AUDIT QUALITY ATTRIBUTES AND FINANCIAL PERFORMANCE OF LISTED FIRMS IN NIGERIA

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Abstract

This study assesses the impact of audit quality attributes (audit fee, audit firm rotation, audit firm duration, and auditor status) on the financial performance (Earnings Before Interests and Taxes) of publicly listed firms in Nigeria. Fifty manufacturing companies listed on the Nigerian Exchange Group constitute the population of this study. Purposive sampling was employed to choose 30 businesses from the population. This study relied on secondary data culled from the annual reports and accounts of the thirty companies across a seven-year period, from 2015 to 2021. Hausman and the Breusch-Pagan Lagrange Multiplier Test were used to determine the suitability of Panel computed Generalised Least Squares (PGLS) to estimate the regression parameters for evaluating the hypotheses. The result revealed that a positive correlation existed between audit fee and the Earnings Before Interest and Taxes (EBIT) margin of Nigerian listed corporations (p-value = 0.0021). Earnings before interest and taxes margin increases when audit firms are switched, however the effect is not statistically significant (p-value = 0.9360). On the other hand, it was discovered that the profits before interest margin of the listed companies in Nigeria is significantly impacted negatively by the tenure of their audit company (p-value = 0.0393). Last but not least, there is a positive but non-statistically significant relationship between auditor status and the EBIT margin. The study recommends that firms should prioritise engaging auditors with expertise and reputation for quality in order to enhance the credibility of, and confidence in, the financial statement which will ultimately improve financial performance.

Keywords: Audit Quality Attributes, Earning Before Interest and Tax Margin, Auditor Fees, Audit Firm Rotation, Audit Firm Tenure, Auditor Status

1. Introduction

An independent auditor plays a critical role in ensuring that management of corporate organizations' performs their duties in accordance with established best practices which benefit the capital providers. Independence is vital for auditors to conduct their responsibilities professionally and responsibly. Auditing is an impartial and objective activity aimed at enhancing firms' operations and providing value to them (Abdirahman, 2021). Internal control, risk management, and corporate governance all benefit from the objective and thorough examination provided by an independent auditor. This could boost overall performance. Independent auditing is a monitoring technique that ensures business financial statements are free from material misstatements (Jeroh & Ozegbe, 2022). This protects the interests of numerous stakeholders and helps decrease information asymmetry (Ahmeti & Iseni, 2022; Amahalu, 2020). Investors depend on auditors to make substantial contributions to both financial reporting and performance in their fiduciary capacities. Auditors' work is valued because it is thought to improve a company's long-term financial outcomes and performance by reducing the likelihood of substantial misstatements in the financial statements. The issue of auditor independence and audit quality has become increasingly important due to the numerous scandals and failures in the corporate world that have left stakeholders questioning the credibility of external audits and the quality assurance they provide (Osevwe-Okoroyibo & Emeka-Nwokeji, 2021). When auditors are not independent, it becomes hard for them to conduct high-quality audits. One of the most egregious examples of corporate scandal is the fall of Enron and its audit partner, Arthur Anderson, because of their inability to disclose the company's improper transactions. In Nigeria, several corporate accounting scandals have been linked to low audit quality, including cases involving Cadbury Nigeria Plc, African Petroleum plc, Savannah Bank, African International Bank, Wema Bank, Nampak, Finbank, Spring Bank, Intercontinental Bank Plc, Bank PHB, Oceanic Bank Plc, and AfriBankPlc (Olowofela, Olaide & Isiaq, 2021; Amahalu, 2020; Enekwe, Nwoha & Udeh, 2020).

Firm performance entails the results realised by the firm from both financial resource utilisation and also from the contributions of individuals and units within the company (Midecha, 2022; Kiplangat, 2021). Audit quality is linked to financial performance because independent audits ensure that managers' actions are focused on maximizing the value of equity for owners rather than serving the interests of the managers themselves (Ahmeti & Iseni, 2022). The separation of firm owners from managers creates agency conflicts between shareholders and managers, which often leads to managers acting in their own best interests, against those of the shareholders (Al-Jalahma, 2022; Wekesa & Malenya, 2020). Therefore, an environment that includes monitoring tools such as independent audits is crucial to mitigate such conflicts and improve firms' performance. Several studies, including Jeroh and Ozegbe (2022), Ahmeti and Iseni (2022), Al-Jalahma (2022), etc., have explored the relationship between audit quality and financial performance. However, these studies have mainly relied on return on assets, net profit margin, return on capital employed and return on equity as proxies for financial performance, overlooking earnings before interest and tax margin, which offers a more precise measure of financial performance in relation to revenue realized. To address this gap in knowledge, the present study investigated the effect of audit quality attributes on companies' earnings before interest and tax margin.

