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## Article

# Determinants of audit fees in Nigerian banks

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### Original Research Article

## **Determinants of Audit Fees in Nigerian Banks**

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### **Abstract**

*The study examined factors that influenced the amount of audit fees paid by ten Nigerian banks during the fifteen years 2006-2020. Client board-specific attributes (board size and board independence), client firm-specific attributes (bank size, leverage and profitability) and audit firm-specific attributes (audit tenure and joint audit) are used as proxy variables of audit fee determinants. The analytical technique adopted for the study was pooled ordinary least squares regression. Results revealed that board independence, size and leverage have a positive, while joint audit has a negative and significant effect, on audit fees. The study, however, could not confirm profitability, audit tenure and board size as important determinants of audit fees in Nigeria as the results produced an insignificant relationship. It is recommended that corporate boards and regulatory agencies in Nigeria take into consideration the four significant audit fee determinant variables when corporate governance policies, particularly auditors' remuneration, are formulated as these variables are capable of influencing the quality of audit work.*

**Keywords:** audit fees, audit firm-specific, banks, board-specific, firm-specific, Nigeria

### **JEL Classification Code: M41, M45 & M48**

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## 1.0 INTRODUCTION

The audit is an examination of books of accounts, vouchers and other financial documents prepared by corporate managers by an appointed independent person or firm, known as auditors. The primary purpose of the audit is to ensure the accuracy of the documents prepared by corporate managers and for the auditor to give his opinion on the entity's financial statements. Auditing is the process of carrying out audit assignments. Audit of financial statements of listed corporate bodies is a legal requirement. The Nigerian Companies and Allied Matters Act (CAMA), 2020 in sections 374, 375, 376 and 377, provides for compulsory audit of financial records of medium and large-sized companies. As enshrined in sections 394 and 402 (1), small companies (turnover of less than N120 million or total asset of below N60 million in any financial year) don't need to be statutorily audited.

The remuneration that is paid by a client to the auditor for the professional service rendered in the course of the audit engagement is referred to as the audit fee. The audit fee charged by the client is to compensate for the time spent in the audit process, the risk of the assignment, the level of expertise required to perform the audit and other professional considerations (Sundgren & Svanstrom, 2013 Santhosh & Ganesh, 2020) or simply sum paid by the company in respect of the auditors' expenses (section 408, CAMA, 2020). Ideally, a client firm should be able to pay an audit fee that corresponds to the work performed by an auditor. Section 408 of CAMA, 2020 provides for remuneration of

auditors in Nigerian incorporated companies.

The guidelines on how an audit should be conducted and audit fees are to be determined are provided by both the professional bodies and recognised statutory regulatory bodies' codes of corporate governance. In Nigeria, the two professional bodies- ICAN and ANAN monitor the quality of audit work done by their members (audit firms) and those who performed below the benchmark set are duly sanctioned.

Several studies have been carried out, especially in the developed markets of the UK, Australia, China and New Zealand., on factors that influence audit fees paid by - client firms to auditors. In Nigeria, attempts were made by Soyemi and Olowookere (2013), Dabor and Ohomba (2014), Urhoghide and Izedonmi (2015), Abubakar (2016), Ilaboya, Izevbekhai and Ohiokha (2017), Ohidoa and Okun (2018), Ezinando (2020) and Olutokunbo, Yisa and Abdullahi (2020), but findings from these studies, perhaps due to different methodologies used, were mixed and inconclusive. Of the aforementioned studies, only three (Soyemi and Olowookere, 2013, Dabor and Ohomba, 2014 and Ezinando, 2020) were conducted using the banking sector as a case study. The banking sector in Nigeria is the dominant sector in the capital market in terms of the number of shares traded and market capitalisation. It is therefore imperative for researchers to beam searchlight on activities in the banking sector. Also, Dabor and Ohomba (2014)

considered only client-specific determinants of audit fees.. Ilaboya *et al.*, (2017) and Ezinando (2020) considered both client and audit-firm specific determinants. Only Urhoghide and Izedonmi (2015) and Olutokunbo *et al.*, (2020) studies investigated the audit fee determinants that covered the three specific attributes- client-firm, client-board and audit-firm but with a fewer study time frame of seven years and eleven years, respectively.

