



Audit Quality and Earnings Management of Listed Financial Services Firms in Nigeria.

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Abstract

The credibility of financial reporting is undermined when earnings management occurs, posing risks to stakeholders, investors, and the overall financial system. This study examined audit quality and earnings management of listed financial services firms in Nigeria, from 2012 to 2023. The population comprises all the 45 quoted financial service firms in Nigeria while filtering criteria was used to arrive at a sample size of thirty-two (32) financial firms. The hypotheses were tested using robust fixed effect regression model after conducting some diagnostics tests. The results showed that audit firm size has a significant negative effect on earnings management of listed financial services firms in Nigeria. However, audit fee has an insignificant negative effect on earnings management of listed financial services firms in Nigeria. The study recommends among others, that the quoted financial services firms should prioritize the engagement of larger audit firms with a proven track record of high-quality audits. These firms are better equipped to detect and mitigate earnings management practices due to their superior technical expertise and robust audit methodologies.

Keywords: Audit Fee; Audit Firm Size; Audit Quality; Earnings Management; Financial Services Firms

INTRODUCTION

Absolute discretionary accrual refers to the deliberate attempt to use discretionary accruals to influence earnings and hence alter the real financial performance of a firm (Okpara et al., 2023). In Nigeria, earnings management remains a critical issue due to its ability to mislead investors and other stakeholders. The Securities and Exchange Commission and the Financial Reporting Council of Nigeria are mandated to develop guidelines for accounting practices with the aim of ensuring transparency and reliability. When earnings are manipulated, a company may be subject to reputational damage, legal consequences, and sanctions from the Securities and Exchange Commission. External auditors are instrumental in preventing earnings manipulation by conducting an independent audit of the company's financial records. In the context of corporate governance, the audit committee plays a critical role in strengthening financial reporting practices and preventing earnings manipulation. An effective audit committee, which includes experts with financial expertise, is critical. Considering the strategic role of accounting practices in a firm, the audit committee plays a critical role. In a firm, the audit committee plays an important role. The importance of Nigeria's financial sector in the country's economic development, coupled with the need to ensure high-quality audits and prevent discretionary accrual practices, is essential in ensuring market stability. As Ayeni-Agbaje and Oluyori (2024) pointed out, high-quality and independent audits act as a deterrent to opportunistic financial reporting and prevent the management of earnings.

Larger audit firms tend to have a more favorable reputation and greater resources available to them. This could be an advantage in enabling them to provide high-quality audits and detect any manipulation of earnings more effectively. Companies that are subject to audits by these larger firms could Thus, they face more scrutiny, which makes it more difficult to engage in any dubious earnings management practices. Research has pointed out that the quality of audits is better when financial firms are audited by larger and more established audit firms. In this case, the presence of the larger audit firms may potentially result in more comprehensive audits, thereby reducing the possibility of earnings management. However, some research has pointed out the possibility of conflicts of interest. In this case, the larger audit firms may have financial firms as their major clients. These financial firms may then pressure the audit firms to partake in earnings management practices (Adeyemo et al., 2023). In this case, the size of the audit firms may not act as a barrier to prevent earnings management practices. A number of scholars have pointed out that the larger audit firms have the capacity to render more effective audit services due to their amplified resources, expertise, and reputation. As a result, they reduce the possibility of earnings management (Onwubiko et al., 2024; Velte, 2023).

The role of audit tenures in the management of earnings in the financial sector of Nigeria has been an issue of interest to numerous scholars. The majority of the studies have been based on investigating the correlation between audit tenures and the practices of manipulating earnings, in an attempt to ascertain whether long audit tenures deter or enhance the manipulation of earnings. In their research, Okpara et al. (2023) asserted that there is an adverse correlation between audit tenures and the management of earnings in Nigeria's financial firms. The scholars asserted that long audit tenures are an indication of the independence and expertise of the auditors, hence reducing the chances of manipulation of earnings by the company's management. It is, however, important to understand that there are studies that have yielded divergent findings.

For instance, in their research, Wahab et. (2023) did not find any significant correlation between audit tenures and the management of earnings in financial firms. It is evident that there is an inverse relationship between audit tenures and the management of earnings. Although the companies that practice earnings management may have longer audit tenures, the longer audit tenures may serve as a deterrent for earnings management. Another development is the effect of the size of the firms. Audit quality and earnings management may both be affected by the size of the firms. Larger firms have more resources to invest in audit quality, and they are more closely monitored by the regulators and the investors, hence a reduced level of earnings management. Therefore, the size of the firms needs to be controlled.

