

## **The Impact of Capital Structure on Firm Performance: Empirical Evidence from Nigeria**

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**Abstract:** *This study examines the capital structure and firm performance evidence from Nigeria. The study employed a sample size of 100 non-financial firms of listed Nigerian companies in the Nigerian Stock Exchange (NSE) for a period of 2010 to 2014. The annual financial statements have been examined using a panel data approach to analyse the empirical study. However, Tobin's Q and ROA are used as a proxy for the firm performance. It was found out that assets turnover and, tangible have a positive and significant relationship with Tobin's Q. Also, risk maintains negative and significant relations with Tobin's. Moreover, the age of a firm has negative and significant with ROA and Sales growth maintains positive and significant with ROA. Nonetheless, the finding of this study would go a long way to enhance the literature on capital structure and also the imperative for the non-financial companies in Nigeria in taking capital structure decisions as it is based on the most recent data cover the period of recession of 2008-2009 as being an adverse effect of recession on the Nigerian nonfinancial companies.*

**Keywords:** *Agony Cost Theory, Capital Structure, Nonfinancial companies, Panel Data, Return of Asset, Tobin's Q.*

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### **I. Introduction**

The Firm capital structure decision is considered as the most one of the most significant decisions by any company. The most important issue during capital, making is for the determination of optimal capital structure appertaining to firm, which taking advance when a firm is incorporated or when there is need of an immediate capital requirement for company. According to Chadha & Sharma (2915) capital structure decision is a continuous process, whenever the firm requires funding for the project. Hence, is optimal when its structure in a way that it maximizes the market value of the firm involved.

It is a framework which depicts how equity and debt are employed for financing the firm operations. However, it could be argued to find the optimum capital structure of debt and equity; which maximize firm values when targeted capital structures between the risk and returns of the firm. Therefore, striking a balance between the risks and returns in firm's operation is the purpose of capital structure. Though, the firm raises equity by ways of issuing common and preferred stocks and debt in form loans, bonds. Debentures, note payable, among others. The owner of the firm is equity holders who have a long term commitment to the firm in consideration that will grow in future. While the debt holder is the creditor of the firm, with long term commitment to the firm in consideration with interest and principal amounts repayment at regular interval. The main objective of this study is to examine the effect which capital structure has on the Nigeria firm performance. In practice, that in practice is able to find optimal structure is usually rewarded by the minimizing of a firm's cost of finance and maximizing the firm's returns. (Zietun & Tain).

However, modern theory of capital structure began with the Modigliani and Miller in 1958 which pave way for the development of other theories like the asymmetric information theory, agency cost theory among others (Joshi 2010). Though, studies have been conducted in capital structure and firm performance in the international arena, particularly the USA, few have been conducted in developing countries like Nigeria.

### **II. The Theoretical And Literature Review**

This chapter will discuss the theoretical and relevant literature. Quite a number of new theories have emerged in finance discourse, at least in comparison to Modigliani & Miller theory. Thus, in a decade have emerged to explain a firm's choice of capital structure. However, the theory that would under review in this chapter will be Modigliani & Miler theory, agency cost theory, trade off theory, and pecking order theory.

#### **2.1 Modigliani & Miller Theory**

The Modigliani & Miler (MM) theory (1958) demonstrated that under perfect capital market in the absence of corporate tax, transaction and agency cost and the more there is of information dissemination, the firm value is independent of its capital structure. According to Chatham & Sharma (2015) capital market is

assumed to perfect were the insider and outsider free access to information and transaction cost is nonexistent, no taxation and bankruptcy cost. MM theory (1958) opines the valuation firm is independent of its capital structure (Akeem et al. 2014). That is, equity and debt choice does not matter and internal and external funds are perfect substitutes.

Though, MM theory's capital structure relevancy is in doubt, it has attracted much attention on the reasonableness of its assumptions which include the absence bankruptcy cost, tax and other imperfection which exist in the world. According to Muritala (2012) there are various types of finance, each with peculiar characteristics. Hence, the nature of finances need these firms could short, medium, and long term to do its business operation, so also could be internal or external in nature.

