



AUDIT QUALITY AND FIRM VALUE OF LISTED INSURANCE COMPANIES IN NIGERIA

BY

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Abstract

This study determined the relationship between audit quality and firm value of listed insurance companies in Nigeria. The ex-post facto research design was used, data was extracted from annual reports and accounts of the listed Insurance companies for five years (2015-2019). Data were analyzed using multiple regression techniques; the results revealed that the Audit firm size has a negative relationship with firm value; the relationship is statistically significant. Audit firm tenure is negatively related to firm value; however, the relationship is not statistically significant. Audit fees have a positive and significant impact on firm value. Company size has a positive and significant impact on firm value. However, the relationship between company age and firm value is positive but not statistically significant. The study recommends that insurance companies should reduce the number of years same audit firm is serving since longer audit firm tenure affect firm value negatively.

Keywords: Audit Quality, Firm Value and Insurance Companies

Background to the study

A business organization's primary objective is to maximize shareholders' wealth, which is mainly influenced by growth in sales, an increase in profit margin, capital investment decisions, and capital structure decisions. As such, firm value is an economic concept that reflects the value of a business it is determined only by the ability to generate profits from the company's assets or its investment policy (Pandy, 2005). Hence, managers of the firms strive to use resources to

maintain a going concern and enjoy a competitive advantage. Agency problems associated with the separation of ownership and control, along with information asymmetry between management (agent) and absentee owners (principals), create the demand for external audits. This audit helps reduce information asymmetry by protecting the interests of all stakeholders; it serves as a monitoring mechanism and provides reasonable assurance that the management's financial statements are free from material misstatements. Hence, audit quality plays an essential role in maintaining an efficient market environment. It underpins confidence in the credibility and integrity of financial statements, which is essential for well-functioning markets and enhanced market share price, which directly impacts firm value. Share price responses to reported net income statistically were first documented by Ball and Brown (1968). Besides, recent empirical studies equally confirmed that opportunistic managers manipulate earnings; in line with signaling theory, stock prices react and crash dramatically (Kim and Zhang, 2015; Blessing, 2015; Kurawa& Ishaku, 2020). Likewise, empirical findings on audit quality and firm value for example (Afza and Nazir (2014) in Pakistan; Hua, Hla& Isa (2016) in Malaysia; Alsmairat, Yusoff&MdSalleh (2018) in Jordan; Ugwunta, Ugwuanyi&Ngwa (2018) in Nigeria; and Wijaya (2020) in Indonesia) revealed mixed findings and did not consider insurance companies listed on the Nigerian stock exchange. This research work is against this background, which determines the impact of audit quality on the firm value of listed insurance companies in Nigeria.

Literature Review

2.1 Definition of Concepts

2.1.1 Concepts of Audit Quality

According to DeAngelo (1981), audit quality is defined as the auditor's competency and independence in detecting and reporting material misstatement. Zehri and Shabou (2011) asserted that high-quality auditors are more likely to discover questionable accounting practices by clients and report material irregularities and misstatements compared with low-quality auditors. De lasHeras, Canibano and Moreira (2012) viewed Audit quality as the probability of detecting audit failure, disciplining auditors, and incentivising them to constrain managerial opportunism. Due to this, a higher audit quality can better constrain earnings management and enhance the quality of financial reports (Ching, Teh, San & Hoe, 2015). Previous research in the

related literature has employed various measures as proxies of audit quality and have indicated that a higher quality of auditing influence financial performance (Farouk & Hassan, 2014; Ogbodo&Akabuogo, 2018). Kurawa and Ishaku (2020) defined audit quality as the accuracy and fair presentation of the information contained in the auditor's report.

2.1.2 Concept of Firm Value

A firm's value (FV) as an economic concept reflects the value of a business entity, it is the value worth of a business at a particular date. Theoretically, it is an amount that one needs to pay to buy/take over a business entity. Like an asset, a firm's value can be determined based on either book value or market value. However, generally, it refers to the market value of a company. Hence, managers of the firms strive to use resources to maintain a going concern and enjoy a competitive advantage. However, no single manager can directly influence shareholder value, but managers do influence aspects of the business that drive shareholder value, as stated by Leland and Toft (1991) that the value of a firm is the value of its assets plus the value of tax benefits enjoyed as a result of debt minus the value of bankruptcy cost associated with debt.

