

## **Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria**

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### **Abstract**

*The study evaluates the Effects of Financial Performance, capital Structure and Firm Size on Firms' Value of 27 quoted Insurance Companies on the Nigerian Stock Exchange as at the 31<sup>st</sup> December, 2017. The study covered the period of 6 years (2012-2017). Return on Capital Employed, Return on Assets and Return on Equity proxied financial performance; Short-term debt/Total assets, Long-term debt/Total Assets and Total Debt/Total Assets proxied capital structure; Natural logarithm of total assets proxied firm size while Tobin's Q proxied firms' value. Firm age serves as control variable which is defined as firms' incorporated period. The study uses ex-post facto research design and longitudinal panel which comprises time series and cross sectional data. The data were analyzed using descriptive statistics and regression. The study revealed that all explanatory variables, except Return on Capital Employed have positive significant effect on Tobin's Q. Specifically, Return on Capital Employed and firm age have insignificant effect on Tobin's Q. The study concludes that the explanatory variables affects Insurance firms' value in Nigeria. Therefore, the study recommends that the management of Insurance firms in Nigeria should only use short debt in their capital structure as it enhances firms' value and desist using long term debt deceases the firm's value, the management should sustain or improve on the level of total assets as it enhances firms' value and firms' size. Finally, the management should reduce the volume of shareholders' equity of the firms.*

**Keywords:** capital structure, financial performance, firm size, firm value, Tobin Q

### **1.0 Introduction**

Capital structure represents a firm's financial framework which consists of debt and equity. On one hand, it measures the extent to which debt level of a firm or utilization of barrowed funds are made to enhance firm performance, on the other hand, it is concerned with the appropriate combination of

debt and equity capital employed in running the business. A financing manager is concerned with the determination of the best financing mix (debts and equity) for the firm since firms seek to adopt a financing mix that minimizes cost and maximizes Firms' financial performance. According to Dare and Sola (2010) there are various levels to debt-equity ratio which firms adopt: 100% equity: 0% debt, 0% equity: 100% debt and X% equity: Y% debt. The use of debt financing gives a positive signal that management are confident of the future prospect of the firm and will be able to meet debt obligations in the future (Ganguli, 2013).

The problem affecting firms in Nigeria lies within financing the firms operations. Nigeria's listed firms are a special case in that the debt component of their capital structure relies on short-term debt and has a low amount of long-term debt (Nwanko, 2014). Ogebe, Ogebe and Alewi (2013) concluded that debt is generally bad for firms in the real sectors as it is responsible for the weakening firm financial performance that has been observed across these firms over the years. This has led many listed firms across the different real sectors of Nigeria's economy to favour corporate governance policies and business strategies that promote less debt relative to other funding sources. The danger with such policies in a frontier emerging market such as Nigeria's is that it stifles the opportunity for organic growth of firms, especially in the likely instances where other funding sources are either very limited or completely absent.

In today's business world, the size of a firm is crucial to its success due to the phenomenon of economies of scale. Modern corporate firms look to increase their size so as to get a competitive edge over their competitors by reducing production costs and increasing their market share. Bigger firms can manufacture items at much lower costs than smaller firms can. Dewi and Wirajaya (2013) say the size of a firm increases from the fact that large companies have large market capitalization; large book value and high profit too. Investors tend to be more interested in companies with large scale. This is because large firms tend to have a more stable condition. This stability attracts investors to own shares in the company, and this will cause a rise in share price in the capital market. It can be said that size has an influence on firm values. Jermias (2008) observed that Firm's size and growth may influence performance since larger firms tend to enjoy economies of scale, which may positively influence financial results. Therefore, a positive relationship between firm's size and growth and financial performance is expected.