The current study intends to mitigate the knowledge gap in the literature by examining the effect of seven factors (covering the three specific attributes) on the amount of audit fees paid by ten listed banks during the fifteen-year period, 2006-2020.

## **2.0 LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES**

### **Theoretical Framework**

Jensen and Meckling's (1976) version of agency theory underpins this study. It submits that corporate managers (agents), who are appointed by shareholders (principal), may decide to involve in some activities that result in their gain at the expense of the shareholders. This ultimately will result in not maximising the shareholders' value.

To mitigate the overzealousness of the corporate managers in running the affairs of the organisation sub-optimally, shareholders are statutorily empowered to monitor the managers, so as to run the organisation in line with the terms of the contract under which they were employed. One of the mechanisms of effective monitoring is thorough audit of the company's financial report by an external independent body (audit firm). Another internal mechanism

which many organisations used in monitoring the corporate management is the board of directors. The board is mandated by various corporate governance codes to formulate policies, dictate the direction where the organisation should be in the short and long-term as well as monitor/supervise the activities of the organisation.

Regarding payment of audit fees by client companies to auditors for professional services rendered, agency theory proposes that companies that are faced with high agency costs may have to pay higher audit fees for higher audit quality to be achieved (Piot, 2001).

### **Audit determinant attributes**

Suryanto (2014) and Urhoghide and Izedonmi (2015) identified three major attributes that are likely to influence the audit process, particularly the amount paid as audit fees by client firms. These are client board, client firm, and audit firm attributes. Client board attributes are internal corporate governance mechanisms that relate to corporate board players and their activities in the boardroom, especially as they affect the audit process. Size of the board, composition, gender diversity and meetings are specific factors of client board attributes. Client firm attributes are features that a client's firm owned and used in the audit process. The factors include firm size, leverage and profitability. Audit firm attributes are specific characteristics of the audit firm engaged in the audit process. Audit firm size, tenure and joint audit are important factors of audit firm attributes.

### **Client board-specific attributes**

#### ***Board size***

The board of directors of a firm plays important role in a business entity. It formulates strategic policies and also serves as an internal control mechanism through monitoring the activities of the management. Prior studies have confirmed that board size affects financial report quality. Determining the optimal board size and board effectiveness of a company has been the subject of debate for some time. While a school of thought (Yermack, 1996) supports a smaller board size, which will make coordination of the board's meetings more effective and less time-. Another school (Xie, Davidson and DaDait, 2003) supports a larger board size, which will enable more diverse views to be presented at meetings before the best decision is taken. Beasley (1996) cited in Kikhia (2014) opined that board size has strong effect on the possibility of financial statement frauds in organisations. Thus, where a company has a large board size, there is tendency for members to involve in less significant discussions on issues that affect the organisation, thereby increasing the likelihood of corporate management committing higher financial statement frauds. To mitigate the occurrence of these frauds and to have good reporting quality, more audit time and efforts will be devoted to the process and hence auditors will demand higher fees.

Kikhia (2014), Urhoghide and Izedonmi (2015), Farooq et al., (2018) and Shakhathreh and Alsmadi (2021) revealed a direct and significant effect of board size on audit fees. Studies conducted by Kuang (2011) and Olutokunbo, *et al.*, (2020), however, reported an indirect relationship.

#### ***Board independence***

An Independent board is one of the effective internal corporate mechanisms used in monitoring the accounting process and curtailing the opportunistic behaviour of corporate management. Thus, a board that has more external members as directors is expected to have more influence on how financial statements are presented for consideration by the external auditors. A very strong board (with more external than internal members) may be used to protect the reputation of a firm and avoid legal liability (Abbott *et al.*, 2003). For the quality report, which is of major interest to the board members, to be produced by auditors will require payment of higher audit fees.