## **2.2 Agency Cost Theory**

According to the agency cost theory founded by Jensen & Meckling (1976) posit that it a contract in which one person (the principal) engages another person (agent) to perform a duty on his behalf which included the delegation of duty and authority to the agent within confined the duties. Though, the professional management of separation of ownership from the management may result agency conflict that is insufficient work effort of manager (agent) in chosen the inputs and output according one preferences. As a result the firm may fail to maximize the own wealth and utilities. Hence, the theory suggests that the best way mitigates the problem.

Berle & Means (1932) who the first proponent of the concept puts forward that as a continuous dilution of equity ownership of the large corporation, equity and control becomes more separated, which gives the managers an opportunity to pursue their interest instead of the shareholders. Wangi et al. (2014) affirm the debt financing is to restrict the tendency the professional manager to toward opportunistic behaviour for personal gain. Thus, financing to reduce free cash flows within the firm by paying a fixed interest rate and this fixed interest payment would force the manager to deviate from negative investment and force to work in the interest of the shareholders, therefore for optimal debt level in capital structure would minimize the agency costs due to divergent interest of managers and shareholders and debt holders.

## **2.3 Trade- off theory**

According to Graham & Harvey (2001) the trade off theory connote firms' choice of leverage between the benefits and costs of debt and the trade –off of costs and benefits of borrowing while holding firms' assets in lieu as a determinant of a firms' optimal debt ratio. Therefore, trade-off can be viewed as summarised balance of different benefits and costs pertaining to debt for optimal capital structure. Moreover, a firm adjusted to optimum debt ratio, cost and lags which are known as adjustment costs. Therefore, it is known as an optimal capital structure of the firm (Myers, 1984).

## **2.4 Pecking order theory**

Stewart & Myers, (1984) has developed the theory or hypothesis to explain the corporate the financial behaviour of corporate structure choice. That is, the major points the firm managers should adhere to and highly relevant to capital structure choices are manager want to uphold stable shareholder dividends over the time, despite the fluctuating earnings, investment opportunities and stock prices; Managers prefer internal financing when comparisons to external financing and if the external financing is necessary, hence, then opt for least risky option first before the much riskier ones (Chadha & Sharma, 1915). The securities are ranked based on their perceived risk the debt on one end to common stock at the other end.

However, corporate financing behaviour is a result of information asymmetry, thus investors are under informed about the value the project within a company for examples the firm surrenders a substantial amount of a project's net present value to the investors in times external financially. From traditional finance discourse a number new theories in comparison to MM propositions have in decades emerged for explaining the firms' choice of capital structure.

## **2.5 The Debt Ratio**

The increase in leverage ratio would result in lowering agency cost of outside equity and firm performance all things have been equal. According to Muritala (2012) the agency theory presupposes the higher the leverage is expected to lower the agency costs, thereby reduces the inefficiency and leads improvement in firm performance. Hence, we expect the debt ratio to maintain an inverse relationship to firms' performance.

## **2.6 The risk**

Business risk is associated with firms with high risk that is more likely to face financial difficulty and afterward face bankruptcy. Debt in business oppression involves a legal adherence to periodic repayment of principal and interest. Moreover, a highly leverage firm may subjected to cash crunch and therefore unable to

obtain debt finances. The company with volatile cash flows are expected to use less debt finances its capital structure than those with stable income (Mwangi et al, 2014). Therefore, we suggest a negative relationship with firm's capital structure and performance.

### **2.7 The Sale Growth**

Chadha & Sharma (2015) argue that firm with high grow rate tend to finance their firm with less long term debt in its capital structure and more short term in order to reduce agency costs. Agency cost problems in growing firm can more severe as a result of needed flexibility in the further investment. However, Muritala (2012) opine that growth opportunities serve as important determinants of firm performance. Firm with growth opportunities can generate profit from investment, we therefore sales growth as a proxy for growth opportunities in this study.

### **2.8 The Asset Structure**

The efficiency of the management can be measured by the how the firm utilizes its assets to yield positive returns to the firm. Muritala (2012) firm's assets turnover ratio is an important financial ratio that could be used to achieve the measurement of efficiency. The liquid assets would increase the firms' ability to debt finance and can be sold with much loss of their value, thereby making it better collateral for the lender. Therefore, higher firm liquidity would relatively support higher debt ratio as a result of greater ability to meet short term obligation when fall due.

