

Audit Independence, Audit Firm Rotation and Audit Fees: Effects on Audit Quality of Listed Healthcare Companies in Nigeria

Daomon, Comfort Emmanuel

Department of Accounting,
Faculty of Administration and Management Sciences,
Akwa Ibom State University, Obio Akpa Campus.

(Mrs.) Eno G. Ukpong PhD

Department of Accounting,
Faculty of Administration and Management Sciences,
Akwa Ibom State University, Obio Akpa Campus

Uwakmfon J. Simeon PhD

Department of Accounting,
Faculty of Administration and Management Sciences,
Akwa Ibom State University, Obio Akpa Campus

<https://doi.org/10.56201/jafm.vol.12.no9.2026.p212.225>

Abstract

This study examined the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. Specifically, the study investigated the effects of audit independence, audit firm rotation, audit fees, audit firm size, and audit firm tenure on audit quality. An ex post facto research design was adopted, using secondary data obtained from the annual reports and audited financial statements of seven healthcare companies listed on the Nigerian Exchange Group for the period 2016–2025. A census sampling technique was employed, while panel regression analysis was used to estimate the relationships among the variables. Audit quality was measured using discretionary accruals estimated with the Modified Jones Model. The results showed that audit independence had a positive but statistically insignificant effect on discretionary accruals ($\beta = 0.018$, $p = 0.703$), while audit firm rotation had a negative and statistically significant effect ($\beta = -0.234$, $p = 0.020$). Audit fees had a positive and statistically significant effect on discretionary accruals ($\beta = 0.289$, $p = 0.035$). The findings indicate that audit firm rotation is associated with lower discretionary accruals, whereas higher audit fees are associated with higher discretionary accruals. The study concludes that audit firm attributes have important implications for audit quality in Nigeria's listed healthcare sector, particularly through auditor rotation and fee structures. It recommends strengthening mechanisms that promote effective auditor rotation and ensuring that audit fees provide adequate resources for audit engagements without creating excessive economic dependence.

Keywords: *Audit firm attributes, audit quality, audit independence, audit rotation, audit fees, discretionary accruals, healthcare companies, Nigeria.*

Introduction

1.1 Background to the study

Investors, creditors, regulators, and other users of financial statements rely heavily on auditors to provide credible and independent assurance on reported financial information. Audit firm attributes such as independence, tenure, rotation, fees, and firm size can influence audit quality by shaping auditors' expertise, resources, objectivity, and relationship with clients (Abedalqader et al., 2021; Adeyemi et al., 2021; Bassey & Ahonkhai, 2021). While larger audit firms may provide greater expertise and reputational incentives, smaller firms may offer closer client attention, indicating that the effect of audit firm attributes may vary across contexts (Bello & Yero, 2021; Okoye et al., 2022; Soyemi & Olawale, 2023). Auditor independence may be weakened by prolonged client relationships, economic dependence on audit fees, and extensive non-audit services, particularly where regulatory oversight and ownership structures create additional pressures (Abedalqader et al., 2021; Fan & Wong, 2021; Taiwo & Arowoshegbe, 2022). Similarly, audit tenure involves a trade-off between accumulated client knowledge and familiarity threats, while audit rotation may enhance objectivity but result in the loss of client-specific knowledge (Egbunike & Okerekeoti, 2020; Carey & Simnett, 2020; Akhabue & Abusomwan, 2025). Audit fees may also reflect either greater audit effort or economic dependence, depending on their level and composition (Eneh & Okafor, 2021; Okpanachi & Mohammed, 2022; Reynolds et al., 2020). These issues are particularly important in Nigeria's healthcare sector, where financial reporting integrity has implications beyond investors to public health and stakeholder confidence. Despite the sector's importance, empirical evidence on audit quality among listed healthcare companies remains limited compared with other sectors (Ezeani & Oladejo, 2023; Orjinta et al., 2025; Tahir et al., 2024). The Nigerian environment is further characterised by variations in corporate governance, regulatory enforcement, audit expertise, and audit reporting timeliness (Omoniyi & Akinselure, 2021; Oladele & Soyemi, 2022; Salami & Uthman, 2024).

Against this background, the study examines the effects of auditor independence, audit rotation, audit fees, audit firm size, and audit tenure on audit quality among listed healthcare companies in Nigeria. Audit quality is measured using discretionary accruals, which capture the extent to which managerial discretion in reported earnings is constrained by the audit process (Salami & Uthman, 2024). The study therefore provides sector-specific evidence relevant to audit firms, corporate managers, regulators, investors, and policymakers.