2.2 Review of empirical studies

Wang & Huang (2014) examined the relationship between various types of auditors (industry expert, supply chain auditor) and market participants to determine the effects on firm value. The findings revealed that market participants respect Big 4 supply chain auditors with industry experience and that these impressions are extended to their clients' evaluation. The findings further revealed that only in the subsample of long-term auditor-client relationships were the big four supply chain auditors with industry experiences is auditors associated with higher firm value. However, the inclusion of different supply chain streams revealed that up-stream supply chain auditors are more likely than middle and down-stream supply chain auditors to receive favorable reactions from market participants.

Similarly, Afza and Nazir (2014) examined the effect of audit committee characteristics on a firm's value using four audit committee characteristics (audit committee size, independence, activity, and quality of external audit). The findings revealed that audit committee size and external audit quality have a positive and significant impact on ROA and Tobin's Q. however, audit committee independence, and AC meeting are not significantly related with firm value. At

the same time, Farouk & Hassan (2014) examined the impact of audit quality on quoted cement firms' financial performance in Nigeria. The study uses ex-post facto research designs, the data were obtained from the published annual reports and accounts, and notes to the financial statements of the companies understudy. Multiple regression analysis was employed, the findings revealed that auditor size and auditor independence significantly impact the financial performance of quoted cement firms in Nigeria. However, auditor independence has more influence than auditor size on financial performance. The study recommends that management employ the services of audit firms whose character and integrity are beyond question. Hua, Hla& Isa (2016) examined the impact of audit quality and FRS practices on firms' financial success. Samples firms listed on the Malaysian stock market were selected from the construction sector from 2010 to 2013. Secondary data was used and analyzed using Panel data analysis. The results revealed that the practices of FRS by firms are significantly and positively related to their financial performance. The results also indicate that audit quality has a positive and significant impact on business financial success. The study recommends that the management of listed construction firms improve their FRS practices and employ the service of established audit firms in support of financial success.

Similarly, Alsmairat, Yusoff&MdSalleh (2018) examined the moderating role of audit quality on the relationship between international diversification and firm value of Jordanian public listed firms. The data is compared between financial and non-financial industries, using regression analysis, the findings revealed that international diversification negatively influences the firm value of diversified Jordanian firms. In the same vein, Ugwunta, Ugwuanyi&Ngwa (2018) examined the effect of audit quality on share prices of listed oil and gas companies in Nigeria using regression and covariance analyses. The findings revealed that the composition of the audit committee and auditor type has a significant effect on market prices of listed oil and gas companies in Nigeria. Audit committee composition have a positive and significant effect on share prices, the result further revealed that auditor firm type (BIG4/NONBIG4) and auditor independence have a positive and significant effect on market price of shares, external auditors' tenure has a negative relationship with the market price of shares. The study recommends that listed oil and gas companies in Nigeria should associate with the BIG4 external auditors since this will enhance the credibility of the audit process, and by extension, their share prices.

At the same time, Ogbodo & Akabuogu (2018) assessed the effect of audit quality on the corporate performance of selected banks in Nigeria. Data were extracted from the banks' financial statement covering 2008 to 2017 and analyzed with a statistical regression tool using the Scientific Package for Social Sciences (SPSS) Version 20. The findings revealed that audit firm size has significant effects on return on assets of quoted Nigerian banks; also, audit committee independence has a significant effect on the equity of quoted Nigerian banks. The findings also revealed that audit committee size has significantly affected the profit margin of quoted Nigerian banks and recommended that banks make use of audit firms' services with accurate track records of audit quality and reputation.

Similarly, Wijaya (2020) examined the effect of audit quality on firm value of all manufacturing companies listed on the Indonesian Stock Exchange in 2013 to 2017. Secondary data were analyzed using multiple regression analysis. The results show that audit quality has a positive effect on firm value of manufacturing companies' listed on the Indonesian Stock Exchange. The Indonesian capital market gives a positive appreciation to companies that have higher quality audits. Higher audit quality reduces agency costs, reduce information asymmetry, and increase firm value. Companies are advised to use higher quality auditors to increase firm value in the Indonesian capital market.

