OPEN ACCESS
World Journal of Economics, Business and Management
ISSN: 3049-2181 | Vol. 3, No. 11, Nov, 2026
Website: https://wasrpublication.com/index.php/wjebm

Audit Quality and the Financial Performance of Listed Agricultural Firms in Nigeria

Shuaibu Hamzah Oricha (PhD)[1*], Usman Momoh Jimoh[2]

Department of Accounting, University of Abuja, Nigeria.

Received: 01/09/2026 | Revised: 22/09/2026 | Accepted: 15/10/2026 | Published: 05/11/2026

Abstract: This study investigates how audit quality shapes the financial performance of agricultural firms quoted on the Nigerian Exchange Group. Drawing on Agency Theory, it isolates four widely used audit quality proxies — audit firm size, audit tenure, audit fees, and auditor independence — and tests their effect on Return on Assets (ROA) over the period 2016–2025. An ex-post facto design was adopted, and a census of the five agricultural firms listed on the Exchange yielded a balanced panel of 50 firm-year observations from published annual reports and audited financial statements. Descriptive statistics, correlation analysis, and diagnostic checks for multicollinearity and heteroskedasticity preceded pooled ordinary least squares estimation. The results show that audit firm size, audit fees, and auditor independence exert positive and statistically significant effects on ROA, whereas audit tenure, though positively signed, is insignificant. The model explains about 60% of the variation in firm performance and is jointly significant. The study concludes that credible, well-resourced, and independent external audits strengthen reporting quality and support superior financial performance. It recommends that agricultural firms engage reputable audit firms, remunerate audits adequately, and institutionalize safeguards for auditor independence.

Keywords: audit firm size; audit tenure; audit fees; auditor independence; return on assets; Nigeria

JEL Classification: M41; M42; Q14.

1.0 Introduction

Background

When owners hand day-to-day control to managers, they lose direct sight of how the business is run. Financial statements are supposed to close that gap: they tell shareholders, lenders, and regulators how well the firm has performed and how sound its position is. But statements are prepared by the very managers being monitored, so their reliability cannot be taken for granted. The external audit exists precisely to discipline this process. By detecting and reporting material misstatements, a credible audit lends credibility to reported figures and reassures those who rely on them (Amahalu & Obi, 2020; Ugwu et al., 2020).

Audit quality is an abstract idea, so researchers usually measure it through observable proxies: the size of the audit firm, how long it has served the client, the fee it charges, and how independent it is (Okpala & Adetunbi, 2024; Otuya & Ikhu-Omoregbe, 2025). Each proxy carries a distinct intuition. Large firms are assumed to possess deeper expertise and more to lose from a damaged reputation; tenure gives the auditor client-specific knowledge, though it may also breed familiarity; fees reflect the effort and resources poured into the engagement; and independence preserves the objectivity on which the audit opinion rests. Under Agency Theory, these attributes work together as a monitoring mechanism that restrains managerial opportunism and protects shareholders (Nwafor & Amahalu, 2021).

The empirical record, however, is far from settled. Studies on Nigerian data have found audit quality to significantly improve performance in some settings (Amahalu & Obi, 2020; Ugwu et al., 2020) while reporting weak, insignificant, or even adverse effects in others (Iloba & Okolie, 2024; Onwubiko & Nwankwo, 2024). Much of this evidence comes from banks, manufacturers, and oil and gas companies; the agricultural sector has received only scattered attention (Iorpev et al., 2022; Otuya & Ikhu-Omoregbe, 2025). Yet agriculture is strategically vital to Nigeria — it feeds the population, supplies industrial raw

*Corresponding Author
Shuaibu Hamzah Oricha (PhD)*
Email: hamzamusfi@gmail.com.

This is an open access article under the CC BY-NC license

materials, and absorbs labour — and its quoted firms depend on credible reporting to attract capital. Whether the audit quality attributes that matter elsewhere also drive performance in this sector is therefore an open question.

