

## Does board size, audit firm tenure, and audit firm size affect audit quality of listed companies in Nigeria?

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### Abstract

**Purpose:** The study examined the determinants of audit quality among listed oil and gas, agriculture, and natural resources firms in Nigeria by assessing the influence of board size, audit firm tenure, and audit firm size. The study was anchored on agency theory and resource dependency theory to explain how governance structures and auditor characteristics shape audit quality outcomes.

**Methodology:** An ex-post facto research design was adopted, using secondary data obtained from all 19 listed firms of the sectors under study in Nigeria over a ten-year period (2014–2023). The dataset was analyzed using Panel Generalized Least Squares (PGLS) regression to determine the extent to which board size, audit firm tenure, and audit firm size impact audit quality.

**Results and Conclusion:** The study shows that board size, audit firm tenure, and audit firm size each have positive and significant effects on audit quality. Larger boards enhance oversight, longer auditor–client relationships strengthen audit understanding, and larger audit firms provide superior expertise and resources. Overall, these factors are key determinants of audit quality in Nigeria’s oil and gas, agriculture, and natural resources sector.

**Implication of Findings:** The findings suggest that stronger governance structures—through adequately sized boards, optimal auditor tenure, and the use of reputable audit firms—can significantly improve audit quality. These insights support policy and regulatory efforts aimed at enhancing the credibility of financial reporting in Nigeria’s primary goods sector.

**Keywords:** Audit quality, Board size, Audit firm tenure, Audit firm size, Natural resources firms, Nigeria.

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### 1. Introduction

Auditing enhances stakeholder confidence by ensuring that financial statements comply with reporting standards and present a true and fair view (IAASB, 2022). High audit quality requires sufficient and appropriate evidence, professional judgment, and adherence to ethical principles such as integrity, objectivity, and skepticism (Knechel, 2016). However, evaluating audit quality is complex, as it depends on subjective judgments, varying stakeholder perceptions, and limited transparency (Francis, 2011).

Likewise, in Nigeria, external auditors are appointed under the Companies and Allied Matters Act (2020) to provide independent assurance on the accuracy and fairness of financial statements, assess internal controls, and ensure compliance with applicable regulations (Olabisi et al., 2020). Corporate scandals such as the 2024 revocation of Heritage Bank’s license by the Central Bank of Nigeria have underscored the importance of determinants like audit-firm size, board size, and audit firm tenure (Oladejo et al., 2025). Regulatory bodies, including the IAASB (2014) and the Financial Reporting Council of Nigeria (2018), have issued pronouncements highlighting that adequate board size, sufficient audit-firm capacity, and appropriate auditor tenure are critical for ensuring audit quality. These requirements are particularly relevant for agriculture, natural resources, and oil and gas firms, where strong governance and robust external audit oversight are essential due to sector-specific risks.

While prior Nigerian studies have focused on specific sectors such as banking, insurance, and consumer goods (John & Abimbola, 2022; Olabisi et al., 2020), this study adopts a multi-sectoral approach. It

examines how recent regulatory changes and technological advancements influence traditional determinants providing broader insights into audit quality among Nigerian listed companies.

Audit quality is essential for maintaining stakeholder confidence and ensuring credible financial reporting (Emovon & Ogbonmwan, 2024). However, recurring corporate failures such as Intercontinental Bank Plc, Oceanic Bank Plc, and Parmalat Nigeria have raised concerns about its effectiveness (Oladejo et al., 2025). Regulators have highlighted key determinants—including audit firm size, board size, and auditor tenure—as critical for safeguarding audit quality (IAASB, 2014; Financial Reporting Council of Nigeria, 2018), yet empirical findings on their impact remain mixed (Enofe et al., 2013; Gul et al., 2003; Olabisi et al., 2020). Prior Nigerian studies have largely focused on specific sectors, limiting the generalizability of results (John & Abimbola, 2022; Oladejo et al. 2025).

Emerging regulatory reforms and digital technologies introduce new dynamics that may influence audit quality, but limited research has explored their combined effects. This study addresses these gaps by adopting a multi-sectoral approach to examine how traditional determinants of audit quality interact with evolving regulatory and technological contexts across Nigerian listed oil and gas, natural resources, and agricultural companies, providing insights for both policymakers and practitioners.