Nigeria faces various challenges in achieving the highest quality audits, including the lax enforcement of auditing standards, inadequate regulatory oversight, and the lack of skilled audit staff (Onwubiko et al., 2024). These issues increase the likelihood of compromising audit quality, which can allow for the practice of earnings management (Onwubiko et al., 2024). Earnings management has become a major concern in the context of financial reporting, which involves manipulating financial information to meet certain financial objectives (Healy & Wahlen, 1999). Earnings management compromises the integrity and transparency of financial reporting, which can result in the manipulation of the actual financial performance of the firm (Roychowdhury, 2006). Some of the studies conducted to investigate the relationship between audit quality and earnings management include Okpara et al. (2023); Wahab et al. (2023); and Odoemelam et al. (2024). However, previous literature lacks in providing an idea on how the size of audit firms influences the practices of earnings management. Larger audit firms are perceived to have more resources, expertise, and reputation, which could be beneficial in an effective way in the detection and deterrence of earnings management practices. This argument is supported by Onwubiko et al. (2024); Odoemelam et al. (2024). On the other side, Le and Moore (2023) argue that smaller audit firms are not in a position to offer enough scrutiny and oversight that could lead to higher levels of earnings management in the audited firms.

There are concerns about the audit tenures and the effects they may have on the earnings management of financial firms in Nigeria. The legitimacy of the financial reporting process is undermined when there is earnings management, which is a concern for the stakeholders and the overall financial industry (Odoemelam et al., 2024). The audit tenures have been implicated as a factor that may affect the earnings management of firms. The audit tenures may affect the incentives of the auditors, which may affect the overall diligence of the audit process (Adeyemo et al., 2023). Nigeria has seen cases of financial fraud in the recent past, particularly in the financial institutions of the country. These fraudulent activities have had a devastating effect on the overall Nigerian economy. Oceanic Bank International, now referred to as Ecobank Nigeria, was taken over by the Central Bank of Nigeria (CBN) in the year 2009 due to the financial irregularities and fraudulent activities in the bank. The bank was embroiled in cases of insider abuse, misappropriation of funds, and unauthorized loans to individuals and firms. Investigations into the bank's affairs revealed that the bank had misrepresented its liabilities and assets, leading to a financial crisis.

Another example is that of Intercontinental Bank Plc, which is currently known as Access Bank Plc. In 2009, the CBN intervened at the bank after the board and management were removed from their positions due to mismanagement, insider abuse, and fraudulent activities. The bank was accused of giving unauthorized loans, misappropriating customers' deposits, and using the

deposits for personal use. In addition, the bank engaged in unethical practices that affected the overall performance of the bank. In 2018, the operating license of Skye Bank Plc, which is currently known as Polaris Bank, was revoked by the CBN. This is similar to the case of Oceanic Bank and Intercontinental Bank. As a result, Polaris Bank came into existence as a bridge bank.

Empirical studies have equally revealed that most of the studies, for example, (Aondoakaa & Achika, 2022; Chituru et al., 2022; Egbadju & Chijioke, 2023; Hamzeh et al., 2023; Isaac, 2022; Isito & Patrick, 2022; Okereke & Uzoma, 2023; Wan et al., 2022) conducted in recent times on the topic of audit tenure, audit tenure, and absolute discretionary accruals in Nigeria and other countries of the world were not recent in terms of the data used for the analysis to reflect the current economic conditions, as all the data used were from 2019 and below, except the study conducted by Okonkwo et al. (2022) which used data up to 2021. The gaps identified in the literature are what this study seeks to address, which are: The audit quality and earnings management of listed financial services firms in Nigeria; to make this study recent, to apply the most suitable panel regression analysis, and to focus only on the periods when IFRS were implemented in Nigeria.

The primary objective of the proposed study is to evaluate the audit quality and earnings management of the listed financial services firms in Nigeria. This proposed study is specifically designed to: (i) evaluate the effect of audit firm size (AUFS) on the earnings management of the listed financial services firms in Nigeria; and (ii) evaluate the effect of audit fee (AUFEE) on the earnings management of the listed financial services firms in Nigeria. Hypotheses for the proposed study were formulated for test as follows: Ho1: Audit firm size (AUFS) does not have a significant effect on the earnings management of the financial services firms in Nigeria. Ho2: Audit fee (AUFEE) does not have a significant effect on the earnings management of the financial services firms in Nigeria.

