Attributes of Auditor's Independence, Audit Fees and Audit Quality in Listed Deposit Money Banks in Nigeria.

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ABSTRACT

The study examined Auditor's Independence, audit fees and Audit Quality in listed Deposit Money Banks in Nigeria. The specific objectives focused on investigation the effect of Audit Fee, Audit independence on Audit Quality in listed Deposit Money Banks in Nigeria. The study made use of secondary data of Twelve (12) Deposit Money Banks for the years 2012-2023. The Pooled Binary Logistic regression technique was employed for the analysis of data. The result from the analysis revealed that Audit fees had a positive and significant impact on audit quality of deposit money bank in Nigeria, audit independence had a positive but insignificant impact on audit quality of deposit money bank in Nigeria and leverage was found to have a negative and insignificant impact on the audit quality of deposit money bank in Nigeria. Based on the findings, the study further recommends that the auditor should be remunerated well and promptly, and any form negative interference or control of the auditors should be discouraged.

Keywords: Auditor's Independence, Audit Fee, Audit Size, leverage and Audit Quality.

INTRODUCTION

Deposit money banks (DMBs) play an important role in the development and growth of every nation. The function of deposit money banks is bridging the gap between the deficit and surplus economy. This key function of DMBs has spurred the need to examine the independence of the external auditor against the quality of the report produced. The trust of stakeholder's usage of the report produced by the external auditor is on the assertion that the expert auditor is not influenced by their clients or other bodies (Idigbe, 2019). Examining the relationship between auditors' independence and audit quality became important based on the recent financial failures occasioned in the banking sector (Skye Bank, Afri Bank, Spring Bank and Bank PHB). Stakeholders have believed that for there to be a quality audit report, the auditor must be independent. The independence of the auditor must be in fact and appearance so that they can create investors' confidence in financial reports. According to Abubakar (2023) auditor's independence is seen as the backbone of the audit profession which forms an integral part of the financial reporting process. This implies that an auditor's lack of independence and neutrality in action increases the possibility of been perceived as not being objective, thereby leading to lack of trust in the quality of the report. Audit quality is a goal-oriented audit activity, and it is about the perception of users as well. Audit quality is achieved when a certain audit activity is done in accordance with accounting standards thereby providing sound assurance that the audited financial statements and related disclosures are presented in accordance with accounting principles and are not materially misstated whether due to errors or fraud. According to Mednick (2020) audit quality is the maintenance of the auditor's personal qualities, independence, impartiality, professional demeanor and other related traits in course of carrying out an audit engagement. It entails the presence of non-material violations of the audit assertions and benchmarks. There have been divergent and opposing results as to the impact of audit independence on audit quality. Empirical studies such as Ugochukwu and Esona and (2020), Okolie and Chide, (2019) have documented that auditor independence measured by big4 audit firm and audit fee has significant impact on the quality of audit and financial report of quoted companies while Frankel, Johnson and Nelson (2021), Abu (2018) and Deirdre (2023) found that despite the presence of audit independence measured by audit firm rotation and technical expertise

of the audit team, the quality of audit report of companies particularly failed companies such as WorldCom, Enron, Unilever, etc. were not guaranteed which implies that auditor's independence has no significant impact on the audit quality of those companies. Statistics from the Central Bank of Nigeria (2022) and the Nigeria Group Exchange (2023) has shown that Deposit Money Banks is the major backbone in the financial sector. This has created the need for the attention of stakeholders to have a robust look on the activities of the auditor's independence as against its report. Employing audit fees, audit firm rotation and audit firm in the measurement of auditor's independence and audit quality with the size of audit firm will further distinguish this work from previous empirical work.

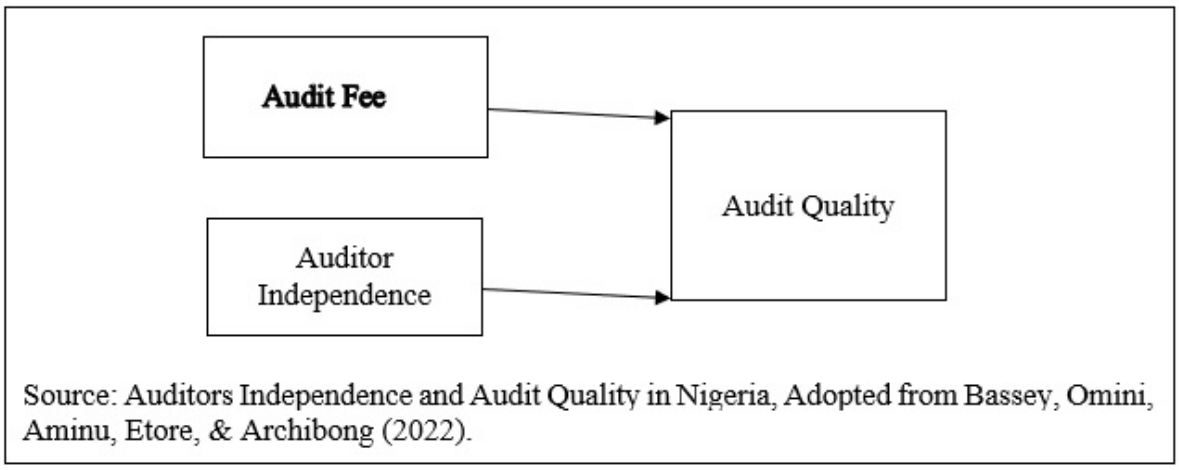
To achieve the objective of this work which is to examine Auditor's Independence, audit fees, and Audit Quality of Deposit Money Banks in Nigeria, the study hereby states the following research hypothesis in null form:

$H0_1$: Audit Fee does not significantly impact Audit Quality in Deposit Money Banks in Nigeria.

$H0_2$: Audit Independence does not significantly impact Audit Quality in Deposit Money Banks in Nigeria.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Fig 1: Conceptual framework of Auditor Independence and Audit Quality



Source: Auditors Independence and Audit Quality in Nigeria, Adopted from Bassey, Omini, Aminu, Etore, & Archibong (2022).

Audit Quality

According to Jackson, Moldrich, and Roebuck (2021) audit quality is when the audit report does not result in a type I error which means, a failing company being given an unqualified report or a type II error which means a non- failing company being given a qualified report. The characterization of audit quality is centered around its significance which portrays the relevance of the matter that is being examined in the audit, its reliability which relates to audit findings and conclusions regarding the accounting record been examined, objectively which means the report must be neutral and fair in a manner that deprives it from favor or bias. In view of Abu, Bakar, and Ahmad (2020) quality of audit engagement is the market assessed joint probability that a given auditor will both discover a breach in the client's accounting system and report the breach. When an auditor actually reports the discovered misstatement, it is a function of the auditor's independence from the specific client. If the auditor is not independent, he is most likely not to report the misstatement. In other words, audit quality can be seen as the ability of the auditor to identify, any material misstatement, fraud or error and the will to disclose it for the benefit of all stakeholders. Palmrose (2019) added that audit quality represents the level of assurance that the financial statements contain no material omissions or misstatements. Users of financial statements will question the competence of the auditor if he fails to defect, eliminate or reduce these noises.