2. Literature Review

Audit Quality Attributes

The characteristics or features that determine the effectiveness and reliability of an audit process and its outcomes is generally referred to as audit quality attributes. These attributes help assess the overall quality of an audit. They collectively contribute to the quality and credibility of audit reports, which are essential for stakeholders, such as investors, regulators, and the public, to make informed decisions based on reliable financial information. The extent to which an audit conforms to professional standards and effectively detects significant misstatements in financial statements serves as an indicator of the quality of the audit (Jeroh & Ozegbe, 2022). According to Edward and Ogeto (2022), audits of high quality instill trust in users, including investors, lenders, and regulators, by ensuring the accuracy of financial accounts. The level of assurance investors have in a company's stated financial performance is significantly influenced by the perception of quality of audits conducted. The concept being discussed pertains to the evaluation of an audit's adherence to established industry norms and its ability to identify mistakes that might have a substantial impact on the financial statements (Olowofela, Olaide & Isiaq, 2021).

In order to guarantee that the financial information given by firms is accurate and reliable, audits of a high quality are required (Amahalu, 2020; Enekwe, Nwoha & Udeh, 2020).

Audit Fees

Audit fees represent the overall payment made by an audit client to external auditors for conducting audit work. They are the compensation given to external auditors by an audit client to undertake an audit of the client's financial statements (Enekwe, Nwoha & Udeh, 2020). These fees can consist of various expenses associated with the audit, such as the auditor's time and effort, as well as costs related to travel, research, and other expenses linked to the audit process. The audit fee is typically determined through a negotiation process between the audit client and the external auditor and may fluctuate depending on the extent and intricacy of the audit work (Egbunike & Abiahu, 2017). This fee represents the cost associated with the professional work carried out by auditors to review and assess the company's financial records and internal controls to ensure the accuracy and fairness of its financial statements. Factors that can impact the audit fee encompass the size and complexity of the client's business, the risk of financial misstatements or fraud, and the expertise and experience of the audit team.

The complexity and scope of the audit engagement play a crucial role in determining audit fees. Larger and more complex organizations with extensive operations, numerous subsidiaries, and diverse financial instruments generally require more extensive audit procedures, which can result in higher audit fees. Conversely, smaller and less complex entities typically have simpler financial structures and therefore lower audit fees. The nature of the industry in which a company operates can also impact audit fees, as certain industries may have unique accounting requirements and regulatory complexities that necessitate specialized expertise from auditors (Ogbeifun & Olorunsola, 2020). Generally, quality audit is expected to be based of sufficient and quality audit evidence. Collection of higher quantity and quality of evidence and its evaluation by experienced and competent persons should ordinarily led to higher audit fees. Accordingly, to assess whether this higher audit fees result in better performance, the study hypothesizes (in null form) that:

H1: Audit fee has no significant effect on the earnings before interest and tax margin of listed firms in Nigeria.

Audit Firm Rotation

Audit firm rotation, also known as auditor rotation or mandatory audit firm rotation, is a regulatory or policy requirement that mandates a periodic change in the external audit firm responsible for conducting an organization's financial statement audits. Audit firm rotation involves changing the external audit firm responsible for auditing a company's financial statements after a specified period. Proponents of audit firm rotation argue that it can reduce the risk of audit complacency and foster a more rigorous and critical assessment of a company's financial statements, as the new auditor may approach the engagement with a different mindset and set of procedures. The effectiveness of audit firm rotation as a regulatory measure to enhance audit quality is a topic of ongoing debate, and its implementation varies by country and jurisdiction (Amahalu, 2020; Enekwe, Nwoha & Udeh, 2020). To add to the literature on audit quality attributes and their impact on organisational performance, this study hypothesizes (in null form) that:

H2: Audit firm rotation has no significant effect on the earnings before interest and tax margin of listed firms in Nigeria.