LITERATURE REVIEW

Earnings Management

Earnings management is defined as the process of manipulating financial reports to attain specific goals, which may include the achievement of earnings goals, overstating profits, or creating a better impression of the financial performance of the firm (Shbeilat, 2024; Healy & Wahlen, 1999). Earnings management involves the application of accounting practices, estimates, and judgments to manage the financial performance of the firm, which may include the achievement of market expectations, sustaining stock market performance, or improving management remuneration. Earnings management may include practices such as the recognition of excessive revenues, inappropriate capitalization of expenditures, accruals, income smoothing, or the deferral of expenditures. Such practices may misrepresent the financial performance and position of the firm, thereby misleading investors, creditors, and stakeholders regarding the allocation of resources, which may result in inefficient resource allocation (Bansal, 2024; Christensen et al., 2023). However, while some aspects of earnings management may be deemed to be within the limits of the accounting standards and may be deemed technically correct (Roychowdhury, 2006), it may assume unethical and fraudulent proportions if it involves any element of misrepresentation or violation of the reporting standards. In this research, the term earnings management has been defined as the intentional manipulation of the financial statements with the aim of achieving specific financial objectives, particularly the achievement of desired levels of profit.

Audit Firm Size

Audit firm size can be defined as the size and capacity of an audit firm, which are often measured by factors such as the number of professionals, the number of partners, revenue generated, market size, or geographic dispersion. Audit firm size can be viewed as the resources, competence, and capacity to conduct quality audits. Larger firms are often perceived to have more competence, specialization, and quality control systems due to their larger resources, both human and financial. Prior studies have proposed several definitions for audit firm size. DeAngelo (1981) proposed measuring audit firm size by the number of partners in the firm, since larger firms are perceived to have stronger monitoring power and quality audits. Simunic (1984) proposed measuring audit firm size by the number of professional staff in the firm, which reflects the level of specialization in the firm. Palmrose (1986) proposed measuring audit firm size by the number of offices in the firm. On the other hand, Shockley and Zmud (1985) included both the number of professionals and offices. Similarly, Francis and Wilson (1988) emphasized the importance of the total number of professionals and partners. These authors suggested that there might be economies of scale. Similarly, Abbott et al. (2003) included the number of professionals and clients to measure the size of audit firms. Following these perspectives, this study includes the number of professionals and partners within an audit firm to measure its size. These two indicators are considered to be the best indicators of audit firm size. The current literature confirms that Big-4 audit firms are more effective in providing audit services with higher audit quality and more restraint over earnings management practices compared to non-Big-4 audit firms, due to their higher resources (Tran et al., 2025; Alqudah, 2024; Sulieman et al., 2024).

Audit Fee

Audit fees refer to the amount of money that a client firm pays to the external auditor as a way of compensating the auditor for the independent examination of the financial reports of the client. Audit fees, therefore, refer to the amount of money that the client pays to the auditor as a way of compensating the auditor for the time spent and the expertise used while carrying out the examination. There are many definitions from scholars. Bawuah (2024), for example, explains that audit fees are affected by factors such as the size of the client firms, the complexity of the industry, and the internal controls. Large client firms and those operating in complex industries attract high audit fees since they require more time and effort from the auditor. Weak internal controls could also lead to increased audit risk and hence require more extensive audit procedures. Regional cost variations and market rivalry are other factors that influence pricing. Audit fee, as explained by Xue and O'Sullivan (2023), is the fee paid to an auditor in recognition of their efforts and the risk involved in servicing the client. Daryaei et al. (2024) also explain audit fee as compensation paid to an auditor for the examination and expression of an opinion on the financial statements of an entity. According to Wilamsari et al. (2024), audit fee involves planning, work, and reporting, as well as assurance services. Li and Liu (2024) also explain that audit fee is subject to variations in complexity, client size, and the regulatory environment. Based on the explanations provided by different authors, the study explains audit fee as the amount of money paid by the client to an external auditor in exchange for the services provided in an audit engagement.

Empirical Review

Audit Firm Size and Earnings Management

Regarding audit quality and earnings management, empirical research has yielded mixed results. In the context of Nigeria, for instance, whereas Egbadju and Chijioke (2023) established that audit independence and firm size reduced earnings management for consumer goods companies, audit firm size had a positive and significant relationship with earnings management. Similarly, Micah et al. (2022) established that audit quality, such as audit firm size and independence, significantly influenced real earnings management for manufacturing companies, suggesting that reputable audit firms should be engaged to carry out audit functions with periodic rotation. However, a study by Jack and Micah (2021) on industrial goods companies found that audit firm size had no significant influence on earnings management. In earlier research on audit quality and earnings management, Junaidu and Ahmed (2020) and Masoyi et al. (2015) established a negative and significant relationship between audit firm size and earnings management, suggesting that stricter audit rotation should be implemented. However, most of this research was based on data up to 2020, which may not be applicable to current economic conditions.