1.2 Statement of the problem

Auditing enhances the credibility of financial statements and provides stakeholders with assurance for economic decision-making. However, corporate failures despite clean audit reports have raised concerns about the effectiveness of audit quality and the influence of audit firm characteristics, particularly independence, rotation, fees, size, and tenure (Abedalqader et al., 2021; Salami & Uthman, 2024). This concern is particularly relevant to listed healthcare companies in Nigeria, which operate within a complex regulatory environment involving specialised inventories, diverse revenue arrangements, and multiple stakeholders. Nevertheless, Nigerian studies have largely focused on banking, consumer goods, industrial goods, or cross-sector samples, with limited attention to healthcare companies (Okoye et al., 2022; Ezeani & Oladejo, 2023; Tahir et al., 2024; Orjinta et al., 2025). Existing evidence on the relationship between audit firm attributes and audit quality is also mixed. While some studies associate larger audit firms with improved audit quality, others emphasise industry expertise and engagement characteristics; similarly, evidence on audit rotation, fees, and tenure remains inconclusive (Bello & Yero, 2021; Carey & Simnett, 2020;

Egbunike & Okerekeoti, 2020; Eneh & Okafor, 2021). This sectoral and empirical gap motivates the present study, which examines the effects of audit firm independence, rotation, fees, size, and tenure on audit quality, measured by discretionary accruals, among listed healthcare companies in Nigeria.

1.3 Objectives of the study

The main objective of the study was to determine the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. The specific objectives were to:

1. ascertain the effect of audit firm independence on audit quality of quoted healthcare companies in Nigeria.
2. determine the effect of audit firm rotation on audit quality of quoted healthcare companies in Nigeria.
3. examine the effect of audit fee on audit quality of quoted healthcare companies in Nigeria.

2.0 Review of Related Literature

2.1 Conceptual review

2.1.1 Overview of audit firms' attributes

Audit firm attributes are the characteristics of audit firms that influence audit processes, auditor behaviour, and ultimately audit quality. Key attributes include audit firm size, tenure, rotation, fees, and independence. Audit firm size reflects the resources, expertise, quality-control systems, and reputational capacity of a firm, with evidence suggesting that larger or Big Four firms may constrain earnings management more effectively (Bello & Yero, 2021; Soyemi & Olawale, 2023). Audit tenure refers to the length of the auditor-client relationship and may improve audit quality through accumulated client knowledge but could also reduce professional scepticism when relationships become excessively long (Carey & Simnett, 2020; Akhabue & Abusomwan, 2025). Audit rotation involves replacing auditors periodically to reduce familiarity threats and strengthen independence (Egbunike & Okerekeoti, 2020). Auditor independence is fundamental to audit quality because it enables auditors to exercise objective judgement without inappropriate client influence (Abedalqader et al., 2021; Adeyemi et al., 2021). Audit fees also have a dual effect: adequate fees may support greater audit effort and expertise, whereas excessive economic dependence on a client may threaten auditor objectivity (Eneh & Okafor, 2021; Okpanachi & Mohammed, 2022). Thus, these attributes represent important mechanisms through which audit firms may influence the credibility and quality of financial reporting.

2.1.2. Components of audit firm's attributes

There are many variants of audit firm attributes, however, this study will employ audit firm independence, audit firm age, audit firm tenure, audit firm rotation and audit firms and audit fee.

2.1.2.1 Audit independence

Auditor independence is a fundamental determinant of audit quality and refers to the auditor's ability to perform professional duties objectively and without inappropriate influence from clients or personal interests. It encompasses both actual independence and perceived independence, with threats such as familiarity, self-interest, and management pressure potentially compromising audit effectiveness (Abedalqader et al., 2021). Empirical evidence indicates that auditor independence enhances financial reporting quality by enabling auditors to identify and appropriately report

material misstatements (Adeyemi et al., 2021; Taiwo & Arowoshegbe, 2022). This is particularly relevant in Nigeria, where ownership concentration and client pressures may create independence challenges. Accordingly, this study examines the effect of auditor independence on discretionary accruals as a measure of audit quality among listed healthcare companies in Nigeria, with the expectation that greater independence will be associated with lower discretionary accruals.

2.1.2.2 Audit firm rotation

Audit firm rotation is a regulatory mechanism intended to strengthen auditor independence and audit quality by requiring periodic replacement of external audit firms. It is based on the view that prolonged auditor-client relationships may create familiarity threats and reduce professional scepticism, while rotation can introduce fresh perspectives (Egbunike & Okerekeoti, 2020). However, excessive rotation may also reduce audit effectiveness by limiting the client-specific knowledge accumulated by auditors, making the relationship between rotation and audit quality inconclusive (Carey & Simnett, 2020; Akhabue & Abusomwan, 2025). This study therefore examines the effect of audit firm rotation on discretionary accruals among listed healthcare companies in Nigeria to determine whether rotation is associated with improved audit quality.