Problem Statement and Objectives

Listed agricultural firms in Nigeria operate under pressure to report transparently and perform sustainably, yet weak governance, uneven audit practices, and thin enforcement continue to cast doubt on their financial statements. Regulators have responded with codes and rules, but whether these have translated into better performance remains uncertain. Evidence on individual audit quality proxies is contradictory: audit fees, firm size, and independence have been linked to stronger performance in some studies and to negligible or negative effects in others, while findings on tenure point in both directions (Adisa et al., 2025; Eze et al., 2024; Yayangida et al., 2023). This study addresses that ambiguity by asking four questions: (i) what is the effect of audit firm size on the ROA of listed agricultural firms in Nigeria? (ii) what is the effect of audit tenure? (iii) what is the effect of audit fees? and (iv) what is the effect of auditor independence?

The findings speak to several audiences. For management, they clarify which audit choices are worth investing in. For investors and shareholders, they indicate which attributes of the audit lend credibility to reported performance. For regulators such as the Financial Reporting Council of Nigeria and the Central Bank of Nigeria, they supply sector-specific evidence for policy design. And for auditors themselves, they underline the performance value of professionalism and objectivity. The study covers all five agricultural firms quoted on the Nigerian Exchange Group over the ten-year period 2016–2025, using secondary data extracted from published annual reports and audited financial statements. Financial performance is captured by Return on Assets, a standard accounting-based measure of how efficiently a firm converts its asset base into profit.

2.0 Literature Review

Conceptual Review

Audit quality refers to the probability that an auditor will both discover material misstatements and disclose them (Ugwu et al., 2020). Because quality itself is unobservable, the literature converges on a small set of proxies. Audit firm size is typically coded as Big Four versus non-Big Four, on the assumption that larger firms command better staff, methodologies, and reputational incentives (Iorpev et al., 2022; Nwachukwu et al., 2025). Audit tenure counts the consecutive years an auditor has served a client; it may deepen client knowledge but can also erode professional scepticism (Oyebamiji, 2022; Yayangida et al., 2023). Audit fees proxy for the effort, time, and expertise committed to the engagement, although very high fees may create economic dependence (Egiyi, 2022; Onatuyeh et al., 2024). Auditor independence — the freedom to report without managerial pressure — is the ethical bedrock of the audit; without it, even a technically competent audit loses meaning (Bala & Yeldu, 2022; Nwafor & Amahalu, 2021).

On the outcome side, this study measures financial performance with Return on Assets (ROA), computed as profit after tax divided by total assets. ROA is favoured because it blends profitability with asset utilization in a single ratio and travels well across firms of different sizes (Enekwe et al., 2020; Nwachukwu et al., 2025). This is especially apt for agriculture, where land, machinery, and biological assets dominate the balance sheet and efficient asset management is often the difference between profit and loss.

Theoretical Framework

The study is anchored on Agency Theory (Jensen & Meckling, 1976). The separation of ownership from control creates a conflict: managers, pursuing private benefits, may distort reported performance or misuse assets, while shareholders lack the information to verify. External auditing is a classic monitoring response — an independent check that narrows the information gap and disciplines agents. Stakeholder Theory (Freeman, 1984) complements this view by noting that firms answer to employees, creditors, regulators, and communities, all of whom consume audited reports, while Information Asymmetry Theory (Akerlof, 1970) explains why credible assurance is needed in the first place. Because this study directly models the auditor as a monitor of management on behalf of shareholders, Agency Theory is adopted as the primary lens, with the other two providing supporting perspectives.