Similarly, the studies conducted in Nigeria yielded divergent findings. Okereke and Uzoma (2023), as well as Okereke (2022), established that audit firm size and joint audits significantly affected earnings restatement and discretionary accruals among consumer goods companies. In addition, Orbunde et al. (2020) found that audit size is positively related to earnings management. Previous studies conducted by Clement and Adzor (2017), as well as Augustine (2014), found that large audit firms limit earnings management, although the studies were not statistically significant.

Similar inconsistent results are obtained from studies conducted outside Nigeria. In Jordan, for instance, a study by Hamzeh et al. (2023) established a significant relationship between audit firm size and earnings management, suggesting that specialization by audit firms other than the Big 4 should be considered. In France, Isaac (2022) established that Big 4 audit firms are related to higher accrual and real earnings management. In Indonesia, Septi and Rina (2022), Adhitya and Nanda (2019), and Angela and Rosinta (2019) obtained inconsistent results on audit firm tenure, ownership structure, and audit quality. Similarly, Pakianathan (2017) from Sri Lanka and Cheong et al. (2015) from Malaysia obtained limited or insignificant results on the effect of audit quality on earnings management. Although these studies are methodologically sound, they are limited by contextual differences and are based on older data, which are not applicable to the Nigerian context. Prior research offers mixed results regarding the association between audit firm size, audit quality, and earnings management. Some studies in Nigeria are based on outdated information, while studies conducted in other nations may not be applicable in the Nigerian context because of differences in economic regulations. This calls for an update in research with regard to current economic conditions in Nigeria.

Audit Fee and Earnings Management

Recent studies from Nigeria on audit quality and earnings management also produced mixed results. For instance, Chituru et al. (2022), in a study that covered the period from 2010 to 2019, established that audit quality had a significant effect on earnings smoothness but had no effect on discretionary accruals or earnings per share. The use of both pre- and post-IFRS periods might have influenced the results. The fact that the data used ended in 2019 makes it less relevant to current circumstances. On the other hand, Okonkwo et al. (2022), in a study that used conglomerate firms from 2012 to 2021, found a positive significant relationship between audit fees and earnings management. However, audit rotation and being a Big 4 audit firm were insignificant. A positive significant relationship was also established between audit quality and

abnormal cash flow by Kwarbai and Osho (2021), although they used both pre- and post-IFRS periods up to 2019.

Other studies conducted in Nigeria have reported divergent findings. Emmanuel and Emem (2020) found that audit fees had a significant impact on earnings management, but audit size and audit delays were found to be insignificant in Nigeria, using data up to 2015. Another study conducted by Kajola et al. (2020) found that audit fees and joint audits had a significant negative association with earnings management in deposit money banks, using data from 2007 to 2018. The studies conducted in Nigeria had data that was collected prior to 2020, and it is essential to obtain data that reflects recent changes in Nigeria. Similarly, evidence from outside Nigeria does not yield consistent results. Shakhatreh et al. (2020), who examined firms from Jordan over the period 2009-2016, found that fees paid to the auditor had a significant impact on disclosure quality, while the size of the audit firm did not. However, the foreign context and the time period of the research limit the generalization of the evidence to Nigeria. Overall, the literature does not yield consistent results and emphasizes the need to conduct recent research from the context of Nigeria to shed more light on the relationship between audit quality attributes and earnings management.

Theoretical Framework

The study is anchored on the information asymmetry theory, as the theory argued that there is an information asymmetry between the various parties that are involved in any kind of business. In terms of financial reporting, information asymmetry exists between management, who knows the business, and the various stakeholders, who depend on the financial reports for decision-making. Large audit firms have more resources and expertise that can help in addressing information asymmetry problems. Large audit firms may also have stricter auditing standards, which may have provided them an incentive to provide more reliable financial information. The study is also anchored on the agency theory, as the theory highlighted that higher audit fee may translate to more extensive auditing, which may lead to better monitoring of management by the audit firm, resulting in less discretion in financial reporting.

METHODOLOGY

The current study will use an ex-post facto research design. This design is best for assessing the relationship between the explanatory variables and earnings management. The target population for this study comprises 45 quoted financial service firms listed on the Nigerian Exchange Group (NGX) exchange as of 31st December 2023. These include banking, insurance, microfinance, mortgage, broker, and other financial institutions. Using a filtering method, the sampled firms had to be listed on the exchange for a minimum of one year before 2012, which is the year when IFRS adoption took effect. Using this method, 13 firms were filtered out, giving a sample of 32 financial service firms. Data collection for this study will be based on secondary data collection methods. The data will be collected from annual reports, accounts, and the NGX fact book for the years 2012-2023. Panel regression analysis was used to test the moderating effect of audit committee financial expertise on audit quality and earnings management. STATA 15 software was used for the analysis. Diagnostic tests, including correlation matrix, VIF, Breusch-Pagan test for heteroscedasticity, Shapiro-Wilk test for normality, Breusch-Pagan LM test, and Hausman test, were performed to ensure the model's robustness. This study used a model developed by Egbadju and Chijioke (2023) and Oladejo (2022).