## **2. Literature review**

### ***Audit quality***

Audit quality refers to how well an audit complies with auditing standards, ethical codes, and laws, ensuring financial statements are accurate and reliable (Knechel et al., 2013; IAASB, 2022). It depends on auditor competence—expertise and judgment—and auditor independence—freedom from bias. High-quality audits boost transparency, protect investors, and support market stability. In Nigeria, audit quality is overseen by the Financial Reporting Council (FRCN), Corporate Affairs Commission (CAC), and governed by the Companies and Allied Matters Act (CAMA).

### ***Board size***

Board size refers to the total number of directors serving on a company's board, reflecting the structure and capacity for oversight and governance (Abdullahi et al., 2025). Ikeji et al. (2024) define board size as the number of individuals responsible for monitoring management, providing strategic guidance, and ensuring accountability. Uwhejevwe-Togbolo et al. (2023) conceptualize it as a mechanism through which organizations access critical resources, expertise, and legitimacy, highlighting the board's role in linking the firm to its external environment. Oladejo et al. (2025) further emphasizes that board size influences the balance between diverse expertise and decision-making efficiency, noting that overly small boards may lack adequate skills and perspectives, whereas excessively large boards may experience coordination and communication challenges. Consistent with OECD (2015) principles, board composition and size remain fundamental to promoting effective governance and safeguarding audit quality.

### ***Audit firm size***

Audit firm size, typically distinguishing large international networks (such as Deloitte, PwC, EY, and KPMG) from smaller local firms, is a key factor influencing audit quality. Recent studies define audit firm size as the capacity of an audit firm to provide sufficient expertise, resources, and oversight to ensure reliable financial reporting (Oladejo et al., 2025; Ikeji et al., 2024). Larger firms are better positioned to deploy specialized staff, implement robust quality-control mechanisms, and manage complex audits, whereas smaller firms may offer more personalized services but can face challenges in handling audits

of high complexity or scale (Uwhejevwe-Togbolo et al., 2023; Olabisi et al., 2020). The size of the audit firm therefore plays a critical role in safeguarding audit quality and maintaining stakeholder confidence.

### ***Auditor firm tenure***

Auditor tenure refers to the length of time an audit firm has continuously engaged with a client, representing the duration of the auditor–client relationship (Tahir et al., 2024). Recent literature describes tenure as a key governance attribute that shapes the auditor’s accumulated knowledge of a client’s operations, internal controls, and financial reporting environment (Oladejo et al., 2025; Ikeji et al., 2024). Moderate tenure can enhance audit quality by improving audit efficiency and strengthening the auditor’s understanding of firm-specific issues. However, excessively long tenure may create familiarity threats that undermine independence and reduce professional skepticism (Uwhejevwe-Togbolo et al., 2023). Olabisi (2024) explains that auditor tenure influences auditor objectivity and the credibility of assurance outcomes, emphasizing the need for regulatory safeguards – such as mandatory audit rotation – to strike a balance between accumulated knowledge and the preservation of auditor independence.

### ***Theoretical framework***

Agency cost theory (Jensen & Meckling, 1976) highlights conflicts from ownership-control separation, leading to monitoring costs. Audit quality determinants – audit firm size, board size, and tenure, committee expertise, and firm complexity – influence monitoring effectiveness. Larger audit firms reduce agency costs via better resources and independence (Francis, 2004; DeAngelo, 1981), while optimal board size balances oversight and efficiency (Jensen, 1993; Coles et al., 2008). Balanced tenure retains knowledge without compromising independence (Ghosh & Moon, 2005; Johnson et al., 2002), and skilled audit committees improve misstatement detection (Carcello et al., 2006). Complex firms need expert auditors to curb opportunism, and quality audits reduce agency costs by ensuring reliable reporting (Healy & Palepu, 2001).

The theory of inspired confidence (Limperg, 1920s) posits that auditing exists to meet stakeholders’ expectations for credible, independent financial assurance (Mawutor et al., 2019). Failure to meet these expectations erodes trust and the profession’s social relevance. Determinants such as audit firm size, board size, tenure, audit committee expertise, complexity, and agency cost influence public confidence. Larger firms and expert committees align with expectations for independence and accuracy, while appropriate tenure, effective oversight, and competent handling of complexity sustain credibility (Saleh, 2011). High-quality audits thus maintain societal trust in financial reporting.