Audit Firm Tenure

Audit firm tenure denotes the consecutive number of years during which an audit firm has carried out audit work for a specific client company. It represents the duration of the external audit firm's service as the client's auditor, measured in successive years (Ahmeti & Iseni, 2022). For example, if an audit firm has been auditing a company continuously for ten years, its audit firm tenure would be ten years. Long audit firm tenure can contribute to a comprehensive understanding of the client's business and industry, as well as the development of close working relationships with management. This can enhance the efficiency and effectiveness of the audit process and provide valuable insights to the client. The intention behind audit firm tenure is to reduce the potential threats to auditor independence that may arise when an audit firm has a long-standing and possibly too familiar relationship with its client.

Furthermore, auditors with lengthy tenure may possess greater capabilities in detecting financial misstatements or fraud, given their extensive experience and knowledge of the client's financial reporting practices. Nevertheless, prolonged audit firm tenure can also generate familiarity threats, where auditors may develop overly close relationships with the client, thereby compromising their judgment and independence. This situation can create conflicts of interest or a lack of skepticism, which can diminish the credibility and dependability of the audit process (Ogbeifun & Olorunsola, 2020). Moreover, auditors with long tenure may be hesitant to voice concerns or question management, as they risk harming their established relationship with the client. Since the tenure of the auditor is expected to affect the quality value-adding services he can make to the client, including suggestions that may improve efficiency and effectiveness of its operations, the study hypothesizes (in null form) that:

H_3: Audit firm tenure has significant effect on the earnings before interest and tax margin of listed firms in Nigeria.

Auditor Status

Auditor status refers to the identity of the auditing firm that performed the audit on the financial statements of companies (Otuya, 2019). It refers to the professional standing and recognition of an individual or firm engaged in the practice of auditing and attestation services. The Big Four firms are firms considered to be the top-four accounting firms that are recognized. They are Pricewaters Coopers (PwC), Deloitte, Ernst and Young (EY), and KPMG. If a company's financial statements were audited by one of the Big four firms, it could be said that the company has a "Big Four auditor status." This could be seen as a positive attribute by some investors or stakeholders who view the Big Four as having a high level of expertise and reputation in the auditing industry. On the other hand, if a company's financial statements were audited by a smaller accounting firm, it may not have the same level of prestige as having a Big Four auditor status (Otuya, 2019). However, the quality of an audit may not solely depend on the size of the auditing firm but more on the competence and independence of the auditors performing the work. It is expected that the reputation and expertise associated with status of the auditor will rub off on the performance of the client which will receive quality advice and guidance. Hence, the study hypothesizes (in null form) that:

H_4: Auditor status has no significant effect on the earnings before interest and tax margin of listed firms in Nigeria.

2.1 Concept of Financial Performance

The phrase "financial performance" refers to an inherently relative metric: how efficient a company turns its assets into profits. It serves as a crucial measure of an entity's financial health, efficiency, and overall effectiveness in managing its resources and generating profits (Kiplangat, 2021; Abdirahman, 2021). Financial performance analysis enables investors, creditors, and management to make informed decisions, assess the company's competitiveness, and identify areas for improvement in financial management and operations (Khan, Parksh, Shamim, & Ali, 2021). Companies that can effectively manage various factors such as financial resources, competitive position, management team, and product/service quality to consistently generate profits and growth are considered to have strong financial performance (Ahmeti, Kalimashi, Ahmeti & Aliu, 2022). Financial performance has several aspects which include using metrics including financial ratios; which involves calculating the profitability ratios; solvency ratios; liquidity ratios; investor ratios and debt ratios, customer satisfaction, employee engagement and retention, market share, and environmental sustainability. It is a critical concept for investors and managers as it provides a way to evaluate a business's success and make informed decisions regarding future investments and strategies (Osevwe-Okoroyibo & Emeka-Nwokeji, 2021). For investors, financial performance is a key factor in determining a company's stock value and its potential for future growth and profitability. For managers, financial performance provides a way to assess the effectiveness of their strategic decisions and make necessary adjustments to improve the company's financial position.