Adelopo and Jallow (2008), Kikhia (2014), Farooq *et al.*, (2018), Jizi and Nehme (2018) and Olutokunbo *et al.*, (2020) found a direct association between board independence and audit fees in their various studies. However, Li and Wang (2006) showed a negative relationship, while Urhoghide and Izedonmi (2015), Hossain and Sobhan (2019) and Shakhathreh and Alsmadi (2021) reported no relationship.

### **Client firm-specific attributes**

#### ***Client firm size***

Firm size is considered one of the major significant factors that affect audit fees (Xu, 2011, Ellis & Booker, 2011, Kikhia, 2014, Ilaboya, *et al.*, 2017, Almeida & Silva, 2020 Hoang, 2021). Findings from the majority of prior studies suggested that larger corporations, due to the complex nature of their activities and the need to provide more information to the public to reduce asymmetry information to the barest minimum, tend to pay higher audit fees than small-sized corporations. Also, more quality audit time is expected to be spent by

auditors in checking the correctness of transactions. Big-sized audit firms with high reputation is therefore engaged to help confirm the veracity or otherwise of the information provided in annual reports. All these surely will cost more money to be paid for the auditors' professional services. In contrast to this submission, reports from other prior studies suggest that due to negotiation ability, larger firms may pay lower audit fees.

Urhoghide and Izedonmi (2015) studied audit fees determinants in 133 quoted companies in Nigeria for the period 2007-2012. The result of the pooled ordinary least squares regression and panel estimated generalized least squares showed a direct association between client firm size and audit fees. The finding was also confirmed by Ul-Haq and Laghari (2015), Abubakar (2016), Musah (2017), Al-Nimer and Hasan (2019), Hossain and Sobhan (2019), Almeida and Silva (2020), Olutokunbo *et al.* (2020) and Shakhathreh and Alsmadi (2021).

### ***Leverage***

Leverage is used to measure the risk of a firm. It indicates how the firm will be able to repay its indebtedness. A firm with a high leverage ratio shows that it may have difficulties in honouring its debt obligation in the future and this may have an adverse effect on the credit rating of the business. The highly levered firm may have profitability concerns and the inability to pay its creditors when due can result in court-backed liquidation proceedings against the firm. As a result of this, auditors of companies that are highly geared have to undertake further tests in their assignment, thereby spending more time. More time in the audit work will then translate to higher professional audit fees. The risk of a client, as observed in previous studies, is found to

be an important audit fee determinant. However, the direction of the relationship is mixed. Hassan and Naser (2013), Dabor and Ohonba (2014) and Hossain and Sobhan (2019) produced a direct and significant relationship between client risk (leverage) and audit fees. Kikhia (2014), Habib *et al.*, (2015) and Santhosh and Ganesh (2020) reported a negative and significant relationship, while Bota-Avram *et al.*, (2018), Olutokunbo *et al.*, (2020) and Shakhathreh and Alsmadi (2021) exhibited an insignificant relationship.

### ***Profitability***

Profitability is generally used to measure the performance of an entity. It reflects how the firm judiciously applied its resources of the firm to make a profit. It is expected that firms that reported huge profits would disclose more information to the public. This is in a view of bringing to the fore its achievement during the reported period, thereby reducing agency costs (Watts & Zimmerman, 1986, cited in Musah, 2017) and justification for high pay/compensation given to corporate managers (Hassan & Naser, 2013). Regarding auditors' fees, highly profitable firms would usually pay high audit fees (Baldacchino, Attard & Cassar, 2014). This is because rigorous work has to be done by the audit firm to confirm or validate the revenue and associated costs included in the client's financial statements.

Musah (2017) using data from companies in Ghana for the period 2010-2014 and adopting the Simunic (1980) model, found a significant and indirect relationship between client's profitability and audit fees. Hossain and Sobhan (2019) found a positive and insignificant relationship in the study conducted between 2015 and 2018 in Bangladesh. Ohioda and Okun (2018),

Bota-Avram *et al.* (2018) and Shakhathreh and Alsmadi (2021) pointed out a no relationship in their various studies.