Firm value signifies the ability of the business to maximize the shareholders wealth. It is an indicator through which future investors would find the business attractive to invest in. In the field of finance, firm value refers to as economic measure of firm performance that has reflected the worth of the business as a whole thereby efficient and effective use of economic resources can be ascertained. It represents the assets owned by the business which readily provided by the investors (equity shareholders and debt financiers). The firm value describes business propensity to grow which is translated into investors' propensity to invest. A good firm value attracts investors to join in the company. Since the doctrine of separation of management from the owners in the modern business practices, the firm values serves as measure of the managers' effort from the perspective of external stakeholders. Unlike the financial performance which is the reflection of the managers' effort from their own internal perspective.

A lot of arguments have been put forward in the field of finance as to what constitutes firm value as it to be different from the business financial performance. It is observed that there are some mix up as to what represent the difference. Firm value is of course a function of managers' ability to run the business to maximize the owners' wealth but that which is explained by the perception of outsiders (Investors). It shows the future cash flow of the business. The financial performance of the business, however, serves as a function of managers' ability to run the business to maximize owners' wealth form management view. It is a reflection of past historical information that is reported by the business to demonstrate management stewardship. This position demonstrates that firm financial performance is a product of accounting ratios related to the past profit of the business and as such may not reflect the expectations about the future of the firm so also risk assessment level. It is argued that the firm's financial performance may be sensitive to inflation.

These differences are applicable to the indicators/proxies usually employed to measure firm value and firm financial performance. Literature reports that firm value is commonly measured using Tobin's Q, Equity Share Prices, Price to Book Ratio, Enterprises value to name but few. While the financial performance indicators' consist of Returns of Capital Employed (ROCE), Returns on Assets (ROA) or Returns on Equity (ROE). Some arguments put forward on the preferences of firm value indicators over financial performance accounting based measures are that the former uses market prices of financial assets like stock which reflects assessment of business risk level. Firm value measures can include the firms' intangible assets. Firm value measures accommodate the assumption of maximizing shareholders wealth. They represent the viable objectives of businesses. Therefore,

the study evaluates the effect of financial performance, capital structure and firm size on the firm value of Insurance firms in Nigerian Insurance Industry (NII).

NII witnessed stagnation vis a vis growth in the years, 2007 to 2014. The report on NII indicates that the industry account for only 0.4% to the Nigerian Growth Domestic Product (GDP). This, despite many favorable changes in the economy especially in the Agricultural sector and downstream oil and gas sector, is not adequate. These sectors operate successfully with the strong backing of insurance services. The NII's performance indicators seem to be poor. This called the attention of Central Bank of Nigeria (CBN) and Nigerian Insurance Commission (NAICOM) on the performance of the firms in the industry. New guidelines were issued by the NAICOM which include the need to recapitalize the industry (Nwagbara, 2017& Victor, 2013). As at 2011, the industry commands only 0.03% of world global premium. ThisdayLive (2018) reported the Nigerian Finance Minister expressing worry over the performance of the NII. The Minister observed that by 2014, Banking Industry was already recapitalized to the tune of ₦25 Billion, yet the NII composite insurance firms was only having ₦5Billion as capital base. She insisted that there was need for reinvestment in the industry to go in line with need of Nigerian economy especially in the agricultural sector and downstream oil sector. This prompts the need to understand factors determining the firm value of companies in NII especially as the study of Adeyemi, Unachukwu and Oyeniyi (2017) have pointed out that the Nigerian insurance firms are highly geared, a symptom which is unfavorable characteristic to investors.

## **2.0 Literature Review**

### **2.1 Empirical review**

The literature were empirically reviewed. The review revealed both significant and insignificant effect or influence of the independent variables over the dependent variable. The study further examined market timing theory which underpinned the study and finally, the variables were conceptually discussed and conceptual framework of the study is figured out.

In a study of 101 listed firms in Nigeria for a period of 5 years (2003-2007), Oyakhilome, Ibhaguia and Felicia (2018) report positive significant effect of short term debt, long term debt and Total debt on Tobin's Q. Similarly, Hoang (2015) studied the effect of capital structure on corporate performance of 150 Vietnamese listed manufacturing firms for the period of 5 years (2008-2012). The study revealed that short term debt and total debt were found to have positive significant effect on Tobin's Q while long term debt has insignificant effect on Tobin's Q. In the same vein, Olokoyo (2013) examined 101 quoted firms in Nigeria on the bases of pecking order and static trade off theories of

capital structure for the period of 5 years (2003-2007). Findings from the study revealed that all the leverage measures (STD, LTD and TD) have positive and significant relationship with the market performance measure (Tobin's Q).