Model Specification

The model anchored the direct relationship between Audit Firm Size (AUFS), Audit Fee (AUFEE) with Absolute Discretionary Accrual (ADA) with a control variable of Firm Size (FS) as adapted from Bello and Ugoh (2021) as follows:

$$ADA = f(\text{AUFS}, \text{AUFEE} \text{ and } \text{FS})$$

Equation 1 is expressed econometrically as follows:

$$ADA_{it} = \alpha + \beta_1 \text{AUFS}_{it} + \beta_2 \text{AUFEE}_{it} + \beta_3 \text{FS}_{it} + \varepsilon_{it} \dots \text{(Model)}$$

Where:

β_1 and β_2 – coefficients of proxies of an independent variable

β_3 – coefficient of a proxy of a control variable

α = constant

ADA = an indicator absolute discretionary accrual (a proxy for dependent variable)

AUFS = Audit tenure

AUFEE = Audit tenure

FS = Firm Size

ε = Error term

i = Firms

t = Periods and

f = Functional relationship

A-priori expectations: $\beta_1, \beta_2 < 0$

Variables Measurement and Justification

Table 2 below explains the variables under study.

Variable	Acronym	Type of Measurement variable	Measurement	Justification
Absolute Discretionary Accrual	ADA	Dependent (DV)	Absolute discretionary accruals, calculated using Modified Jones model. $TAC_{it}/A_{it-1} = \beta_0 (1/A_{it-1}) + \beta_1 (REV_{it} - REC_{it})/A_{it} + \beta_2 (PPE_{it}/A_{it-1}) + \varepsilon_{it}$.	Aondoakaa and Achika (2022), Hamzeh <i>et al.</i> (2023), Juan and David (2021), Okonkwo <i>et al.</i> (2022).
Audit Firm Size	AUFS	Independent Variable (IV)	Audit firm size was measured using big4 and non-big4 audit firm. A firm audited by big4 1 and if otherwise 0.	Hamzeh <i>et al.</i> (2023) and Okereke and Uzoma (2023).
Audit Fee	AUFEE	Independent Variable (IV)	Audit Fee was proxy using natural log of Audit Fees paid.	Hamzed <i>et al.</i> (2023) and Okereke and Uzom (2023).

Source: Researcher’s compilation, 2024.

DATA PRESENTATION AND ANALYSIS

The data for the 32 financial service firms, audit firm size (AFZ), audit fee (AUDFEE), firm size and absolute discretionary accrual (ADA) is provided. Descriptive statistics, correlation matrix, variance inflator factor, heteroskedasticity breusch pagan, Shapiro-Wilk normality test, breusch pagan lagrangian multiplier test, Hausman test, and fixed effect regression model have been used for analyzing the data.

Descriptive Statistics

Table 3 below is the descriptive statistics that summarises the entire data set.

Variable	Obs	Mean	Std. Dev.	Min.	Max.
ADA	384	0.0435651	0.0527205	0.002	0.277
AUFS	384	0.5598958	0.4970471	0	1
AUFEE	384	4.069909	0.9731216	1.954	9.592
FS	384	7.263867	0.7781832	5.478	10.414

Source: Researcher’s Computation (2023) Using Stata 15

In addition, table 3 shows that the minimum value for the absolute discretionary accruals, ADA, is 0.002, while the maximum and mean values for the same variable within the specified period are 0.277 and .0435651, respectively. Contrary to this, (ADA) had a standard deviation of 0.0527205, which was higher than the mean; thus, it was skewed to the right for this particular period under review. Further, table 3 shows that the size of the audit firm, AUFS, within the specified period had a minimum value of 0, a maximum value of 1, and a mean value of 0.5598958. The table further shows that (AUFS) had a standard deviation of 0.4970471, which was less than the mean; thus, it was skewed to the left for this particular period under review.

Table 3 shows the summary statistics for audit fee, AUFEE. It is evident from the table that over the period, AUFEE had a minimum value of 1.954, a maximum value of 9.592, and an average value of 4.069909. The table also showed that (AUFEE) had a standard deviation of 0.9731216, which is less than the mean, hence it skewed to the left over the period. Table 3 also showed that over the period, audit tenure had a minimum value of 0, a maximum value of 1, and an average value of 0.859375. Table 3 also showed that firm size (FS) had a minimum value of 5.478, a maximum value of 10.414, and an average value of 7.263867 over the period. The table also showed that FS had a standard deviation of 0.7781832, which is less than the mean, hence it skewed to the left over the period.

