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Impact of Capital Structure on Financial Performance of Construction and Real Estate Quoted Companies in Nigeria

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Abstract
This paper examines the impact of capital structure on the financial performance of quoted Construction and Real Estate Companies in Nigeria from 2005-2014.The study made use of *ex post facto* research design which involved gathering panel dataset from the published annual financial statements of firms in the Construction and Real Estate Sector listed on the Nigerian stock Exchange from 2005 through 2014. Pooled ordinary least square regression was used to analyse the data to identify the relationship between a dependent variable and one or more independent variables. The findings of the research revealed that Capital Structure of showed a positive and significant effect on financial performance proxies by Earnings Per Share, Return on Capital Employed, Return on Equity but its impact on Return on Assets is insignificant. The result of our study portrays that capital structure of the Construction and Real Estate Sector firms listed on the Nigerian stock Exchange has a significant impact on firms' financial performance based on the following performance proxies (Earnings per Share, Return on Capital Employed, Return on Equity) but does not significantly influence return on assets. It also provides additional study evidence on capital structure and performance of Nigerian construction and real estate sector.

Keywords: Capital Structure, Performance, Construction firms, Real Estate

1. Introduction

The capital structure shows the combination of the various sources of funds generated by a firm for financing its operations and capital investments [1]. In simple terms, capital structure describes the proportionate relationship between debt and equity. Since the combination of various financial sources of every company is called capital structure, then it can be noted that the best combination of fund resources for every business is optimal or desirable capital structure. The various sources of capital are long term debt, short term debt, preferred stock and common stock. Long and short term securities are kinds of debt financing while preferred, and common stock are kinds of equity financing. Therefore the liabilities of firms are classified into two broad categories according to the nature of the sources, thus the debt and equity sources. The two groups

represented the Debt and equity investors of the firm [2]. Each of these attracts different levels of benefits, risks and control. The debt investor exercise lower power, earn a fixed rate of return and are protected by contractual obligations on their investment. Equity holders are the residual claimants, and have greater control over business decisions and also bear most of the risks in business.

In both theoretical and empirical research, the correlation between capital structure and value of a firm has generated quite a lot of arguments[3] . Contemporary theories and empirical research primarily use data from developed western economies. Few types of research have been carried out on the perspective of developing economies, [4]. The research studies on the capital structure, and performance by some researchers in Nigeria used variables like Net Profit Margin (NPM), Operating Profit Margin, Tobin Q's measure of performance, Assets turnover, size, firm's age, assets tangibility. Studies on the capital structure and performance by[5] , [6]), considered capital structure variables like short term debt, long term debt and total debt without the inclusion of equity capital.

Moreover there is dearth of literature on capital structure and performance of construction and real estate firms in Nigeria. The sector deserves attention because Nigeria is qualified for real estate development due to her growing population, rapid urbanisation, and for the fact that the sector contributes up to 7.5% to the Gross Domestic Product of Nigeria [7] . Construction and estate development is capital intensive and one of the major problems confronting the sector in Nigeria is limited source of funds. Apart from equity source debt financing is required. Two major loans required to finance construction and real estate projects in Nigeria are short-term loan for financing the construction stage, and long-term mortgage loan which is permanent in nature for financing the project over its normal operating life. Excessive debt financing would definitely erode the profitability performance of the sector [8].

Therefore, the study was designed to cover these noticeable empirical research gaps in the capital structure literature in Nigeria by investigating the impact of capital structure on firms' performance using (return on capital employed, return on equity, earnings per share, and return on assets) as measures of financial performance and (short-term debt and liquidity ratio) as control variables. The objectives of this paper are to:

1. Determine the effect of capital structure on earnings per share of quoted construction and real estate companies in Nigeria.
2. Determine the impact of capital structure on return on capital employed of quoted construction and real estate companies in Nigeria.
3. Ascertain the impact of capital structure on return on equity of listed construction and real estate businesses in Nigeria.
4. Determine the impact of capital structure on return on assets of listed construction and real estate firms in Nigeria

Research Hypotheses

1. Capital structure has no significant effect on the earnings per share of listed

construction and real estate businesses in Nigeria.