In a study in Malaysia, Salim and Yadav (2012) investigated the relationship between capital structure and firm performance of 237 Malaysian firms listed on Bursa Malaysia Stock exchange during (7years) 1995-2011. The findings of the study indicated that Tobin's Q has a positive significant relationship with STDTA and LTDTA. while TD has negative relationship with Tobin's Q. However, Olaniyan, Soetan, and Simon-Oke (2017) investigated capital structure-firm performance relationship: empirical evidence from African countries for the period 1996 and 2014. The finding revealed that capital structure has insignificant relationship with Tobin's Q while Firm Size has a negative significant relationship with firms' performance (Tobin's q).

Tristan and Huy-Cuong (2015) examined Capital Structure and Firms' Performance of 147 companies listed on Vietnam Stock Exchange during the period of 9 years (2006-2014). The study found that short term debt, long term debt and Total debt have negative significant effect on Tobin's Q while Firm size has positive significant effect on Tobin's Q. Similarly, Abdul (2012) determined the relationship between capital structure decisions and the performance of firms in Pakistan for the period of 2003-2009. Pooled Ordinary Least Square regression was used for the analysis. Financial leverage proxied by short term debt to total assets and total debt to total assets has a negative significant relationship with the firm performance proxied by Tobin's Q.

Rizky, Nur and Siti (2017) reported positive significant effect of firm size on Tobin's Q after conducting a study of 30 companies listed on the Indonesian Stock Exchange (IDX) for a period of five years. Similarly, Yuanita, Budiyo and Slamet (2016) reported a positive significant effect of firm size on Tobin's Q as a result of a study conducted of companies listed on Indonesia Stock Exchange from 2010-2014. In the same vein, Vintilă, Nenu and Gherghina (2014) conducted a study on the factors influencing corporate financial performance of 40 companies listed on the Bucharest Stock Exchange over the period of 3 years (2010-2012). The study reports positive significant effect of firm size and Tobin's Q. Odongo, Thabang and Leonard (2014) reported a positive significant impact of firm size on Tobin's Q. In Karachi, Asad and Cheema (2017) have found evidence that firm size positively and significantly affect Tobin's Q for small firms but absent for large firms when

associated with Tobin Q. However, Abdul (2012) also reported that Firm size has negative significant relationship with Tobin's Q. while Purwohandoko (2017) studied the influence of firm's size, growth, and profitability on firm value with capital structure as the mediator. The study is on 14 Agricultural firms listed on the Indonesian stock exchange for a period of 4 years (2011-2014). The study reported insignificant influenced of firm size on Tobin's Q.

Rosikah, Prananingrum, Muthalib, Azis and Rohansyah (2018) examined 32 companies listed on the Indonesia Stock Exchange (BEI) for the period of 2006-2010. The study reported that Return on Asset has positive significant effect on Tobin's @ while Return on Equity has insignificant effect on Tobin's Q. Similarly, William, and Jay (2016) reported positive significant effect of ROA on Tobin's Q after conducting a study of 86 diversified companies in the Philippines by gathering and analyzing annual financial reports on 2014 in the Philippine Stock Exchange (PSE). In the same vein, Sabrin, Buyung, Dedy, Takdir and Sujono (2016) examined the effect of profitability on firm value in manufacturing company at Indonesia Stock Exchange for the period of six years i.e. (2009 to 2014). The study reported positive significant effect of ROA on Tobin's Q. In their study, Sucuahi, and Cambarihan (2016) found that firm's profitability positively and significantly influenced the firm value (Tobin Q). Implying that as the profitability of the firm increases company's value also increases as such firm value attracts investors.