Size of Audit Firm

According to Deirdre (2023) audit firm size signifies various types of qualities. It is assumed that size (Big 4 or Big 5) of audit firms suggest reputation, international affiliation, and integrity which are reflected in the audit report on the accounts of their clients. Sivaramakrishnan (2019) argument that larger audit firms may have

greater reputational risk due to the earnings of client-specific quasi-rents, many studies have used especially the distinction between top-tier firms and mid-/small-tier firms, i.e., Big Four versus Non-Big Four or their predecessors. Audit firms having multiple clients in one industry are suspected of having greater knowledge about the industry-specific characteristics, e.g., specific risk factors relating to the industry.

Auditor's independence

Auditor independence may be seen as an auditor's unbiased mental attitude in arriving at a decision throughout the audit reporting process (Okolie, 2019). When an auditor lack independence, it may lead to the possibility of him being not objective. This means that the auditor will not likely report a discovered breach. The main threats to auditor independence are the fees apparent by the auditor for audit exercise, non-audit services, the duration of the auditor and client relationship. The decreased independence of an auditor leads to poor audit quality and pave way for greater earnings management and lower earnings quality. Auditor independence may also be affected by auditor tenure. As the auditor client relationship increases, the auditor may have a close relationship with the business client and therefore become more likely to act in favors of management, leading in reduced objectivity and audit quality. Mautz and Sharaf (2020) documented that the independence of auditors composed of three dimensions which are; programming independence that is freedom from control or excessive influence in the selection of audit methods and procedures and in the extent of their application, investigative independence which means freedom from control or undue influence in the selections of areas, activities, personal relationships, and managerial policies to be examined and Reporting independence which entails freedom from control or undue influence in the statement of facts revealed by the examination or in the expression of recommendations or opinions as a result of the examination. Beattie, Brandt, and Fearnley (2019) argued that there are four factors (or threats) that could influence the perceived auditor's independence.

Audit Fees

Audit fees can be defined as fee charged by an independent auditor for services done for a client (Okolie, 2019). The fees may differ by size or based on the nature of the service done. There have been so many reports from different researchers as to whether audit fees affect audit quality. The sum of the audit fee can differ depending on the assignment risk, the service complexity, the expertise required and other professional considerations (Rahmina & Agoes, 2020). Studies have shown that greater audit firms tend to charge larger fees because of the view that they will need more funds to employ quality staff that will generate quality audit for the client. According to Rahmina and Agoes (2020) there are nine (9) points audit firms should device to meet quality control expectations. They include independence, assignment of personnel, professional development, consultation, acceptance, supervision, employment, promotion and sustainable clients, and inspection. The professional code of conduct for Chartered Accountants in Nigeria stipulates that audit fee from single client should be over 25% of entire audit revenue. The conclusion from research reviewed by Abu-Bakar and Ahmad (2019) was that firms having large chunk of their entire audit cost is derived from one client are usually worried of losing such client, hence, runs risk of getting their independence jeopardized or compromised. A large percentage of audit fees from one client would likely foster weakening of independence of auditors. One main reason for self- interest threat mentioned in "ICAN professional code of conduct and guide for members" (2009) is 'unwarranted dependent on entire fees from one client, and unduly big percentage would be 25% and above which includes repetitive one-off assignments. The percentage or proportion of entire audit fees of a firm higher than 25% above is considered undue and it is believed it would affect or impair the independence of such a firm. This code maintains that such would constitute or amount to self-interest threat. Abu-Bakar and Ahmad (2020) mentioned that 15% is acceptable level and such criterion is universally accepted level used by ICAEW and generally at which auditors need to consider their independent position.

Empirical Studies

Audit Fees and Audit Quality

Boeijink (2020) explored the impact of excess auditor remuneration (abnormal audit fees) on audit quality in 13 countries around the world between 2014 and 2018 using a sample of 2767 firms. The study showed no significant positive association between abnormal audit fee and audit quality. More so, Karsemeijer (2017)

investigated the relation between audit fees and audit quality using the sample of 2,568 US listed companies with available financial data of fiscal year 2016. After using regression model for the analysis, the results revealed that there exists a positive and significant association between audit fees and the absolute value of discretionary accruals as well as non-audit fees and the absolute value of discretionary accruals. Similarly, Eshleman and Guo (2018) examined the impact of abnormal audit fees on audit quality of U.S firms from 2000-2011. Audit fee and auditor data are obtained from Audit Analytics, financial statement data are obtained from CompStat, and analyst forecast data are obtained from the I/B/E/S database. Furthermore, Rahmina and Agoes (2018) determined the effect of auditor independence, audit tenure, and audit fee both partially and simultaneously on the audit quality. Among the findings of the study is that audit fee has positive and significant influence on audit quality. Oladipupo and Monye-Emina (2016) examined the effect of abnormal audit fees on audit quality in audit market in Nigeria. The study documented that both positive and negative abnormal audit fees had insignificant positive impacts on audit quality.

Audit Independence and Audit Quality

Zayol & Kukeng (2017) reviewed the effect of auditor independence on audit quality. The study adopted the ex post facto research design relying on secondary information obtained from journals, textbooks, and other internet materials. Based on the review, they concluded that there is a strong relationship between auditor independence and audit quality. They also revealed that there are four threats to auditor independence, which they listed as client importance, non-audit services (NAS), audit tenure, and client's affiliation with CPA firms. Babatolu et al (2016) examine the effect of auditor's independence on audit quality among seven (7) purposively selected deposit money banks in Nigeria from 2009 to 2013. The population of this study comprised twenty (20) listed Deposit money banks in Nigeria. Adopting descriptive statistics, correlation and ordinary least square (OLS) regression technique, their findings revealed that there is a positive relationship between audit fees, audit firm rotation, and audit quality, while a negative relationship exists between audit firm tenure and audit quality. On the correlation matrix, the association between audit quality and leverage was strong, negative, and statistically significant, while that between audit quality and company size was equally strong, positive, and statistically significant. Kabiru and Abdullahi (2014) examined the effect of auditors' independence on audit quality, and it was revealed that audit independence has a positive and significant effect on the quality of audited financial statements.

Leverage and Audit Quality

Research on the effect of leverage on audit quality conducted by (Rizkiani & Nurbaiti 2019), (Anas & Sutrisno, 2018) and (Wulandari et al, 2020) in their research explained that manufacturing companies with high leverage ratios audited by KAP big 4 did not affect audit quality. Leverage is not a factor that affects audit quality, because there are other factors. Leverage relates to the legal environment in which the company operates. However, highly reputable KAPs tend to avoid risky clients because they have legal obligations.