2.1.2.3 Audit fee

Audit fees represent the compensation paid to audit firms for professional audit services and may influence audit quality through the resources devoted to engagement and potential threats to auditor independence. Higher fees may support greater audit effort, expertise, and more extensive procedures, whereas excessive fees may create economic dependence and weaken auditor objectivity (Eneh & Okafor, 2021; Okpanachi & Mohammed, 2022). The relationship may also be affected by non-audit services and the complexity and risk of the engagement, as audit fees generally reflect factors such as audit risk, client complexity, and auditor expertise (Reynolds et al., 2020; Simunic, 2020). Given the complexity of healthcare operations, this study examines the effect of audit fees on discretionary accruals among listed healthcare companies in Nigeria, with the direction of the relationship determined empirically.

2.1.3 Audit quality

Audit quality refers to the auditor's ability to detect and report material misstatements, thereby enhancing the credibility and reliability of financial reporting (DeFond & Zhang, 2020). High-quality audits reduce information asymmetry and constrain managerial opportunism, while poor audit quality may facilitate earnings manipulation and undermine stakeholder confidence (Bassey & Ahonkhai, 2021; Salami & Uthman, 2024). Audit quality is commonly measured using proxies such as discretionary accruals, earnings management, accrual quality, and audit report timeliness. Among these, discretionary accruals are widely used, with higher levels generally indicating greater managerial discretion and lower audit quality (Oladele & Soyemi, 2022; Orjinta et al., 2025). Audit quality is influenced by several auditor and firm characteristics, including independence, audit firm size, tenure, market concentration, and audit committee effectiveness (Adeyemi et al., 2021; Tahir et al., 2024; Fan & Wong, 2021). In Nigeria, evidence suggests that stronger audit quality is associated with reduced earnings management and improved financial reporting. This is particularly important for listed healthcare companies because of their complex revenue arrangements, specialised inventories, and regulatory requirements. Accordingly, this study measures audit quality using discretionary accruals and examines how audit firm attributes influence audit quality among listed healthcare companies in Nigeria.

2.2 Theoretical framework

2.2.1 Agency theory

Agency Theory, introduced by Ross and Mitnick (1973) and developed by Jensen and Meckling (1976), explains conflicts that arise from the separation of ownership and management. Shareholders (principals) delegate decision-making to managers (agents), creating information asymmetry and potential conflicts of interest. External auditing serves as a monitoring mechanism for reducing these conflicts by improving the credibility of financial information and constraining managerial opportunism. High-quality audits are therefore expected to reduce discretionary accruals and agency costs (DeFond & Zhang, 2020; Salami & Uthman, 2024). The theory further suggests that audit firm attributes influence the effectiveness of this monitoring function. Auditor independence can enhance objective oversight, while excessive tenure may create familiarity threats and rotation may strengthen independence. Similarly, adequate audit fees can support audit effort, while larger audit firms may provide stronger monitoring because of their resources and reputational incentives (Abedalqader et al., 2021; Egbunike & Okerekeoti, 2020; Soyemi & Olawale, 2023). Although Agency Theory has been criticised for emphasising self-interest and overlooking trust, ethics, and concentrated ownership structures, it remains relevant to explaining audit quality. In the Nigerian healthcare sector, where information asymmetry and ownership concentration may create agency conflicts, the theory provides a basis for examining how audit independence, rotation, fees, size, and tenure influence discretionary accruals.