Earnings Before Interest and Tax (EBIT) Margin

The EBIT margin is a measure of a company's profitability that takes into account its profits before the deduction of interest and taxes. The EBIT margin is a profitability ratio used to assess an organization's potential for making money from its primary business. It is a key financial indicator used by investors, analysts, and managers to evaluate a business's productivity and success. The formula can be expressed as:

EBIT margin = (EBIT / Total revenue) x 100

Here, EBIT stands for earnings before interest and tax margin, which is a company's revenue minus all operating expenses except for interest and taxes. EBIT is also known as operating profit. The resulting percentage represents the amount of profit a company earns for every dollar of revenue it generates, after accounting for all operating expenses except for interest and taxes. Increases in earnings before interest, taxes, depreciation, and amortisation (EBIT) margin point to improved operational profitability and cost control. A smaller EBIT margin, on the other hand, is an indicator that a firm is having trouble making money from its core activities and may need to make some adjustments to boost its profitability (Elewa and El-Haddad, 2019). The EBIT margin is a useful metric for investors, analysts, and managers to understand a company's operating profitability and efficiency, as it focuses solely on the company's core operations without taking into account financing and tax-related factors. It allows for better comparison of companies across industries and regions, as interest rates and tax policies can vary widely.

2.2 Theoretical Framework

This research is hinged on the stakeholder theory. Freeman, R. E. (1984) is credited with formulating stakeholder theory, which he first presented in his book "Strategic Management: A Stakeholder Approach". Freeman's central argument was that a company's success should not be solely measured by its profitability, but also by its ability to effectively manage the interests of all its stakeholders. Stakeholders include the shareholders, the creditors, the suppliers, its employees, its customers, the local community where companies carry out their operations, environmentalist, pressure groups, regulatory agencies and the government. According to Ogbeifun and Olorunsola (2020), it is important for companies to prioritise the generation of value for all stakeholders, rather than just focusing on shareholders. Furthermore, companies should effectively manage and reconcile the conflicting interests of various stakeholder groups. The idea posits that the long-term success of a corporation is contingent upon its adeptness in managing the interests and expectations of all stakeholders in an efficient manner. Stakeholder theory posits that auditors are responsible for serving the interests of all pertinent stakeholders, such as investors, creditors, regulators, and the broader community. The theory emphasizes that auditors must provide unbiased and objective opinions regarding a company's financial statements to ensure that stakeholders have access to accurate and dependable information (Osevwe-Okoroyibo & Emeka-Nwokeji, 2021). Therefore, stakeholder theory highlights the significance of auditor independence in enabling auditors to serve the interests of all stakeholders, rather than only those of management or other parties. By offering impartial and objective opinions on a company's financial statements and promoting effective corporate governance practices, auditors can safeguard the interests of all stakeholders and assist the company in achieving long-term success (Abdirahman, 2021).

2.3 Review of Empirical Studies

Audit Quality Attributes and Financial Performance: Evidence from Advanced Economies

Nurmamedova (2022) performed a thorough research to examine the complicated relationship between audit quality and the financial performance of firms listed in Russia. The study included an in-depth analysis. The main parameter being examined was the Return on Assets (ROA), and the study revealed a compelling and remarkable finding. The study uncovered that the Return on Assets (ROA) had a strong and statistically significant positive relationship with many important variables, including audit fee, audit firm size (referred to as audit size), and auditor independence or status. This discovery highlights the significant impact that audit-related factors might have on the financial stability of major Russian firms.

In a separate investigation on the impact of audit quality on corporate performance, Phan, Lai, Le, Tran, and Tran (2020) conducted a comprehensive research with a varied sample of 228 businesses that are regularly traded on the Vietnam Stock Exchange. The individual's analytical focus was directed towards the aspects of profitability and revenue growth rate as key measures of financial success. The results of this study 26ractice revealed a captivating storyline. The elements of auditor status, audit tenure, and the 26ractice of rotating auditors have been identified as key contributors to the favourable influence on both profitability and revenue growth rate. The empirical data presented supports the notion that audit quality attributes has a significant and positive impact on the financial performance of publicly traded firms in Vietnam.