Empirical Review and Gap

Sectoral evidence is instructive. In banking, Adeyemo et al. (2023) found audit fees and auditor specialization significantly boosted performance, while Ugwu et al. (2020) and Nwafor and Amahalu (2021) documented the importance of independence. In manufacturing, Enekwe et al. (2020) reported a positive, significant effect of auditor independence on ROA, and Iliemena and Okolocha (2019) found fees and firm rotation beneficial; among consumer goods firms, however, Iloba and Okolie (2024) surprisingly obtained negative effects for independence and firm size, and Oladejo et al. (2025) found only some attributes mattered for firm value. Evidence closest to this study is mixed: Adisa et al. (2025) found external audit quality negatively related to ROA among four agricultural firms, while Nwachukwu et al. (2025) reported positive effects for firm size, tenure, and independence. Tenure is perhaps the most contested variable — positive for reporting reliability in Otuya and Ikhu-Omoregbe (2025), negative for audit quality in Eze et al. (2024), and insignificant on its own in Yayangida et al. (2023).

Two gaps emerge. First, the agricultural sector is under-researched relative to its economic weight, and most available studies rely on tiny samples or bundled audit quality indices. Second, results remain contradictory even within the sector, suggesting that disaggregated, recent evidence is needed. This study fills both gaps by testing four distinct audit quality proxies against ROA using all five listed agricultural firms over a full decade.

3.0 Methodology

Research Design, Population, and Data

An ex-post facto design was adopted because the variables of interest are historical events that cannot be manipulated. The population consists of the five agricultural firms quoted on the Nigerian Exchange Group as at 31 December 2025: Okomu Oil Palm Plc, Presco Plc, Livestock Feeds Plc, Ellah Lakes Plc, and FTN Cocoa Processors Plc. Given the small population, a census was taken rather than a sample, eliminating sampling bias. Data were hand-collected from the firms' published annual reports and audited financial statements for 2016–2025, yielding a balanced panel of 50 firm-year observations. Secondary data of this kind are appropriate because the constructs are financial and objectively measurable from corporate disclosures.

Variable Measurement

Table 1 summarizes how each construct was operationalized.

Table 1. Variable measurement

Variable	Type	Measurement
Return on Assets (ROA)	Dependent	Profit after tax ÷ total assets
Audit Firm Size (AFS)	Independent	Dummy: Big Four auditor = 1; otherwise = 0
Audit Tenure (ATN)	Independent	Consecutive years the auditor has served the firm
Audit Fees (AFE)	Independent	Audit fee paid (in thousands of naira)
Auditor Independence (AID)	Independent	Audit fees ÷ company revenue

Note. Measurements follow Amahalu and Obi (2020), Iorpev et al. (2022), Oyebamiji (2022), Adeyemo et al. (2023), and Nwafor and Amahalu (2021).

Model Specification and Estimation

The model builds on Nwachukwu et al. (2025), modified to replace non-audit fees with audit fees and to measure performance as ROA:

$$ROA_{it} = \beta_0 + \beta_1 AFS_{it} + \beta_2 ATN_{it} + \beta_3 AFE_{it} + \beta_4 AID_{it} + \varepsilon_{it}$$

where i indexes firms, t indexes years, and ε is the error term. Positive β coefficients are expected for all four proxies. After confirming through diagnostics that pooled estimation was appropriate, the model was estimated with ordinary least squares (OLS). Descriptive statistics and a correlation matrix preceded the regression; multicollinearity was assessed with the variance inflation factor (VIF), residual behaviour with the Breusch–Pagan/Cook–Weisberg test, and hypotheses at the 5% level using the p-values of individual coefficients. Stata 17 was used throughout.

4.0 Results and Discussion

Descriptive Statistics

Table 2 profiles the variables over the 50 firm-year observations. ROA averaged 0.0588 (about 5.9 kobo of profit per naira of assets) but ranged from −0.296 to 0.601, signalling both deep losses and strong returns within the sector. The mean of AFS (0.46) shows that Big Four firms handled just under half of the firm-year audits. Audit tenure averaged roughly five years, though engagements ranged from one to ten years. Audit fees averaged ₦20,335.54 thousand with a wide dispersion (minimum ₦1,000; maximum ₦121,489), reflecting differences in firm scale and audit complexity. Auditor independence averaged 0.0063, with values stretching from 0.0003 to 0.1737 — evidence that fee-to-revenue dependence varied considerably across firms and years.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Minimum	Maximum
ROA	50	0.0588	0.1922	−0.2960	0.6010
AFS	50	0.4600	0.5035	0	1
ATN	50	5.0800	2.7980	1	10
AFE	50	20,335.54	23,586.07	1,000	121,489
AID	50	0.0063	0.0248	0.0003	0.1737

Note. AFE is measured in thousands of naira.