### **Audit firm-specific attributes**

#### ***Auditor tenure***

Auditor tenure represents the length of time the services of an audit firm are engaged by a client company. Several studies have documented mixed findings in the association between audit tenure and audit fees. Urhoghide and Izedonmi (2015) argued that audit time decreases with tenure increases perhaps the auditor is now more familiar with the activities of the client firm. This, according to Bedard and Johnstone (2010) and ElGammal and Gharzeddine (2020), creates a valuable relationship between the auditor and client firm. For this valuable relationship to continue, the client just has to pay higher audit fees. Results from some previous studies (Ghosh and Moon, 2005, Stanley and Dezoort, 2007) showed that audit reporting quality problems are noticed during early audit tenure due to auditors' lack of knowledge of the client at this stage. Further, for their services to be retained for a longer time, many audit firms do charge lower fees on new engagements (technically known as low-balling).

Empirically, the findings from prior studies showed mixed results. Abubakar (2016) using data from nine listed food and beverages firms in Nigeria from 2004-to 2013 suggested a direct association between auditor tenure and audit fees. Cobbin (2002), and Hassas and Alavi (2004) showed a negative relationship while Takukava (2011) and Urhoghide and Izedonmi (2015) produced no relationship between the two variables.

#### ***Joint audit***

A joint audit arises where services of at least two audit firms are engaged concurrently in a financial period and a single audit report is produced from the exercise. This situation is encouraged where an audit firm has special knowledge in a particular audit assignment, while the other audit firm does not have such knowledge in that aspect but can be effective in other clients' engagement. A joint audit provides the opportunity for the auditors engaged to check their diligence and independence (Piot and Janin, 2007) and reduces the time required for the audit process (Adeyemi & Okpala, 2011). Joint audit demands specialised skills and knowledge that will enable the client-firm to have a good quality audit report. High-quality reports definitely will require higher audit fees. However, Gonthier-Besacier and Schatt (2007) cited in Ilaboya *et al.*, (2017) argued that the interaction between the auditors in joint audit determines fees to be charged. This implies that companies with joint audits may pay less than companies without joint audits. This relationship tends to be unpredictable if the joint audit is between a Big4 and a small audit firm (Lesage, Ratzinger-Sakel & Kettune, 2012).

Ilaboya *et al.*, (2017) studied the determinants of abnormal audit fees of 56 Nigerian manufacturing companies for the year ended 31<sup>st</sup> December 2014. The outcome of the panel least squares regression estimation technique revealed that joint audits had a negative and insignificant association with abnormal audit fees.

#### **Hypotheses**

In line with the literature review, the following null hypotheses are postulated and tested in this study:

- H<sub>01</sub>: Client board size has no significant influence on audit fees.  
H<sub>02</sub>: Client board independence has no significant effect on audit fees.  
H<sub>03</sub>: Client firm size has no significant influence on audit fees.  
H<sub>04</sub>: Firm leverage has no significant effect on audit fees.  
H<sub>05</sub>: Firm profitability has no significant effect on audit fees.  
H<sub>06</sub>: Audit tenure has no significant effect on audit fees.  
H<sub>07</sub>: Joint audit has no significant influence on audit fees.

### 3.0 METHODOLOGY

#### Research design

The research design adopted for the study was ex-post facto as all the data necessary for the achievement of the objective were available historically in the published financial reports of the individual banks, CBN and Nigerian Exchange Limited (NGX). There were fourteen listed deposit money (or commercial) banks in Nigeria as at 31<sup>st</sup> December 2020. A sample of ten banks (as listed in Appendix I) was selected through the purposive sampling technique, which was dictated by the availability of data necessary for the study. The period of study was from the financial years, 2006 to 2020.

#### Variable description and measurement

##### *Dependent variable*

Following the review of empirical studies, audit fee received by external audit firms as a result of auditing services rendered to client-banks is the dependent variable.

##### *Independent variables*

The study focuses on three aspects of attributes (corporate board; firm-specific and audit firm-specific) that are capable of influencing the audit fees or remuneration. In all, seven variables were used as determinant factors and the study's independent variables. These included two corporate boards (board size and board independence), three firm-specific (firm size, leverage and profitability) and two audit-firm specific (audit tenure and joint audit) variables.