Theoretical Framework

Audit Quality Theory

This research is anchored on audit quality theory as propounded by Watkins, Hillison and Moorcroft (2004). The theory maintains that audit quality and audit quality perception are both utilized interchangeably when expressing auditing terms, and to maintain the disparity between these concepts Watkins et al. (2004) utilized "monitoring strength" and "reputation" to represent the real and perceived auditing quality. Monitoring strength aids to influence and maintain quality of details in monetary reports whereas auditor's reputation can influence or affect credibility noticed or perceived by stakeholders concerning any auditors (Sivaramakrishnan, 2020). Auditors monitoring capacity is assessed through certain elements of audit quality which includes auditor's competency level and auditor's independence. The same competence level and level of independence of auditors as assessed by element of audit quality from markets perception is termed auditor reputation. Auditor reputations are difficult to measure because they are dependent or based on beliefs of users (Monroe and Hossain, 2018). Framework of audit quality as reported by Watkins et al. (2004) captures or contains possible relationships between components or elements audit quality, products of audit quality and their impact on details contain in

monetary statements. The two products of audit quality that are affected by elements of audit quality are credibility of details and quality of details.

METHODOLOGY

Research Design, Population, Sample and Data Source

The study employs a longitudinal research design, which is well-suited for examining the relationship between variables over an extended period. This design was chosen due to the nature of the data and the research objectives, which necessitate the analysis of identical variables over varying durations for a given number of firms. By adopting a longitudinal approach, the study can observe and analyze these variables' dynamics within the context of the Nigerian ICT sector over the specified timeframe. The population of this study is twenty-two (22) Deposit Money Banks. The study employed the filtering sampling technique to obtain twelve (12) deposit money banks, 7 of which are commercial banks with international authorization and the other 5 which are commercial banks with only national or local authorization. The use of a filtering sampling method was necessitated due to the unavailability of data for some new banks for some years under this study. The data employed in this study spanned from 2012 to 2023 for 12 Deposit Money Banks. The data were extracted from the Nigeria Exchange Group as at 31st December 2023.

Model Specification

To examine the variables for the study, the multiple linear models developed for the study were adopted from Rahmina and Agoes (2018).

The functional form of the model excluding audit tenure is as follows:

$$\text{LN}\ \{\frac{AQ}{(1-AQ)} = F\ (AUFEE,\ AUDIND,\ LEV) \qquad (3.1)$$

The econometrics form of model (3.1) looks thus:

$$\text{LN}\ \{\frac{AQ}{(1-AQ)}_{it} = a_0 + a_1\text{AUFEE}_{\ t} + a_2\text{AUDIND}_{\ it} + a_3\text{LEV}_{\ it} + \varepsilon_{\ it} \qquad (3.2)$$

Where;

AQ represents Audit quality which was captured by a binary dummy of BIG 4 audit firm is taken as 1 and otherwise, 0; AUFEE represents audit fees being the amount received by auditors as their remuneration; AUDIND is the auditor's independence, while LEV is a control variable known as leverage which is proxied by total liabilities to total assets.

i = firm 1 to 12 for the Twelve (12) sampled firms, ***t*** = year 2012 to 2023 for each of the twelve (12) sampled firms. $a_1 - a_3$ are variable coefficients to be estimated.

ε is the stochastic element.

The apriori expectations are:

$a_1, a_2 > 0$ ***while*** $a_3 < 0$

From equation 3.2, the probability expression of AQ (audit quality) shows that is a binary variable that assumes a value from 0 to 1.

Method of Data Analysis

This study adopted the use of Pooled binary logistic regression techniques as well as the necessary preliminary tests such as descriptive statistics, correlation analysis, and the appropriate post-diagnostic tests. We employed

the Pooled binary logistic regression technique for data analysis. The choice of a Pooled binary logistic approach in this study was based on the following reasons: First, the data collected had time and cross-sectional attributes, secondly, the start and end date for each bank were not the same. Some banks were found to have incomplete data for some years while others have complete data for the entire years and variables. This therefore made pooled analysis more appropriate. Thirdly, the use of a binary logistic approach was also necessitated by the fact that the dependent variable, audit quality (AQ) is a categorical data with binary attributes which will not support the use of the ordinary or panel least squares approach. Fourth, pooled data regression provides better results since it increases sample size and reduces the problem of degree of freedom. Fifth, pooled regression would avoid the problems of multicollinearity, aggregation bias, and endogeneity problems (Solomon et al., 2012). Lastly, the pooled data analysis supports homogeneity effects in the sampled companies which appear to be from the same industry.

The descriptive statistics were employed to examine the summary statistics of the variables such as mean, standard deviation, skewness, and Kurtosis to ascertain the normality level of the datasets. The correlation analysis was conducted using Pearson's correlation coefficient, which measured the linear association between pairs of variables intending to assess whether any relationship holds or the presence or absence of a multicollinearity issue.

RESULT AND DISCUSSION

Descriptive Statistics

Table 4.1: Univariate Descriptive statistics

	Mean	St. Dev	Maximum	Minimum	Skewness	Kurtosis
Variables						
AQ	.9503546	.2179856	1	0	-4.146697	18.1951
AUFEE	449354.5	421718.5	2563000	28000	2.024613	8.280244
AUDIND	.0020993	.0046309	.0531	0.0003	9.937959	107.1775
LEV	.0632295	.122347	.9501	.00065	5.682147	39.17021

Source: Author's Compilation from STATA 14.0 Output (2024)

The descriptive statistics results as presented in Table 4.1 showed that audit quality (AQ) has a mean value of 0.950(SD = 0.21) which displayed a mean value of about 0.95% which showed that about 95% of the deposit money bank had a big 4 auditor and the standard deviation shows a slight deviation from the mean. The maximum and minimum values of AQ are 0 and 1 respectively. The skewness value of -4.14 revealed that AQ is negatively skewed, AQ kurtosis value of 18.19 showed that Audit quality has a platykurtic distribution. Audit fee (AUFEE) has a mean value of 449354.5 naira (SD = 421718.5) with maximum and minimum values of 2,563,000 and 28,000 naira respectively. AUFEE appeared to be positively skewed with a value of 2.02 and platykurtic with a kurtosis value of 8.278. This implies that most audit firms had a high remuneration in the form of their fees.

The mean value for Audit independence (AUDIND) is 0.002 (SD = 0.005) with a maximum and minimum of 0.053 and 0.0003 respectively. AUDIND was also found to be positively skewed based on its skewness value of 9.937 and platykurtic distribution based on its kurtosis value of 107.17. The mean, maximum, and minimum values of leverage (LEV) are 0.063(SD = 0.122), 0.9501, and 0.0006. The mean value indicates 6% of the total loan-to-asset ratio average growth rate of the banks under study.