Correlation and Diagnostic Tests

The correlation matrix (Table 3) shows ROA moving in the same direction as AFS (r = 0.4988), ATN (r = 0.1197), and especially AFE (r = 0.7330), while AID correlates weakly and negatively (r = −0.1460). No pair of explanatory variables exceeds 0.80 — the largest is between AFS and AFE (r = 0.5729) — and the VIF results confirm this: the largest VIF is 1.58, the mean is 1.31, and all tolerance values exceed 0.63 (Table 4). Multicollinearity is therefore not a threat. The modified Wald test for heteroskedasticity returned $\chi^2(5) = 6.60$ (p = 0.2517), so the null of constant error variance stands. OLS estimates are thus efficient and reliable.

Table 3. Correlation matrix

Variable	ROA	AFS	ATN	AFE	AID
ROA	1.0000				
AFS	0.4988	1.0000			
ATN	0.1197	−0.1570	1.0000		
AFE	0.7330	0.5729	0.0309	1.0000	
AID	−0.1460	−0.2054	0.1410	−0.1412	1.0000

Table 4. Multicollinearity diagnostics (VIF)

Variable	VIF	Tolerance
AFS	1.58	0.6310
AFE	1.53	0.6554
ATN	1.06	0.9403
AID	1.06	0.9436
Mean VIF	1.31	

Regression Results

Table 5 reports the OLS estimates. The model is highly significant overall (F = 16.95; p < 0.001) and explains 60.11% of the variation in ROA (adjusted $R^2 = 0.5924$). Three of the four null hypotheses are rejected.

Table 5. OLS regression of ROA on audit quality proxies

Variable	Coefficient	Std. Error	t-value	p-value
AFS	0.0322	0.0131	2.45	0.018
ATN	0.0003	0.0022	0.13	0.896
AFE	0.0016	0.0003	4.71	0.000
AID	1.5182	0.6429	2.36	0.023
Constant	−0.1371	0.0188	−7.31	0.000
R-squared	0.6011	Adj. R-squared	0.5924	
F-statistic	16.95	Prob. > F	0.0000	
Root MSE	0.02501	Observations	50	

Note. Dependent variable: ROA.

Discussion of Findings

Audit firm size carries a positive and significant coefficient (0.0322; p = 0.018), so the first null hypothesis is rejected. Firms audited by Big Four firms earn systematically higher returns on their assets, plausibly because such firms bring deeper expertise, stronger quality control, and reputational incentives to detect misstatement. This aligns with the positive firm-size effects reported for agricultural firms by Nwachukwu et al. (2025) and for food and beverage firms by Animasaun et al. (2024), though it contrasts with the negative result of Iloba and Okolie (2024) in consumer goods and the insignificance found by Iorpev et al. (2022) and Onwubiko and Nwankwo (2024). The divergence likely reflects sectoral and methodological differences; within agriculture, at least, auditor stature appears to pay. Read through Agency Theory, larger auditors simply monitor better.

Audit tenure, by contrast, is positive but insignificant (0.0003; p = 0.896), so the second null hypothesis stands. Knowing a client for longer does not, by itself, translate into better performance. This echoes the null findings of Onwubiko and Nwankwo (2024) and mirrors Yayangida et al. (2023), for whom tenure mattered only once audit committee independence moderated it. It runs against the positive tenure effects in Otuya and Ikhu-Omoregbe (2025) and the negative quality effects in Eze et al. (2024). The pattern suggests tenure is Janus-faced — client knowledge on one side, familiarity threat on the other — and needs complementary safeguards rather than blind extension.