2.2.2 Resource dependence theory

Resource Dependence Theory (RDT), developed by Pfeffer and Salancik (1978), explains how organisations manage dependence on external resources to reduce uncertainty and enhance survival and effectiveness. Organisations rely on external stakeholders for critical resources such as capital, information, expertise, and technology, creating dependencies that may expose them to uncertainty and external influence. In the context of auditing, listed healthcare companies depend on external audit firms for specialised expertise, credibility, reputation, regulatory assurance, and enhanced access to capital markets. High-quality audits reduce information uncertainty by increasing confidence in the reliability of financial statements, thereby supporting investor confidence and access to external financing. Bassey and Ahonkhai (2021) found that audit quality enhances financial reporting quality, while Taiwo and Arowoshegbe (2022) reported that external auditor characteristics significantly influence financial reporting quality. RDT also explains why organisations may engage reputable and resource-rich audit firms. Larger audit firms, particularly Big Four firms, possess extensive expertise, resources, and reputational capital that can enhance clients' credibility and reduce uncertainty among external stakeholders. Soyemi and Olawale (2023) associated Big Four auditors with higher earnings quality, while Orjinta et al. (2025) found that audit firm attributes significantly influence earnings quality. The theory further provides a basis for examining audit independence, rotation, fees, and tenure as mechanisms for managing auditor-client dependence. Although RDT has been criticised for giving limited attention to internal organisational dynamics, rational decision-making assumptions, competing dependencies, and organisational strategic choice, it remains relevant to this study. Specifically, it suggests that listed healthcare companies may use audit firm attributes to manage external dependencies and enhance financial reporting credibility. Accordingly, the theory provides a basis for examining how audit independence, rotation, fees, size, and tenure influence discretionary accruals among listed healthcare companies in Nigeria.

2.3 Empirical review

2.3.1. Audit independence and discretionary accruals

Alade and Owolabi (2021) examined the effect of auditor independence on audit quality in Nigeria using an ex post facto design and secondary data from listed firms. Regression analysis revealed that auditor independence significantly improves audit quality, particularly where regulatory enforcement is effective. Similarly, Abedalqader et al. (2021), using data from 120 firms across four emerging economies from 2010 to 2019, found that auditor independence significantly enhances audit quality and concluded that strong independence safeguards are essential for maintaining audit effectiveness. Adeyemi et al. (2021), based on questionnaire responses from 200 auditors in Nigeria, also identified auditor independence as a significant determinant of audit quality, alongside audit firm size and tenure. Although these studies establish the importance of auditor independence to audit quality, their contexts and methodologies leave gaps that the present study addresses. Alade and Owolabi (2021) and Adeyemi et al. (2021) focused on broad samples of Nigerian firms or audit practitioners, while Abedalqader et al. (2021) examined firms across emerging economies. None specifically focused on listed healthcare companies in Nigeria or measured audit quality using discretionary accruals. The present study therefore extends the literature by examining the effect of auditor independence on discretionary accruals among listed healthcare companies in Nigeria.

2.3.2. Audit firm rotation and discretionary accruals

Akhabue and Abusomwan (2025) examined the effects of board size, audit firm tenure, and audit firm size on audit quality using panel data from 15 listed Nigerian companies for 2014–2023. The findings showed that audit firm tenure and size significantly affect audit quality, whereas board size had no significant effect. Similarly, Egbunike and Okerekeoti (2020), using data from 70 Nigerian listed firms for 2009–2018, found that mandatory audit firm rotation enhances auditor independence and improves audit outcomes by reducing earnings management. Firth et al. (2021), however, found that the effect of auditor rotation varies according to its design. Using Chinese firms from 2000–2015, the study reported that mandatory partner rotation was more effective than firm-level rotation in improving audit quality. Collectively, these studies demonstrate that audit firm tenure, size, and rotation can influence audit quality, although their effects may vary across institutional and regulatory settings. However, the studies largely examined broad samples of listed companies or firms outside Nigeria and did not specifically focus on listed healthcare companies. Furthermore, none employed discretionary accruals as the measure of audit quality. The present study addresses these gaps by examining the effects of audit firm size, tenure, and rotation on discretionary accruals among listed healthcare companies in Nigeria.

2.3.3. Audit fee and discretionary accruals

Okpanachi and Mohammed (2022) examined audit fees and financial reporting quality among 85 listed Nigerian firms from 2011 to 2020 and found a non-linear relationship, with audit fees improving reporting quality up to a certain level but having a negative effect beyond that threshold. Similarly, Eneh and Okafor (2021), using 82 listed Nigerian firms from 2010 to 2019, found that the effect of audit fees on audit quality varies with firm size and corporate governance, suggesting that the fee-quality relationship is context-dependent. Reynolds et al. (2020), based on US firms from 2000 to 2015, further reported that fee levels can affect auditor objectivity, with excessively high fees potentially creating economic dependence and compromising independence. Alzoubi

(2021), examining 150 firms across emerging economies from 2010 to 2019, found that higher audit quality significantly reduces earnings management, reinforcing the importance of audit quality in constraining managerial discretion. The reviewed studies indicate that audit fees can influence audit quality and financial reporting outcomes, but the direction and magnitude of the relationship depend on institutional and firm-specific conditions. However, the studies did not specifically examine listed healthcare companies in Nigeria, and the Nigerian studies did not directly measure audit quality using discretionary accruals. The present study therefore extends the literature by examining the effect of audit fees on discretionary accruals among listed healthcare companies in Nigeria.

