
DETERMINANTS OF AUDIT FEES ON AUDITOR FEES OF LISTED AGRICULTURAL FIRMS IN NIGERIA

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Abstract

This study examined the extent external audit fees determinants affected the audit fees of Nigerian agricultural firms, using client size, client profitability and audit firm size as the independent variables. Ex-Post facto research design was adopted for the study. A sample of five (5) agricultural firms in Nigeria was used. Data were extracted from annual reports and accounts of listed agricultural firms in Nigeria spanning from 2013 to 2023. Multiple regressions analysis was employed to test the hypotheses vis E-view 9.9. Based on the results, the study found that that client size has a negative and insignificant effect on audit fees of agricultural firms in Nigeria. This study revealed that client profitability has a negative and significant effect on audit fees of agricultural firms in Nigeria. The study also showed that audit firm size has a positive and significant effect on audit fees of agricultural firms in Nigeria. Based on the findings, the study recommended among others that Client size has a negative and insignificant effect on audit fees, the client's firm size should be used as a major criterion in the determination of audit fees in Nigeria. They also have enough financial resources to recruit big international audit firms. Hence, large size companies would pay higher fees than small ones.

Key words: Audit Fees, Client size, Client profitability and Audit firm size

Introduction

Auditing is a fundamental concept in the accounting profession. The amount charged by professional accounting firms has become a major concern among academic researchers and practitioners (Urhogide & Izedonmi, 2015). The fees charged by auditors for their services or participation for certain period of time are very important in audit services (Urhoghide & Izedonmi, 2015). According to Sibuea & Arfianti (2021), the financial statement audit process avoids agency issues that arise between principals and agents. This conflict is usually caused by a disagreement between the desires of the principal and the agent to achieve, and the principal does not trust the agent in business activities and recording transactions in the accounts. Based on these issues, the auditor assumes the role of an independent party to assist in the process of checking the financial statements, which helps to ensure that all transactions recorded in the financial statements are actually what should occur and are appropriate (Ellyanna & Devika, 2023). Audit fees represent the financial consideration paid to auditors for the provision of assurance services, and their determination is influenced by a wide range of factors, including company-specific factors and the inherent risks associated with the audit engagement (CAMA, 2020; Lawal & Ibrahim, 2022). Pricing for audit services is important because it not only reflects the complexity and scope of the audit process, but also provides insight into the operational and financial health of the company (Hay et al., 2006).

In a developing country like Nigeria, where financial services companies play a fundamental role in economic growth and stability, understanding the factors that determine audit fees remains essential. Financial services companies in Nigeria, including retail banks, insurance companies and other financial institutions, operate within a regulatory environment characterized by strict compliance requirements and high levels of supervision (Central Bank of Nigeria, 2023).

Some studies have been conducted abroad, such as Ellianna and Devika (2023). Bye and Noel (2022) investigated the determinants of audit fees for companies listed on the UK Alternative Investment Market (AIM). Ogungbade et al (2020) investigated the impact of audit quality indicators on the FRQ of deposit-taking banks listed on the NGX. Eleven banks were used as a sample between 2009 and 2018. Other studies have also been conducted in Nigeria, such as the study by Ado et al. (2020); Egbunike and Asuzu, (2020), Emmanuel and Emem, (2020), Kolawal, (2019), Bala et al. (2018), Mustafa et al. (2019), Ikpantan and Daferighe, (2019). Extensive research has been conducted on agribusiness in Nigeria, resulting in sectoral gaps, which this study aims to fill. It is within the above context that the present study extends previous studies by presenting new evidence on the determinants of external audit costs in Nigerian agribusinesses.