2.3 Theoretical Framework

Agency theory has been widely used in previous studies to explain the information asymmetry between principals (shareholders) and agent (management). On this premise, the present study uses the agency theory to determine the impact of audit quality on firm value of listed insurance companies in Nigeria. Jensen and Meckling (1976) state that in agency theory, agents have more information than principals, and this information asymmetry adversely affects the principals' ability to monitor whether or not the agents are correctly serving their interests. They opined that moral hazard constitutes a situation where to maximize their wealth, agents may face the dilemma of acting against their principals' interests. Since principals do not have access to all available information when an agent makes a decision, they are unable to determine whether the agent's actions are in the firm's best interest. To reduce the likelihood of the moral hazard, principals and agents engage in contracting to achieve optimality, including the establishment of monitoring processes such as auditing. As depicted in agency theory, the principal-agent

relationship is essential to understand how the role of an auditor could affect firm value. Sarens and Abdolmohammadi (2007), cited in Matoke&Omwenga (2016), further stated that a company consists of a set of linked contracts between the owners of economic resources (the principals) and managers (the agents). They are charged with the use and control of these resources. Hence, agency theory underpinned the relationship between audit quality and firm values and was therefore adopted to guide this study.

3.0 Research Methodology

This study adopted a correlational research design because the study examines the relationship between audit quality and firm value. The study population comprises all the 30 insurance companies listed on the floor of the NSE, fourteen insurance companies were selected using two criteria. A company must be listed without delisted within the period under study, and the company must not operate at loss for three consecutive years because this will negatively impact on share price; the selected companies are in appendix one. Data were extracted from the annual report and account of companies under study; the data were analyzed using multiple regression analysis.

Variables of the Study and their Measurement

Variables	Measurements	Type of Variable
Tobin's Q	market value of shares over book value of shares	Dependent Variable
Audit Firm Size	Big 4 =1 none = 0	Independent Variable
Audit Firm Tenure	Number of years audit firm serves	Independent Variable
Audit Fees	log of audit fees paid by the companies	Independent Variable
Firm Age	the variation in company age will be used to differentiate between current year and the year of incorporation or from the year of listing on the floor of the NSE to date	Control variable
Firm Size	Size of the company will be measured as the natural logarithm of the book value of total assets at the end of the year	Control variable

Source: (Afza and Nazir, 2014; Hua, Hla& Isa, 2016; Alsmairat, Yusoff&MdSalleh, 2018; and Wijaya, 2020).

Model Specification

The study considered firm value as the dependent variable proxied by Tobin's Q, Audit Quality (Audit firm size, audit firm tenure, and audit fees) represent independent variables while firm size and firm age are used as control variables. Thus the model is as follows:

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 AFZ_{it} + \beta_2 AFT_{it} + \beta_3 AFEE_{it} + \beta_4 Fsize_{it} + \beta_5 Fage_{it} + \varepsilon_{it}$$

4.0 Discussion of Results

4.1 Introduction

This section presents the analysis and interprets the results generated for the study. The data relating to the study's statistical hypotheses were presented and analyzed.

4.2. Descriptive Statistics

Table 4.1 provides a summary of statistics for the variables of the study. The summary statistics include measures of central tendencies, such as mean, measures of dispersion such as the standard deviation, minimum and maximum of both the dependent and explanatory variables.

Table 4.1 Descriptive statistics

Variables	Obs.	Mean	StdDev.	Min	Max
Tobin's Q	70	0.7215	2.7846	0.0004	2.7
Auditfz	70	0.5	.5036102	0	1
Audfees	70	2.28e+07	1.78e+07	4114000	7.90e+07
Audtenure	70	3.5	1.6826	1	7
Firm size	70	23.3	6.5848	8.2344	12.8465
Firm age	70	10.2919	0.57344	8	29