#### The Model

The specific model of the study is a modified form of what obtains in some prior studies (Musah, 2017, Al-Nimer & Hasan, 2019 Olutokunbo *et al.*, 2020). The model which combined the three different determinant attributes is provided in equation 3.1, while the measurement of the variables is exhibited in Table 1.

$$FEE = \beta_0 + \beta_1 BSZ_{it} + \beta_2 BIN_{it} + \beta_3 FSZ_{it} + \beta_4 LEV_{it} + \beta_5 PRF_{it} + \beta_6 ATR_{it} + \beta_7 JAU_{it} + e_{it}$$

equ. 3.1.

**Table 1: Variable Measurement**

Variable	Description	Measurement	Source
FEE	Audit fees	Natural log of the amount paid as audit fees by client-firm	Oyedokun and Yunusa (2017), Almarayeh, Aibar-Guzman and Abdullatif (2020), Ezinando (2020)
BSZ	Board size	No. of directors sitting in the boardroom	Abata and Migiyo (2016), Eniola and Ajayi (2018), Olutokunbo <i>et al.</i> , (2020)



BIN	Board independence	$\frac{\text{No. of non-executive directors}}{\text{Total directors sitting on the board}}$	Akintayo and Salmon (2018), Hossain and Sobhan (2019)
FSZ	Client firm size	Natural log of total assets	Musah (2017), Mohammed and Ibrahim (2018), Rewczuk and Modzelewski (2019),
LEV	Client firm leverage	$\frac{\text{Total debt}}{\text{Total assets}}$	Samad (2015), Reweczuk and Modzelewski (2019), Hajawiyah, <i>et al.</i> (2020)
PRF	Client firm profitability	$\frac{\text{Profit after tax}}{\text{Total assets}}$	Urhoghide and Izedonmi, (2015), Kajola <i>et al.</i> , (2018), Soyemi, <i>et al.</i> (2020)
ATR	Audit tenure	Dummy variable 1 if audit firm is engaged for a maximum of 3 years, 0 if engaged for more than 3 years	Abubakar (2016)
JAU	Joint audit	1 if the client is audited by more than one audit firm concurrently, 0 if audited by one audit firm	Umaru (2014), Ilaboya <i>et al.</i> , (2017)

Source: Authors' compilation from various empirical studies (2021)

#### Data analytical technique

Consistent with Kikhia (2015), Ilaboya *et al.*, (2017) and Ezinando (2020), the study used multiple regression analysis and pooled ordinary least squares (POLS) method as data analytical technique. The multiple regression method was adopted because it considers a large number of data

points and mitigates collinearity issues among independent variables (Ilaboya *et al.*, 2017).

## 4.0 RESULTS AND DISCUSSION

### Descriptive statistics

Table 2 shows the series of descriptive statistics.

**Table 2: Descriptive Statistics**

	Minimum	Maximum	Mean	Standard Deviation
FEE	7.000	8.959	8.130	0.418
BIN	0.429	0.923	0.627	0.107
FSZ	10.079	12.920	12.037	0.476
LEV	0.000	0.684	0.069	0.077
PRF	-0.296	0.264	0.015	0.046
ATR	0.000	1.000	0.107	0.310
JAU	0.000	1.000	0.140	0.348
BSZ	6.000	20.000	13.480	2.825

Source: Authors' computation (2021)