Audit Quality Attributes and Financial Performance: Evidence from Nigeria

Soyemi, Tiamiyu, and Omale (2022) conducted a thorough investigation of the financial dynamics of firms, focusing on a sample of forty non-financial companies listed in Nigeria. The study included a complete analysis covering a period of 10 years. The researchers conducted a thorough investigation into the impact of many factors on operational cash flow. These factors included auditor tenure, audit fees, audit committee financial understanding, audit committee experience, and audit firm size. The results obtained from this comprehensive investigation revealed significant observations. Significantly, the dimensions of the audit company and the duration of the audit procedure have been identified as crucial elements that have a significant influence on operational cash flow. This highlights the complex nature of the association between audit-related variables and the financial results of corporations.

In a similar vein, Syder and Miebaka (2022) conducted a study in the context of Nigerian-listed insurance companies, aiming to investigate the relationship between audit quality and financial success. The study conducted shed light on a positive and statistically significant relationship between audit fees and both return on assets (ROA) and profit after tax (PAT). This suggests that audit-related variables may have an impact on the financial well-being of the insurance industry in Nigeria.

In their study, Jeroh and Ozegbe (2022) conducted a comprehensive analysis to examine the impact of many characteristics, such as audit experience, statutory audits, audit firm size, and auditor independence, on Return on Audit (ROA). The researchers discovered a strong association between return on assets (ROA) and measures that assess the overall quality of audits. Despite the lack of significant individual impact from audit firm size or audit firm age on return on assets (ROA), their combined influence demonstrated a positive correlation, providing valuable insights into the intricacies of audit quality within the corporate environment of Nigeria.

In their recent study, Olowofela, Olaide, and Isiaq (2021) conducted a thorough examination of the dynamics within the Nigerian food and beverage sector. Their objective was to elucidate the impact of audit firm size, audit duration, and audit fees on the performance of companies engaged in trading on the Nigerian stock market. The researchers conducted a thorough examination of the Return on Assets (ROA) metric, revealing the substantial impact of these independent factors on the performance of organisations operating in this particular sector.

A study by Ado, Rashid, Mustapha, and Ademola (2020) indicated a positive and statistically significant effect of audit quality on financial performance. Nevertheless, it is important to highlight that a mere 17% of the variability in the financial performance of the publicly traded businesses could be attributed to the variables under examination. This finding underscores the intricate nature of the multitude of factors that impact corporate results. Amahalu and Obi (2020) used a distinctive methodology by using audit committee quality as a surrogate for audit quality in their research investigating the impact of audit quality on Return on Assets (ROA) within the conglomerate sub-sector of the Nigerian Exchange Group. The study conducted over a period of ten years, from 2010 to 2019, revealed a strong and positive relationship between the size, independence, and competency of audit committees, and return on assets (ROA). This research provides valuable insights into the crucial impact of audit quality on financial success in this particular industry.

Ugwu, Aikpitanyi, and Idemudia (2020) found a strong and statistically significant relationship between the size of audit firms and return on assets (ROA). On the other hand, there was a statistically significant negative association between joint audits and return on assets (ROA), but audit fees showed a positive although less pronounced link with ROA.

3. Methodology

Research Design, Population, and Sample Size

The study adopted an ex-post facto research design. This design is appropriate because the independent variable, audit quality attributes, cannot be altered by the researcher, but can only be observed and measured within the listed firms. The population of this study is all the fifty (50) companies in the manufacturing sector listed on the Nigerian Exchange Group, including the consumer goods, industrial goods, agricultural goods, healthcare sector, and the natural resources sectors. The sample size was determined by employing judgmental or purposive sampling technique. Thus, the companies that formed the sample size from the population fulfilled the two criteria which were: companies with complete financial statements for the seven-year period and companies listed on the Nigerian Exchange Group for the seven-year period, that is, from 2015 to 2021.

Data Collection and measurement of variables

Secondary data extracted from the audited annual financial reports covering 2015 to 2021 periods was used for the study were used to compute the audit quality attributes (audit fee, audit firm rotation, audit firm duration, and auditor status) and financial performance (EBITM).