This study determines the extent determinants of audit fees affect external auditor fees of Nigerian agricultural firms. Specifically, the study intends to achieve the followings;

1. To ascertain the effect of client size on auditor fees of Nigerian agricultural firms
2. To determine the effect of client profitability on auditor fees of Nigerian agricultural firms
3. To investigate the extent audit firm size affect auditor fees of Nigerian agricultural firms

Review of Related Literature

External Audit Fees

Abdul-Rahman et al (2017) define audit fees as the compensation paid to external auditors, which is influenced by audit risk, complexity of the engagement, and cost structure of the client company. Xin (2020) adds that audit fees reflect remuneration for professional services

determined by the specific audit task performed. In Nigeria, audit fees also take into account compliance with the Companies and Allied Matters Act (CAMA, as amended 2020) and vary depending on the complexity, risk and experience required. Abubakar et al (2023) note that audit fees are dynamic and change depending on the complexity and cost structure of the engagement. Audit fees are fees paid to auditors for audit services provided. In other words, audit fees are fees that a company pays to an external auditor in exchange for conducting an audit.

The audit industry in Ghana is regulated by the Institute of Chartered Accountants of Ghana (ICAG). When entering into professional negotiations, accountants must be careful to avoid issues that may compromise their independent professional judgment (ICAG, 2006). The amount of audit fees charged is influenced by auditor-dependent factors: auditor reputation, auditor experience, and competition in the audit market (Hentati & Jilani, 2013; Ask & Holm, 2013; Castro et al. 2015). Audit fees are also determined by client company factors such as the size of the company, the complexity of the company's operations, the risk of the client company, and the profitability of the client company (Joshi and Al-Bastagi, 2000).

Client Size

Previous studies have shown that company size influences audit planning (Castro et al, 2015; Kikhia, 2014). Since large companies require more attention than small companies, more time is spent on audit work, which results in large companies being charged higher audit fees than small companies (Xu, 2011; Simon and Taylor, 2002). Large companies participate in more events than smaller companies. They tend to be more public and disclose more information than smaller companies.

Al-Shammari, Brown, and Tarka (2008) and Xu (2011) provided strong evidence that “client size is the most important variable in determining audit fees.” In a study that reviewed empirical studies on audit fees, Caushalli, De Martinis, Hay, and Knechel (2011) found that among all other factors, the size of the client firm was the most important determinant of audit fees. The reason for the positive and significant relationship between audit fees and the size of the client firm is that the intensity and effort of the auditor's work increases as the size of the firm increases.

Therefore, auditing large companies requires more audit services and time than smaller companies. It also has sufficient financial strength to attract major international auditing firms.

Therefore, larger firms pay higher fees than smaller firms (Carson et al., 2004; Vermeer, Raghunandan, & Forgione, 2009). A positive relationship was found between the size of the audited company and the fees charged by the auditor (Tan and Koh, 1990). The most common measures of company size include the number of employees, the company's total revenue, and its total assets. Some studies use different metrics than those actually used for the size of the client's business.

Client Profitability

Companies with higher revenues also receive more regulatory attention and require more extensive audit procedures to ensure compliance with financial reporting standards.

Musa (2017) describes profitability as an important indicator of operating performance and points out that profitable companies often disclose more information to demonstrate performance, reduce agency costs, and justify higher executive compensation. Baldacchino et

al. (2014); Ubokdom et al. (2024) also note that more profitable firms have to pay higher audit fees due to the increased effort required to audit revenues and costs.

Alhadizah and Yusrianti (2024) point out that the management of profitable companies often tries to present favorable financial statements to shareholders, which provides an incentive for auditors to consider the information provided. As profitability increases, the need for more detailed evidence and schedules increases, leading to increased associated costs.

(2019) point out that executives of profitable companies may be well compensated and seek to legitimize their skills through extensive disclosure, which may lead to stronger audit requirements. Kanakria (2020) confirms a positive relationship between profitability and audit fees and argues that more profitable firms incur higher fees due to the increased time and effort required to review evidence. Similarly, Hassan and Nasser (2013) find that higher profitability is correlated with higher audit fees for non-financial firms.

Audit Firm Size

The size of an audit firm is an important factor in providing audit services. Many previous studies have investigated whether audit fees paid to "large" audit firms are significantly higher than audit fees paid to "non-large" audit firms. Big four audit firms have efficiencies due to large-scale operations. Moreover, they have more resources to invest in staff training, technology and facilities. An important focus of previous research has been whether there is a significant difference between the amount of audit fees charged by large audit firms and the amount of audit fees charged by small audit firms.