Source: Generated from the Annual Report Data of the companies using STATA

Table 4.1 shows the mean of 0.7215 for tobin's Q, meaning that the average firm value of the insurance companies understudy is 0.7215 with the minimum and maximum of 0.0004 and 2.7, respectively. Audit firm size has a mean of 0.5, meaning that 50% of the insurance companies under study are audited by big four audit firms with the minimum and maximum of 0 and 1 respectively. Audit fees have a mean 22,800,000 with minimum and maximum of 4,114,000 and 79,000,000, respectively. Audit firm tenure has a mean of 3.5, meaning that the average audit firm tenure of the listed insurance companies understudy is approximately four years with the minimum and maximum of 1 and 7, respectively. Firm size, measured as the logarithm of total assets, has a mean of 6.5848, with the minimum and maximum of 8.2344 and 12.8465. Firm age measured as the number of years from the date of the listing has a mean of 10 years, with the minimum and maximum of 8 years and 29 years respectively.

4.2.1 Correlation Matrix

The correlation between the dependent and explanatory variables are presented in Table 4.2. The correlation matrix table shows the relationship between all pairs of variables in the regression model, the relationship between dependent variable (firm value) and explanatory variables (audit firm size, audit tenure, and audit fees, firm age and firm age) themselves.

Table 4.2 Correlation Matrix of the Dependent and Independent Variable

VAR	tobins Q	Auditfz	audfees	audtenure	firmsz	Age
tobins Q	1.000					
Auditfz	0.0960	1.000				
audfees	-0.1184	0.3738	1.000			
audtenure	-0.0849	-0.1026	-0.0244	1.000		
Firmsz	-0.5077	-0.0995	0.5480	-0.0782	1.000	
Age	0.0821	0.3169	-0.1836	-0.0172	-0.0782	1.000

Source: Generated from the Annual Report Data of the companies using STATA

Table 4.2 shows the correlation coefficients of the dependent variable (firm value) and independent variables (audit firm size, audit tenure, audit fees, firm size and firm age) the correlation coefficient range from -1 to 1. The correlation results presented in Table 4.2 also indicate that the explanatory variables audit fees, audit firm tenure, and firm size are negatively correlated with firm value while Audit firm size and firm age are positively correlated with firm value.

4.3 Regression Results on Audit quality and Firm value

Table 4.3 Regression Result

Tobin's Q	Coefficient.	Std.error	Z value	p>/z/
Constant	35.45883	6.821237	5.20	0.000
Auditfz	-.4568763	.729901	-0.63	0.534
Audfees	4.40e-08	2.33e-08	1.89	0.064
Audtenure	-.2332666	.1731795	-1.35	0.183
Firmsize	-3.346685	.657602	-5.09	0.000
Age	-.0127171	.0490681	-0.26	0.796
R-square	0.3181			
F-value	5.97			
P-value	0.0001			
Mean VIF	1.55			
Hetest	0.0900			

Source: Generated from the Annual Report Data of the companies using STATA.

The regression results displayed in table 4.3 reveal the cumulative R^2 within (0.3181), which is the multiple coefficients of determination gives the proportion or percentage of the total variation in the dependent variable (firm value) explained by the explanatory variables jointly. Hence, it signifies that the explanatory variables account for 31.81% of the total variation in the firm value

of listed insurance companies in Nigeria. The F-statistics value shows 5.97, and the P-value is 0.0001, meaning the model is fit and statistically significant, VIF test 1.55 and Heteroschedasticity test 0.0900 proved absence of multicollinearity and the data are homoscedastic. Audit firm size has a negative relationship with firm value, and the relationship is statistically not significant; this is contrary to the findings of Ugwuanta, Ugwuanyi & Ngwa (2018) who uncovered a significant effect of auditor type on the market prices of listed firms in Nigeria. Audit fees have a positive and significant effect on firm value at 10% significance level. Audit firm tenure has a negative but not significant relationship on firm value; however, the relationship between firm size and firm value is positive and statistically significant. While firm age has a negative but not significant effect on firm value. This result is consistent with the findings of Afza and Nazir (2014) who uncovered a significant impact of external audit quality and audit committee on firm value. Given the results reported of audit firm size, audit firm tenure, audit fees, firm size, and firm age (F-value 5.97 and P-value 0.0001) therefore, the alternate hypothesis is accepted that there is a significant relationship between audit quality and firm value of listed insurance companies in Nigeria.