Table1: Operationalization and measurement of variables

Variable	Indicator	Measurement
Dependent Variable		
Earnings Before Interest and Tax Margin	EBITM	Earnings Before Interest and Tax divided by Total Revenue
Independent Variable		
Audit Fee		Natural log of audit remuneration paid
Audit Firm Tenure		The consecutive number of years a company is audited by the same audit firm.
Audit Firm Rotation		Dummy variable which takes the value of 1 when the firm changes its audit firm or 0 when it does not
Auditor Status		Dummy variable which takes the value of 1 when the firm is a BIG4 firm or 0 when it is not

Source: Researchers' Compilation, 2023

Model Specification

The model is presented as follows, each component carefully tailored to capture the nuances of the research context:

$$\mathbf{EBITM = f\ (AUF, AFR, AFT, AFS)}$$
$$\mathbf{EBITM_{it} = \beta_0 + \beta_1(AUF)_{it} + \beta_2(AFR)_{it} + \beta_3(AFT)_{it} + \beta_4(AFS)_{it} + \varepsilon_{it}}$$

Where: B0 = constant/intercept; B1-B4 = parameters of determination; ε= error term; i= number of firm (30); t= time period (6 years); AUF = audit fee; AFR = audit firm rotation; AFT = audit firm duration; AFS= auditor status.

4. Results and Discussion

Descriptive statistics

Table 2: Descriptive Analysis of Data

	EBITM	AUF	AFR	AFT	AFS
Mean	0.076054	38830.33	0.119048	4.161905	0.661905
Median	0.109284	20000.00	0.000000	4.000000	1.000000
Maximum	0.553805	420000.0	1.000000	10.00000	1.000000
Minimum	-3.489864	1100.000	0.000000	1.000000	0.000000
Std. Dev.	0.332935	65261.09	0.324618	2.273727	0.474192
Skewness	-6.631742	3.646711	2.352687	0.401607	-0.684498
Kurtosis	66.69513	17.21338	6.535135	2.493527	1.468538
Jarque-Bera	37038.66	2233.124	303.0801	7.889594	36.92087
Probability	0.000000	0.000000	0.000000	0.019355	0.000000
Sum	15.97143	8154370.	25.00000	874.0000	139.0000
Sum Sq. Dev.	23.16676	8.90E+11	22.02381	1080.495	46.99524
Observations	210	210	210	210	210

Source: *Eviews 10 Statistical Output*

Note: EBITM; Earnings Before Interest and Tax Margin: AUF; audit fee: AFR; audit firm rotation: AFT; audit firm tenure: AFS; auditor status

From Table 2 above, the output of the descriptive analysis was used to summarise the data collected for the purpose of the study. The mean value of 0.076054 indicates that, on average, the firms have a positive earnings margin before accounting for interest and taxes. However, the presence of a negative minimum value (-3.489864) and a significantly high positive skewness (-6.631742) suggest the presence of outliers or extreme values that may impact the overall distribution of the variable. The mean value of 38830.33 for AUF indicates the average audit fee paid by the sampled firms. However, the presence of a wide range between the minimum (1100.000) and maximum (420000.0) values suggests significant variation in the audit fees across the firms. The positive skewness (3.646711) indicates a right-skewed distribution, suggesting that some firms may have higher audit fees compared to others.

The mean value of 0.119048 for AFR indicates that, on average, the firms have a moderate level of audit firm rotation. The presence of a minimum value of 0.000000 suggests that some firms do not engage in audit firm rotation, while the maximum value of 1.000000 indicates complete rotation, indicating variation in the rotation practices across the firms. The positive skewness

(2.352687) suggests a right-skewed distribution, indicating that more firms may have lower levels of audit firm rotation. The mean value of 4.161905 for AFT suggests that, on average, the listed firms in Nigeria have an audit firm tenure of approximately 4 years. The minimum value of 1.000000 indicates that some firms have relatively short audit firm tenures, while the maximum value of 10.000000 indicates longer tenures. The standard deviation of 2.273727 indicates moderate variation in the audit firm tenure across the firms. The positive skewness (0.401607) indicates a slightly right-skewed distribution, suggesting that more firms may have shorter audit firm tenures.