However, the rationale for studying the size of audit firms is based on the assumption that size is an indicator of audit quality. Thus, there may be a relationship between the size of the audit firm and the amount of audit fees, which depends on the perceived quality of the audit. It is worth noting that the major accounting firms were once known as the "Big Eight" before becoming the "Big Six" and then the "Big Five" through a series of mergers, with the "Big Five" becoming the "Big Four" following the death of Arthur Andersen in 2002 following his involvement in Enron.

Review of Empirical Studies

Akininyi, Umoren, and Ibok (2025) investigated how firm size, board size, firm profitability, and firm leverage affect audit fees of financial services firms in Nigeria. Secondary data was collected from a purposive sample of 15 companies listed on the Nigeria Exchange Group between 2013 and 2023. Descriptive statistics, correlation analysis, the method of Levine et al., unit root tests of data stationarity, and least squares panel regression models were used in this study. This study found that firm size and profitability have a positive and significant impact on audit fees, while board size and leverage do not have a significant impact. Akosu, Sumiyol, Ikya, and Yua (2024) studied the determinants of audit fees of listed manufacturing companies in Nigeria. Data was collected from 30 out of 48 manufacturing companies listed on the Nigeria Exchange Group between 2018 and 2022. Data were analyzed using linear regression and correlation analysis. The findings showed that client size is a determinant of audit fees, while client complexity, audit firm size, audit experience, and profitability are not determinants of audit fees. The study also found that there is a significant difference between test audit fees using multiple regression analysis and test audit fees using linear regression analysis.

Andika et al. (2024) investigated 88 consumer goods companies listed on the Indonesia Stock Exchange between 2019 and 2022 and found a positive and significant relationship between company size (measured by total assets) and audit fees. On the other hand, audit complexity

was positively associated with fees, but it was not statistically significant. Martínez and Moraes (2024) extend this analysis to Brazil's basic infrastructure sector using panel data from 31 B3 companies between 2011 and 2022. Their findings confirm that firm size and interactions with Big Four auditors are positively associated with increases in audit fees, while strong corporate governance practices and financial restatement also influence the amount of fees. Larbi et al. (2024) investigated the determinants of statutory remuneration for auditors in France based on 696 observations from 116 companies (2017–2022). Generalized estimating equations (GEE) show that large corporations, Big Four audit firms, and sectors such as telecommunications incur higher fees. Mixed Big 4 and non-Big 4 audit teams accounted for 52.3% of the sample, but no significant impact was found on governance structure and internal control system. Company size, industry, and audit team composition have been identified as key determinants of audit fees. Rimet and Syakirin (2024) used 45 observations from 15 IDX-listed companies (2020–2022) to analyze audit fees in the Indonesian food and beverage industry. Panel data regression analysis shows that firm complexity and board composition significantly affect audit fees, but not firm profitability or risk. The model explains 49% of the variation in audit fees, highlighting the complexity of the engagement and the importance of management oversight. Aji et al. (2023) investigated the relationship between intellectual capital (IC) and financial reporting quality in human resource accounting, with a particular focus on litigation risk. Data from 14 companies (2017-2021) using an ex-post design showed a negative relationship between IC and litigation risk and a positive relationship between IC and financial reporting quality. Indriasih et al. (2023), focusing on Indonesian trading and service firms, confirmed that company size and debt risk positively affect audit fees, highlighting the relevance of total assets and financial risks in shaping audit costs. Conversely, audit complexity and audit risk showed no significant effect, likely due to independent auditing practices among subsidiaries and other mitigating factors.