$$\text{Tobin's } Q_{it} = \alpha - \beta_1 AFZ_{it} - \beta_2 AFT_{it} + \beta_3 AFEE_{it} + \beta_4 Fsize_{it} - \beta_5 Fage_{it} + \varepsilon_{it}$$

Conclusion and Recommendations

This study determines the impact of audit quality on the firm value of listed insurance companies in Nigeria, based on the findings the study concludes that: Audit firm size (AFS) has a negative relationship with firm value, and the relationship is not statistically significant. Audit firm tenure (AFT) has a negative relationship with firm value, and the relationship is not statistically significant. Audit fees (AFES) have a positive and statistically significant effect on firm value. Firm size has a positive and significant relationship with firm value, firm age has a negative but not statistically significant effect on firm value of listed Insurance companies in Nigeria. Based on the findings the study recommends that Insurance companies are advised to use the services of audit firms' that have excellent records of audit quality and reputation, hence they should associate with the BIG four external auditors to enhance their financial statement's credibility, which will positively influence the share price of listed insurance companies in Nigeria. They

should equally reduce the number of years same audit firm is serving since longer audit firm tenure affects firm value negatively.

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Appendix one:

Table 1: Listed Insurance Companies in Nigeria

S/N	Insurance Companies	Date of Incorporation	Date of Listing
1.	African Alliance Insurance PLC	6 May, 1960	17 September, 2009
2.	Alico Insurance PLC	14 July, 1970	13 December, 1999
3.	Confidence Insurance PLC	N/A	6 August, 1999
4.	Consolidated Hallmark Insurance PLC	2 August, 1991	22 February, 2008
5.	Continental Reinsurance PLC	1999	22 June, 2007
6.	Cornerstone Insurance PLC	26 July, 1991	13 August, 1997
7.	Custodian and Allied Insurance PLC	22 August, 1991	12 June, 2007
8.	Equity Assurance Plc	2007	18 July, 2007
9.	Gold Link Insurance PLC	8 September, 1993	12 February, 2008
10.	Great Nigeria Insurance PLC	28 February, 1960	11 October, 2009
11.	Guaranty Trust Assurance PLC	1989	19 November, 2009
12.	Guinea Insurance PLC	3 December, 1958	1990
13.	Intercontinental Wapic Insurance PLC	1958	September, 1990
14.	International Energy Insurance PLC	26 March, 1969	13 July, 2007
15.	Investment and Allied Insurance PLC	Nil	9 May, 2008
16.	Lasaco Assurance PLC	20 December, 1979	14 June, 1990
17.	Law Union and Rock Insurance PLC	17 June, 1969	9 July, 1990
18.	Linkage Assurance PLC	26 March, 1991	18 November, 2003
19.	Mutual Benefits Assurance PLC	18 April 1995	3 June, 2002
20.	Nem Insurance PLC	2 April, 1970	5 September, 1990
21.	Niger Insurance PLC	29 August, 1962	1 September, 1993
22.	Oasis Insurance PLC	8 October, 1993	24 July, 2007
23.	Prestige Assurance PLC	6 June, 1970	3 December, 2008
24.	Regency Alliance Insurance PLC	16 June, 1993	27 May, 2008
25.	Sovereign Trust Insurance PLC	2 June, 1995	29 November, 2006
26.	Staco Insurance PLC	July, 1994	21 June, 2007
27.	Standard Alliance Insurance PLC	July, 1981	19 December, 2003
28.	Unic Insurance PLC	2 April, 1965	27 February, 1990
29.	Unity Kapital Assurance PLC	1973	17 December, 2009
30.	Universal Insurance Company PLC	1 March, 1961	

Source: NSE Factbook 2019

Table 2 Sample Size

S/N	Insurance Companies	Date of Incorporation	Date of Listing
1.	Alico Insurance PLC	14 July, 1970	13 December, 1999
2.	Confidence Insurance PLC	N/A	6 August, 1999
3.	Cornerstone Insurance PLC	26 July, 1991	13 August, 1997
4.	Guinea Insurance PLC	3 December, 1958	1990
5.	Intercontinental Wapic Insurance PLC	1958	September, 1990
6.	Lasaco Assurance PLC	20 December, 1979	14 June, 1990
7.	Law Union and Rock Insurance PLC	17 June, 1969	9 July, 1990
8.	Prestige Assurance PLC	2 April, 1965	27 February, 1990