The mean value of 0.661905 for AFS suggests that, on average, a majority of the listed firms in Nigeria engage Big Four external auditors. The maximum value of 1.000000 indicates that some firms exclusively rely on external auditors. The standard deviation of 0.474192 indicates moderate variation in auditor status across the firms. The negative skewness (-0.684498) indicates a slightly left-skewed distribution, suggesting a slight imbalance towards more firms engaging external auditors.

Test for Fixed Effect (Hausman Specification Test)

The Hausman specification test was used to determine the appropriate model choice between fixed effect and random effect models, ensuring accurate and reliable estimates in panel data analysis.

Table 3: Test for Fixed Effect

Hausman Specification Test for Fixed Effect	Statistic
Chi-Sq.	4.422238
Prob.	0.3519

Source: *Eviews 10 Statistical Output*

To determine whether the fixed effect model is inappropriate, the test considers evidence for and against the null hypothesis. The Chi-Square value of 4.422238 for the Hausman Specification Test for Fixed Effect, as reported in Table 3, is not statistically significant at the typical 0.05 threshold of significance. Thus, the random effect model is favoured since it yields more accurate estimates of the impacts of the independent variables on the individuals.

Test of Hypotheses

The researcher opted for Period Random Effects Estimation alternatively known as Panel Estimated Generalized Least Squares (EGLS). Panel EGLS was used to estimate the parameters in order to account for within-group correlation. It is appropriate for the study since it is an extension of the ordinary least squares (OLS) method that addresses the presence of serial correlation in panel data (Ambarkhane, Singh, Venkataramani & Marak, 2022; Yaffee, 2003). The output is shown below:

Table 4. Panel EGLS (Period random effects) Estimation

Variable	Coefficient	t-Statistic	Prob.
AUF	0.00000113	3.110059	0.0021
AFR	0.006495	0.080380	0.9360
AFT	-0.023833	-2.073960	0.0393
AFS	0.009944	0.198714	0.8427
C	0.124146	1.901204	0.0587
R-squared	0.077628		
Adjusted R-squared	0.059630		
F-statistic	4.313258		
Prob(F-statistic)	0.002265		

Source: *Eviews 10 Statistical Output*

The regression analysis shown in Table 4 examined the impact of audit quality attributes measures on financial performance. The R-squared value of 0.077628 reveals that the model accounts for about 7.76% of the variability seen in EBITM. Additionally, the F-statistic of 4.313258, along with a probability value of 0.002265, indicates that the entire model is statistically significant.

The regression equation's intercept term is represented by the coefficient of the constant, which has a value of 0.124146. The statement denotes the anticipated value of Earnings Before Interest, Taxes, and Depreciation and Amortisation Margin (EBITM) in the scenario when all independent variables possess a value of zero. The calculated t-statistic of 1.901204 indicates that the coefficient under consideration does not exhibit statistical significance at the commonly used significance level of 0.05. The probability value of 0.0587 is in close proximity to, but slightly over, the threshold of 0.05. This suggests a marginal degree of significance. This implies that there exists some evidence indicating a potential association between the intercept and EBITM; nevertheless, the strength of this association is insufficient to be deemed statistically significant.

Discussion of Regression Result

Audit fee and Financial Performance

The financial performance of listed firms in Nigeria exhibited a promising connection with audit fees (AUF). A minute increase of 0.00000113 in audit fees corresponds to a boost in the earnings before interest and tax margin (EBITM), maintaining all other variables constant. The t-statistic of 3.110059 further supports the statistical significance of this coefficient, as evidenced by the p-value of 0.0021, which falls below the threshold of 0.05. Consequently, the alternative hypothesis was embraced, revealing that audit fees wield a positive and significant impact on the earnings before interest and tax margin of listed firms in Nigeria (p-value = 0.0021). It is worth noting that this finding aligns harmoniously with prior research conducted by scholars such as (Sattar, Javeed, & Latief, 2020; Nurmamedova, 2022). These scholars also documented a similar positive effect of audit fees on firm performance in their respective studies, reaffirming the credibility and consistency of this observed phenomenon.