Rizal and Sarundayang (2023) investigated 60 Indonesian consumer goods companies (2019-2022) and found that board size and independence have a significant impact on audit fees, while company size, accounting firm size, and corporate risk do not have a significant impact. Ellianna and Devika (2023) tested the impact of variables determining the cost of audit fees for agribusiness companies included in the IDX from 2017 to 2021. The data were processed using IBM SPSS version 25 software and found that company complexity has a positive and significant impact on audit fees, internal audit has a negative and significant impact on audit fees, and company profitability and risk have no impact on audit fees. Abubakar, Mohammed, Terzungwe, and Onipe (2023) investigated the moderating role of audit committee independence on the impact on audit fees and financial reporting quality of listed non-financial services companies in Nigeria. Audit committee independence was measured by the ratio of the number of independent directors serving on the audit committee to the total number of audit committee members. Audit fees were measured by the logarithm of audit fees, and financial reporting quality was measured by discretionary accruals. The study covered 30 non-financial services companies listed on the Nigeria Exchange Group over an 11-year period from 2011 to 2021. Data were collected from the annual financial statements of the selected companies. Descriptive statistics and multiple regression analysis techniques were used to analyze the data. The results showed that audit fees have no direct impact on the quality of financial reporting of listed non-financial services companies in Nigeria. However, the effect of audit fees on financial information quality is statistically significant when it is moderated by audit committee independence. Kajola, Meuser, and Knechel (2022) determined audit fees based on empirical data on bank deposits. OLS regression, sample size: 10, independence variables: board size, independence, firm size,

leverage, profitability, auditor tenure, and joint audit. Dependency: Audit Fee. BS, BI, and firm size have a significant positive impact, while profitability, audit experience, and joint audit have a small impact on audit fees. Bai and Noel (2022) examined the determinants of audit fees for companies listed on the Alternative Investment Market (AIM) in the UK - the secondary market of the London Stock Exchange for small and medium sized companies. AIM companies are expected to present different audit pricing challenges compared to fully listed firms. From an audit demand perspective, AIM companies exhibit different risk and governance characteristics while, from a supply perspective, the AIM is characterized by greater auditor choice than typically found in main markets. The study found that audit fees in the AIM are negatively influenced by client liquidity and the length of listing. Ogunbade et al (2020) investigated the impact of audit quality indicators on the FRQ of deposit-taking banks listed on the NGX. Eleven banks were used as the sample size from 2009 to 2018, and multiple regression method was used for data analysis. They found that FRQ is significantly influenced by audit fees. The study also examined the currency of financial statements based on the period from the end of the reporting year to the date the external auditor signed the report. The study focuses on non-financial firms and introduces audit committee as a moderating variable. A study by Omoregie and Dibia (2020) investigated the impact of audit firm characteristics and audit quality in Nigeria. A total of 15 banks participated in the study over a five-year period (2014-2018). Data were analyzed using multipanel regression analysis using the econometric software package E-view 8.0. This study found a significant and positive relationship between audit quality and audit fees. Considering these findings, this study suggests that more attention should be paid to audit fees when investigating the factors influencing FRQ in Nigeria. The study results would have been different if moderator variables had been included. Ado et al (2020) investigated the impact of audit quality on the financial performance of listed companies in Nigeria. There are 84 companies listed on NGX, and 756 observations have been obtained for the nine years from 2010 to 2018. This study uses multiple regression to analyze the data. The results indicate that although audit fees have a positive impact on asset returns, the impact is small. In other words, if the amount paid to auditors for audit services decreases, performance will increase slightly. Egbunike and Asuzu (2020) investigated whether audit fees affect the preparation time of audit reports. Thirteen industrial enterprises were selected as the sample for the study. Data analysis methods include panel regression and descriptive statistics. The results indicate that although audit fees have a negative impact on auditor reporting delays, the impact is minimal. Emmanuel and Emem (2020) identified the impact of audit firm characteristics on the FRQ of listed manufacturing companies in Nigeria from 2011 to 2015. Data were collected from 16 companies that constituted the sample size. Data were analyzed using multiple regression analysis. The results revealed that audit fees have a significant impact on the FRQ of listed manufacturing companies in Nigeria.

Methodology

Research Design

Ex-post facto research design was adopted for the study. This is appropriate because the study aims at measuring the relationship between one variable and another, in which the variables involved are not manipulated by the researcher.

Population of the Study

The population of the study consists of the Nigerian agricultural firms quoted on the Nigerian Exchange Group. The study covered ten years annual reports and accounts of these banks from 2013 to 2023 as stated in the table below:

Table 1: List of Agricultural Firms in Nigeria.