2. Capital structure has no significant impact on return on capital employed of quoted construction and real estate companies in Nigeria.
3. Capital structure has no significant impact on return on equity of listed construction and real estate businesses in Nigeria.
4. Capital structure has no significant impact on return on assets of listed construction and real estate companies in Nigeria.

2. Review of Related Literature

Theoretical Review

According to [9], the modern theory of capital structure originated from Franco Modigliani and Merton Miller paper of 1958 titled "The Cost of Capital, Corporation Finance, and the Theory of Investment." Modigliani and Miller's theory argues that changes in capital structure should not affect firm's market value or cost of capital in a perfect capital market without taxes and transaction costs. It implies that the financial instruments issued by the company have no effect on firm's productivity and value.

However, the unrealistic assumptions in MM irrelevance theory as regards capital structure has provided an opportunity for the emergence of other ideas [10], some of these theories include Pecking order theory, trade-off theory, Agency theory and others.

The trade-off theory refers to the idea that a company chooses how much debt finance and how much equity funding to use by balancing the costs and benefits [11]. In the trade-off the theory of capital structure, the bankruptcy cost is allowed to exist. Thus, trade-off theory implies that company's capital structure decision involves a trade-off between the tax benefits of debt financing and the costs of financial distress. When firms adjust their capital structure, they tend to move toward a target debt ratio that is consistent with theories based on tradeoffs between the costs and benefits of debt.

The decision of a firm about the use of debt finance or equity finance depends on the costs and benefits attached to each source of funds. For instance, in deciding the optimal capital structure, the firm must consider the trade-off between costs and benefits of each source of finance as each has some costs and benefits. For example, the use of debt attracts some tax saving benefits as well as bankruptcy costs. The firm should strike a balance at that point where any additional debt becomes riskier and hence more expensive to both creditors and shareholders' so as to avoid financial distress [1] . When the degree of leverage increases, shareholders position becomes precarious, the risk of creditors increases and they demand a higher interest rate and do not grant a loan to the company.

In Pecking order hypothesis, it is expected that profitable firms that generate significant earnings should use less debt capital than those who generate insignificant earnings [12]. The difference of information between corporate insiders and the market is the basis for pecking order theory. [13], further explain that where there are three sources of funding available to firms: retained earnings, debt, and equity, retained earnings have no adverse selection problem. Equity capital is subject to severe adverse selection problems while debt has only a minor adverse selection problem. For an outside investor, equity capital is strictly riskier than debt.

Both have an adverse selection risk premium, but that premium is significant on equity. Therefore, an outside investor will demand a higher rate of return on equity capital than on debt. From the perspective of those inside the firm, retained earnings are a better source of funds than debt and debt is a better deal than equity financing. Accordingly, the company will finance all projects using retained earnings if possible. If the amount of retained earnings is inadequate, then debt financing will be utilised, while equity financing is the last resort.

Pecking order theory suits large firms with high profit and which have enough internal funds in the form of retained earnings and depreciation. [14], states that the pecking order theory hinges on the assertion that managers have more information about their firms than investors. This disparity of information the author referred to as **asymmetric information.** He further stated that managers will issue debt when they are confident about their companies' prospects and will issue equity when they are unsure. The pecking order hypothesis does not provide a formula for calculating an optimal capital structure, but it helps to explain observed patterns regarding financing preferences[15].