Audit Firm Rotation and Financial Performance

The impact of audit firm rotation (AFR) on the earnings before interest and tax margin (EBITM) of listed firms in Nigeria suggests a positive relationship, as indicated by the coefficient of 0.006495. However, the t-statistic of 0.080380 reveals that this coefficient lacks statistical significance, given that the probability value of 0.9360 exceeds the significance level of 0.05. Consequently, the null hypothesis could not be rejected, indicating that audit firm rotation has a positive but non-significant effect on the earnings before interest and tax margin of listed firms in Nigeria (p-value = 0.9360). This research finding aligns with the results reported by previous scholars such as (Nurmamedova, 2022; Sattar, Javeed & Latief, 2020), who also observed a positive effect of audit firm rotation on financial performance in their respective studies. While this study did not yield statistical significance, the consistency of the positive direction in these findings suggests that the impact of audit firm rotation may vary in its degree of influence or may be contingent on specific contextual factors.

Audit Tenure and Financial Performance

The coefficient of -0.023833 suggests that a longer tenure of audit firms is associated with a decrease in EBITM. The negative sign indicates a negative relationship. The t-statistic of -2.073960 suggests that this coefficient is statistically significant, since the probability value of 0.0393 is less than 0.05. Thus, the alternate hypothesis failed to accept that Audit firm tenure has a negative and significant effect on the earnings before interest and tax margin of listed firms in Nigeria (*p*-value = 0.0393). Plausible rationale behind this negative effect is audit fatigue, familiar threat, diminishing level of professional skepticism etc.

Significantly, this finding stands in contrast to the assertions made by some prior studies, such as those by (Soyemi, Tiamiyu, & Omale, 2022; Jeroh & Ozegbe, 2022), which posited a positive effect of audit firm tenure on firm performance. While these previous studies proposed a beneficial impact of extended audit firm tenure, the present research brings to the forefront the importance of considering the contextual nuances and the potential downsides associated with prolonged auditor-client relationships.

Audit Status and Financial Performance

The findings pertaining to auditor status (AFS) and its impact on the earnings before interest and tax margin (EBITM) of listed firms in Nigeria reveal a positive relationship, as inferred from the coefficient of 0.009944. However, the t-statistic of 0.198714 indicates a lack of statistical significance, since the probability value of 0.8427 exceeds the significance level of 0.05. As a result, the null hypothesis is accepted, suggesting that auditor status has a positive but non-significant effect on the earnings before interest and tax margin of listed firms in Nigeria (p-value = 0.8427). The finding aligns with the outcomes of previous studies conducted by scholars such as (Khan, Parksh, Shamim, & Ali, 2021; Sattar, Javeed & Latief, 2020). These earlier research endeavors similarly documented non-significant effects of auditor status on financial performance, reinforcing the nuanced nature of this relationship and its potential variability in different contexts.

5. Conclusions

The study investigated the effect of audit quality attributes (audit fees, auditor status, audit firm rotation and audit tenure) on the financial performance (earnings before interest and tax margn) of listed firms in Nigeria. The results from data analysis revealed interesting insights into the effect of audit quality attributes on the earnings before interest and tax margin (EBITM) of these firms. Companies' bottom lines may be profoundly affected by audit quality attributes because of the role it plays in assuring the integrity and dependability of financial statements. This research looked at how several aspects of audit quality attributes, such as audit fee, audit firm rotation, audit firm tenure, and auditor status, impacted the EBITM of publicly traded companies in Nigeria. By investigating these factors, the study provided insights into the effect of audit quality attributes on firms' financial performance in the Nigerian context, contributing to the understanding of the importance of effective auditing practices for achieving favourable financial outcomes.

Based on the findings of the study, the study advocates that listed firms should consider allocating sufficient resources towards ensuring adequate audit fees. Also, companies should periodically evaluate and consider rotating their audit firms. Additionally, listed firms in Nigeria should carefully assess the duration of their relationship with audit firms. Therefore, periodically evaluating audited financial performance and considering the benefits of introducing new audit firms can help maintain a high level of audit quality and potentially improve financial performance. Lastly, shareholders should consider engaging reputable audit firms, particularly those recognized as Big Four firms. The reputation and expertise associated with Big Four firms can provide credibility and confidence in the financial reporting process, which may positively influence financial performance.

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