Companies
Ellah Lakes Plc
Ftn Cocoa Processors Plc
Livestock Feeds Plc
Okomu Oil Palm Plc
Presco Plc

Source: Nigerian Exchange Group, 2025

Source of Data

The data was sourced from publications of Nigerian Exchange Group Annual Reports and Accounts of the sampled banks. The data extracted include; client size, client profitability, audit firm size and audit fees.

The dependent variable is proxied using audit fees, while the independent variables are client size, client profitability, audit firm size. Audit fees comprise the natural log of the Audit fees paid by the company. Auditor's size show that it is audited by one of the "big 4" audit firms (Price-water house coopers; Akintola Williams Deloitte; KPMG Professional service and Ernst and Young, otherwise zero (0). This operationalization follows the approach used in Kane and Velury (2011) where big audit firms are assumed to have quality audit services than other smaller audit firms.

Model Specification

The specified simple regression estimated model takes the following form:

$$ADFE_{it} = a_0 + \mu_i + \beta_1 CLTSZ_{it} + \beta_2 CLTPFT_{it} + \beta_3 AUDSZ_{it} + \beta_4 LEV_{it} + \epsilon_{it}$$

Where:

The dependent variable: Audit fees measured as the amount of fees charged by the auditor for an audit service and

The independent variables:

CTSZ = Client size, it is measured in this study as the natural log of total asset

CTPT=Client profitability. In this study, profitability is measured using profit after tax (PAT).

ADSZ =Auditor's size as auditor's size show that it is audited by one of the "big 4" audit firms (Price-water house coopers; Akintola Williams Deloitte; KPMG Professional service and Ernst and Young, otherwise zero (0).

LEV= Firm leverage

a_0 = slope of the model

$\beta_1, \beta_2, \beta_3$, = coefficient of parameter.

Method of Data Analysis

Both Correlation and Ordinary Least Square were used to test the relationship between the independent variables and the dependent variables. This was done with aids of the Statistical Package for Social Sciences (SPSS) version 20.0 at 95% confidence at five degree of freedom (df).

Decision Rule

The decision rule for the hypotheses is to accept the alternative hypotheses if the p-value of the test statistic is less than the alpha at 5% significance level, otherwise reject alternate hypothesis and accept null hypothesis.

Data Analysis and Results

Table 1: Descriptive

	ADFE	CLSZ	CTPT	ADSZ	LEV
Mean	1700.455	6.515169	-255715.6	0.363636	0.407630
Median	1200.000	6.077528	-24860.99	0.000000	0.559998
Maximum	5750.000	7.369878	-583.0000	1.000000	0.582724
Minimum	0.000000	6.062894	-1012199.	0.000000	0.150181
Std. Dev.	1709.655	0.526748	399297.5	0.485479	0.183057
Skewness	1.129203	0.549952	-1.058333	0.566947	-0.312560
Kurtosis	3.458039	1.668621	2.186379	1.321429	1.258728
Jarque-Bera	12.16921	6.834567	11.78433	9.403433	7.843929
Probability	0.002278	0.032801	0.002761	0.009080	0.019802
Sum	93525.00	358.3343	-14064360	20.00000	22.41963
Sum Sq. Dev.	1.58E+08	14.98302	8.61E+12	12.72727	1.809526
Observations	55	55	55	55	55

Source: E-View output, 2024

The above descriptive analysis table reveals that the audit fee (ADFE) of sampled agricultural enterprises is \$1700.5. The maximum value was 5750.0, the minimum value was 0.0, and the standard deviation was 1709.7. The average customer size (CLSZ) is 6.52 and the standard deviation is 0.53. The maximum value is 7.37 and the minimum value is 6.06. The average customer profitability value (CLPT) was -255715.6 and the standard deviation value was 399297.5. The maximum value is -583.0 and the minimum value is -1012.2. The mean audit size (ADSZ) was 0.36 and the standard deviation was 0.48. The maximum value is 1.00 and the minimum value is 0.00. The average leverage value (LEV) of the company averages 0.41. The standard deviation is 0.18, with a maximum value of 0.58 and a minimum value of 0.15. Skewness is a measure of how much a random variable's probability distribution deviates from a normal distribution. Table 1 shows the probability distribution for CLSZ (0.03). CTPT (0.003); ADSZ (0.009) and LEV (0.02) represent positively skewed distributions.