Correlation Matrix

Table 4 below is the Pearson correlation matrix for the data set to show the extent of interdependent variables. The decision rule for Pearson Correlation is that if a pair or more of the independent variables is equal to or above 0.85, then there is a presence of multicollinearity in the model. If the independent variables are less than 0.85, then there is no presence of multicollinearity in the model.

Variable	ADA	AUFS	AUFEE	FS
ADA	1.000			
AUFS	0.0155	1.000		
AUFEE	0.1115	0.1998	1.000	
FS	0.1256	0.2079	0.8250	1.000

Source: Researcher’s Computation (2023) Using Stata 15

The correlation matrix helps to identify the strength of the relationship between the proxies for the independent variable and the dependent variable. The matrix will also identify if there exists a relationship between the proxies for the independent variable itself. This will help to identify if a multicollinearity problem exists. The result obtained from table 4 indicates that there exists a 2% positive and weak relationship between audit firm size (AUFS) and absolute discretionary accrual (ADA) for quoted financial firms in Nigeria, based on the correlation coefficient 0.0155. The table further indicates that there exists an 11% positive and weak relationship between audit

fees (AUFEE) and absolute discretionary accrual (ADA) for quoted financial firms in Nigeria, based on the correlation coefficient 0.1115. The table also shows that approximately 13% positive and weak association exists between audit committee financial expertise (FS) and absolute discretionary accrual (ADA) of quoted financial firms in Nigeria, as revealed by the correlation coefficient of 0.1256. Lastly, the association that exists between the proxies of the independent variable, indicating that there is no presence of multicollinearity as revealed by the fact that all the correlation coefficients are less than 0.80 as suggested by (Gujarati, 2003).

Variance Inflator Factor (VIF) Results

Table 5: Variance Inflator Factor (VIF)

Variable	VIF	1/VIF
FS	3.27	0.305505
AUFEE	3.23	0.309944
AUFS	1.13	0.888515
Mean VIF	2.54	

Source: Researcher’s Computation (2023) using STATA 15 software

The decision rule is that if the values of VIF and 1/VIF are up to 10 and 1 and above, then the presence of the multicollinearity is observed. On the contrary, if the values of VIF and 1/VIF are less than 10 and 1 respectively, then the absence of the multicollinearity is observed. Therefore, the non-existence of the multicollinearity problem among the exogenous variables is tested with the colinearity diagnostics test that is observed to portray no multicollinearity problem in the data since their VIF and 1/VIF values are less than 10 and 1 respectively as shown in table 5. Therefore, the variables are well selected and fit to be used in the same regression model since the model does not have the multicollinearity problem, which is one of the assumptions that should be met in the regression analysis.

Diagnostic Tests

Before the start of regression analysis, the basic assumptions of multiple linear regressions using panel data are checked. These assumptions include homoscedasticity, multicollinearity, and other assumptions of regression analysis, i.e., normality and validity test for panel data analysis.

Heteroskedasticity Breusch-Pagan Test

Based on the assumption of multivariate analysis, the Heteroskedasticity Breusch-Pagan test was carried out. The test is carried out in order to ascertain whether or not the variance of the estimated residuals of the regression is dependent on the values of the independent variable. If not, then the research is considered homoscedastic Hair et al., 2010. Therefore, heteroscedasticity is the condition where the variance of the error term of the individual cross-sectional unit is not constant (Gujarati, 1995). Hair et al. (2010) and Pallant (2003) are of the opinion that the statistics results need to be statistically insignificant ($\alpha > 0.05$) in order for the data to fall outside the range of heteroscedasticity. The Breusch-Pagan test of heteroscedasticity is carried out in order for the problem to be identified. The null hypothesis of heteroscedastic variance is tested. If the p-value is less than 0.05, then it accepts the null hypothesis and the residual is considered heterogeneous.

Table 6 below shows the diagnostic test results using Heteroskedasticity Breusch-Pagan. The decision rule of heteroscedasticity is that if the P-value ≤ 0.05 , there is a problem of heteroscedasticity but if the P-value > 0.05 , there is no problem of heteroscedasticity.

Type of test	Chi2(1)	Prob>chi2
Heteroskedasticity Breusch-Pagan	29.99	0.0000

Source: Researcher’s Computation (2024) using STATA 15 software

Heteroskedasticity Breusch-Pagan test is a statistical test which indicates if the variance of the residuals for a variable in the regression changes or remains the same over time. However, it has already been proven in Table 6 that the data was heteroskedastic since it indicated that there wasn’t constant variance in the model; therefore, the simple linear regression model would not be suitable. This can be confirmed by the result showing heteroskedasticity in Table 6, which indicated that the chi2 value was 29.99 with a probability value of 0.000, which implies that the results are statistically significant at 1% alpha level (p-value < 0.05). In order to solve the problem of heteroskedasticity, robust regression analysis was used to fit the model since it does not meet the assumption of classical linear regression analysis, which states that it should be homoscedastic.