### **2.9 The Tangibility**

The tangibility of an asset is one the main determinants of the firm's performance. The collateralised assets could be considered to be an important the driver that affects the firm capital structure decision of the firm. It could be used as collateral as higher the proportion of tangible assets the lower creditor's risk, and in tandem the higher value of the assets in time of bankruptcy and liquidation. Thus, more tangible the firm's assets the greater the ability to secured debt and information revealed about the future profits (Al-Najjar, 2011).

### **2.10 The Firm Size**

Firm size plays a vital role in capital structure decision makes process. Quite a number of studies point out that a firm size plays an important role the determination of firm performance. Beck et al (2005) argues that firm size has a strong association with firm's survival, profitability and productivity; though, depending on policy implementation likes legal and financial policy effects, depending on their size. Large size firms tend to diversified, benefit from economy of scale, and more capacity and resources. Boone, et al (2007) observes that the proportion of firm size and outside director is positively related. Implying that the larger a firm size, the more should be the outside director's representation in the quest for efficient monitoring and transparency. Similarly, Raja & Kumar (2005) posit that firm size exhibit a positive relation with the performances of listed firms.

### **2.11 The Firm Age**

The firm age is associated with ample of experience, expertise and reduction in perceived risks, (Mahajan & Singh, 2013) since old firms are expected to have large market shares, high clientele patronage, customer loyalty, well established logistic channels, and business associates with various factors of production. Thus, older firms tend to be more profitable due to their well established operational strategies in producing various goods/services to meet various customers' demands. However, Graham et al, (2011) posit that young firms tend to be prone to distress during a negative stock business period. Similarly, Carroll (2003) observes that young firm is prone to failure because of diversion of their resources to establish internal routines, developing credible exchange relationship, and training of the employees.

## **III. Justification Of Data Analysis Method**

Besides descriptive analysis approach, the analysis is carried out within a panel data estimation framework. In order to circumvent endogeneity problems, panel estimation techniques of fixed and random effects are adopted in this study, in addition to the traditional pooled regression estimation (OLS). Panel data estimation allows for the control of individual-specific effects usually unobservable which may be correlated with other explanatory variables included in the specification of the relationship between dependent and explanatory variables (Hausman and Taylor, 1981).

The random effect is used if the individual specific component is assumed to be random with respect to the explanatory variables. The fixed effect is used if the individual specific component is not independent with respect to the explanatory variables. Decisions between pooled and random effect model will be made using Lagrangian Multiplier test (LM). The significance of this test signifies that random effect model is preferred to

pool and this will necessitate the use of Hausman specification test to determine whether the random is further preferred to fixed effect model. If the Hausman test is not significant then the random model will be selected, otherwise fixed effect will be interpreted.

### 3.2 Estimation Technique

The basic framework for panel data regression takes the form:

$$Y_{it} = \beta X'_{it} + \alpha Z'_i + \varepsilon_{it} \tag{1}$$

In equation 1 above, the heterogeneity or individual effect is  $Z'_i$  which may represent a constant term and a set of observable and unobservable variables (Individual effect). When the individual effect  $Z'_i$  contains only a constant term, OLS estimation provides a consistent and efficient estimates of the underlying parameters (Kyereboah-Coleman, 2007); but if  $Z'_i$  is un-observable and correlated with  $X'_{it}$ , then emerges the need to use other estimation method because OLS will give rise to biased and inconsistent estimates.

Similarly for endogeneity issues, it is generally assumed that the explanatory variables on the right hand side of the regression equation are statistically independent of the disturbance  $\varepsilon_{it}$  such that the disturbance term  $\varepsilon_{it}$  is assumed to be uncorrelated with columns of the parameters  $X'_{it}$  and  $Z'_i$  as stated in equation (5), and has zero mean and constant variance  $\sigma^2\eta$  (Hausman & Taylor, 1981; Nakamura & Nakamura, 1981). If this assumption is violated, then OLS estimation will yield biased estimates of the underlying parameters of  $\beta$  (Mayston, 2002). This condition is also applicable regardless of the infinitely large sample of observations taken during the estimating process, because the OLS estimation will not be a consistent estimator of the true underlying values (Gujarati, 1995; Johnston, 1984).