According to Table 2, the minimum audit fee paid by the selected listed banks is ₦10 million (log inverse 7.000) and the maximum fee is ₦910 million (log inverse 8.959). The average audit fee is ₦135 million (log inverse 8.130). The average board size (BSZ) is about 13, and it ranges between 6 and 20 directors. The average proportion of external (non-executive) directors sitting in the boardrooms is 62.7%. This is consistent with the provisions of CBN (2014) and the Financial Reporting Council of Nigeria (2018) codes that more external board (than internal) members should be on listed banks' boards. The average bank size (FSZ) is ₦1,089 million (log inverse 12.037). The banks are lowly geared as leverage ranges between 0% and 68.4%, but with an average value of 6.9%. Bank profitability (PRF) has an average value of 1.5% and a maximum of 26.4%. This suggests that the assets of the banks are not optimally utilized by corporate management to generate sufficient profits for shareholders and other stakeholders. Auditor tenure (ATR) has a mean of 0.107 which suggests that 10.7% of the sample banks engaged their auditors for a maximum of three years. In specific cases, some banks engaged the services of the same audit firms for a period exceeding six years. The average joint audit (JAU) is 0.140 and this

suggests that about 14% of the banks engaged the services of joint auditors during the period of study. Firm size has the highest standard deviation of 0.476, and profitability has the least, 0.046. This implies that firm size has the highest dispersion from the mean, while profitability has the lowest dispersion from mean.

### Correlation

Table 3 depicts the result of the Pearson correlation matrix for this study. Board independence (BIN), firm size (FSZ), leverage and board size have a positive and significant association with audit fees (FEE) at a 1% level. This indicates that the higher the proportion of external directors in the boardroom, the size of the firm, leverage and members on the board, the higher the audit fees that are paid by client firms. In the same vein, audit tenure (ATR) and joint audit (JAU) have an inverse association with audit fees at 5% and 1% levels respectively. It indicates that the higher the length of audit firm engaged and the usage of more than one audit firm concurrently in an engagement, the lower the audit fees paid by client firms. Profitability (PRF), however, has a direct and insignificant association with audit fees.

**Table 3: Correlation Matrix**

	FEE	BIN	FSZ	LEV	PRF	ATR	JAU	BSZ
FEE	1							
BIN	0.240*** (0.003)	1						
FSZ	0.697*** (0.000)	-0.170** (0.038)	1					
LEV	0.242*** (0.003)	-0.035 (0.668)	-0.035 (0.668)	1				
PRF	0.080 (0.333)	-0.081 (0.326)	0.036 (0.661)	-0.201** (0.013)	1			

ATR	-0.193** (0.018)	0.058 (0.480)	-0.195** (0.017)	0.001 (0.986)	-0.126 (0.125)	1	
JAU	-0.320*** (0.000)	0.082 (0.318)	0.073 (0.377)	-0.115 (0.160)	-0.123 (0.133)	0.047 (0.565)	1
BSZ	0.218*** (0.007)	-0.572*** (0.000)	0.255*** (0.002)	-0.185** (0.023)	0.176** (0.031)	-0.013 (0.876)	0.061 (0.459)

\*  $p \leq 0.1$ , \*\*  $p \leq 0.05$ , \*\*\*  $p \leq 0.01$

Source: Authors' computation (2021)

A major challenge that the correlation matrix faces is that it does not show the strength of the relationship between variables. Hence, the correlation matrix cannot be used to make unbiased inferences. At best, it can be used as an additional tool necessary to determine if a multicollinearity issue exists between explanatory variables in a model.

#### Collinearity test

To have reliable data that will be used for regression analysis, there is a need to test for multicollinearity issues among the series

in the model. Table 4 presents the collinearity test result among the series. A variable having a variance inflation factor of more than 10 or a tolerance value of less than 0.1 is assumed to have a multicollinearity issue (Gujarati & Porter 2009). As indicated in Table 4, BSZ has the highest VIF of 1.741, while JAU has the least value of 1.061. The average VIF of the series is 1.261. Similarly, TV ranges between 0.575 and 0.942, has an average value of 0.822. These results confirmed that the series used in the model do not have multicollinearity issue.