Resource dependency theory (pfeffer & salancik, 1978) views firms as reliant on external resources including audit quality for legitimacy and stability. Large audit firms (Okoye et al., 2022) and optimal tenure (Asogba et al., 2024) provide technical expertise and institutional knowledge, while balanced board size (Jeroh & Ozegbe, 2023) enhance strategic oversight. Auditor independence (Yayangida et al., 2023) serves as a critical external resource, and high audit quality mitigates agency problems by reinforcing stakeholder confidence (Olowookere et al., 2023). Nigerian listed firms strategically choose governance and audit mechanisms to secure these resources, enhance assurance credibility, and reduce information asymmetry.

### ***Board size and audit quality***

Empirical studies show that board size is an important determinant of audit quality. Umar et al. (2025), examining 40 UK listed banks, found that well-structured and adequately sized boards significantly enhanced audit quality by strengthening monitoring and improving reporting credibility. Evidence from

emerging markets supports this view. Ikeji et al. (2024) argue that larger boards provide broader expertise for effective oversight, while Uwhejevwe-Togbolo et al. (2023) note that appropriately sized boards offer access to diverse resources that enhance audit processes. Oladejo et al. (2025) caution, however, that very small boards may lack necessary skills, whereas excessively large boards can face coordination challenges, both of which may impair audit quality.

Overall, findings suggest that board size influences audit quality depending on its balance of expertise, oversight capacity, and efficiency. Accordingly, the following hypothesis is highlighted:

H1: Board size has no significant effect on audit quality of listed firms in Nigeria.

#### ***Audit firm size and audit quality***

Evidence from prior studies consistently shows that audit firm size plays a significant role in determining audit quality. Tran et al. (2025), using 762 firm-year observations from Vietnamese listed companies, found that Big 4 auditors were associated with lower discretionary accruals, indicating superior audit quality driven by greater expertise, independence, and reputational incentives. Evidence from Nigeria reflects a similar trend. Monye-Emina and Jeroh (2022) reported a significant positive relationship between audit firm size and audit quality in the banking sector, while Bani (2021) found that Big 4 auditors enhanced audit quality among oil and gas firms.

However, some studies reveal mixed outcomes. John and Abimbola (2022) observed a positive but insignificant effect in the consumer goods sector, whereas Olabisi et al. (2020) reported a significant effect in the insurance industry. Overall, the literature suggests that larger audit firms generally deliver higher audit quality due to superior resources, technical capacity, and stronger monitoring structures, although sectoral differences may influence the magnitude of this effect. Based on these insights, the following hypothesis is proposed:

H2: Audit firm size has no significant effect on audit quality of listed firms in Nigeria.

#### ***Audit firm tenure and audit quality***

Auditor tenure, defined as the length of the auditor-client relationship, is a key factor influencing audit quality, though empirical findings are mixed. In Nigeria, Miebi and Akpoveta (2023) examined deposit money institutions between 2012 and 2021 and found that prolonged tenure negatively affected audit quality, recommending stronger regulatory oversight and periodic rotation to safeguard independence. Olabisi et al. (2020) similarly found that audit tenure significantly influenced audit quality in insurance companies, highlighting the risks of excessive familiarity. In contrast, John and Abimbola (2022) found no significant effect of tenure on audit quality in Nigerian consumer goods firms, while Okeke (2021) reported similar results in the service sector. Evidence from Indonesia by Martani et al. (2021) also indicated that tenure alone does not determine audit quality, suggesting that governance and institutional factors are equally important.

These studies collectively suggest that moderate auditor tenure may improve audit quality through enhanced client knowledge and familiarity with internal controls, whereas excessive tenure can undermine independence and professional skepticism. The mixed findings underscore the need to balance tenure with regulatory safeguards to maintain reliable and credible audits.



Based on this review, auditor tenure is expected to influence audit quality through its effect on auditor independence, objectivity, and familiarity with the client. Accordingly, the following hypothesis is proposed:

H3: Auditor tenure has no significant effect on audit quality of listed firms in Nigeria.