Table 2: Pearson Correlation Matrix

	ADFE	CLSZ	CTPT	ADSZ	LEV
ADFE	1				
LCLS	0.88164	1			
CTPT	-0.71745	-0.76400	1		
ADSZ	0.79743	0.88049	-0.40129	1	
LEV	-0.83313	-0.96695	0.78820	-0.80624	1

Source: E-Views 9.0 Correlation Output, 2024

The table above revealed the Pearson Correlation Matrix relationship between independent and dependent variables. The result showed that LCLS and ADSF have a positive correlation (0.882 and 0.797) with audit fees while CTPT and LEV shows a negative (-0.717 and -0.833) relationship with audit fees.

Test of Hypotheses

Table 3: Panel Least Square Regression analysis testing the effect between ADFE, CLSZ, CTPT, ADSZ and LEV

Dependent Variable: ADFE

Method: Panel Least Squares

Date: 10/07/24 Time: 09:55

Sample: 2013 2023

Periods included: 11

Cross-sections included: 5

Total panel (balanced) observations: 55

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6952.862	10310.50	0.674348	0.5032
CLSZ	-1247.022	1557.820	-0.800491	0.4272
CTPT	-0.003308	0.000826	-4.002908	0.0002
ADSZ	3476.009	951.3024	3.653948	0.0006
LEV	1869.696	2268.063	0.824358	0.4137
R-squared	0.835951	Mean dependent var		1700.455
Adjusted R-squared	0.822827	S.D. dependent var		1709.655
S.E. of regression	719.6267	Akaike info criterion		16.08185
Sum squared resid	25893127	Schwarz criterion		16.26434
Log likelihood	-437.2509	Hannan-Quinn criter.		16.15242
F-statistic	63.69667	Durbin-Watson stat		1.861446
Prob(F-statistic)	0.000000			

Interpretation of Regression Result

In Table 3, the R-squared and adjusted squared values were (0.84) and (0.82), respectively. This showed that the independent variables explained approximately 82% of the systematic variation in firms' audit fees over an 11-year period (2013-2023). The coefficient of determination, adjusted R², means that 82% of the total variation in the dependent variable (audit fees of listed agricultural companies in Nigeria) is mutually explained by the independent variables (CLSZ, CTPT, ADSZ, LEV). The F-statistic is 63. The corresponding Prob.>F = 0.000 indicates that the model is adept at explaining the relationships expressed in the research model, further assuming that the independent variables are appropriately selected, combined, and used.

The adjusted R² value of 82% also indicates that 18% of the variation in the dependent variable is explained by other factors not included in the research model.

Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 4.3, it is observed that DW statistics is 1.869 and an Akaike Info Criterion and Schwarz Criterion which are 16.082 and 6.264 respectively also further confirms that our model is well specified.

Hypothesis One

1. H₀: Client size has no significant effect on audit fees of Nigerian agricultural firms

Table 3 indicates that client size has a negative insignificant effect on net audit fees of listed agricultural firms in Nigeria. This can be observed from the beta coefficient (β_1) of 1247.022 with t-statistic of 0.801 which is negative effect at 5% level of significance.

Since the P-value of the test was 0.427 higher than 0.05 (5%), this study upholds that client size has a negative and insignificant effect on audit fees of agricultural firms in Nigeria. Thus, alternative hypothesis is Rejected and null hypothesis Accepted.

Hypothesis Two

Ho: Client profitability has no significant effect on audit fees of Nigerian agricultural firms.

Table 3 indicates that client profitability has a negative significant effect on audit fees of listed agricultural firms in Nigeria. This can be observed from the beta coefficient (β_1) of -0.003 with t-statistic of -4.003 which is negative effect at 5% level of significance.