**Table 4: Collinearity Test Result**

Variable	Variance Inflation Factor	Tolerance Value
BIN	1.591	0.628
FSZ	1.116	0.896
LEV	1.124	0.889
PRF	1.126	0.888
ATR	1.066	0.938
JAU	1.061	0.942
BSZ	1.741	0.575
Total	8.825	5.756
Average	1.261	0.822

Source: Authors' computation (2021)

A correlation matrix can also be used as a tool for determining the existence or otherwise of multicollinearity issues among series. A rule of thumb as suggested by Kajola, Sanyaolu, Tonade and Adeyemi (2020) submitted a coefficient benchmark of above 0.8 for a variable having

multicollinearity issue. As revealed in Table 3, there is no explanatory variable with a coefficient of 0.8 or above. FSZ has the highest coefficient of 0.697. This further provided evidence of no presence of multicollinearity issue in the model's series.

**Regression**

The pooled OLS regression result is exhibited in Table 5.

**Table 5: Pooled OLS Regression Result**

	<b>Coefficient</b>	<b>t-stat</b>	<b>Prob</b>
Constant	.455	.721	.472
BIN	.768	2.369**	.021
FSZ	.593	13.321***	.000
LEV	1.115	4.025***	.000
PRF	.198	.431	.667
ATR	-.054	-.814	.417
JAU	-.413	-6.951***	.000
BSZ	.497	1.880*	.062
R <sup>2</sup>	.673		
Adjusted R <sup>2</sup>	.656		
F-stat	41.657***		
F-stat (prob)	.000		
Durbin-Watson	1.879		
Observations	150		

\*  $p \leq 0.1$ , \*\*  $p \leq 0.05$ , \*\*\*  $p \leq 0.01$

Source: Authors' computation (2021)

Adjusted R<sup>2</sup> is 0.656 and this indicates that about 66% of the variation in audit fees is explained jointly by combined efforts of seven explanatory variables (audit fees determinants), while about 34% is a result of other factors not used in the model. F-stat of 41.657, which is significant at a 1% level confirms the appropriateness of the model. The absence of serial autocorrelation in the model is shown by the Durbin-Watson value of 1.879. The above finding implies that unbiased inference can be made from the results produced from the regression.

Board size (BSZ) in Table 5 has a positive and insignificant association with audit fees (FEE). ( $t = 1.880$ ;  $p = .062 > .05$ ). This finding suggests that board size is not a major audit fees determinant in Nigerian banks. The outcome is not consistent with some prior studies (Kikhia, 2014, Urhoghide and Izedonmi, 2015 Shakhathreh and Asmadi, 2021), which revealed a positive and significant relationship.

However, the result is in line with Kuang (2011) and Olutokunbo *et al.*, (2020) which suggested an insignificant association. The study failed to reject null hypothesis 1. This implies that board size does not significantly impact audit fees in Nigerian banks.

Board independence (BIN) has a direct and significant effect on audit fees at 5% level ( $t = 2.369$ ;  $p = .021$ ). The outcome of the study suggests that companies with the higher composition of external than internal directors support the production of quality financial statements and audit reports, thereby paying higher audit fees in return. The finding is by Adelopo and Jallow (2008), Kikhia (2014), Farooq *et al.*, (2018), Jizi and Nehme (2018) and Olutokunbo *et al.*, (2020). It is however inconsistent with the studies conducted by Urhoghide and Izedonmi (2015), Hossain and Sobhan (2019) and Shakhathreh and Alsmadi (2021) that reported no relationship. The study rejects null hypothesis 2. Thus, board

independence is an important determinant of audit fees paid by Nigerian banks.

Client firm size (FSZ) and audit fees are directly associated at 1% level ( $t = 13.321$ ;  $p = .000$ ). This suggests that client firm size is the most significant variable that affects audit fees paid to auditors. The result of the study is validated by Al-Nimer and Hasan (2019), Hossain and Sobhan (2019), Almeida and Silva (2020), Olutokunbo *et al.* (2020), Hoang (2021) and Shakhathreh and Alsmadi (2021). Null hypothesis 3 is rejected. Thus, client firm size is an important audit fees determinant in Nigerian banks.