Firm age signifies reputation of a business for it being capable to acquire experience in doing businesses. It increases the capacity of business to again more investment from debt or equity. Ibrahim (2017) has found the firm age to be positively significantly related with the firm value in Nigerian Manufacturing Industry but Lu, Tsai and Yen (2010) have found insignificant factor associated with firm value in Taiwan.

## **2.2 Theoretical perfective**

This study is anchored on Market Timing Theory. The Market Timing Theory is one of the most recent theories of financial leverage. It is the first order determinant of a firm's capital structure use of debt and equity (Baker and Wurgler 2002). In other words, firms do not generally care whether they finance with debt or equity; they just choose the form of financing which, at that point in time, seems to be more valued by financial markets.

Market timing theory proposes that, when managers need financing, they examined both debt and equity markets, and they choose whichever market seems more favourable (Attar, 2014). According to the theory if neither the debt nor equity market looks favourable, financing decision could be delayed and postponed. Conversely, if both markets look remarkably favourable, firms may raise finance even if they do not require it (Attar, 2014).

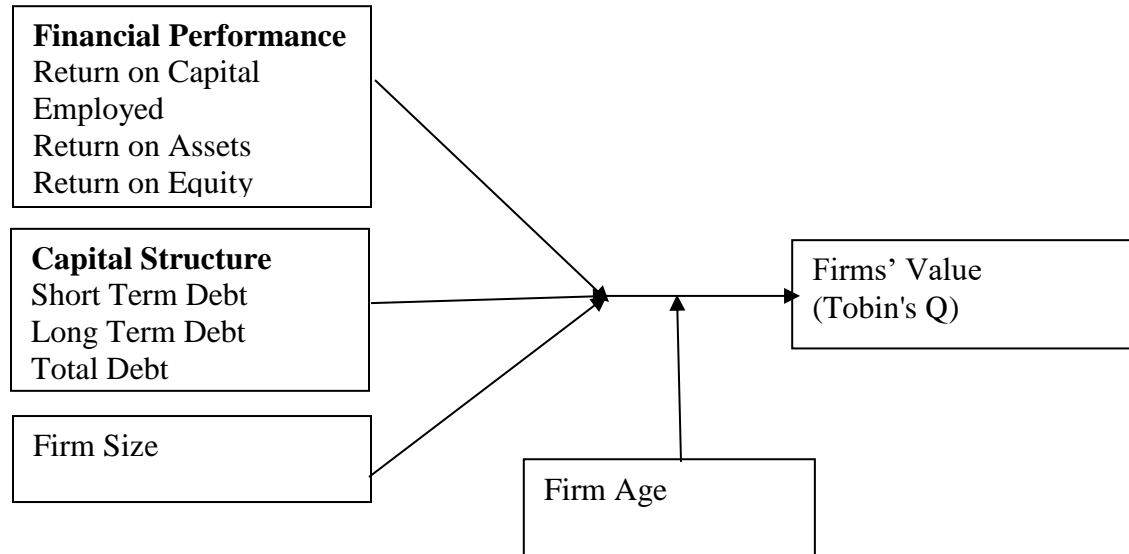
It suggests that managers, depending on their definition of firm value, tend to issue equity when they feel that the market overvalues their company (Boudry, Kallberg & Liu, 2010). That is, Firm issues equity securities when they perceived that their stocks are overvalued and buys it back when they find that shares are undervalued.

Hillier, Grinblalt and Titman (2008), demonstrated that firms tend to issue equity when market-to-book valuations are high and issue debt when market-to-book ratios are low. Baker and Wurgler (2002) examined the effects of market timing on capital structure and found that low leverage firms are those that raise funds when their market valuations are high, while high leverage firms are those that raise funds when their market valuations are low. Thus, firms with low leverage are expected to be of high value. This suggests that the capital structure decisions of firms are not determined by pecking order theory, but by managers' timing of the markets.

### **2.3 Conceptual framework**

#### **Figure 1 Conceptual framework of the study**

From the theoretical and empirical literature reviews, the following conceptual framework of the study is developed by the researchers.