Normality

It is also important to check for normality in variables across two or more variables (Coakes & Ong, 2011; Pallant, 2003). For normality in data distribution to hold, normality is a requirement in multivariate analysis. However, if this requirement is not observed, it will lead to a false relationship between variables under investigation in research, thus distorting results obtained (Gujarati, 1995). This research checks for normality in data using the Shapiro-Wilk normality test and a normal distribution curve as shown in table 7 and figure 1 below:

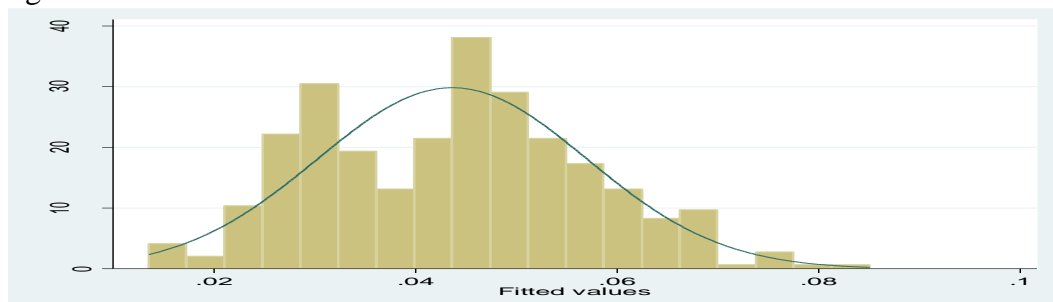
Shapiro-Wilk Normality Test

Table 7 and Figure 1 below show the results of the normality test using the Shapiro-Wilk Normality test and normal distribution curves. The decision rule is that, if P-Value > 0.05, then the residual is normally distributed, and if P-Value ≤ 0.05, then the residual is not normally distributed.

Variable	Obs	W	V	Z	Prob>Z
Residual	384	0.98587	3.741	3.133	0.00086

Source: Researcher’s Computation (2024) using STATA 15 software

Figure 1: Normal Distribution Curve



As shown in Table 7 above, the residual and the z value of 3.133, the probability value of 0.00086, which is less than 0.05, signifies that the residuals are not normally distributed around their mean. This assertion is collaborated by the normal distribution curve as shown in figure 1 above. This implies that the basic assumption of a linear regression technique, whereby the

residuals are normally distributed, has been violated, and a robust regression technique needs to be used.

Pooled Effect Vs. Random Effects Models: Breusch-Pagan Lagrangian Multiplier test

The first step in the analysis of panel data is to identify the best approach of the panel to be used. The choice of using a pooled effect model or a random effect model is determined by conducting a Breusch Pagan Lagrangian Multiplier test for random effect model. The Lagrangian Multiplier test checks for the presence of any unobserved effect in the random effect model. If the calculated value of the test is greater than its critical value-i.e., if the null hypothesis is rejected-then the random effect model of panel data is used.

Breusch-Pagan Lagrangian Multiplier Test

The result of the Breusch-Pagan Lagrangian Multiplier test is shown in Table 8 below. The decision rule of the Breusch-Pagan Lagrangian Multiplier Test is that if the P-value is equal to and less than 0.05, then the random effect model is appropriate, otherwise the pooled ordinary least square regression is appropriate.

Variable	Chibar2	P-Value
ADA	5.98	0.0072

Source: Researcher’s Computation using STATA 15 software

From Table 8, it is evident that the calculated Breusch Pagan Lagrangian Multiplier test, where chibar2 is (5.98) and the probability is (0.0072), is greater than the critical value for all the models, where $p=0.000$, and hence the null hypothesis is rejected. The significance of the chi-square test indicates that the variance of the random effect model is not zero (0). Hence, the Random Effect Regression Model (REM) is more appropriate than the Pooled Effect Model.

Hausman Specification Test

Table 9 below presents the result of a Hausman specification test conducted.