### 3. Methodology

The study employed a quantitative, ex-post facto design, using historical financial data to examine the effect of the independent variables on the dependent variable (audit quality) without manipulating them. The study covered all 19 listed companies in the agriculture, oil and gas, and natural resources sectors of the Nigerian Exchange Group, comprising oil and gas (10), agriculture (5), and natural resources (4), over the period 2014 to 2023. The classification of these firms aligns with Obi (2018), who identified oil and gas, agriculture, and natural resources as the core components of Nigeria's primary sector. Given their capital-intensive nature and heavy regulation, these sectors demand transparent financial reporting and complex audits, making them suitable for investigating the determinants of audit quality, including board size, audit firm tenure, audit firm size, audit independence, audit committee meetings, and agency cost. To ensure comprehensive coverage and robust generalizability across diverse governance structures and risk profiles, a census sampling technique was adopted to include all companies in the population. This study relied solely on secondary data obtained from NGX publications and the annual reports (including notes) of the selected listed firms in Nigeria. The model specification for the study is:

$$AUDQ_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 AFT_{it} + \beta_3 AFZ_{it} + E_{it} \quad (1)$$

Where: Dependent Variables: Audit quality (AUDQ) is measured in the study as logarithm of audit fees  
Independent Variables: Board Size (BSIZE): Total Number of members that make up the board of directors. Audit Tenure (AFT): measured in terms of number of years spent as auditor for sample companies. Audit Firm Size (AFZ): dummy variable, 1 if the company is audited by one of the Big 4 audit firms (Akintola Williams Deloitte, PricewaterhouseCoopers, Ernst and Young, KPMG) and 0 if otherwise. ,  $\beta_0$  = Constant term (intercept);  $\beta_{it}$  = Coefficients to be estimated for firm  $i$  in period  $t$ ;  $E_{it}$  = Error term/unexplained variable(s) for firm  $i$ , in period  $t$ . A priori expectation:  $\beta_1$  (+),  $\beta_2$  (+/-),  $\beta_3$  (+).

**Table 1: Description of measurements of the variables and literature**

Variables	Measurement	A priori Expectation	Source
Audit Quality	Log of Audit Fees	Nil	Hoitash et al. (2007), Kanakriyah (2020)
Board Size	Total Number of members that make up the board of directors	+	Akosile et al. (2021)
Audit firm Tenure	Measured in terms of number of years spent as auditor for sample firms. If greater than 3, we assign 1, else 0	+/-	Enofe et al. (2013)
Audit Firm Size	Measured with dummy variable, 1 if the company is audited by one of the Big 4 audit firms (Akintola Williams Deloitte, PricewaterhouseCoopers, Ernst and Young, KPMG) and 0 if otherwise	+	Enofe et al. (2013)

Source: Researcher's compilation (2025).

The study employed panel generalized analysis to address heteroskedasticity and serial correlation in panel data. Descriptive statistics summarized variables, Pearson correlation and VIF tested multicollinearity, the Breusch-Godfrey LM test checked serial correlation, and the ARCH test assessed heteroskedasticity. Analyses were conducted in EViews 10 at a 5% significance level.

#### 4. Results and discussion

**Table 2: Descriptive statistics**

	AQ	BSIZE	AFT	AFZ
Mean	4.101	7.779	7.111	0.584
Median	4.301	7.000	6.000	1.000
Maximum	5.740	15.000	19.000	1.000
Minimum	0.000	4.000	1.000	0.000
Std. Dev.	0.877	1.966	4.712	0.494
Skewness	-2.009	0.616	0.679	-0.342
Kurtosis	10.772	3.911	2.532	1.117
Jarque-Bera	606.100	18.578	16.353	31.775
Probability	0.000	0.000	0.000	0.000
Observations	190	190	190	190

**Source:** Researchers' Compilation (2025).

Descriptive statistics (Table 4.1) show that average audit quality (AQ), measured as the log of audit fees, is 4.101 (SD = 0.877), with values ranging from 0.000 to 5.740, indicating moderate variability and non-normality ( $p < 0.01$ ). Board size (BSIZE) averages 7.78 members (SD = 1.97), ranging from 4 to 15, with near-normal distribution. Audit firm tenure (AFT) averages 7.11 years (SD = 4.71) and is non-normally distributed. Audit firm size (AFZ) shows 58% of firms engaged Big 4 auditors.