**Independent variables**

**Source:** Authors' model (2018)

**Control Variable**

Accordingly, three null hypotheses were formulated which were tested in order to find out the extent to which the independent variables affect the dependent variable. They are:

- H<sub>01</sub>** Financial performance does not significantly influenced firms' value of Insurance Companies in Nigeria
- H<sub>02</sub>** Firm size does not significantly influenced firms' value of Insurance Companies in Nigeria
- H<sub>03</sub>** Capital structure does not significantly influenced firms' value of Insurance Companies in Nigeria

### 3.0 Method

The study is quantitative research which has employed Ex-post-facto research design as the suitable method of the research. The data were analyzed using descriptive statistics, correlation and multiple regression. To arrive at a best analysis comparisons were met between OLS, FEM, REM and hausman tests. The data used were sourced from the annual reports and financial statements of Insurance firms quoted on the Nigerian Stock Exchange and maintain the status from 2012 to 2017. Census sampling technique was used to arrive at the working population of 26 firms quoted on the Nigerian Stock Exchange as at 31<sup>st</sup>December, 2017. The explanatory variables are firms' financial performance, capital structure and firm size while Tobin's Q is the dependent variable. Firms' age serves as a control variable. STATA 13.0 was used for the analyses.



**Regression Model Specification**

$TQ = F(\text{FFP}, \text{CS}, \text{FS}, \text{Age})$

$TQ = \alpha + \beta_0 + \beta(\text{FFP}) + \beta(\text{CS}) + \beta(\text{FS}) + \beta(\text{Age}) + e \dots \dots \dots 1$

TQ= Tobin Q ratio for the firms in the industry

$\alpha$  = an intercepts.

$\beta$  = Coefficient of the model-variable

FFP= Firm Financial Performance

CS= Capital Structure

FS= Firm Size

Age= Firm Age

e= error term

**Table 1. Variables and Measurements**

Variable/Dimensions	Measurement	Source
Tobin's Q	Q ratio=market value of equity + book value of debt ÷ total assets	Mule, Mukras, Nzioka, & Maloba, 2015) and Willian, 2015
Firm Financial Performance (Return on Capital Employed (ROCE), Return on Assets (ROA), Returns on Equity (ROE)	ROCE=profit before interest & tax ÷ Capital Employed. ROA=Net income after tax divided by total assets. ROE= Net income after tax divided by shareholders equity.	Idekwulim, (2014), Adeyemi, Unachukwu, & Oyeniyi, (2017)
Capital Structure Financial Leverage (LEV1); (LEV2) & (LEV3)	(LEV1) = Total Debt ÷ Total Assets (LEV2)=Long-term debt ÷ Total Assets (LEV3) = Short-term debt ÷ Total assets	Salawu & Agboola, 2008
Firm Size	Firm size (FS) Natural logarithm of total assets	Lee (2014)
Firm Age	AGE = number of years in which the firm was incorporated.	Chandrasekharan, (2012) & Gatsi & Gadzo (2013)

**Source:** Authors' compilation (2018)

#### 4.0 Results and Discussion

The data is analyzed and its characteristics are herewith presented. Before the analysis, the data is subjected to validation test after which the test of correlation and regression are conducted. The results are used in testing the hypotheses developed from the model.

#### 4.1 Data Validation

The test of multicollinearity has shown that the Mean of Variance Inflation Factor (VIF) is less than 10. However, log of capital structure 2 is 11.51. Econometrists argue that VIF level of related variables can be tolerable, Gujarati. (2004). Capital structure proxies and financial performance proxies are converted into logarithm in order to manage the VIF level. The test results of Heteroskedasticity is calculated as  $\text{Prob} > \chi^2 = 0.0000$  which is below 1% and 5% standards and it indicates absence of the Heteroskedasticity thereby the estimates are efficient and unbiased (Homoscedasticity). The Hausman Specification test is conducted. The Hausman rule states that to select the most efficient result between Random Effect (RE) and Fixed Effect (FE) of GLS regression is determined by the coefficient of probability ( $\text{Prob} > \chi^2$ ) i.e less than 0.1. A significant probability suggests that Fixed effect model should be analyzed while an insignificant probability suggests that Random effect model should be analyzed to determined the findings of the study. This study based its analyses on Random effect model since the Hausman specification test is insignificant ( $\text{Prob} > \chi^2 = 0.9812$ ).