### 3.3 Model Specification

Following the theoretical model that says firms' performance depends on financial information (Leverage, Risk, Sales Growth, Asset, Tangibility, Size and Age); the model is specified in a functional form to capture this relationship. This is shown below;

$$TQ_{it} = f(LEV_{it}, RISK_{it}, SALE_{it}, ASSET_{it}, TANG_{it}, SIZE_{it}, AGE_{it}) \tag{2}$$

$$ROA_{it} = f(LEV_{it}, RISK_{it}, SALE_{it}, ASSET_{it}, TANG_{it}, SIZE_{it}, AGE_{it}) \tag{3}$$

Where, TQ = Tobin's Q, ROA = Return on Asset, LEV = Leverage, RISK = Risk pertaining to firm, SALE = Sales Growth, ASSET = Asset Turnover, TANG = Tangibility, SIZE = Firms' Size and AGE = Firms' Age

The above equation shows the functional relationship between the dependent variable; firms' performance proxies of company's Tobin's Q and Return on Asset and capital structure captured by company's Leverage.

The subscript  $i$  represents the number of companies (100 non-financial companies), while subscript  $t$  represents the year,  $t = 2010, \dots, 2014$ . The explicit models for Pooled, Fixed and Random effects models are presented below;

### 3.4 Pooled Panel Regression Models

The starting model is the pooled panel model where it is assumed that any heterogeneity across firms has been averaged out. Thus the pooled estimation is given as:

$$TQ_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 RISK_{it} + \beta_3 SALE_{it} + \beta_4 ASSET_{it} + \beta_5 TANG_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \varepsilon_{it} \tag{4}$$

$$ROA_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 RISK_{it} + \beta_3 SALE_{it} + \beta_4 ASSET_{it} + \beta_5 TANG_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \varepsilon_{it} \tag{5}$$

### 3.5 Fixed Panel Regression Model

The fixed effect model assumes that individual heterogeneity is captured by the intercept term. This means every individual is assigned its intercept  $\alpha_i$  while the slope coefficients are the same, and the heterogeneity is associated with the regressors on the right hand side. In the model also we assign a dummy to every individual.

$$TQ_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 RISK_{it} + \beta_3 SALE_{it} + \beta_4 ASSET_{it} + \beta_5 TANG_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \sum_{i=1}^9 \alpha_i idum + \varepsilon_{it} \tag{6}$$

$$ROA_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 RISK_{it} + \beta_3 SALE_{it} + \beta_4 ASSET_{it} + \beta_5 TANG_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \sum_{i=1}^9 \alpha_i idum + \varepsilon_{it} \tag{7}$$

Where  $\alpha_i idum$  is a dummy variable and  $\alpha_i$  is an unobserved effect

**3.6 Random Effect Model**

The random effect model assumes that the individual heterogeneity is a correlated with (or, more strongly, statistically independent of) all the observed variables. Going by this assumption we specify the following model;

$$TQ_{it} = \beta_0 + \beta_1LEV_{it} + \beta_2RISK_{it} + \beta_3SALE_{it} + \beta_4ASSET_{it} + \beta_5TANG_{it} + \beta_6SIZE_{it} + \beta_7AGE_{it} + V_{it} \tag{8}$$

$$ROA_{it} = \beta_0 + \beta_1LEV_{it} + \beta_2RISK_{it} + \beta_3SALE_{it} + \beta_4ASSET_{it} + \beta_5TANG_{it} + \beta_6SIZE_{it} + \beta_7AGE_{it} + V_{it} \tag{9}$$

Where  $V_{it} = \alpha_i + \varepsilon_{it}$  is often called the composite error.

**3.7 Sample and Data Sources**

The study sampled 100 non-financial out of 186 (both financial and non-financial) firms listed on the Nigerian Stock Exchange (NSE) as at the end of March, 2016. These firms cover major sectors such as agriculture, consumer goods, services, industrial goods, health care, information and communication, natural resources, conglomerate, construction and real estate and oil and gas.