**Table 3: Correlation matrix**

	AQ	BSIZE	AFT	AFZ
AQ	1.000			
BSIZE	0.126	1.000		
AFT	-0.058	-0.057	1.000	
AFZ	0.502	0.183	-0.205	1.000

**Source:** Researchers' Compilation (2025).

The correlation results show that board size has a weak positive relationship with audit quality (0.126), suggesting only a minor contribution to improved oversight. Audit firm tenure exhibits a weak negative correlation (-0.058), implying that longer auditor-client relationships may slightly reduce independence and audit quality. Audit firm size demonstrates a moderate positive correlation (0.502), indicating that larger audit firms are more strongly associated with higher audit quality due to their expertise, resources, and reputational incentives. Overall, audit firm size appears to be the most influential determinant of audit quality among the variables.

**Table 4: Variance inflator factor estimates**

Variable	Variance Inflation Factors	
	Coefficient Variance	Centered VIF
C	0.063	NA
BSIZE	0.001	1.035
AFT	0.000	1.044
AFZ	0.014	1.077

**Source:** Researchers' Compilation (2025).

The Variance Inflation Factor (VIF) results indicate that all variables (BSIZE = 1.03, AFT = 1.04, AFZ = 1.08) are well below the common threshold of 10, and even the stricter threshold of 5. This shows that multicollinearity is not a concern in the model, as the independent variables are not highly correlated with each other. Hence, the regression estimates can be considered stable and reliable.

**Table 5: Diagnostic test estimates**

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	69.018	Prob. F(2,184)	0.000
Obs*R-squared	81.441	Prob. Chi-Square(2)	0.000
Heteroskedasticity Test: ARCH			
F-statistic	78.779	Prob. F(1,187)	0.000
Obs*R-squared	56.021	Prob. Chi-Square(1)	0.000
Ramsey RESET Test			
Specification: AQ C BSIZE AFT AFZ			
Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	1.488	185	0.139
F-statistic	2.214	(1, 185)	0.139
Likelihood ratio	2.260	1	0.133

**Source:** Researcher's Computation (2025).

The Breusch-Godfrey test ( $F = 69.018$ ,  $\chi^2 = 81.441$ ,  $p = 0.000$ ) confirms **serial correlation**, while the ARCH test ( $F = 78.779$ ,  $\chi^2 = 56.021$ ,  $p = 0.000$ ) indicates **heteroskedasticity**. However, the Ramsey RESET test ( $F = 2.214$ ,  $t = 1.488$ ,  $p = 0.139$ ) shows no evidence of misspecification. This implies the model is correctly specified but requires robust or GLS estimators to address the identified violations.

**Table 6: Panel least squares regression estimates**

Dependent Variable: AQ				
Method: Panel EGLS (Cross-section weights)				
R-squared	0.975	Durbin-Watson stat	1.822	
Adjusted R-squared	0.972	F-statistic	310.764	
S.E. of regression	0.374	Prob(F-statistic)	0.000	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.362	0.068	49.815	0.000
BSIZE	0.073	0.009	7.723	0.000
AFT	0.015	0.002	7.162	0.000
AFZ	0.116	0.024	4.873	0.000

**Source:** Researcher's compilation (2025).

The results show a strong model fit, with  $R^2 = 0.975$  and Adj.  $R^2 = 0.972$ , indicating that 97% of variations in audit quality are explained by the predictors which is in line with the study of Uwhejevwe-Togbolo et al. (2023) that replicated  $R^2$  of 0.914. The model is highly significant ( $F = 310.764$ ,  $p = 0.000$ ) with a low error term (S.E. = 0.374). The Durbin-Watson value of 1.822 suggests no serious autocorrelation, confirming the model's reliability.

### ***Test of hypothesis***

The hypotheses were tested at 5% of the level of significance.

H1: Boards Size has no significant effect on Audit Quality (AUDQ) of listed firms in Nigeria. Board size has a **positive and statistically significant effect** on audit quality ( $\beta = 0.073$ ;  $p < 0.000$ ). This indicates that an increase in the number of board members is associated with higher audit quality. Larger boards may enhance oversight governance, which could lead to the engagement of higher-quality (and costlier) audit services.