**Table 2 Descriptive Statistics**

Variables	Obs.	Mean	Std. Dev.	Minimum	Maximum
Tobin's Q	150	0.81	0.57	-0.37	4.20
LogCS1	150	-0.30	0.28	-1.41	0.52
LogCS2	150	-0.43	0.38	-1.71	0.43
LogCS3	150	-0.62	0.31	-1.36	0
Firm Size (Fsg)	150	6.78	1.92	0	9.98
Firm Age (age)	150	36.33	12.57	17	59
Log ROCE	150	0.47	0.44	-0.67	1.39
Log ROA	150	-1.06	0.79	-3.30	0
Log ROE	150	-0.65	0.64	-3.09	0.47

**Source:** Authors' compilation from STATA 13.0 output

The data characteristics presented in Table 2 show that there are 150 observations. Tobin's Q, a measure that combines market performance with book values, shows 0.81. This means that the cost to replace a firm's assets is greater than the value of the stock implying that the stock is undervalued since average Tobin's Q is less than 1 (Copeland, Weston & Shastri, 2005). As such it fails to meet up with market benchmark 1 which attracts investors. The maximum and minimum Tobin's Qs are 4.20 and -0.37 respectively. This shows that Insurance firms listed on the Nigerian Stock Exchange had narrow variation in market values relative to book values.

The capital structure ratio shows -0.30, -0.43 and -0.62 as the average of short to total assets, Long term Debt to total assets and total Debt to total assets respectively. This implies that most Insurance firms in Nigeria are highly geared indicating that the Insurance firms in Nigeria use more of debt than equity capital. Specifically, the average value indicates that -43% of total assets are financed by long term debt while -62% of total assets are financed by total debt. The range of debt tendencies for short term debt, long term debt and total debt have the values 0.52, 0.43 and 0 for maximum and -1.41, -1.71 and -1.36 for minimum capital structure.

The firm size average is 6.78 billion of Naira with the minimum of zero size and maximum of 9.98 billion Naira. The data analysis also shows that the minimum age of Nigerian insurance firm is 17 years and the oldest firm is having age of 59 years. This indicates that the firms are able to gain considerable stay in the business. Evans (1987) said that younger firms were more vibrant and unstable in their growth experience than older firms. However, Driffield, Mahambre and Pal (2007) mentioned that older firms, though, may be less open to new technology as well as more inflexible in terms of smartness and effectiveness of managerial supremacy

The financial performance of the industry, however, shows that the firms have reported negative returns (ROA= -1.06 and ROE= - 0.65) for the period under study. ROA position is that at every 1 invested in Insurance firm in Nigeria, maximum of breakeven, zero profit can be made and possible minimum of 3.3 kobo can be lost. The minimum Return on Assets shows that some companies still have negative ROA. It means they were having a net loss in the balance sheet period. In other words, the firms cannot compete and gain profit from the utilization of company assets (Hidayah, 2014). The Return on Assets reflected how well a company management was using the company real investment resources to generate profits. Also, it was widely used to compare the efficiency and operational performance of the company as it looked at the returns generated from the assets financed by the company (Kaguri, 2013).

The descriptive report shows that ROCE has the average of 0.47 with the range of minimum and maximum value of -0.67 and 1.39 respectively. The positive returns reported by the ROCE 0.47 means that in every ₦1 invested in the industry, less than 1 kobo (0.47) is gain from that investment. At most 1.39 kobo can be made as profit and at worst, 0.67 kobo can be made as lost.