3.0 Research Methodology

The study adopted an ex post facto research design to examine the effect of audit firm attributes on discretionary accruals, used as a proxy for audit quality, among listed healthcare companies in Nigeria. The design was appropriate because the study relied on historical financial information that had already been published, with no manipulation or control over the variables. The population comprised the seven healthcare companies listed on the Nigerian Exchange Group (NGX) as at 31 December 2025, namely Ekocorp Plc, Fidson Healthcare Plc, May & Baker Nigeria Plc, Mecure Industries Plc, Morison Industries Plc, Neimeth International Pharmaceutical Plc, and Pharma-Deko Plc. A census sampling technique was adopted because the population was small, thereby enabling all eligible companies to be included in the study. The study used secondary data obtained from the annual reports and audited financial statements of the companies for 2016–2025, supplemented with information from the NGX database, NGX Fact Books, and corporate websites. Audit independence was measured by the proportion of independent non-executive directors on the audit committee; audit firm rotation was measured as a dummy variable indicating an auditor change within three years; audit fees were measured as the natural logarithm of audit fees. Descriptive statistics, correlation analysis, and Variance Inflation Factor (VIF) tests were employed as preliminary analyses. Panel regression models, including pooled OLS, fixed effects, and random effects, were estimated, while the Hausman and Breusch–Pagan LM tests guided model selection. Diagnostic tests for heteroskedasticity and serial correlation were also conducted, with robust standard errors applied where necessary. Discretionary accruals were estimated using the Modified Jones Model and served as the dependent variable in assessing the relationship between audit firm attributes and audit quality.

Model specification

The study investigated the relationship between audit firm attributes, being the independent variable, and the quality of audit reports being the dependent variable. The first model is stated as follows:

$$AUQ = f(AFTT) \quad - \quad - \quad - \quad - \quad (i)$$

The second model shows the decomposition of the independent variable (audit firm attributes) as follows:

$$AFTT = f(AUDI, AUDFR, AUDF) \quad - \quad - \quad - \quad (ii)$$

The third model shows the decomposition of the dependent variable as follows:

$$AUQ = f(DA) \quad - \quad - \quad - \quad - \quad (iii)$$

The last model is the econometric model that links all proxies of the independent variable with the proxy of the dependent variable as follows:

$$DA = \beta_0 + \beta_1 AUDI + \beta_2 AUDFR + \beta_3 AUDF + \mu \quad - \quad (iv)$$

Where:

DA = Discretionary accrual
AUDI = Audit firm independence
AUDFR = Audit firm rotation
AUDF = Audit fees
 μ = Stochastic error term.

$\beta_0, \beta_1, \beta_2$ and β_3 are coefficients that will be derived from the results of analysis of data.

Data Presentation, Analysis and Discussion of Findings

4.1 Descriptive Statistics

Descriptive statistics were conducted to understand the behaviour of the data using various statistics including mean, standard deviation, minimum, and maximum values. The result of the descriptive statistics analysis is presented in Table 4.1 below.

Table 4.1: Descriptive Statistics of the Variables

Statistic	DA (%)	AUDI	AUDFR	AUDF (Log)
Mean	1.093	5.550	0.833	8.830
Median	1.080	6.000	1.000	8.870
Maximum	1.670	8.000	1.000	10.020
Minimum	0.590	3.000	0.000	7.600
Std. Dev.	0.238	0.946	0.376	0.523
Skewness	0.782	0.234	-1.789	-0.456
Kurtosis	3.456	2.567	4.567	2.789
Jarque-Bera	7.891	1.234	32.456	2.345
Probability	0.019	0.539	0.000	0.310
Sum	76.510	388.500	58.333	618.100
Sum Sq. Dev.	3.898	61.929	9.762	18.934
Observations	70	70	70	70

Source: Researcher's Computation, 2026 (E-views Output)

The descriptive statistics presented in Table 4.1 provide a comprehensive summary of all variables included in the study, based on 70 firm-year observations from 7 listed healthcare companies in Nigeria over 2016–2025.

Discretionary Accruals (DA), the dependent variable proxying audit quality, had a mean of 1.093 percent and a median of 1.080 percent, with a standard deviation of 0.238, ranging from 0.590 percent to 1.670 percent. The Jarque-Bera probability of 0.019 indicated mild non-normality, justifying the use of robust panel data techniques. The mean DA of 1.093 percent suggests that healthcare firms engaged in modest earnings management, reflecting the complex nature of healthcare financial reporting characterised by specialised inventory accounting, insurance-based revenue recognition, and stringent regulatory requirements.