Chi2	13.73
Prob. Chi2	0.0328

Source: Researcher’s Computation using STATA 15 software

The rule of the decision of the Hausman specification test states that if the prob. Chi2 value is equal to and less than 0.05, then the fixed effect model would be appropriate, and otherwise, the random effect model would be more appropriate. The data used for the purpose of the study is a panel data, and the use of panel data could result in a kind of error, which could be clustered and even correlated over time. This is because the financial firms could have their own entity-specific characteristics, which could determine the audit quality of the firms. This could, therefore, imply the presence of unobserved heterogeneity, which could even influence the outcome variable or the explanatory variable. As a result, there would, therefore, be a need to control the same. From the results of the Hausman test, it indicates that the fixed effect model would be more appropriate compared to the random effect model. This could be ascertained by the Chi2 value of 13.73, as presented in table 9, where the p-value of 0.0328 would not be significant at all levels of significance.

Audit Quality and Earnings Management

Table 10: Fixed Effect Regression Results: Audit Quality and Earnings Management

Model

Variables	Coefficient	t-value	P-value
AUFS	-.0235424	-2.32	0.021
AUFEE	-.0001647	-0.01	0.990
FS	.0396723	2.91	0.044
Constant	-.2443453	-2.42	0.016
R-Squared	0.6028		
Wald Chi2	118.54		
Prob>Chi2	0.0000		

Note: Model 1 (IVs, MV and DV) and Model 2 (IVs, MV*DV). *p<0.05, **p<0.01

From the results in table 10 model 1 above, it is evident that the coefficient of determination (R-sq) is 0.6028, and this indicates that the (audit firm size, audit fees, and firm size) used in this study has 60% combined effect on the systematic changes in the dependent variable, i.e., absolute discretionary accruals in the period under review. The Wald chi2 value of 118.54 and the corresponding prob. Chi2 of 0.0000 indicates that the model is appropriate and reliable in decision-making. From the results in table 10 model above, it is evident that the variable audit firm size, with a p-value of 0.021, is significant, and the variable audit fees, with a p-value of 0.990, is insignificant at 5% level.

Discussion of Findings

Audit Firm Size and Earnings Management

This study found that audit firm size had a significant negative effect on earnings management of listed financial services firms in Nigeria. This means that an increase in audit firm size will lead to a reduction in earnings management of listed financial services firms in Nigeria by -0.0235424. The researcher's expectation is in agreement with the findings of this study, and the findings are also in agreement with the information asymmetry theory, as the theory suggests that there is a disparity in information between different parties involved in any given transaction. In the case of financial reporting, there is an information asymmetry between the management, who are aware of the intricacies of the company's operation, and the external parties, such as investors and creditors, who only have access to the financial report in making their decisions. Audit firms that are large have the ability to mitigate information asymmetry. They could also have more stringent auditing processes and greater reputation risk, and these factors could encourage them to offer more reliable and accurate financial reports. This finding is as consistent with the empirical findings of Awa and Obinabo (2019). However, the findings are not consistent with the empirical findings of Clement and Adzor (2017) and Okonkwo et al. (2022).

Audit Fee and Earnings Management

The research revealed that audit fee has an insignificant negative effect on earnings management of listed financial services firms in Nigeria. This means that an increase in audit fee will lead to a decrease in earnings management of listed financial services firms in Nigeria by -0.0001647. This research finding is in line with the researcher's a-priori expectation and also in line with

agency theory because agency theory emphasized that an increase in audit fee might imply a wider scope of auditing activities that might result in better monitoring of management by auditors, hence limiting management's discretion in financial reporting. This research finding is in line with the empirical finding of Camillus and Celestine (2021), Septi and Rina (2022), but it disagreed with the empirical finding of Aondoakaa and Achika (2022), Lambe et al. (2021), and Oladejo (2022).

CONCLUSION AND RECOMMENDATIONS

Larger audit firms are more capable of deterring earnings management practices due to their greater resources, expertise, and independence. This is because larger audit firms are in a better position to provide technical competence in ensuring that there is a proper adherence to financial reporting standards. Therefore, hiring larger audit firms increases the veracity of financial statements, thus creating confidence among all relevant stakeholders by enhancing the credibility of financial reporting.

The increase in audit fees helps to reduce earnings management practices. This also shows that audit fees are essential in ensuring that auditors are in a position to provide quality audit services. This is because larger audit fees enable auditors to invest in quality audit methodologies, thus ensuring that they are in a position to provide quality audit services. Therefore, this shows that adequate remuneration is a crucial determinant of quality audit services, thus enhancing transparency, accountability, and credibility in financial reporting.

Recommendations

On the basis of the above conclusions, the following recommendations have been made:

- (i) The financial service firms should hire the services of large audit firms that have a good reputation for conducting high-quality audits. Large audit firms have better technical capabilities and better audit methodologies to identify and mitigate the earnings management practices.
- (ii) The financial service firms that are listed should ensure that the fees paid to the auditors are reasonable and proportionate to the complexity of the audit.

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