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Correlation Analysis

The correlation analysis of this study is displayed in Table 4.2 as follows:

Table 4. 2: Correlation analysis

	aq	aufee	audind	lev
aq	1			
aufee	0.2009	1		
audind	0.0417	0.1196	1	
lev	-0.1778	-0.0071	0.0032	1

Note +/- (<25%= very weak, 26-49 weak, 50-60 moderate, 60-80 strongly correlated, >85 highly correlated.

Source: Author's Compilation from STATA 14.0 Output (2024)

The Pairwise correlation coefficients for the independent variables AUFEE, AUDIND and LEV which stood at 0.20009, 0.0417 and -0.1778 respectively showed that audit fee and audit independence had a positive and very weak correlation with audit quality while leverage (LEV) had a negative and very weak correlation with audit quality. The Correlation result also revealed a positive correlation between audit independence and audit fee, as well as between leverage and audit independence. Leverage was found to be negatively correlated with audit fee. Going by the correlation coefficient between the independent variables that fell below the bench mark of 0.80, we therefore conclude that there is likely no possibility of multicollinearity problems in the result. To authenticate this claim, the Variance Inflation Factor test was carried out.

Binary Logistic Regression Result

This model focuses on estimating the effects of audit independence and audit fees on audit quality among banks in Nigeria using pooled binary logistic regression. The Pooled Binary (Logit) regression results are presented in Table 4.3 as follows

Table 4.3: Binary Logistic Regression Result

	Expected Sig	Ols Model Aq	Pooledlogit Regression Model Aq	Robust Pooled Logit Regression Model Aq
C		0.8429 {0.000}	-2.9128 {0.141}	-2.9718 {0.257}
Aufee	+	5.53e-08 {0.202}	0.00004** {0.021}	0.00004** {0.032}
Auten	+/-	0.1393* {0.000}		

Audind	+	2.7134 {0.474}	802.8266 {0.208}	802.8266 {0.128}
Lev	-	-0.2835** {0.046}	-8.4101 {0.076}	-8.4101 {0.108}
F-statistics LR-CHI^2		2.32{0.04} N/A	N/A 33.04{0.000}	N/A 15.59{0.0014}
R-Squared Pseudo R^2		0.07 N/A	N/A 0.59	N/A 0.59
Mean VIF		1.07		
Heteroscedasticity (Prob.)		178.34(0.000		
Observation (AQ=1, AQ=0, n)		141	141	141

Note: (1) bracket {} are probability-values (2) *, **, implies statistical significance at %1 and 5% levels respectively.

Source: Author's Compilation from STATA 14.0 Output (2024)

The results of the OLS, Pooled Binary (Logit), and robust standard error Pooled binary (Logit) regression are presented in Table 4.3 showing the impact of audit independence and audit fee on audit quality. The heteroskedasticity test results as presented in the OLS model column revealed the possibility of non-constant variance or heteroskedasticity, this led to the estimation of the Robust standard error Pooled Binary (logit) regression was conducted to correct the heteroskedasticity problem that may be present in the pooled regression result and for reliability purpose.

From the Robust standard error Pooled binary logistic regression results as presented in the 5th column, the Pseudo R-squared value was 0.595 implying that about 59.5% of the systematic variations in the audit quality being the dependent variable were jointly explained by the independent variables. The unexplained part of the dependent variable is said to be captured in the error term by other variables that may enhance audit quality but are outside the scope of this study. The LR CHI2 value of 15.59 and its associated P-value of 0.0014 showed that the overall binary logistic regression model is statistically significant at a 1% level of significance.

From the coefficient values it was observed that the independent variables met the *a-priori* expectation which is a positive relationship. The was also the case of the control variable.

Specifically, the result showed that the estimated coefficients of Audit fee (AUFEE) with a coefficient value of 0.00004 and a probability value of 0.032 imply that a positive relationship runs between audit fee and audit quality (AQ). Based on the probability value, the audit fee is also seen to be statistically significant at a 5% level of significance. This implies that the more remuneration the auditors get as fees for their services, the higher the likelihood of having a quality audit service. This means that the higher the audit fee the more the probability of auditors wanting to produce an accurate financial report because people tend to put in their best when they are highly remunerated. Based on the probability value that is less than 0.05, we therefore reject the first hypothesis that states that there is no significant relationship between audit fee and audit quality. This finding is in consonance with those of Boeijink, 2020; Karsemeijer, 2017; and Rahmina and Agoes, 2018 which found that audit fees have a positive and significant impact on audit quality in their studies on the impact of excess auditor remuneration (abnormal audit fees) on audit quality of firms in different countries.

The result also showed audit independence (AUDIND) with coefficient and probability values of 802.8266 and (0.128) implying that audit independence has a positive relationship with audit quality. This means that the freer the auditors are from undue interference and control from the board of directors, the more likelihood that they would produce quality audit reports. However, judging from the probability value that exceeds 0.05, it is obvious that audit independence is not statistically significant in promoting audit quality among deposit money banks for the period under study. The statistical insignificance of audit independence could be attributed to some level of interference that may be in place in the board of DMBs in Nigeria. Following the probability value that is greater than 0.05, we, therefore, accept the second hypothesis that states that there is no significant relationship between audit independence and audit quality among DMBs in Nigeria. The finding negates that of Kabiru and Abdullahi (2014) who found audit independence to have a positive and significant impact on audit quality.

Judging from the coefficient of – 8.4101 and the probability value of 0.108, Leverage (LEV) was found to have a negative and insignificant impact on the audit quality of deposit money banks in Nigeria. This implies that the higher the debt ratio the more likely it is that a poor audit report will be produced by the auditors. The result implies that the more indebted the banks are, the less probability that auditors will produce a high-quality audit report.

Post diagnostic Results

To authenticate the regression results for inference purposes, we subjected the result to the appropriate post-diagnostic tests for firm-level studies which include The Variance Inflation Factor (VIF), and the White test for heteroskedasticity. The results are displayed as follows:

Table 4.4: Variance Inflation Factors for the Independent variables in both Models

Variable	VIF	1/VIF
aufee	1.12	0.8955
auten	1.11	0.8972
audind	1.03	0.9676
lev	1	0.9962
Mean VIF	1.07	

Source: Author's Compilation from STATA 14.0 Output (2024)

The variance inflation factor results for the AQ model in Table 4.4 revealed there is no possibility of a multicollinearity problem in the model. This is because the VIF values for the variables in use fell within the acceptable region of below 10. And the mean VIF value stood at 1.07. This result confirmed the Pairwise correlation test result in Table 4.1.

Heteroskedasticity Test: White for AQ Model

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of aq

chi2(1) = 178.34

Prob > chi2 = 0.0000

Source: Author's Compilation from STATA 14.0 Output (2024)

The Bresch-Pagan/ Cook-Weisberg test for heteroskedasticity test CHI2 statistics of 178.34 and the probability value of 0.0000 which is less than 0.05 shows that the model has heteroskedasticity or a non-constant variance. The heteroskedasticity problem was thereafter corrected with the help of the robust standard error method and as such the robust pooled logit regression result was therefore accepted as the more appropriate for interpretation and hypotheses testing.