The sample period is five (5) year from 2010 and 2014 and it is ensured that each of the firms has data for at least three (3) years during this period. Hence the study is a cross-sectional time series analysis as it enables the study of the behaviours of these firms across each other over a long period of time. Data of firms listed on the NSE are relied upon because these firms are mandated to make their information public and this is a solution to the problem of paucity of data in a country like Nigeria.

**IV. Presentation And Discussions Of Results**

This chapter focuses on the presentation and a discussion of results and is divided into two major parts. The first part comprises the descriptive analysis and correlation, the second is the regression analysis and discussions of the results.

**4.1 Presentation of Descriptive tables**

Table 2 presents the descriptive result of the variable used in this study. From the table, Tobin’s Q ranges from 0.14 to 11.76 with an average value of 1.72 and a standard deviation of 1.48. Return on Asset (ROA) has minimum value of -1.15 and a maximum value of 1.89 with a mean value of 0.03 and standard deviation of 0.16. Leverage (LEV) ranges from -131.17 to 53.32 with an average value of 1.48 and a standard deviation of 9.17. Asset hovers around 0.01 and 12.68; on the average, the value is 1.03 with a standard deviation of 1.11. Tangibility ranges from 0.00 through 3.27 with a mean value of 0.44 and a standard deviation of 0.29. The minimum and the maximum value of the firm’s size are 11.11 and 22.05, with an average value of 15.93 and standard deviation of 1.85.

Age of the firm ranges from 3years to 91years with an average value of 41years and a standard deviation of 19years. Also, sales growth ranges from -90.47 to 1058.15 with an average value of 16.98 and a standard deviation of 83.25. Finally, the minimum and maximum values of Risk are -1697.78 and 1825.99 respectively, while the average and standard deviation are 0.96 and 125.53 respectively. See appendix for descriptive results by sector.

**Table 2: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Tobin’s Q	457	0.14	11.76	1.72	1.49
ROA	467	-1.15	1.89	0.03	0.16
LEV	458	-131.17	53.32	1.48	9.17
ASSET	464	0.01	12.68	1.03	1.11
TANG	466	0.00	3.27	0.44	0.29
SIZE	468	11.11	22.05	15.93	1.85
AGE	497	3.00	91.00	40.74	18.65
SALE	473	-90.47	1058.15	16.98	83.25
RISK	471	-1697.78	1825.99	.96	125.53

**4.2 Correlation Analysis**

Table 3 presents the result of preliminary correlation analyses, among the variables. This exercise serves two important purposes. The major purpose is to determine whether there is a bivariate relationship between each pair of the dependent and independent variables. The second is to ensure that the correlations among the explanatory variables are not so high to the extent of posing multicollinearity problems. The result shows that there are significant and positive associations between Tobin’s Q, Asset Turnover and age of the firms. Similarly, associations between ROA, ASSET and SIZE of firms are positive and significant. However LEV is negatively related to TORBINSQ. The relationship among the variables is adjudged at 1% and 5% level

of significance. Conversely, the result shows that the associations between TANG, SALE, RISK and firms' performance are not statistically significant. Generally, the result shows no problem of multicollinearity.

**Table 3:** Correlations (Pearson) Turbans and ROA as the dependent Variables.

	TORBINQ	ROA	LEV	ASSET	TANG	SIZE	AGE	SALE	RISK
Tobin's Q	1								
LEV	-0.096*	0.030	1						
ASSET	0.127**	-0.177**	0.109**	1					
TANG	0.025	-0.061	-0.168**	-0.193**	1				
SIZE	0.013	0.227**	0.105**	-0.116*	0.88	1			
AGE	0.094*	0.042	0.026	0.047	-0.074	-0.101*	1		
SALE	-0.014	.013	.148**	.174**	-.115*	.062	-.082	1	
RISK	-0.050	0.003	0.007	0.021	0.028	0.053	-0.042	-0.006	1

\*\* Correlation is significant at the 0.01 level (2-tailed) \* Correlation is significant at the 0.05 level (2-tailed).

### 4.3 Regression Analysis

Drawing from previous sections, we examine the impact of Capital Structure on the firm's performance in Nigeria. In order to determine this relationship, we estimated the pooled regression assuming that the intercept is equal across companies and years. We also assume different constant for each company and perform both fixed and random effect regressions. Comparison between fixed and random effect would be done by considering the Hausman test statistic value.