The agency cost theory suggests that due to the effect of the separation of control and ownership, the agents (managers) of a firm will not always work on behalf of the shareholders hence disagreement between the two parties. The raising of company debts also results into conflicts between the shareholders and debt investors. The conflicts between shareholders and managers on the one hand, as well as the conflicts between shareholders and bondholders on the other usually, increase the firm's cost of operation, investing and financing activities [16]. Thus, the dispute between the interests of shareholders and managers describes the agency problem. The agency problems give rise to agency costs. The principal must incur some agency costs to ensure that the agent acts in his interests. Such costs can be called the expenses of monitoring managers. Without increasing the agency cost, trading off equity to debt controls the principal-agent problem. By increasing the debt to equity ratio, managers will tend to run businesses more efficiently. The use of debt limits the scope of managerial discretion because debt calls for with required interest payments which result in cash outflows [17].

Previous Empirical Research

Capital structure is a crucial aspect of company's operations. This researcher is an attempt to identify the impact of Capital Structure on Companies Financial Performance. [18] studied the relative effects of debt and equity financing on the operating performance. Results show that apart from high cash flow firm, debt finance and debt financing have significantly negative consequence for operating performance. It suggests a risk or danger in depending entirely on either debt or equity for raising capital, but it is much safer and better to increase finance by both methods, with each working together, at the same time. Thus, this finding implies that firms should, whenever possible, raise funding by using the two methods at the same time, with the advantages of the one method offsetting the problems of the other and vice versa [19] . It was in line with the

study carried out by [20] whose result revealed a negative association between debt to equity and performance. Hence the result confirms prior research findings that investments in companies with high debt to equity ratios are risky investments and possibly affect wealth transfer from debt holders to shareholders.

However, a study carried out by [21] on capital structure and corporate performance revealed that firm's performance is positively related to equity financing and dept-equity ratio, while a negative relationship exists between companies' performance and debt financing. At debt equity trade-off, there will be a positive correlation between firm performance and debt-equity ratio. The authors attributed the negative correlation existing between companies' performance and debt financing to the high cost of borrowing in Nigeria. [22] in a similar study on capital structure and corporate performance in Nigeria petroleum industry using a panel data and pooled regression found that leverage ratio has significant positive effect on both the earning per share and dividend per share.

[23] examined the effects of optimal capital structure on firms' performances in Nigeria. He investigated the relation between return on equity (ROE) and the capital structure of a sample of 10 companies from 2000 to 2009. Empirical implications show that there exists an optimal capital structure under trade-off theory and the optimal capital structure of manufacturing companies. [23] asserts that as firms change their capital structure, the tendency is for them to shift towards efficient debt ratio consistent with the historical financial behaviours of firms. We also find the company's performance is a quadratic function of debt ratio. He concluded that the manufacturing industry's capital structure in Nigeria is consistent with trade-off theory, and the results are in compliance with the hypothesis that the corporate performance is a nonlinear function of the capital structure.

[24] carried out a study on capital structure determinants of quoted firms in Nigeria using multiple regression models. The results revealed that the cost of equity, the existence of a benefit of tax shield, competitors capital mix, profitability and firm dividend policy positively determine the capital structure of quoted companies in Nigeria. The implication is that the higher the cost of capital, the existence of advantages of debt tax shield and level of operating profits, the higher the debt/equity ratio of the firm. On the other hand, the cost of debt, parent company influence and fear of financial distress are not determinant of capital structure. It implies that the higher the cost of debt, increased possibility of financial distress and heightened caution from parent company reduces the amount of debt in firms' capital structure. In a similar study

[4] examined the determinants of capital structure in Nigerian listed firms for ten years from 2007 to 2011. The variables focused on against leverage of sampled firms were tangibility, size, growth, profitability and age of the firms. Data was gathered from secondary sources and analysed using panel multiple regression. Their findings show that size, age, growth, profitability and tangibility are strong determinants of leverage

in Nigerian firms. He recommended that in carrying out their debt financing decision, financial managers should deploy and properly measure size, age, growth, profitability and tangibility of the firm to have an excellent funding mix for their companies. Profitability occurred in the two studies as a strong determinant of capital structure because if a company makes a higher profit, it might decide to invest part of the profit and cut down on debt financing.