**Table 3: Correlation Matrix Model One**

Table 3 Model One Correlation Matrix										
Variable	Tobin Q	FS(g)	Log Cs3	Log CS2	Log CS1	Age	Log ROCE	Log ROA	Log ROE	VIF
<b>Tobin Q</b>	1									
<b>FS(g)</b>	0.292	1								2.25
<b>Log CS3</b>	-0.390	-0.539	1							2.48
<b>Log CS2</b>	0.352	-0.269	-0.305	1						11.51
<b>Log CS1</b>	0.439	-0.269	-0.168	0.923	1					8.70
<b>Age</b>	-0.297	-0.070	0.284	-0.284	-0.157	1				1.22
<b>Log ROCE</b>	0.020	0.288	-0.295	-0.127	-0.185	-0.109	1			1.45
<b>Log ROA</b>	0.028	-0.361	0.109	0.342	0.337	-0.030	-0.353	1		6.91
<b>Log ROE</b>	0.003	-0.237	-0.062	0.431	0.380	-0.114	-0.143	0.885	1	6.49
<b>Mean VIF</b>										<b>5.1</b>

**Source:** Authors' compilation from STATA 13.0 output

Correlation coefficients were calculated to ascertain the pair-wise association between dependent variable and explanatory variables and also to identify both the direction and the degree of the relationship. As a rule, the correlation coefficients between 0 and 0.30 marks a weak correlation, from 0.30 to 0.70 a moderate correlation, and between 0.70-one an elevated correlation (Vintilă, Nenu, & Gherghina, 2014). Correlation greater than 0.9 indicates multicollinearity (Swain 2008). As shown in table 3, the correlation coefficients of dependent variable and explanatory variables are not greater than 0.9 indicating the absence of multicollinearity.

Table 3 presents the correlation coefficients which ranges from -1 to +1. This implies that when the relationship is positive, direct relationship exist which shows increase-increase relationship. However, when the relationship is negative, indirect relationship exist which shows increase-decrease relationship. Specifically, Tobin's Q, has positive correlation with firm size (0.2918); long term debt (0.3519); short term debt (0.4394); ROCE (0.020); ROA (0.028) and ROE (0.003). This implies that an increase in any of these variables increases the Tobin's Q. On the contrary, total debt (-0.3519) and firm age (-0.2973) are found to be negatively correlated with the firm value. This means that increase in total debt and firm age decreases the firm value.

The Variance Inflation Factor which is more reliable than the correlation matrix is further employed to validate the correlation matrix which is based on a rule of thumb. Again, table 3 shows the VIF mean (5.1) which is less than 10 and implies absence of multicollinearity (Rajkumar & Hanitha,

2015). The VIF results further authenticate the Pearson correlation results that the variables do not suffer from the problem of multicollinearity.

In line with Houseman Specification test result which reveals  $\text{Prob}>\chi^2 = 0.9812$  as against the benchmark of 0.1, the test shows that Random Effect (RE) is more efficient and as such discussed together with OLS regression results.

**Table 4 Model One Regression Results (OLS)**

Variables	POLS	Random Effect	Fixed Effect
Constant	0.445 (0.012)	0.160 (0.462)	0.283 (0.658)
LogCS1	-2.056 (0.000) ***	2.264 (0.000) ***	2.249 (0.000) ***
LogCS2	-0.831(0.009) ***	-0.995 (0.004) ***	-0.932 (0.027) **
LogCS3	-0.474(0.009) ***	-0.679 (0.000) ***	-0.775 (0.000) ***
FS(g)	0.093 (0.001) ***	0.679 (0.000) ***	0.113 (0.000) ***
LogROA	0.392 (0.001) ***	0.315 (0.007) **	0.203 (0.131)
LogROE	-0.516 (0.000) ***	0.408(0.005) **	-0.266 (0.112)
LogROCE	0.088 (0.363)	0.078 (0.344)	0.050 (0.553)
Age	-0.007 (0.024) **	-0.005 (0.187)	-0.012 (0.469)
F-Statistics	16.65 (0.000)	(0.000)	(0.000)
R-Squared	0.486	R <sup>2</sup> = 0.486 (within)	R <sup>2</sup> = 0.653 (within)
Adjusted R <sup>2</sup>	0.457	R <sup>2</sup> =0.283(Between)	R <sup>2</sup> =0.264 (Between)
		R <sup>2</sup> =0.472 (Overall)	R <sup>2</sup> =0.445 (Overall)