CONCLUSION

The study examined the Auditor's Independence and fees on Audit Quality of Deposit Money Banks in Nigeria using the Binary logistic regression technique. Based on the findings, the study concludes that Audit Fee has a positive and significant impact on Audit Quality in Deposit Money Banks in Nigeria while Auditor's Independence has a positive but insignificant impact on Audit Quality in Deposit Money Banks in Nigeria.

RECOMMENDATIONS

Based on the findings, we recommend that the relevant authorities of DMBs should ensure that auditors are well remunerated to encourage them to carry out their duties effectively. Also, the board of directors should endeavor to discourage any form of interference with the activities of the auditors if they must receive quality audit reports.

REFERENCES

1. Abu .D. (2018). The relationship between earnings management and audit quality, Journal of Accounting and Finance Research, 12 (1), 1 - 11.
2. Abubakar .D. (2023). Globalization and the state professional relationship: the case the bank of credit and commerce international. Accounting, Organizations and Society, 26 (6), 475-499.
3. Abu-Bakar, N. (2018). Auditor independence: Malaysian accountants' Perceptions. Journal of Business and Management, 4, 12. www.ccnet.org/journal.html.
4. Abu-Bakar. N & Ahmad.K. (2019). Audit committee effectiveness and audit quality of Nigerian money deposit banks. Accounting and Finance research association. www.afra.org.ng.
5. Abdul.O., Sutrisno.D., Rosidi.B. & Ashine. (2019). Audit market competition: auditor changes and the impact of tendering. British Accounting Review, 30, 261-289.
6. Ahmed, A. (2020). Auditors‟ perceptions of audit firm rotation impact on audit quality in Egypt. Journal of Accounting and Taxation.6 (1), 105-120
7. Almutairi E, Dunn.R. & Skantz.O. (2019). Auditing, assurance service and ethics in Australia. 8th Edition. Pearson Australia.
8. Arel, Brody & Pany, (2020). Stakeholder accountability: a field study of the implementation of a governance improvement plan. Accounting, Auditing & Accountability Journal, 21 (7), 933-954
9. Bahram .D. (2021). Characteristics of internal auditing quality, field study in Saudi Arabia. General Management Journal, 35 (3), 405-451.

10. Babatolu .H., Aigienohuwa .U. & Uniamikogbo .B. (2018). Audit firm tenure and fraudulent financial reporting. Working Paper, University of Tennessee.
11. Bassey K., Omini H., Aminu U., Etore O., & Archibong E. (2022).
12. Beattie .G., Brandt .O. & Fearnley .P. (2019). Auditor"s independence and audit quality: A study of selected deposit money banks in Nigeria. International Journal of Finance and Accounting, (1), 13-21.
13. Bedard .E. & Johnstone, (2019). Auditor size and audit quality. North-Holland Publishing Company, Journal of Accounting and Economics 3, 183-199.
14. Bello, .P. (2014). The Impact of Audit Independence on Financial Reporting: Evidence from Nigeria. Business and Management Review.1(4), 9 – 25
15. Boeijink.U. (2020). Auditing, 8th edition, Thomson, South-Western, Printed in the United States of America
16. Cameran M., Prencipe D., & Trombetta L. (2020). Audit partner rotation, earnings quality and earnings conservatism. Working Paper: University of New South Wales.
17. Carcello J. V. (2019). Audit firm tenure and fraudulent financial reporting. Working Paper, University of Tennessee.
18. Carey. & Simental. (2017). The Philosophy of Auditing. American Accounting Association Seventeenth Printing. Carey and Simnett (2020). Audit quality: Insights from the academic literature. Auditing: A
Journal of Practice & Theory, 32(1), 385-421.
19. Chen, S. (2018). Client importance, institutional improvements and audit quality in China: An Office and Individual Auditor Level Analysis. The Accounting Review. 85(1), 127–158.
20. Chi, W., Huang, H., Liao, Y. and Xie, H. (2009). Mandatory audit partner rotation, audit quality and market perception: Evidence from Taiwan. Contemporary Accounting Research. 26(2), 359 – 391
21. Chi, W., (2019). Future non-audit service fees and audit quality. Contemporary Accounting Research. 31, 681–712.
22. DeAngelo, L. E. (1981). Auditor size and audit quality, Journal of Accounting and Economics, 3 (3), 183 – 199.
23. Deirdre, C. (2023). Audit firm rotation- its impact on auditor independence: an Irish perspective. An unpublished Dissertation, Letter Kenny Institute of Technology.
24. Government Accountability Office (2017.)
25. Edet.E. (2021). The association between audit fees and reported earnings quality in pre- and post-Sarbanes-Oxley regimes. Review of Accounting and Finance, 8(3), 232–252.
26. Effio, S. O., Tapang, A. T., & Eton, O. E. (2018). The impact of human capital cost on gross domestic product (GDP) in Nigeria. International Journal of Financial Research, 3(4), 116.
27. Enofe.L., Ngbame .P., Okunega .O. & Eddied. (2020). The impact of tax policy and incentives on foreign direct investment (FDI) and economic growth: Evident from Export Processing Zones (EPZs) in Nigeria. European Journal of Commerce and Management Research, 2(9), 191-196.
28. Frankel.O., Johnson .D. & Nelson .T. (2021). Auditor tenure, auditor independence and accrual – based earnings management of quoted companies in Nigeria, Journal of Science, 321-388.
29. Francis .L. (2017). What do We Know about Audit Quality? The British Accounting Review.36, 345-368.
30. Francis, J. (2020). Are auditors compromised by non-audit services? Assessing the evidence. Contemporary Accounting Research 23 (3), 747–760.
31. Hakim.U. & Omri, .T. (2018) Stock Exchange. International Journal of Accounting and Financial Reporting. 5(2), 195-207.
32. Hakim ,U. & Omri .T. (2017). Does Auditor Tenure Influence the Reporting of Conservative Earnings. Journal of Accounting and Public Policy.27, 115-132
33. Hakim .U. & Omri.T. (2020). Auditor reputation and the pricing of initial public offerings. The Accounting Review, 64 (4), 693-709.
34. Hay .L. & Knechel .O. (2018). Audit Partner Rotation, Earnings Quality and Earnings Conservatism.