9.	Mutual Benefits Assurance PLC	18 April 1995	3 June, 2002
10	Nem Insurance PLC	2 April, 1970	5 September, 1990
11	Custodian and Allied Insurance PLC	22 August, 1991	12 June, 2007
12	Niger Insurance PLC	29 August, 1962	1 September, 1993
13	Equity Assurance Plc	2007	18 July, 2007
14	Linkage Assurance PLC	26 March, 1991	18 November, 2003
15			

Source: Generated from table1

Appendix two

_____ (R)
 /____ / ____/ / ____/
 ____/ / ____/ / ____/ 11.1 Copyright 2009 StataCorp LP
 Statistics/Data Analysis StataCorp
 4905 Lakeway Drive
 Special Edition College Station, Texas 77845 USA
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STATA

Notes:

1. (/m# option or -set memory-) 500.00 MB allocated to data
2. (/v# option or -set maxvar-) 5000 maximum variables

running C:\Users\Ahmed Ishaku\Documents\Assus computer\ahmeddocument\yola 2018\S

> tata11-Portable\profile.do ...

unable to change to C:\temp\

r(170);

. *(14 variables, 70 observations pasted into data editor)

. xtset comp year

panel variable: comp (strongly balanced)

time variable: year, 2015 to 2019

delta: 1 unit

```
.
. summarize tobinsq2 auditfzaudfeesaudtenurefsize age
```

Variable	Obs	Mean	Std. Dev.	Min	Max
tobinsq2	70	.7215002	2.784551	.0004271	23.31437
auditfz	70	.5	.5036102	0	1
audfees	70	2.28e+07	1.78e+07	4114000	7.90e+07
audtenure	70	3.457143	1.682697	1	7
fsize	70	10.29193	.5734345	8.234436	12.84654
age	70	20.78571	6.584771	8	29

```
. correlate tobinsq2 auditfzaudfeesaudtenurefsize age
(obs=70)
```

	tobinsq2	auditfzaudfeesaudten~efsize	age			
tobinsq2	1.0000					
auditfz	0.0960	1.0000				
audfees	-0.1184	0.3738	1.0000			
audtenure	-0.0849	-0.1026	-0.0244	1.0000		
fsize	-0.5077	-0.0995	0.5480	-0.0782	1.0000	
age	0.0821	0.3169	-0.1836	-0.0172	-0.2721	1.0000

```
. regress tobinsq2 auditfzaudfeesaudtenurefsize age
```

Source	SS	df	MS	Number of obs =	70
Model	170.212025	5	34.042405	F(5, 64) =	5.97
				Prob> F	= 0.0001


```

Residual | 364.795055    64  5.69992274    R-squared    =  0.3181
-----+-----
Total    | 535.00708    69  7.7537258    Adj R-squared =  0.2649
Root MSE =  2.3875

```

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tobinsq2 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
auditfz  |  -.4568763   .729901    -0.63   0.534   -1.915021    1.001268
audfees  |   4.40e-08   2.33e-08    1.89   0.064   -2.59e-09    9.07e-08
audtenure |  -.2332666   .1731795   -1.35   0.183   -.5792325    .1126992
fsize    | -3.346685   .657602   -5.09   0.000   -4.660396   -2.032974
age      |  -.0127171   .0490681   -0.26   0.796   -.1107418    .0853076
_cons    |  35.45883    6.821237    5.20   0.000    21.83184    49.08581
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```

. estathettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of tobinsq2

chi2(1) = 173.89

Prob>chi2 = 0.0900

. estatvif

```

Variable |      VIF      1/VIF
-----+-----
audfees  |    2.08    0.479721
fsize    |    1.72    0.580933
auditfz  |    1.64    0.611369
age      |    1.26    0.791300
audtenure |    1.03    0.972781
-----+-----
Mean VIF |    1.55

```