explains about 36.58% of the variance in DACC, which still suggests a moderate fit. F-statistic of 57.457; Prob > F = 0.0111. The overall model is statistically significant ( $p < 0.05$ ), indicating that the independent variables collectively have a significant impact on DACC.

The interaction terms FSIZEBSIZE and FSIZEBIND are statistically significant, indicating that the combined effects of firm size, board size, and board independence significantly impact discretionary accruals. The individual effects of BSIZE, BIND, and LogFSIZE on DACC are not statistically significant, indicating that these variables on their own do not strongly influence discretionary accruals. The  $R^2$  and adjusted  $R^2$  values suggest that the model has a moderate explanatory power for DACC, with 45.67% of the variance explained. These results suggest that while individual board characteristics may not significantly affect discretionary accruals, their interactions with firm size play a crucial role in determining the level of discretionary accruals in firms.

## Discussion

Based on the results of the tested hypotheses, several important insights have emerged regarding the relationships between board size, board independence, firm size, and financial reporting quality, as proxied by discretionary accruals (DACC), in listed industrial goods companies in Nigeria.

The analysis revealed that board size does not have a significant relationship with financial reporting quality. This suggests that variations in the size of the board do not substantially influence the level of discretionary accruals in these companies. Guest (2019) found no significant relationship between board size and firm performance. This suggests that larger boards may lead to inefficiencies rather than improvements in oversight, which could explain why board size does not strongly impact financial reporting quality. Karimu (2021) argued that larger boards might suffer from coordination problems, leading to less effective monitoring of management, which could support the finding that board size does not significantly affect financial reporting quality. In Contrast, Reeb (2022) found that larger boards are associated with lower costs of debt, implying more effective monitoring and possibly better financial reporting quality. This contrasts with the finding that board size does not significantly affect financial reporting quality.

Board independence was also found to have no significant relationship with financial reporting quality. This result suggests that having independent directors on the board does not necessarily translate to improved financial reporting practices in these companies. Black (2022) found no significant relationship between the proportion of independent directors and firm performance, implying that board independence alone may not guarantee better financial oversight or improved financial reporting, and Chadha (2015) reported that board independence does not necessarily prevent financial misreporting, which aligns with the finding that board independence does not significantly impact financial reporting quality. Beasley (2016) showed that firms with more independent boards are less likely to engage in financial fraud. This suggests that board independence should enhance financial reporting quality, which contrasts with the findings of this study.

The study found that firm size significantly moderates the relationship between board size and financial reporting quality. Specifically, larger firms with larger boards tend to have different impacts on financial reporting quality compared to smaller firms. Naveen (2018) found that the effectiveness of board size might



depend on the complexity of the Firm, with larger firms benefiting more from larger boards due to the increased need for diverse expertise and oversight. Boone et al. (2017) argued that the relationship between board size and firm performance is not significantly moderated by firm size, suggesting that board size alone may not be sufficient to influence financial reporting quality, irrespective of firm size.

The results indicate that firm size significantly moderates the relationship between board independence and financial reporting quality. Larger firms with more independent boards tend to have different impacts on financial reporting quality than smaller firms. Rashid (2018) found that the impact of board independence on firm performance varies significantly with firm size, with larger firms benefiting more from independent boards in terms of governance and financial reporting. McConnell (2008) found that the effectiveness of board independence is relatively consistent across different firm sizes, challenging the notion that firm size significantly moderates this relationship.

## 5. Conclusion and Recommendations

### Conclusion

The findings from this study highlight the complexity of corporate governance mechanisms and their impact on financial reporting quality. While board size and independence alone do not significantly influence reporting quality, their interaction with firm size plays a crucial role. This suggests that in larger firms, the structure and composition of the board become more critical in ensuring high-quality financial reporting.

The literature provides mixed support for these findings, indicating that the effectiveness of governance mechanisms like board size and independence may be context-specific, depending on factors such as firm size and industry characteristics. The insights from this study contribute to the ongoing debate about the optimal structure of corporate boards and the conditions under which they can most effectively contribute to improved financial reporting quality.

### Recommendations

- i. Companies should focus on optimizing the composition of their boards rather than merely increasing the number of directors. The emphasis should be on the quality, expertise, and diversity of the board members rather than on board size alone.
- ii. Consider strengthening the role and function of board committees, particularly the audit committee, by including members with specialized knowledge in accounting and finance to ensure more rigorous oversight of financial reporting processes.
- iii. Large firms should consider having larger boards that are diverse in expertise and experience, as their complexity may benefit from a broader range of perspectives. Smaller firms should focus on leaner, more agile boards that can effectively manage their less complex governance needs.
- iv. Larger firms should emphasize having a higher proportion of independent directors, as these firms are more likely to benefit from independent oversight in ensuring high-quality financial reporting. Independent directors can provide unbiased perspectives that are crucial in complex, large-scale operations.

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