Working Paper: University of New South Wales.
35. Hillison.U. & Moorcroft.E. (2004). Determinants of Audit Fees Pricing: Evidence from Nairobi Securities Exchange (NSE). International Journal of Research in Business Studies and Management, 3 (1), 23-35.
36. Hoyle, G. (2017). Based Earnings Management, Corporate Policies and Managerial Decisions of Quoted Companies in Nigeria. Research Journal of Finance and Accounting. 5 (2),1 – 14
37. Idigbe ,I, (2019). The Relation between Audit Fee and Audit Quality, Amsterdam: S.N.
38. Ilaboya, O. J., & Ohiokha, F. I. (2017). Audit firm characteristics and audit quality in Nigeria. International Journal of Business and Economics Research, 3(5), 187- 195.
39. Institute of Chartered Accountants of Nigeria (ICAN), (2018). Professional code of conduct and guide for members.
40. International Ethics Standards Board for Accountants (IESBA), (2014). Handbook of the Code of Ethics for Professional Accountants. www.ifac.org ISBN: 978-1-60815-174-5.
41. Izedonmi .T. (2018). The relationship between earnings management and audit quality, Journal of Accounting and Finance Research, 12 (1), 1 – 11.
42. The Institute of Chartered Accountants in England and Wales, (2018).
43. Jackson .O, Moldrich, .P. & Roebuck .U. (2021). Principles of Auditing: An Introduction to International Standards on Auditing (2nd Edition)
44. Johnson, Khurana and Reynold, (2021) Audit firm tenure and fraudulent financial reporting. Working Paper, University of Tennessee.
45. Kathleen .I. & Scott.D. (2022). Audit fees - what research tells us. (Auditing).The CPA Journal Online. Retrieved from http://archives.cpajournal.com/old/16349305.htm
46. Knechel H. & Vanstraelen E. (2019). Determinants of Audit Fees Pricing: Evidence from Nairobi Securities Exchange (NSE). International Journal of Research in Business Studies and Management, 3 (1), 23-35.
47. Krishnan, J. & Schauer, P., 2016. The Differentiation of Quality among Auditors: Evidence from the Not-for-profit Sector. Auditing: A Journal of Practice and Theory, 19 (2), p. 9–25.,
48. Lennox .K. & Pittman .F. (2018). The Importance of business risk in setting audit fees: Evidence from Cases of Client Misconduct. Journal of Accounting Research, 43 (1), pp. 133-151
49. Mahmoud, G. E. (2018). The effect of joint audit on audit quality: Empirical evidence from companies listed on the Egyptian Stock Exchange. International Journal of Accounting and Financial Reporting. 5(2), 195-207
50. Mautz .D. & Sharaf .T. (2020). Corporate board structure and financing decisions of firms: A Panel Data Analysis. The Nigerian Horizon, 4 (2), 19-39.
51. Mednick .L. (2020). Audit quality: attributes, private safeguards and the role of regulations. The European Accounting Review, 9 (2), 205 – 225.
52. Messier .J. (2018). Audit tenure, auditor's independence and earnings management, Working Paper, Boston College
53. Millichap.S. (2018). An examination into the Quality of Audited Financial Statements of Money Deposit Banks in Nigeria. International Journal of Academic Research in Accounting, Finance and Management, 4(1), 145- 156.
54. Mohamad, G. E. (2020). An examination into the quality of audited financial statements of money deposit banks in Nigeria. International Journal of Academic Research in Accounting, Finance and Management. 4(1), 145-156
55. Mohammadi .B., Maharlouie .E. & Kazemi .H. (2019). Auditing, Trust and Governance: Regulation in Europe. Oxon, England: Routledge.
56. Monroe & Hossain (2018). The impact of auditor's independence on audit quality: A theoretical approach. International Journal of Scientific & Technology Research, 4(12), 348-353.
57. Myers .S, Rigsby .M. & Boone .C. (2018). Hong Kong auditing: Economic theory & practice, third edition. City University of Hong Kong Press.

58. Okolie A. O. & Chide, (2019). The impact of non-audit services on capital markets. Journal of Accounting, Auditing & Finance. 27,32-60.
59. Okolie, A. O. (2019). Accrual based earnings management, corporate policies and managerial decisions of quoted companies in Nigeria, Research Journal of Finance and Accounting, 5 (2), 1 – 14
60. Olisa.P. (2016). An empirical analysis of the impact of auditor's independence on the credibility of financial statement in Nigeria. Research Journal of Finance and Accounting, www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) 2:3.
61. Palmrose, Z. (2019). The effect of non-audit services on the pricing of audit services: Further evidence. Journal of Accounting Research 24 (2), 405-411.
62. Rahmina, L.Y., & Agoes, S. (2020). Influence of auditor independence, audit tenure, and audit fee on audit quality of members of capital market accountant forum in Indonesia, International Conference on Accounting Studies ICAS 18-19
63. Sayyed.O., Mahdi .T. & Mohsen .B. (2019). Bankers' perceptions of factors affecting auditor independence. Accounting, Olusegun Ebo: Continental J. Social Sciences, 2 (3), 40-51.
64. Sivaramakrishnan.G. (2020). Information quality and the valuation of new issues. Journal of Accounting and Economics, 8, 159-172.
65. Svanström.D. (2015). Fee structure and competition in public accounting. The Ohia CPA Journal, 14 (1), 53-56.
66. Sylvia. N, Fitriany. G, Arie.U. & Viska (2017). The PCAOB and the social responsibility of auditors, Accounting Horizons, 18(2), 127 – 133.
67. Titman. & Trueman.D. (2019). Determinants of auditor independence: A comparison of the perceptions of auditors and non-auditors in Lagos, Nigeria. Journal of Finance and Accountancy, 12(9), 1-17.
68. Titman.E. & Trueman, S. (2018). Auditor"s independence and audit quality: A study of selected deposit money banks in Nigeria. International Journal of Finance and Accounting, 5(1), 13-21.
69. Ugochukwu. & Sonam's. (2020). Auditor's reputation: the impact on compliance with International Accounting Standard 5 by quoted companies in Nigeria. Kuwait Chapter of Arabian Journal of Business and Management Review, 3:12.
70. UK House of Common Treasury Committee, (2018).
71. Velte Y. & Loy.H. (2018). Audit quality practices and financial reporting in Nigeria. International Journal of Academic Research in Accounting, Finance and Management Sciences. 7 (2), 145-155.
72. Yuniarti, R. (2018). Audit firm size, audit fee and audit quality journal of global management, 2(1), 84-97.