H2: Audit Firm Tenure has no significant effect on Audit Quality (AUDQ) of listed firms in Nigeria. Audit firm tenure exerts a positive and significant effect on audit quality ( $\beta = 0.015$ ;  $p < 0.000$ ). This implies that longer auditor-client relationships are linked to improved audit quality, possibly due to increased auditor familiarity with the client's operations and risk profile.

H3: Audit Firm Size has no significant effect on Audit Quality (AUDQ) of listed firms in Nigeria. Audit firm size has a **strong positive and statistically significant effect** on audit quality ( $\beta = 0.116$ ;  $p < 0.000$ ). Engaging larger audit firms (typically Big 4) is associated with higher audit fees, reflecting the perception of better audit quality and reputation.

### ***Discussion of findings***

This study investigated the determinants of audit quality among listed primary goods firms in Nigeria's oil and gas, agriculture, and natural resources sectors from 2014 to 2023. Guided by the tenets of Agency Theory and Resource Dependency Theory, the analysis sought to understand how board and auditor characteristics influence the quality of the audit function. The findings reveal that board size, audit firm tenure, and audit firm size are significant drivers of audit quality, thereby affirming the study's core theoretical propositions. The analysis revealed that board size has a positive and statistically significant effect on audit quality ( $\beta = 0.0725$ ;  $p < 0.000$ ). This finding strongly aligns with the principles of Resource Dependency Theory, which posits that larger boards provide a wider pool of expertise, networks, and monitoring capacity. A more numerous board can enhance oversight of governance by bringing diverse perspectives to the evaluation of financial reporting and the selection of auditors. This result corroborates the findings of Umar et al. (2025) study of UK banks, found that effective board size significantly enhanced audit quality. The consistency of this finding across different jurisdictions and sectors underscores the universal importance of a robust, well-composed board as a cornerstone of strong corporate governance and, by extension, high audit quality. It suggests that in the complex and high-risk primary goods sector in Nigeria, a larger board is perceived as a mechanism to reduce information asymmetry and demand greater accountability from management, ultimately leading to the engagement of higher-quality audit services.

Furthermore, audit firm tenure was found to exert a positive and significant effect on audit quality ( $\beta = 0.0151$ ;  $p < 0.000$ ). This indicates that longer relationships between a firm and its auditor are associated with improvements in audit quality. This can be attributed to the auditor gaining deeper, client-specific



knowledge over time, which enhances their ability to identify risks, assess internal controls, and detect material misstatements. This finding, however, presents a nuanced position within the existing literature. It contrasts with the results of Miebi and Akpoveta (2023) in the Nigerian banking sector, who found a significant negative effect, and with John and Abimbola (2022) and Okeke (2021), who found no significant relationship. This divergence highlights the contingent nature of audit tenure's impact, which may be shaped by industry-specific factors. The primary goods sector, with its complex accounting for reserves, biological assets, and environmental provisions, may benefit more from auditor familiarity and specialized, accumulated knowledge than sectors with simpler transactions. However, this finding also underscores the critical need for safeguards, as the positive effects of familiarity must be balanced against the potential threats to auditor independence posed by excessively long tenures.

Most prominently, the results demonstrate that audit firm size has a strong positive and statistically significant effect on audit quality ( $\beta = 0.1160$ ;  $p < 0.000$ ). This is the most powerful relationship identified in the model, confirming that engaging large, typically Big 4, audit firms is a key determinant of high audit quality. This finding is overwhelmingly consistent with a global consensus in the literature. It strongly supports the findings of Tran et al. (2025) in Vietnam, Monye-Emina and Jeroh (2022) in Nigerian banks, and Bani (2021) in Nigerian oil and gas firms. From an Agency Theory perspective, hiring a Big 4 auditor serves as a powerful signal to shareholders and other stakeholders that management is committed to stringent financial reporting and transparency, thereby reducing agency costs. These large firms possess greater technical resources, industry-specific expertise, and, crucially, have more significant reputational capital at stake, which provides a strong incentive to maintain high audit standards and resist client pressure. The result validates the market's perception of large audit firms as providers of superior audit quality, particularly in a high-stakes sector like primary goods.

Finally, the discussion of findings affirms that robust governance structures, in the form of larger boards, and the selection of high-caliber auditors, characterized by their size and the benefits of tenure-driven familiarity, are pivotal in enhancing audit quality within Nigeria's listed primary goods sector. The results largely align with international evidence while also highlighting the specific contextual factors, such as industry complexity, that can influence these relationships.