\*\*\*, \*\* and \* indicate 1%, 5% and 10% significant levels respectively

Source: Authors' compilation from STATA 13.0 output

Tables 4 and 5 present the regression results of OLS and Random effect which were adjudged the best for the analyses. The coefficient of determination (R<sup>2</sup>) indicates that 48.58% of the variation in Tobin's Q can be explained by the variation on the explanatory variables in the model while other factors not captured in the model constitute 51.42%. The Random effect result is more efficient and it has produced 64.79% which means only 35.21% changes of firm value is explained by other variables. The model is statistically significant at 1% level.

The results show that short term debt has positive significant effect on Tobin's' Q at 1% level of significance. Categorically, one percent increase in short term debt, firm's value increases by 226%. The study is consistent with Oyakhilome, Ibhaguia and Felicia (2018); Hoang (2015). However, inconsistent with Olaniyan, Soetan, and Simon-Oke (2017) and Tristan and Huy-Cuong (2015). The finding is in agreement with the market timing theory which this study is anchored on.

The results show that long term debt has negative significant effect on Tobin's Q. It shows that a unit increase in long term debt, firm's value decreases by 99%. This finding leads to the overall conclusion that a higher level of leverage is associated with a lower firm performance. This result might be explained by the fact that due to agency conflict, firms had over-leveraged themselves, and as a result performance was being negatively affected. Another reason might be the poor judgment of creditors when giving loans, since the non-performing loans is an issue of concern. The study is consistent with Tristan and Huy-Cuong (2015). However, inconsistent with Oyakhilome, Ibhaguia and Felicia (2018) and Olokoyo (2013). In the same vein, the results show that total debt has negative significant effect on Tobin's Q. That means a unit increase in Total debt, firm's value decreases by 67%. The study is consistent with Abdul (2012). However, inconsistent with Hoang (2015), Olokoyo (2013) and Salim and Yadav (2012).

With respect to firm size, the result shows that firm size has positive significant effect on Tobin's' Q. This shows that one per cent increase in Firm Size, firm's value increases by 9.3%. The study is consistent with Rizky, Nur and Siti (2017); Asad and Cheema (2017) and Tristan and Huy-Cuong (2015) but, inconsistent with Purwohandoko (2017) and Olaniyan, Soetan, and Simon-Oke (2017).

Similarly, table 4 and 5 show that return on assets has positive significant effect on Tobin's' Q. That means a unit increase in return on assets, firm's value increases by 315%. The study is consistent with , Dwi, Dzulfikri, Muh. and Miswar (2018) and William, and Jay (2016). In contrast the results show that return on equity has negative significant effect on Tobin's' Q. That means a unit increase in return on equity, firm's value decreases by 40%. The finding is inconsistent with Rosikah, Prananingrum, Muthalib, Azis and Rohansyah (2018) and Sabrin, Buyung, Dedy, Takdir and Sujono (2016). Finally, ROCE and firm Age have insignificant effect on Tobin's Q. This means the two variable could not change the position of the firms' value.

## **5.0 Conclusion and Recommendations**

The aim of the study is to evaluate the effects of financial performance, capital structure and firm size on firms' value of insurance companies in Nigeria. In view of the findings, this study concludes that the independent variables have both positive and negative effects on the firms' value of Insurance firms in Nigeria. Therefore, recommends that the management of Insurance firms in Nigeria should only use short debt in their capital structure as long term debt deceases the firm's value, the management should focus on increasing firm size by boosting turnover and opening up new markets

for existing and new products. Finally, the management should maintain or enhance the level of total assets and the volume of shareholders' equity of the firms in order to enhance the return on assets and return on equity.

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