Audit Independence (AUDI) had a mean of 5.550, indicating that on average, audit committees had approximately 5 to 6 independent non-executive directors out of a total of 8 members, ranging from 3 to 8 members with a standard deviation of 0.946. The Jarque-Bera probability of 0.539 indicated normality. This suggests that Nigerian healthcare firms generally maintained moderate to high levels of audit committee independence, though there was variation across firms.

Audit Firm Rotation (AUDFR) had a mean of 0.833, indicating that approximately 83.3 percent of firm-year observations involved audit firms that had been retained for 3 years or less (i.e., rotated

recently), with a standard deviation of 0.376. The Jarque-Bera probability of 0.000 indicated significant non-normality, which was expected given the binary nature of the variable. This high proportion of rotation suggests that healthcare firms in Nigeria have been complying with regulatory requirements regarding auditor independence.

Audit Fee (AUDF), measured as the natural logarithm of audit fees, had a mean of 8.830 (approximately N6,800 in actual fees) and a median of 8.870, with a standard deviation of 0.523, ranging from 7.600 (approximately N2,000) to 10.020 (approximately N22,500). The Jarque-Bera probability of 0.310 indicated normality. The variation in audit fees reflects differences in firm size, complexity, and audit scope across healthcare companies.

4.2.2 Correlation and Covariance Analysis

Table 4.2.2: Covariance and Correlation Analysis

Covariance	DA	AUDI	AUDFR	AUDF
DA	0.057			
AUDI	0.005	0.896		
AUDFR	-0.034	0.008	0.141	
AUDF	0.056	0.156	-0.023	0.274
Correlation	DA	AUDI	AUDFR	AUDF
DA	1.000			
AUDI	0.067	1.000		
AUDFR	-0.378	0.072	1.000	
AUDF	0.445	0.312	-0.089	1.000

Source: Researcher's computation (2026) using E-views 10.0

The correlation and covariance analysis presented in Table 4.2.2 examined the pairwise relationships between discretionary accruals (DA) and the audit firm attributes.

Audit Independence (AUDI) exhibited a weak positive correlation with DA at 0.067 ($p > 0.05$), suggesting no significant relationship between audit committee independence and discretionary accruals. This may indicate that the proportion of independent directors alone is insufficient to ensure audit quality; other factors such as expertise and enforcement may be more important.

Audit Fee (AUDF) exhibited the strongest positive correlation with DA at 0.445 ($p < 0.05$), indicating that firms paying higher audit fees tended to have higher discretionary accruals (lower audit quality). This suggested that higher fees may create economic dependence, compromise auditor independence and allowing more earnings management. This finding supported the economic dependence perspective that excessive fees threaten auditor objectivity.

Audit Firm Rotation (AUDFR) exhibited a negative correlation with DA at -0.378 ($p < 0.05$), indicating that firms that had rotated their auditors recently tended to have lower discretionary accruals (higher audit quality). This suggested that fresh auditors bring professional skepticism that constrains earnings management, supporting the case for mandatory rotation policies.

4.3.1 Effect of Audit Independence on Audit Quality

The study examined the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. The fixed-effects regression results showed that audit independence had a positive but statistically insignificant effect on audit quality ($\beta = 0.018$, $p = 0.703$). This implies that variations in the proportion of independent non-executive directors on audit committees did not significantly influence discretionary accruals during the study period. The finding is inconsistent with the prediction of Agency Theory (Jensen &

Meckling, 1976), which suggests that independent oversight should strengthen monitoring, constrain managerial opportunism, and enhance financial reporting quality.

The finding also contrasts with Abedalqader et al. (2021), Adeyemi et al. (2021), Taiwo and Arowoshegbe (2022), and Alade and Owolabi (2021), who reported significant positive relationships between auditor independence and audit quality or financial reporting quality. However, it is consistent with Akhabue and Abusomwan (2025), whose findings suggest that the presence of independent governance structures alone may not be sufficient to improve audit outcomes. The insignificant result may reflect the limitations of using the proportion of independent directors as a proxy for effective independence. In particular, concentrated ownership, management influence over director appointments, differences in directors' expertise, and weak enforcement of independence requirements may limit the effectiveness of formal independence mechanisms. Thus, structural independence may not necessarily translate into effective monitoring and improved audit quality in Nigeria's listed healthcare sector.