APPENDIX

Appendix 1: Dataset

YEAR	BANKS	AQ	AUFEE	AUTEN	AUDIND	LEV
2012	Access Bank	1	339528	1	0.0017	0.05755
2013	Access Bank	1	308208	1	0.0015	0.01789
2014	Access Bank	1	433734	1	0.0018	0.01690
2015	Access Bank	1	378789	1	0.0011	0.02040
2016	Access Bank	1	460182	1	0.0012	0.01930
2017	Access Bank	1	529006	1	0.0012	0.03410
2018	Access Bank	1	612978	1	0.0012	0.93330
2019	Access Bank	1	819940	1	0.0012	0.95010
2020	Access Bank	1	1017383	1	0.0013	0.04146

2021	Access Bank	1	1688678	1	0.0017	0.03386
2022	Access Bank	1	1550000	1	0.0011	0.01781
2023	Access Bank	1	2106000	1	0.0008	0.01755
2012	Fidelity Bank	1	113000	0	0.0009	0.06132
2013	Fidelity Bank	1	125000	0	0.0010	0.05909
2014	Fidelity Bank	1	150000	0	0.0011	0.03220
2015	Fidelity Bank	1	150000	0	0.0010	0.03590
2016	Fidelity Bank	1	150000	0	0.0010	0.03440
2017	Fidelity Bank	1	200000	0	0.0011	0.03460
2018	Fidelity Bank	1	200000	0	0.0011	0.06280
2019	Fidelity Bank	1	200000	0	0.0009	0.14490
2020	Fidelity Bank	1	200000	0	0.0010	0.04000
2021	Fidelity Bank	1	195000	0	0.0008	0.03025
2022	Fidelity Bank	1	185000	0	0.0005	0.02431
2023	Fidelity Bank	1	361000	0	0.0006	0.02776
2012	First Bank Holding	1	348000	0	0.0009	0.02092
2013	First Bank Holding	1	488000	0	0.0012	0.02468
2014	First Bank Holding	1	315000	0	0.0007	0.01620
2015	First Bank Holding	1	731000	0	0.0014	0.05290
2016	First Bank Holding	1	803000	0	0.0014	0.12290
2017	First Bank Holding	1	856000	0	0.0014	0.10170
2018	First Bank Holding	1	91000	0	0.0067	0.29080
2019	First Bank Holding	1	977000	0	0.0531	0.05630
2020	First Bank Holding	1	950000	0	0.0016	0.02297
2021	First Bank Holding	1	1146000	0	0.0015	0.05906
2022	First Bank Holding	1	1058000	0	0.0013	0.05523
2023	First Bank Holding					
2012	First City Monumental Bank	1	176525	1	0.0015	0.01975
2013	First City Monumental Bank	1	240412	1	0.0018	0.02628
2014	First City Monumental Bank	1	253970	1	0.0017	0.02490
2015	First City Monumental Bank	1	287061	1	0.0019	0.03050
2016	First City Monumental Bank	1	324634	1	0.0018	0.03110
2017	First City Monumental Bank	1	372835	1	0.0022	0.03890
2018	First City Monumental Bank	1	398578	1	0.0022	0.07630
2019	First City Monumental Bank	1	403622	1	0.0022	0.05380
2020	First City Monumental Bank	1	424233	1	0.0021	0.05653
2021	First City Monumental Bank	1	457054	1	0.0022	0.04660

2022	First City Monumental Bank	1	501835	1	0.0018	0.04275
2023	First City Monumental Bank	1	787550	1	0.0015	0.04782
2012	Guaranty Trust Bank	1	320931	1	0.0019	0.02457
2013	Guaranty Trust Bank	1	335337	1	0.0018	0.02363
2014	Guaranty Trust Bank	1	399957	1	0.0020	0.02050
2015	Guaranty Trust Bank	1	502552	1	0.0022	0.02210
2016	Guaranty Trust Bank	1	596234	1	0.0023	0.00200
2017	Guaranty Trust Bank	1	712254	1	0.0022	0.00250
2018	Guaranty Trust Bank	1	791353	1	0.0026	0.00430
2019	Guaranty Trust Bank	1	857822	1	0.0029	0.00410
2020	Guaranty Trust Bank	1	1179881	1	0.0039	0.00719
2021	Guaranty Trust Bank	1	1173713	1	0.0026	0.00888
2022	Guaranty Trust Bank	1	1100620	1	0.0020	0.01665
2023	Guaranty Trust Bank	1	1548347	1	0.0028	0.02425
2012	Stanbic Ibtc Holding	1	189000	1	0.0021	0.04513
2013	Stanbic Ibtc Holding	1	200000	1	0.0018	0.03532
2014	Stanbic Ibtc Holding	1	220000	1	0.0017	0.04410
2015	Stanbic Ibtc Holding	1	263000	1	0.0019	0.07110
2016	Stanbic Ibtc Holding	1	310000	1	0.0020	0.05070
2017	Stanbic Ibtc Holding	1	340000	1	0.0016	0.05480
2018	Stanbic Ibtc Holding	1	387000	1	0.0017	0.04010
2019	Stanbic Ibtc Holding	1	411000	1	0.0018	0.04030
2020	Stanbic Ibtc Holding	1	376000	1	0.0016	0.04764
2021	Stanbic Ibtc Holding	1	422000	1	0.0020	0.02691
2022	Stanbic Ibtc Holding	1	490000	1	0.0017	0.01706
2023	Stanbic Ibtc Holding	1	570000	1	0.0012	0.01933
2012	Sterling Bank	1	120000	1	0.0017	0.02925
2013	Sterling Bank	1	180000	1	0.0020	0.02151
2014	Sterling Bank	1	198500	1	0.0019	0.00080
2015	Sterling Bank	1	198500	1	0.0018	0.04650
2016	Sterling Bank	1	198500	1	0.0018	0.01810
2017	Sterling Bank	1	215000	1	0.0016	0.03260
2018	Sterling Bank	1	215000	1	0.0014	0.03130
2019	Sterling Bank	1	214000	1	0.0014	0.07880
2020	Sterling Bank	1	190000	1	0.0014	0.02770
2021	Sterling Bank	1	190000	1	0.0013	0.01992
2022	Sterling Bank	1	126000	1	0.0016	0.02772

2023	Sterling Bank	1	126000	1	0.0013	0.02514
2012	Union Bank of Nig	1	28000	1	0.0003	0.00065
2013	Union Bank of Nig	1	118000	1	0.0010	0.08541
2014	Union Bank of Nig	1	124000	1	0.0009	0.07540
2015	Union Bank Of Nig	1	161000	1	0.0014	0.06320
2016	Union Bank of Nig	1	180000	1	0.0014	0.05850
2017	Union Bank of Nig	1	249000	1	0.0015	0.08420
2018	Union Bank of Nig	1	299000	1	0.0021	0.09760
2019	Union Bank of Nig	1	182000	1	0.0011	0.08120
2020	Union Bank of Nig	1	179000	1	0.0011	0.06338
2021	Union Bank of Nig	1	187000	1	0.0011	0.03483
2022	Union Bank of Nig	1	188000	1	0.0009	0.03304
2023	Union Bank of Nig	1	55000	1	0.0008	0.03462
2012	United Bank for Africa	1	309000	1	0.0014	0.03806
2013	United Bank for Africa	1	296000	1	0.0011	0.03530
2014	United Bank for Africa	1	358000	1	0.0012	0.01870
2015	United Bank for Africa	1	450000	1	0.0014	0.01870
2016	United Bank for Africa	1	490000	1	0.0013	0.02510
2017	United Bank For Africa	1	607000	1	0.0013	0.30610
2018	United Bank for Africa	1	592000	1	0.0192	0.10100
2019	United Bank for Africa	1	608000	1	0.0018	0.03330
2020	United Bank for Africa	1	773000	1	0.0018	0.03496
2021	United Bank for Africa	1	1088000	1	0.0023	0.02520
2022	United Bank for Africa	1	1225000	1	0.0022	0.02408
2023	United Bank for Africa	1	2563000	1	0.0024	0.04350
2012	Unity Bank	0	80000	0	0.0015	0.03036
2013	Unity Bank	0	80000	0	0.0013	0.15574
2014	Unity Bank	0	80000	0	0.0010	0.21330
2015	Unity Bank	0	80000	0	0.0010	0.26710
2016	Unity Bank	0	80000	0	0.0010	0.36630
2017	Unity Bank	0	80000	0	0.0009	0.05680
2018	Unity Bank	0	80000	0	0.0021	0.01690
2019	Unity Bank	1	75000	0	0.0030	0.02780
2020	Unity Bank	1	65000	0	0.0030	0.02041
2021	Unity Bank	1	77000	0	0.0030	0.01188
2022	Unity Bank					
2023	Unity Bank					