Audit fees are strongly positive and significant (0.0016; p < 0.001), so the third null hypothesis is rejected. Every additional naira of audit fee is associated with higher ROA, consistent with fees purchasing greater effort, better staff, and more thorough testing. This agrees with Adeyemo et al. (2023) in banking, Iliemena and Okolocha (2019) in industrial goods, and the manufacturing evidence of Okpala and Adetunbi (2024), though it departs from the weak or null fee effects in Enekwe et al. (2020), Adisa et al. (2025), and Onwubiko and Nwankwo (2024). The lesson is not that fees should rise without limit — dependence on one client can bend judgement — but that bargain-basement auditing is a false economy (Bala & Yeldu, 2022).

Finally, auditor independence is positive and significant (1.5182; p = 0.023), so the fourth null hypothesis is rejected. Where auditors are insulated from management pressure, performance improves, presumably because reported numbers are more trustworthy and stakeholders commit capital with greater confidence. This supports Nwafor and Amahalu (2021), Enekwe et al. (2020), Oladejo et al. (2025), and Nwachukwu et al. (2025), and stands in opposition to the negative association reported by Iloba and Okolie (2024). Agency Theory would predict exactly this: an independent monitor is the point of the audit, and the data bear it out.

5.0 Conclusion and Recommendations

This study set out to establish which audit quality attributes drive the financial performance of listed agricultural firms in Nigeria. Using a census of the five quoted agricultural firms over 2016–2025 and a carefully diagnosed OLS model, it found that audit firm size, audit fees, and auditor independence significantly raise Return on Assets, while audit tenure does not. About 60% of performance variation is explained by the model, leaving a meaningful role for other governance and macroeconomic forces. The central message is that audit quality is not a compliance ritual but a performance lever: credible, well-funded, independent audits produce information that investors trust and managers respect.

Four recommendations follow. First, agricultural firms should select auditors on demonstrated competence, industry experience, and quality control — not on familiarity or cost alone. Second, audit committees should periodically appraise auditor performance and objectivity, and firms should honour rotation requirements rather than treating tenure as an entitlement. Third, fees should be calibrated to engagement complexity and risk, transparently approved, and never shaved to the point of hollow audits. Fourth, independence should be actively protected: audit committees should control appointments, remuneration, and the scope of non-audit services, with unfiltered communication channels to the external auditor.

The study's limitations temper generalization. Five firms, however complete the census, cannot speak for unlisted agricultural enterprises; ROA, however informative, is one lens on performance; and other audit attributes — specialization, rotation, reporting timeliness, audit committee features — sit outside the model. Future work might extend the sample, add ROE, EPS, or Tobin's Q, apply fixed-effects or dynamic panel estimators to address firm heterogeneity and endogeneity, and compare Nigeria with peer African jurisdictions.

Conflict of interest: The author(s) declare no conflict of interest.

Funding: No external funding was received for this study.

Data availability: The firm-level panel dataset compiled from annual reports is available from the corresponding author on reasonable request.

Acknowledgements: The authors thank colleagues who commented on earlier drafts of this paper.

References

1. Adisa, I. K. F., Nwufo, C. I., Ndu, M., & Adefiranye, J. R. A. (2025). Effect of audit quality on the financial performance of listed agricultural firms in Nigeria. Nexus Global Research Journal of Multidisciplinary, 1(2), 133–153.