[25] studied the relationship between capital structure and firm performance evaluation measures of a sample of 400 companies listed on the Tehran stock exchange. The study covered industrial groups for the period 2006 to 2010. The return on assets ratio (ROA) and return on equity ratio (ROE) were the variables used to measure the financial performance of companies. Results indicate a significant negative relationship between debt ratio and financial performance of businesses, and a significant positive correlation between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures. But the relationship between ROA and ROE measures with the company age is not significant. Also, some of the studied industries have an effect on business performance. Besides, research results show that by reducing debt ratio, management can increase the company's profitability and thus the amount of the company's financial performance measures and can also increase shareholder wealth.

[1] evaluated the relationship of capital structure decisions with the firm performance for the engineering sector of Pakistan. He found that short-term debt and total assets have a significantly adverse effect on the financial results of the business measured by return on assets. The higher cost of debt and strong covenants attached to the use of debt in Pakistan explained the negative relationship. Further, short-term debt and total assets and total debt and total assets have a significantly negative correlation with the gross profit margin representing the performance of the firm. Also, long-term debt and total assets have a positive impact on the result of the company due to long-term financing obtained by some of the large size companies on reasonable rates.

[3] examined the capital structure and firm value. The study analysis all the 34 companies listed on the Ghana Stock Exchange (GSE) for the year ended 31st December 2010. The study used ordinary least squares method of regression for the analysis. The result of the study reveals that in an emerging economy like Ghana, equity capital as a component of the capital structure is relevant to the value of a firm, and Long-term debt was also found to be the major determinant of a company's value. It is consistent with the findings of Myers and Majiluf's (1984) pecking order theory, Myer's (1984) trade-off theory, and the traditionalist approach. However, it is inconsistent with M&M (1958) theory and Millers (1977) hypothesis with corporate and personal taxes, who found out that long-term debt, is not related to firm's value. Based on their findings, they strongly advised corporate financial decision makers to employ more of long-term debt than equity capital in financing their operations since it impacts more on a firm's value.

3. Methodology

This study adopted *an ex-post facto* design in investigating the impact of capital structure on the financial performance of quoted construction and real estate companies in Nigeria. Judgmental sampling technique was used to select five enterprises of a population of ten (10) construction and real estate companies listed on the Nigeria stock exchange based on the fact that their Annual Reports and Accounts disclosed the data needed for the study. The research sourced data from Annual Reports and Accounts of the construction and real estate companies quoted on the Nigerian stock exchange for ten consecutive years (2005 – 2014). Pooled Ordinary Least Square Regression Analysis was used to analyse the data gathered for the purpose of this research because it combined time series for several Cross-Sections.

This study adopted the model used in [5] to capture the impact of Capital Structure on firm's financial result, and modified it to suit the present study by introducing control variables (liquidity ratio and short-term debt). Thus, the model is specified below:

EPS = f (Equity, LTD, STD, LQR)

ROCE = f (Equity, LTD, STD, LQR)

ROE = f (Equity, LTD, STD, LQR)

ROA = f (Equity, LTD, STD, LQR)

Where:

EPS = Earnings per share, ROCE = Return on capital employed,

ROE = Return on equity, ROA = Return on assets,

LTD = Long-term debt, STD = Short-term debt, LQR = Liquidity Ratio.

Explicitly, the model can be specified thus:

$EPS = \beta o + \beta 1EQT + \beta 2LTD + \beta 3STD + \beta 4LQR + \mu t$

$ROCE = \beta o + \beta 1EQT + \beta 2LTD + \beta 3STD + \beta 4LQR + \mu t$

$ROE = \beta o + \beta 1EQT + \beta 2LTD + \beta 3STD + \beta 4LQR + \mu t$

$ROA = \beta o + \beta 1EQT + \beta 2LTD + \beta 3STD + \beta 4LQR + \mu t$

Where:

B1… β2 represent the coefficients of the explanatory and control variable

EQT = Equity, LTD = Long-term debt, STD = Short-term debt, LQR = Liquidity ratio

μt = error term

$\beta 1\ \beta 2\ \beta 1\ \beta 2\ \beta 1\ \beta 2\ \beta 1\ \beta 2\ \beta 3\ \beta 4\ \beta 3\ \beta 4\ \beta 3\ \beta 4\ \beta 3\ \beta 4 \geq 0$

Where: β0 β0 β0 β0 = represent intercept, β1…. B4 = represent the impact of equity, long term debt, short term debt and liquidity ratio on earning per share, β1…. B4 = represent the impact of equity, long term debt, short term debt and liquidity ratio on return on capital employed, β1…. B4 = represent the impact of equity, long term debt, short term debt and liquidity ratio on return on equity and β1…. B4 = represent the impact of equity, long term debt, short term debt and liquidity ratio on return on assets. The control variables (short term debt and liquidity ratio) were introduced to overcome the problem associated with simple regression analysis and multicollinearity.

3. Data Analysis and Presentation of Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.782976	3.536128	1.352602	0.2341
EQT	1.73E-06	2.93E-06	0.590606	0.5805
LTD	2.92E-11	3.37E-08	5.999868	0.0003
STD	4.60E-10	1.33E-09	2.344794	0.0243
LQR	0.007318	0.224966	0.032529	0.0053
R-squared	0.742427	Mean dependent var		2.696400
Adjusted R-squared	0.733631	S.D. dependent var		2.391521
S.E. of regression	2.792690	Akaike info criterion		5.198740
Sum squared resid	38.99559	Schwarz criterion		5.350033
Log likelihood	-20.99370	F-statistic		78.40006
Durbin-Watson stat	1.853913	Prob(F-statistic)		0.002278

Table 1: Dependent variable EPS

Source: Authors' computation (2015)

EPS = -8.541326 + 1.31E-5(EQT) + 1.08E-7(LTD) + 8.28E-9(STD) – 0.1659LQR

From the above table, the coefficient of determination (R^2) is 0.785. It shows that variations in the explanatory variables (EQT, LTD, STD, and LQR) caused 79% of the variation in firm performance (proxy by EPS. It also means that the error term captured less than 21% of the change in the model. And this shows that the line of best fit is highly adapted. The Durbin-Watson statistics is 3.020592 which is more than 2, indicates the likely presence of autocorrelation in the regression equation. The value of F-statistics is 64.57005, and the value of the probability of F-stat is 0.0032. The result implies that the calculated F-statistic of 64.57005 is greater than the tabulated F-statistics of (5.35147). On the other hand, the probability value of profitability of F-statistics is 0.0032 which is less than 0.05. Based on this result, we conclude is that the overall regression is statistically significant at 5%

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.541326	8.052064	-1.060762	0.3373
EQT	1.31E-05	6.66E-06	1.967658	0.0062
LTD	1.08E-07	7.67E-08	1.413232	0.0167
STD	8.28E-09	3.04E-09	2.723961	0.0416
LQR	-0.165922	0.512266	-0.323897	0.0291
R-squared	0.785408	Mean dependent var		17.17922
Adjusted R-squared	0.613734	S.D. dependent var		10.23196
S.E. of regression	6.359192	Akaike info criterion		6.844532
Sum squared resid	202.1966	Schwarz criterion		6.995825
Log likelihood	-29.22266	F-statistic		64.57005
Durbin-Watson stat	3.020592	Prob(F-statistic)		0.003218

level of significance. It means that all the component of the capital structure is taken together significantly impact on EPS. And based on this we conclude that capital structure has a statistically significant effect on the performance of the firms proxy by EPS.