2012	Wema Bank	1	90000	0	0.0029	0.14000
2013	Wema Bank	1	90000	0	0.0025	0.38700
2014	Wema Bank	1	110000	0	0.0026	0.02010
2015	Wema Bank	1	110000	0	0.0024	0.01310
2016	Wema Bank	1	120000	0	0.0022	0.01250
2017	Wema Bank	1	130000	0	0.0020	0.01960
2018	Wema Bank	1	142742	0	0.0020	0.03730
2019	Wema Bank	1	180000	0	0.0019	0.01606
2020	Wema Bank	1	150000	0	0.0018	0.01503
2021	Wema Bank	1	103000	0	0.0011	0.02680
2022	Wema Bank	1	127000	0	0.0010	0.03441
2023	Wema Bank	1	160000	0	0.0007	0.03059
2012	Zenith Bank	1	320000	1	0.0011	0.02166
2013	Zenith Bank	1	420000	1	0.0013	0.01744
2014	Zenith Bank	1	460000	1	0.0011	0.01670
2015	Zenith Bank	1	546000	1	0.0013	0.02160
2016	Zenith Bank	1	626000	1	0.0012	0.03120
2017	Zenith Bank	1	693000	1	0.0009	0.07230
2018	Zenith Bank	1	822000	1	0.0013	0.07500
2019	Zenith Bank	1	892000	1	0.0013	0.04760
2020	Zenith Bank	1	786000	1	0.0011	0.05049
2021	Zenith Bank	1	1060000	1	0.0014	0.04355
2022	Zenith Bank	1	1065000	1	0.0011	0.02747
2023	Zenith Bank	1	1337000	1	0.0006	0.07610

Appendix 2: Empirical Analysis Results

Descriptive Statistics

Stats	AQ	AUFEE	AUTEN	AUDIND	LEV
Mean	0.9504	449354.5	0.6809	0.0021	0.0632
Max	1.0000	2563000	1.0000	0.0531	0.9501
Min	0.0000	28000	0.0000	0.0003	0.00065
Skewness	-4.1467	2.0246	-0.7759	9.9380	5.6821
Kurtosis	18.1951	8.2802	1.6021	107.1775	39.1702

Stats	AQ	AUFEE	AUTEN	AUDIND	LEV
SD	0.2180	421718.5	0.4678	0.0046	0.1223

Correlation Analysis

	AQ	AUFEE	AUTEN	AUDIND	LEV
AQ	1.0000				
AUFEE	0.2009	1.0000			
AUTEN	0.3338	0.2874	1.0000		
AUDIND	0.0417	0.1196	-0.0944	1.0000	
LEV	-0.1778	-0.0071	-0.0605	0.0032	1.0000

Ordinary Least Squares Results

Source	SS	df	MS	Number of obs = 141
Model	1.01097377	4	0.252743442	**F(4, 136) = 6.09**
Residual	5.6415085	136	0.04148168	**Prob > F = 0.0002**
Total	6.65248227	140	0.04751773	**R-squared = 0.1520**
				Adj R-squared = 0.1270
				Root MSE = 0.20367

aq	Coefficient	Std. Error	t-statistic	P>|t|	95% Confidence Interval
AUFEE	5.53e-08	4.31e-08	1.28	0.202	[-3.00e-08, 1.41e-07]
AUTEN	0.139277	0.0388467	3.59	0.000	[0.0624554, 0.2160986]
AUDIND	2.713436	3.778778	0.72	0.474	[-4.759326, 10.1862]
LEV	-0.28355	0.1409604	-2.01	0.046	[-0.5623077, -0.0047923]
_cons	0.8429168	0.0351675	23.97	0.000	[0.773371, 0.9124626]

POOLED BINARY LOGISTIC REGRESSION RESULT

Logistic regression Number of obs = 141

LR chi2(3) = 33.04

Prob > chi2 = 0.0000

Log likelihood = -11.324733 Pseudo R2 = 0.5933

aq	Coefficient	Std. Error	z-statistic	P>|z|	95% Confidence Interval
AUFEE	0.0000407	0.0000177	2.30	0.021	[0.00000609, 0.0000754]
AUDIND	802.8266	637.6987	1.26	0.208	[-447.0399, 2052.693]

aq	Coefficient	Std. Error	z-statistic	P>|z|	95% Confidence Interval
LEV	-8.410093	4.733247	-1.78	0.076	[-17.68709, 0.8669016]
_cons	-2.91284	1.977031	-1.47	0.141	[-6.78775, 0.9620691]

Note: 0 failures and 42 successes completely determined.

HETEROSCEDASTICITY RESULT

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of aq

chi2(1) = 178.34

Prob > chi2 = 0.0000

VARIANCE INFLATION FACTOR RESULT

estat vif

Variable	VIF	1/VIF
aufee	1.12	0.895539
auten	1.11	0.897190
audind	1.03	0.967605
lev	1.00	0.996203
Mean VIF	1.07	

ROBUST STANDARD ERROR POOLED BINARY LOGISTIC REGRESSION RESULT

logistic regression Number of obs = 141

Wald chi2(3) = 15.59

Prob > chi2 = 0.0014

Log pseudolikelihood = -11.324733 Pseudo R2 = 0.5933

Variable	Coefficient	Robust Std. Err.	z-statistic	P-value	95% Confidence Interval
aufee	0.0000407	0.0000192	2.15	0.032	[0.00000356, 0.0000779]
audind	802.8266	527.8977	1.52	0.128	[-231.8338, 1837.487]
lev	-8.410093	5.230734	-1.61	0.108	[-18.66214, 1.841957]
_cons	-2.912842	2.946813	-0.99	0.323	[-8.688488, 2.862807]