2. Adeyemo, K. A., Akinleye, B., & Omole, I. I. (2023). The effect of audit quality on the financial performance of listed deposit money banks in Nigeria. International Journal of Research and Innovation in Social Science, 7(12), 107–118.
3. Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. Quarterly Journal of Economics, 84(3), 488–500.
4. Amahalu, N. N., & Obi, J. C. (2020). Effect of audit quality on financial performance of quoted conglomerates in Nigeria. International Journal of Management Studies and Social Science Research, 2(4), 87–98.
5. Animasaun, R. O., Balogun, S. B., Fatogun, O. I., & Ajibola, H. O. (2024). Audit quality and financial performance of listed food and beverages companies in Nigeria. FUOYE Journal of Management Sciences, 2(1), 50–69.
6. Bala, S. A., & Yeldu, A. B. (2022). Audit quality and financial reporting of quoted natural resources firms in Nigeria. Journal of Management and Science, 12(3), 34–42.
7. Egiyi, M. A. (2022). Audit quality and audit fees: The case of listed companies in the Nigerian financial services sector. Contemporary Journal of Management, 4(2), 14–24.
8. Enekwe, C. I., Nwoha, C., & Udeh, S. N. (2020). Effect of audit quality on financial performance of listed manufacturing firms in Nigeria (2006–2016). Advance Journal of Management, Accounting and Finance, 5(1), 1–12.
9. Eze, S. E., Iroabuchi, M. C., & Okafor, N. D. (2024). Effect of audit independence on audit quality: Evidence from Nigerian agricultural firms. Journal of Global Interdependence and Economic Sustainability, 3(8), 1–14.
10. Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman.
11. Iliemena, R. O. C., & Okolocha, C. B. (2019). Effect of audit quality on financial performance: Evidence from a developing capital market. International Journal of Recent Research in Commerce Economics and Management, 6(3), 191–198.
12. Iloba, K., & Okolie, A. (2024). Establishing financial performance of firms through audit quality in Nigeria. Direct Research Journal of Management and Strategic Studies, 5(8), 43–54.
13. Iorpev, L., Anande, K. G., & Oto, T. E. (2022). Effect of audit quality on market performance of selected listed companies in Nigeria: Moderating role of audit committee. UMYU Journal of Accounting and Finance Research, 2(1), 161–181.
14. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360.
15. Nwafor, P. U., & Amahalu, N. N. (2021). Auditors' independence and audit quality of quoted deposit money banks in Nigeria. American Research Journal of Humanities and Social Science, 4(9), 77–85.
16. Nwachukwu, C. K., Yakassai, I. A., & Lateef, S. A. (2025). Effect of audit quality on the financial performance of listed agricultural firms in Nigeria. POLAC Economics and Management Science Journal, 5(1), 1–15.
17. Oladejo, M. O., Oladiran, D. O., & Oyeleye, K. W. (2025). Effect of audit quality attributes on firms' value of listed consumer goods manufacturing firms in Nigeria. Journal of African Resilience and Advancement Research, 8(2), 49–66.
18. Onatuyeh, E. A., Aniefor, S. J., Orife, C. O., Ogbolu, L., & Osevwe-Okoroyibo, E. (2024). The impact of auditor attributes and firm size on financial reporting timeliness of listed firms. Investment Management and Financial Innovations, 21(4), 116–127.
19. Onwubiko, C. O., & Nwankwo, H. A. (2024). Effect of audit quality on financial performance of quoted conglomerates in Nigeria. International Journal of Research and Innovation in Social Science, 8(3S), 316–336.
20. Otuya, S., & Ikhu-Omoregbe, G. O. (2025). Audit quality attributes and financial reporting credibility nexus: Further evidence from Nigeria. Journal of Academic Research in Economics, 17(1), 193–215.
21. Oyebamiji, O. A. (2022). Audit tenure and financial reporting quality of listed Nigerian deposit money banks (2008–2018). European Business & Management, 8(4), 81–88.
22. Ugwu, C. C., Aikpitanyi, L. N., & Idemudia, S. (2020). The effect of audit quality on financial performance of deposit money banks: Evidence from Nigeria. Journal of Economics and Business, 3(1), 270–281.
23. Yayangida, A. S., Ahmed, M. N., Nyor, T., & Yahaya, O. A. (2023). Audit tenure and financial reporting quality of listed non-financial services firms in Nigeria: The moderating role of audit committee's independence. UMYU Journal of Accounting and Finance Research, 5(1), 105–123.