Table 2: Dependent variable - ROCE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17.19505	9.766767	-1.760568	0.1386
EQT	3.09E-05	8.08E-06	3.818629	0.0124
LTD	7.14E-08	9.30E-08	0.767911	0.4772
STD	1.91E-08	3.68E-09	5.191153	0.0035
LQR	-0.732533	0.621355	-1.178929	0.2915
R-squared	0.890511	Mean dependent var		33.98108
Adjusted R-squared	0.802919	S.D. dependent var		17.37493
S.E. of regression	7.713394	Akaike info criterion		7.230646
Sum squared resid	297.4823	Schwarz criterion		7.381939
Log likelihood	-31.15323	F-statistic		10.16662
Durbin-Watson stat	2.237948	Prob(F-statistic)		0.012798

Source: Authors' computation (2015)

ROCE = 4.782976 + 1.73E-06(EQT) + 2.92E-11(LTD) + 4.60E-10(STD) + 0.007318(LQR)

The coefficient of determination (R^2) is 0.74. It shows that differences in the explanatory variables (EQT, LTD, STD, and LQR) were responsible for 74% of the variation in firm performance (proxy by ROCE). It also means that the error term captured less than 26% of the change in the model. And this shows that the line of best fit is highly adapted. The Durbin-Watson statistics is 1.8 which is approximately 2, demonstrates the absence of autocorrelation in the regression equation. The value of F-statistics is 78.40006, and the value of the probability of F-stat is 0.0022. The result implies that the calculated F-statistic of 64.57005 is greater than the tabulated F-statistics of (5.35147). On the other hand, the probability of F-statistics has a value of 0.0032 which is less than 0.05. Based on this result, we conclude at 5% level; the regression result is significant. It means that all the component of the capital structure is taken together significantly impact on ROCE. And based on this we conclude that capital structure has a statistically significant effect on the performance of the firms proxy by ROCE.

Table 3: Dependent variable - ROE

Source: Authors' computation (2016)

ROE = -17.19 + 3.09E-5(EQT) + 7.14E-7(LTD) + 1.91E-9(STD) – 0.732LQR

The coefficient of determination (R^2) is 0.8905. It demonstrates that variations in the explanatory variables (EQT, LTD, STD, and LQR) caused 89% of the variation in firm performance (proxy by ROE). It also means that the error term captured less than 11% of the change in the

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.361106	9.672084	0.037335	0.9717
EQT	2.37E-06	8.00E-06	-0.296186	0.0390
LTD	1.49E-07	9.21E-08	1.621979	0.0057
STD	2.08E-10	3.65E-09	0.056996	0.9568
LQR	0.014912	0.615331	0.024234	0.9816
R-squared	0.839337	Mean dependent var		2.727520
Adjusted R-squared	0.809194	S.D. dependent var		7.603743
S.E. of regression	7.638618	Akaike info criterion		7.211163
Sum squared resid	291.7424	Schwarz criterion		7.362456
Log likelihood	-31.05582	F-statistic		35.99502
Durbin-Watson stat	2.126915	Prob(F-statistic)		0.003892

model. And this shows a highly fitted line of best fit. The Durbin-Watson statistics is 2.237948 which is more than 2, indicates the likely presence of autocorrelation in the regression equation. The value of F-statistics is 10.16662, and the value of the probability of F-stat is 0.012798. The result implies that the calculated F-statistic of 10.16662 is greater than the tabulated F-statistics of (5.35147). On the other hand, 0.0032 which is the value of the probability of F-statistics is less than 0.05. Based on this result, we conclude is that the overall regression is statistically significant at 5% level of significance. It shows that all the component of the capital structure is taken together significantly impact on ROE. And based on this we conclude that capital structure has a statistically significant effect on company performance proxy by ROE.