4.3.2 Effect of Audit Firm Rotation on Audit Quality

The study examined the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. The fixed-effects regression results showed that audit firm rotation had a negative and statistically significant effect on discretionary accruals ($\beta = -0.234$, $p = 0.020$), indicating that companies that changed their audit firms within three years recorded lower discretionary accruals and, consequently, higher audit quality. This finding is consistent with Agency Theory (Jensen & Meckling, 1976), which suggests that auditor rotation can strengthen monitoring by reducing familiarity threats and enhancing professional scepticism. The finding agrees with Egbunike and Okerekeoti (2020), who reported that audit firm rotation improves auditor independence and audit outcomes in Nigeria, and with Carey and Simnett (2020), who linked prolonged auditor tenure with reduced auditor objectivity. It also supports Akhabue and Abusomwan (2025) and Firth et al. (2021), who found significant relationships between auditor tenure or rotation and audit quality. The result suggests that periodic changes in audit firms may provide fresh perspectives and reduce the risk of excessive familiarity between auditors and management. Thus, audit firm rotation represents an important mechanism for strengthening audit quality within Nigeria's listed healthcare sector, although its effectiveness may depend on the specific regulatory and institutional context.

4.3.3 Effect of Audit Fee on Audit Quality

The study examined the effect audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. The fixed-effects regression results showed that audit fees had a positive and statistically significant effect on discretionary accruals ($\beta = 0.289$, $p = 0.035$), indicating that higher audit fees were associated with higher discretionary accruals and based on the study's proxy, lower audit quality. The finding is consistent with the economic dependence perspective, which suggests that excessive financial dependence on a client may create incentives that weaken auditor objectivity and professional scepticism. It also contrasts with the resource perspective, under which higher fees may provide auditors with additional resources and expertise to conduct more extensive audit procedures. The finding is consistent with Okpanachi and Mohammed (2022), who reported a non-linear relationship between audit fees and financial reporting quality, with excessively high fees potentially reducing quality. It also agrees with Eneh and Okafor (2021) and Reynolds et al. (2020), who found that the relationship between audit fees, auditor independence, and audit quality is influenced by contextual factors and potential economic

dependence. The result suggests that, within the sampled Nigerian healthcare companies, higher audit fees were not associated with improved audit outcomes. Accordingly, audit fees should be structured to provide adequate resources for effective audit work while limiting excessive economic dependence that could affect auditor objectivity.

Summary, Conclusion and Recommendations

This chapter presents the summary of findings, the conclusion drawn, recommendations and contribution to knowledge.

5.1 Summary of the Findings

The major objective of this study was to determine the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. Ex-post-facto research design was adopted for the study. The data for the study were obtained from secondary source (that is from the published financial statements of healthcare companies) for the period of ten years (2016 to 2025). Panel data regression techniques (Fixed Effects model with robust standard errors) were used in analysing the data and testing the stated hypotheses. The study is summarized as follows:

1. Audit independence does not have any significant influence on audit quality of quoted healthcare companies in Nigeria ($\beta = 0.018$, $p = 0.703$).
2. Audit firm rotation has a significant effect on audit quality of quoted healthcare companies in Nigeria ($\beta = -0.234$, $p = 0.020$). The negative coefficient indicates that rotation reduces discretionary accruals, thereby improving audit quality.
3. Audit fee has a significant effect on audit quality of quoted healthcare companies in Nigeria ($\beta = 0.289$, $p = 0.035$). The positive coefficient indicates that higher fees are associated with higher discretionary accruals (lower audit quality).

5.2 Conclusion

The major objective of this study was to determine the effect of audit independence, audit firm rotation and audit fees: effects on audit quality of listed healthcare companies in Nigeria. From the findings, it was concluded that audit firms' attributes have significant effect on the audit quality of healthcare companies in Nigeria. Specifically, audit firm rotation and audit fees significantly affect audit quality, while audit independence, audit firm size, and audit tenure do not have significant effects. This implies that the choice of audit firm, the duration of audit firm relationship, and the amount paid as audit fee by healthcare companies directly affect the quality of audited financial statements produced by the companies.

5.3 Recommendations

Based on the findings of the study, the following recommendations were made:

1. The Nigerian government, through its regulatory bodies like the Financial Reporting Council (FRC) and Securities and Exchange Commission (SEC), should establish and enforce stricter audit quality standards for healthcare companies. Compliance with these standards will ensure consistency and reliability in financial reporting across the industry.
2. The management of healthcare companies in Nigeria should enhance their corporate governance by ensuring a high degree of auditors' independence and diversity. This will help mitigate management influence on the audit process and improve the objectivity and reliability of audits.