In order to determine the relationship, we estimated the pooled regression assuming that the intercept is equal across companies and years. We also assume different constant for each firm and perform both fixed and random effect regressions. Comparison between pool and random effect would be done by considering Breusch-Pagan Lagrangian multiplier (LM) test statistics while the fixed and random effect would be done by considering the Hausman test statistic value.

In table 4, the Breusch-Pagan Lagrangian multiplier (LM) value of 439.40 (P<0.05) rejects the null hypothesis that random effect is not appropriate. This implies that there is an evidence of differences across firms, therefore, we consider Hausman testing between random and fixed effect. The Hausman test value of 8.88 (P>0.05) accepts the null that difference in coefficients are not systematic, therefore we accept and interpret the random effect model. Considering the random effect model, the F statistic value of 24.42(P=0.0010) indicates that the dependent variables joint affect firm's performance. Furthermore, the explanatory variables account for about 6.5% variation in profitability in the random effects regression model. A keen observation of the result shows that, firms' asset turnover, tangibility, and risk are significantly related firms' performance.

Specifically, Asset exhibits a significant and positive relationship with the firm's performance proxies by Tobin's Q at the 5% level. This indicates that firm's performance will increase by 0.146 percent given a 5% unit increase in asset turnover. Also, there exists a positive and significant relationship between Tangible asset of the firms and performance at the 1% level. This shows that 1% increase in firm's tangible asset will lead to 0.594 % increase in firm's performance. The result also shows that Risk is significantly affecting performance of firms at 10% level. This implies that risk is a significant determinant of firms' performance. On the contrary, there is no significant relationship between firm's financial leverage (Capital Structure), Size, Age, Sales growth and performance. This implies that the variables are not the major determinant of the firm's performance.

**Table 4:** Regression analysis

Variables	Tobin's Q		
	Pooled	Random	Fixed
Lev	-0.0171**(0.0078)	-0.0058 (0.0047)	-0.0008 (0.0049)
Asset	0.1787** (0.0696)	0.1462** (0.0655)	0.0991 (0.0734)
Tangibility	0.2718 (0.2525)	0.5941*** (0.1963)	0.4906** (0.2111)
Size	0.0345 (0.0381)	-0.0743 (0.0652)	-0.7451*** (0.1786)
Age	0.0081** (0.0038)	.0081(.0070 )	0.0748** (0.0320)
Sales	-0.0001(0.0009)	-0.0007(0.0007)	-0.0007(0.0007)
Risk	-0.0006 (0.0005)	-0.0006* (0.0003)	-0.0006* (0.0003)
_Cons	0.5538 (0.6299)	2.1433**(1.0672)	10.2332*** (2.4434)
Number Of Obs	445	445	445
F-Statistics	2.63 (0.0114)	24.42 (0.0010)	5.56 (0.000)
R-Squared	0.0404	0.0659	0.1030
LM	439.40 (0.000)		
Hausman	8.88 (0.2617)		

Note: \*, \*\*, \*\*\* indicate significance at the 10%, 5% and 1% levels of significance respectively

Table 5 presents the regression result of Return on Asset and Capital Structure, the LM value of 98.04(P<0.05) as indicated fails to accept the null hypothesis that random effects is not appropriate. This implies that there is an evidence of differences across firms; therefore, we consider the Hausman test to choose between random and fixed effect. The Hausman test value of 16.38 (P<0.05) rejects the null hypothesis that difference in coefficients are not systematic, therefore we accept and interpret the fixed model. Considering the fixed effect model, the F-statistics value of 1.91(P<0.05) indicates that all the independent variables jointly affect firm’s profitability (ROA). The R-squared value of 0.038 indicates that the explanatory variables account for about 3.8% variation on return on assets.

The result shows that only the age and sale of firms are significantly related to firms’ performance at the 5 % level of significance. Explicitly, age of firms is significant and negative. This implies that the firms’ performance decrease as the firms increase in age. On the contrary, the firms’ size is significant and positive. From the result, other variable, including Capital Structure do not significantly affect firm’s performance.