## **5. Conclusion**

This study examined the determinants of audit quality among listed primary goods firms in Nigeria, specifically focusing on board size, audit firm tenure, and audit firm size, using agency and resource dependency theories as the guiding framework. Employing an ex-post facto research design and analyzing secondary data from all 19 listed firms in the primary goods sector (2014–2023) through Panel Generalized Least Squares (PGLS) regression, the study explored how governance and auditor characteristics influence audit quality. The findings indicate that board size has a positive and statistically significant effect on audit quality, suggesting that larger boards provide diverse perspectives, strengthen oversight, and enhance the likelihood of engaging reputable and high-quality audit services. Similarly, audit firm tenure exhibits a positive and significant effect, implying that longer auditor-client relationships improve audit quality, likely due to auditors' deeper familiarity with the firm's operations and risk profile. Most notably, audit firm size shows a strong positive and statistically significant relationship with audit quality, indicating that larger, well-resourced firms (particularly Big Four auditors) enhance audit reliability, technical capacity, and reputational assurance.

These results underscore the importance of effective board structures and the engagement of reputable, technically competent auditors in promoting high-quality financial reporting. While other variables such

as audit independence, audit committee meetings, and agency costs were considered, board characteristics and auditor attributes emerged as the most critical drivers of audit quality in the Nigerian primary goods sector. Overall, the study concludes that board size, audit firm tenure, and audit firm size are key determinants of audit quality, highlighting the need for firms and regulators to prioritize strong governance mechanisms and the engagement of capable audit firms to ensure credible and transparent financial reporting in Nigeria's primary sector. It recommends thus:

- i. Given the positive and significant effect of board size on audit quality, it is recommended that listed primary goods firms maintain a sufficiently large and diverse board to ensure effective oversight and robust governance. Boards should include members with complementary skills and experience in finance, auditing, and risk management. Regulators could consider setting minimum board size requirements that balance decision-making efficiency with competence, thereby enhancing the credibility and quality of audits.
- ii. Since audit firm tenure positively influences audit quality, firms should aim to cultivate optimal auditor-client relationships that allow auditors to understand the firm's operations deeply while preserving independence. Policies on periodic auditor or partner rotation are advised to avoid over-familiarity, mitigate risks of complacency, and sustain objectivity. Regulators could recommend a tenure period of around five years, balancing the benefits of experience with the need for fresh oversight perspectives.
- iii. The strong positive effect of audit firm size on audit quality highlights the importance of engaging reputable, well-resourced audit firms, particularly Big Four firms. Larger firms bring technical expertise, industry-specific knowledge, and reputational incentives for high-quality audits. It is recommended that firms prioritize engaging large and reputable auditors for public interest entities and complex, capital-intensive operations. Regulators may consider accreditation and oversight mechanisms to encourage the use of qualified audit firms in critical sectors.
- iv. While board size, audit firm tenure, and audit firm size are primary drivers, firms should also strengthen other governance mechanisms, including audit committee effectiveness, internal controls, and adherence to professional standards. Continuous professional development for board members and auditors is recommended to maintain high-quality financial reporting. Additionally, regulators should enforce robust corporate governance codes, ensuring that firms uphold transparency, accountability, and audit integrity across all primary goods sectors.

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## Appendix

### 1. Panel Generalized Least Square Regression Result

Dependent Variable: AQ

Method: Panel EGLS (Cross-section weights)

Date: 10/03/25 Time: 23:56

Sample: 2014 2023

Periods included: 10

Cross sections included: 19

Total panel (balanced) observations: 190

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.361808	0.067486	49.81511	0.0000
BSIZE	0.072520	0.009382	7.729848	0.0000
AFT	0.015081	0.002106	7.162391	0.0000
AFZ	0.115964	0.023800	4.872460	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.974903	Mean dependent var		15.70087
Adjusted R-squared	0.971766	S.D. dependent var		12.52978
S.E. of regression	0.374232	Sum squared resid		23.52828
F-statistic	310.7637	Durbin-Watson stat		0.924183
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.770660	Mean dependent var		4.100920
Sum squared resid	33.34885	Durbin-Watson stat		1.821673