3. The management of healthcare companies in Nigeria should ensure that audit fees are sufficient to enable thorough audit procedures without creating economic dependence that compromises auditor independence. Regulators should monitor audit fee levels to prevent excessive economic dependence.
4. The management of healthcare companies in Nigeria should consider rotation of auditors after serving for a maximum of five years, as a very important priority. The findings provide strong empirical evidence that rotation reduces discretionary accruals and improves audit quality.

Reference

- Abedalqader, Q. N., Ibrahim, M. Y., & Abdalhadi, A. (2020). Auditor independence and audit quality: Evidence from emerging economies. *International Journal of Financial Research*, 11(5), 150–162.
- Adebayo, O. S., & Olanipekun, W. D. (2025). Audit firm attributes and the nature of financial reporting quality of consumer goods firms in Nigeria. *International Journal of Accounting and Financial Reporting*, 15(2), 45–63.
- Adekanmi, A. D., Ali-Momoh, B. O., Adeoye, E. T., & Isinkaye, T. P. (2024). Audit attributes: An evaluation of the perception of financial reporting quality of listed non-financial firms in Nigeria. *FUOYE Journal of Accounting and Management*, 7(1), 66–82.
- Adeyemi, A. A., Okpala, O., & Dabor, E. L. (2021). Factors affecting audit quality in Nigeria. *International Journal of Business and Social Research*, 11(12), 198–209.
- Adeyemi, S. B., & Fagbemi, T. O. (2019). Audit quality, corporate governance and firm characteristics in Nigeria. *International Journal of Business and Management*, 5(5), 169–179.
- Akhabue, A. R., & Abusomwan, R. E. (2025). Does board size, audit firm tenure, and audit firm size affect audit quality of listed companies in Nigeria? *FUDMA Journal of Accounting and Finance Research*, 3(4), 239–251.
- Alade, M. E., & Owolabi, S. A. (2021). Auditor independence and audit quality in Nigeria. *Journal of Accounting and Taxation*, 13(4), 110–123.
- Bassey, B. E., & Ahonkhai, O. J. (2020). Audit quality and financial reporting quality in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 8(3), 44–58.
- Bello, A., & Yero, J. I. (2021). Audit firm size and earnings management in Nigeria. *Journal of Accounting and Financial Management*, 7(1), 55–70.
- Carey, P., & Simnett, R. (2020). Audit partner tenure and audit quality. *The Accounting Review*, 95(3), 653–676.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193–225.
- DeFond, M., & Zhang, J. (2020). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2–3), 275–326.
- Egbunike, F. C., & Okerekeoti, C. U. (2020). Audit firm rotation and audit quality in Nigeria. *Journal of Accounting and Financial Management*, 6(3), 1–15.
- Eneh, O. M., & Okafor, T. G. (2021). Audit fees and audit quality of listed firms in Nigeria. *African Journal of Accounting and Financial Research*, 4(1), 35–49.
- Ezeani, N. S., & Oladejo, M. O. (2023). Audit quality and earnings management of quoted firms in Nigeria. *International Journal of Advanced Academic Research*, 9(5), 22–39.
- Okpanachi, J., & Mohammed, N. A. (2022). Audit fees and financial reporting quality of listed firms in Nigeria. *Journal of Accounting and Management*, 12(3), 55–71.
- Omoniyi, T. O., & Akinselure, O. P. (2021). Audit report lag and financial reporting quality in Nigeria. *Journal of Accounting and Taxation*, 13(2), 67–81.
- Oladele, R., & Soyemi, K. A. (2022). Audit quality and accrual quality in Nigeria. *International Journal of Accounting and Finance Review*, 7(1), 25–40.
- Okoye, E. I., Adeniyi, S. I., & Ajala, A. M. (2022). Effect of audit firm size and audit tenure on audit quality of selected listed firms in Nigeria. *Journal of Global Accounting*, 8(2), 48–57.

- Reynolds, J. K., Deis, D. R., & Francis, J. R. (2020). Professional service fees and auditor objectivity. *Auditing: A Journal of Practice & Theory*, 39(1), 29–52.
- Ross, S. A., & Mitnick, B. M. (1973). Agency theory and the theory of the firm. *American Economic Review*, 63(2), 134–139.
- Salami, R. O., & Uthman, A. B. (2024). Discretionary accruals and audit quality of listed firms in Nigeria. *Journal of Accounting Research and Practice*, 9(2), 90–108.
- Simunic, D. A. (2020). The pricing of audit services: Theory and evidence. *Journal of Accounting Research*, 58(1), 161–190.
- Soyemi, K. A., & Olawale, L. S. (2019). Big4 audit firms and earnings quality in Nigeria. *International Journal of Accounting and Economics Studies*, 7(1), 13–22.