Leverage (LEV), which serves as a proxy for measuring a client's risk, has a direct and significant effect on audit fees at a 1% level ( $t = 4.025$ ;  $p = .000$ ). The outcome follows the studies conducted by Dabor and Ohonba (2014) and Hossain and Sobhan (2019). This is however inconsistent with Habib *et al.*, (2015) and Santhosh and Ganesh (2020) who reported a negative and significant relationship and those of Bota-Avram *et al.*, (2018), Olutokunbo *et al.*, (2020) and Shakhathreh and Alsmadi (2021) that produced an insignificant relationship between leverage and audit fees. The study hereby rejects null hypothesis 4. Thus, leverage is a significant variable that influences the audit fees paid by Nigerian banks.

The relationship between client firm profitability (PRF) and audit fees is positive but not significant at 5% level ( $t = .431$ ;  $p = .667$ ). This reveals that irrespective of the level of profitability of a client, it will not have any significant effect on the amount to be paid as audit fees. It clearly shows that the auditing profession is a business and clients have to pay fees that correspond to

the auditors' professional services rendered. This finding is consistent with studies carried out by Ohidoa and Okun (2018), Bota-Avram *et al.* (2018), Hossain and Sobhan (2019) and Shakhathreh and Alsmadi (2021). The study failed to reject null hypothesis 5. Thus, client profitability is not an important audit fees determinants in Nigerian banks.

Audit tenure (ATR) and audit fees are negatively related but insignificant at 5% level ( $t = -.814$ ;  $p = .417$ ). This suggests that the length of time an auditor is engaged by a client had no significant effect on the audit fees paid by Nigerian banks. The assertion that audit quality improves with audit tenure or practice of low-balling does not hold in the Nigerian auditing environment. The outcome is in agreement with studies by Takukava (2011), Habib *et al* (2015) and Urhoghide and Izedonmi (2015). It is however inconsistent with the studies conducted by Abubakar (2016), which showed a positive relation and Cobbin (2002), and Hassas and Alavi (2004), which revealed a negative relation. The study supports null hypothesis 6. This implies that audit tenure is not an important audit fees determinant in Nigerian banks.

Joint audit has an inverse and significant effect on audit fees ( $t = -6.951$ ;  $p = .000$ ). This suggests lower audit fees are paid by companies with joint auditors than those without joint auditors. This is in agreement with Gonthier-Besacier and Schatt (2007) cited in Ilaboya *et al.*, (2017) that proposed that the joint audit and audit fees dynamic is a function between auditors. The outcome of the study is however not in line with Ilaboya *et al.*, (2017), which supported a negative but insignificant relation between joint audit and abnormal audit fees. Null hypothesis 7 is hereby rejected. Thus, a joint

audit is an important audit fees determinant in Nigerian banks.

Overall, the outcome of the study provides evidence in support of the Agency cost theory.

## **5.0 CONCLUSION AND RECOMMENDATIONS**

### **Conclusion**

This study empirically examined the influence of seven variables (board size, independence, firm size, leverage, profitability, audit tenure and joint audit) on the amount of audits paid by ten Nigerian listed banks. The period of study was for the financial years, 2006-2020. To test each of the seven hypotheses formulated, a pooled ordinary least squares regression was used as an analytical technique. Results of the study revealed that four variables- board independence, firm size, leverage and joint audit are important to audit fee determinant factors in Nigerian listed banks.

### **Recommendations**

In line with the outcomes of the study, it is recommended that each of the significant audit fee determinant factors should be taken into consideration by corporate boards and regulatory bodies (CBN, SEC and FRC) when policies on corporate governance, particularly on auditors' remuneration, are formulated. These variables are proven to have the capacity to influence auditors' work and by extension, the audit quality.

### **Suggestions for Further Study**

In the future, efforts should be made by interested researchers to consider some other determinant variables (such as audit firm size, client age, client board gender diversity and board meetings) not captured by this study. The need to replicate this type

of study in other economic sectors and countries should also be explored.

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## APPENDIX I- List of sample banks

S/N	Name
1	Access Bank Plc
2	FCMB Plc
3	Fidelity Bank Plc
4	First Bank Plc
5	GTBank Plc
6	Sterling Bank Plc
7	UBA Plc
8	Union Bank Plc
9	Wema Bank Plc
10	Zenith Bank Plc