Since the P-value of the test was 0.000 less than 0.05 (5%), this study upholds that client profitability has a negative and significant effect on audit fees of agricultural firms in Nigeria. Thus, null hypothesis is Rejected and alternative hypothesis Accepted.

Hypothesis Three

Ho: Audit firm size has no significant effect on audit fees of Nigerian agricultural firms.

Table 3 shows that audit size has a positive significant effect on audit fees of listed agricultural firms in Nigeria. This can be observed from the beta coefficient (β_1) of 3476.01 with t-statistic of 3.65 which is positive effect at 5% level of significance.

Since the P-value of the test was 0.000 less than 0.05 (5%), this study upholds that audit firm size has a positive and significant effect on audit fees of agricultural firms in Nigeria. Thus, null hypothesis is Rejected and alternative hypothesis Accepted.

Discussion of Findings

The first hypothesis indicated that customer size has a negative and insignificant impact on audit fees of agricultural companies in Nigeria. This result is consistent with Ohidoa and Okun (2018) who found that auditor type, client firm size, client complexity, client firm risk, and audit committee independence have significant effects on audit fees.

The second hypothesis showed that client profitability has a negative and significant effect on audit fees of agricultural companies in Nigeria. This result was consistent with that of Alhassan (2017); Bogale's (2016) study reveals that the size of the client's company, its international recognition; the affiliation of audit firms (the big four firms) and profitability are important determinants of audit fees. This result is also inconsistent with the results of Ado et al. (2020) show that audit fees have a positive but insignificant impact on asset returns. Ohidoa and Okun's (2018) study found that firm profitability has no effect on audit fees. Gholamreza and Samira (2015) found that there is a positive but insignificant relationship between profitability and auditor size.

The third hypothesis states that audit firm size has a positive and significant impact on audit fees of agricultural companies in Nigeria. Urhogide and Izedonmi (2015) Results on audit client characteristics showed that audit client size and complexity have a positive and significant impact on audit fees, while profitability, fiscal year end and industry type have a negative and significant impact on audit fees.

Additionally, a study by Ohidoa and Okun (2018) found that auditor type, client firm size, client complexity, client firm risk, and audit committee independence have a significant impact on audit fees, while firm profitability has no effect on audit fees.

Conclusion and Recommendations

This study determined the extent determinants of audit fees affected external audit fees of Nigerian agricultural firms, using client size, client profitability and audit firm size as the independent variables. Data were extracted from annual reports and accounts of listed agricultural firms in Nigeria spanning from 2013 to 2023. Multiple regressions analysis was employed to test the hypotheses. Based on the results, the study found that that client size has a negative and insignificant effect on audit fees of agricultural firms in Nigeria. This study revealed that client profitability has a negative and significant effect on audit fees of agricultural firms in Nigeria. The study also showed that audit firm size has a positive and significant effect on audit fees of agricultural firms in Nigeria. This outcome is similar to that obtained by numerous audit fee research performed in several countries. Moreover, the results revealed that the amount of audit fees is positively related to client profitability and client size. This finding leads to the assumption that better-off audit clients might be viewed to have a “deeper pocket,” and so are charged higher amounts of external audit fees.

A rationale for this could be that, in Nigeria rules and regulations are not strict and hard like developed countries where mostly auditors are held liable and punished for manipulation of accounting figures. Furthermore, these results also show that the concern about audit firm size impairment derived from high external audit fees is reasonable.

Based on the results of the findings, and conclusions derived there in, the following recommendations are made:

1. Client size has a negative and insignificant effect on audit fees. The client's firm size should be used as a major criterion in the determination of audit fees in Nigeria. They also have enough financial resources to recruit big international audit firms. Hence, large size companies would pay higher fees than small ones.
2. The firm audit fees actually need to base on profit after tax of client's firm as it does not show any significant effect on audit fees.
3. Audit firm size has a positive and significant effect on audit fees, the size of audit firms are an important factor as they should pay higher fees, hence, hence, established that large audit firms charge a premium for their high-quality audits. Big audit firms charge high audit fees. Big audit firms charge high audit fees.

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