Table 4: Dependent variable – ROA

Source: Authors' computation (2015)

ROA = 0.361106 + 2.37E-06(EQT) + 1.49E-07(LTD) + 2.08E-10(STD) + 0.014912(LQR)

The coefficient of determination (R^2) is 0.839337. It implies that changes in the explanatory variables (EQT, LTD, STD, and LQR) were responsible for 83% of the variation in firm performance (proxy by ROA). It also means that the error term captured less than 17% of the change in the model. And this shows a highly fitted line of best fit. The Durbin-Watson statistics is 2.1 which is more than 2, illustrates the presence of autocorrelation in the regression equation. The value of F-statistics is 35.99502, and the value of the probability of F-stat is 0.003892. The result implies that the calculated F-statistic of 35.99502 is greater than the tabulated F-statistics of (5.35147). On the other hand, the value of the probability of F-statistics is 0.003892, which is less than 0.05. Based the on this result, we conclude that the overall regression is statistically significant at the level of 5%. What the result shows is that all the component of the capital structure is taken together significantly impact on ROA. And based on this we conclude that capital structure has a statistically significant effect on the performance of the firms proxy by ROA.

5. Discussion of Findings

The researcher considered the test of significance, which is the T-statistic in testing the hypotheses. In Table 1, the regression coefficient of EQT in the estimated regression line is 1.31E-5 which implies that the changes in EQT were responsible for about 0.000131% of the increase in EPS within the period under study. The computed t-statistics for the parameter estimates of EQT is 1.968. The tabulated t-statistics is 1.13. In the regression, the value of the computed t-statistics for EQT is greater than the value of the tabulated t-statistics. This finding indicates that the relationship between EPS and EQT is positive and statistically significant. The regression coefficient of LTD in the estimate regression lines is 1.08E-7, which implies that LTD accounted for 0.0000108% of the increase in EPS within the period under study. The computed t-statistics for LTD is 1.43. The tabulated t-statistics is 1.13. The value of the computed t-statistics for LTD is greater than the value of the tabulated t-statistics. This finding indicates that the relationship between EPS and LTD is positive and statistically significant. This finding is in line with our econometric a prior theoretical expectation that equity, long-term debt, liquidity ratio and short-term debt have a positive effect on earnings per share. This finding collaborates with the result of Dare and Sola (2010) in their research on the relationship between capital structure and corporate performance in Nigeria petroleum industry. They found out that there was a positive correlation between earnings per share and leverage ratio.

In Table 2, the regression coefficient of EQT in the estimated regression line is 1.73E-6 which implies that the changes in EQT accounted for about 0.0000173% of the increase in ROCE within the period under study. The computed t-statistics for the parameter estimates of EQT is 0.590606. The tabulated t-statistics is 1.13. In the regression, the value of the computed t-statistics for EQT is less than the value of the tabulated t-statistics. This finding indicates that the relationship between ROCE and EQT is positive but statistically insignificant. The regression coefficient of LTD in the estimate regression lines is 2.92E-11, which implies that the changes in LTD accounted for 0.00000000292% of the increase in ROCE within the period under study. The computed t-statistics for LTD is 5.999868. The tabulated t-statistics is 1.13. The value of the computed t-statistics for LTD is greater than the value of the tabulated t-statistics. This finding indicates that the relationship between ROCE and LTD is positive and statistically significant.

In Table 3, the regression coefficient of EQT in the estimated regression line is 3.09E-5 which implies that the changes in EQT accounted for about 0.0309% of the increase in ROE within the period under study. The computed t-statistics for the parameter estimates of EQT is 3.818. The tabulated t-statistics is 0.0124. In the regression, the value of the computed t-statistics for EQT is greater than the value of the tabulated t-statistics. This finding indicates that the relationship between ROE and EQT is positive and statistically significant. The regression coefficient of LTD in the estimate regression lines is 7.14E-7, which

implies that the LTD accounted for 0.0000714% of the increase in ROE within the period under study. The computed t-statistics for LTD is 0.7679. The tabulated t-statistics is 0.477. The value of the computed t-statistics for LTD is greater than the value of the tabulated t-statistics. This finding indicates that the relationship between ROE and LTD is positive and statistically significant. Also, the result shows that if all the explanatory variables are held constant, an increase in the capital structure of the firms will lead to an increase in return on equity of the companies. This result is not consistent with the result of [5], [12], [25] that there is a significant and adverse relationship between capital structure and Return on equity. On the other hand, [1] found that capital structure has a weak connection with the financial performance of the firm measured by return on equity.