**Table 5:** Regression analysis

Variables	ROA		
	Pooled	Random	Fixed
Lev	-0.0002(.0008)	0.0009(.0007)	-0.0006(.0008)
Asset	-0.0088(.005)	-0.0094(.0006)	-0.0128(.000)
Tangibility	-0.0616** (0.0262)	-0.0379(0.0277)	0.0097(0.0343)
Size	0.0190***(.004)	0.0174***(.0057)	0.0454(0.029)
Age	0.0000(0.0004)	0.0000(0.0006)	-0.0127**(.0052)
Sales	0(0.0001)	0.0001(0.0001)	0.0002**(.0001)
Risk	0(0.0001)	0(0.0001)	0(0.0001)
_Cons	-0.2303***(.0655)	-0.2184**(.0935)	-0.162(0.3972)
Number Of Obs	444	444	444
F-Statistics	4.29 (0.000)	15.05 (0.035)	1.91 (0.0067)
R-Squared	0.0645	0.0102	0.0380
LM	98.04 (0.000)		
Hausman	16.38 (0.0219)		

Note: \*, \*\*, \*\*\* indicate significance at the 10%, 5% and 1% levels of significance respectively

### V. Discussion

The discussion of the study will be centred on the finding of the research. The study shows the asset turnover shows positive and significant relationship with the firm’s performance proxies by Tobin’s Q at the 5% level. This shows the efficiency of the management can be measured by the how the firm utilizes its assets to yield positive returns to the firm. This is in line with Muritala (2012) who assert the firm’s assets turnover ratio is an important financial ratio that could be used to measure the measurement of efficiency. Also, there exists a positive and significant relationship between tangibility of an asset of the firms and performance (Tobin’s Q) at the 1% level. This shows that 1% increase in firm’s tangible asset will lead to 0.594 % increase in firm’s performance. It could be used as collateral as higher the proportion of tangible assets the lower creditor’s risk, and in tandem the higher value of the assets in time of bankruptcy and liquidation.

The risk also significantly affecting performance of firms negatively, at the 10% level. This implies that risk is a significant determinant of firms’ performance. This is, 1% in firm risk level will lead to -0.0003 decreases in firm performance. Also, age of firms is significant and negative with ROA. This implies that the firms’ performance decrease as the firms increase in age. Though, this is agreed with Graham et al, (2011) who posit that young firms tend to be prone to distress during a negative stock business period. Similarly, the sale is significant and positive Hence, increase in sale will lead to increase in firm performance.

### VI. Conclusion

The study examines the capital structure and corporate performance in Nigeria using Tobin’s Q and ROA i.e. Return on asset as a measure of performance. The study shows that asset turnover, tangible asset, and risk significance performance with Tobin’s Q. This indicates that asset turnover, which shows a positive and significant relationship with the firm’s performance can be used strategically to enhance firm performance. This is in line with Muritala (2012) who assert the firm’s assets turnover ratio is an important financial ratio that could be used to measure the measurement of efficiency. Therefore, higher firm liquidity would relatively support higher debt ratio as a result of greater ability to meet short term obligation when fall due.

Furthermore, there exists a positive and significant relationship between tangibility of an asset of the firms and performance (Tobin’s Q). This stand firm in good stead, as collateralise of a high proportion of tangible assets would lower the creditor’s risk, and in tandem the higher value of the assets in time of bankruptcy and liquidation. The risk also has a negative and significantly with firm performance with Tobin’s Q

as a proxy. The company with volatile cash flows are expected to use less debt finances its capital structure than those with stable income (Mwangi et al, 2014).

However, the risk maintains a negative and significant relationship with Tobin's Q, a determinant of firms' performance. This is, 1% in firm risk level will lead to -0.0003 decreases in firm performance. The company with volatile cash flows are expected to use less debt finances its capital structure than those with stable income (Mwangi et al, 2014). Also, age of firms is significant and negative with ROA. This implies that the firms' performance decrease as the firms increase in age. Though, this is agreed with Graham et al, (2011) who posit that young firms tend to be prone to distress during a negative stock business period. Similarly, the sale maintains significant and positive ROA. Hence, increase in sale will lead to increase in firm performance. Chadha & Sharma (2015) suggest that firm with high grow rate of sale tend to finance their firm with less long term debt in its capital structure and more short term in order to reduce agency costs.

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