In Table 4, the estimated regression line shows 2.37E-6 as the coefficient of EQT implying that the changes in EQT accounted for about 0.000237% of the increase in ROA within the period under study. The computed t-statistics for the parameter estimates of EQT is -0.296186. The tabulated t-statistics is 0.0390. In the regression, the value of the computed t-statistics for EQT is less than the value of the tabulated t-statistics. This finding indicates that the relationship between ROA and EQT is positive but statistically insignificant. The regression coefficient of LTD in the estimate regression lines is 1.49E-07, which implies that the changes in LTD accounted for by 0.0000149% of the increase in ROA within the period under study. The computed t-statistics for LTD is 1.621979. The tabulated t-statistics is 0.0057. The value of the computed t-statistics for LTD is greater than the value of the tabulated t-statistics. The findings of this study indicate that a positive but statistically significant correlation exists between return on assets and capital structure. But the findings does not collaborate with that of [12], [5], whose study revealed a significant relationship between capital structure and return on assets while [25] found a negative correlation between capital structure and return on assets.

Conclusion

The result of our study portrays that capital structure has a significant impact on firms' financial performance based on the following performance proxies (Earnings Per Share, Return on Capital Employed, Return on Equity) but does not significantly influence return on assets. In line with our finding, we strongly recommend that firms (both highly and lowly geared) should take into cognizance the amount of leverage incurred because it is a significant determinant of firm's performance. Also whatever source of finance that construction and real estate companies choose to adopt in funding their business activities, their managers should consider those sources of fund that can enhance returns and also increase the performance of the organisation. The firms should invest in assets that will generate positive returns so as to improve their return on assets.

References

1. Khan, A.G. (2012), "The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan", *International Journal of Accounting and Financial Reporting, Vol.* 2, No. 1,pp.245 - 262

2. Pirashanthini S, and Nimalathasan, B. (2013), "Caoutal Structure and firm values: An empirical study of listed Manufacturing firms in Sri Lanka", *Merit Research Journals,* Vol. 1, No. 6, pp 86 - 91
3. Antwi, S., Mills, E.F.E.A., and Zhao, S. (2012), "Capital structure and firm value: Empirical evidence from Ghana", *International Journal of Business and social science,* Vol. 3, No. 22, pp.103 – 111
4. Chandrasekharan, C.V. (2012), "Determinants of capital structure in the Nigerian Listed firms", *International Journal of Advanced Research in Management and social sciences, Vol.* 1, No.2, pp.108 – 133
5. Appah, E., Okoroafor, E., and Bariweni, B., (2013), "Capital structure and the operating performance of quoted firms in the Nigeria Stock Exchange". *Research journal of finance and accounting,* Vol. 4, No. 5, pp.6 - 23
6. Arowoshegbe, A., and Idialu, J. (2013), "Capital structure and profitability of quoted companies in Nigeria", *International Journal of Business and social Research (IJBSR),* Vol. 3, No. 3, pp.99 - 106
7. Okeke, C. (2016), "X-raying Real Estate Contributions to Gross Domestic Product", Retrieved Fromhttp://leadership.ng/news/513409/x-raying-real-estate 21st October, 2016
8. Brickstone.com, (2016), "Construction Financing in Nigeria", Retrieved from http://brickstone.com.ng/construction-financing-in- 25th October, 2016
9. Allen, G., Bhattacharys, S., Rajan, R., and Schoar, A. (2008), "The contribution of Stewart Myers to the Theoryand Practice of Corporate Finance", *Journal of Applied Corporate Finance*, Vol. 20, No. 4, pp. 1 – 13.
10. Akinlo, O. (2011), "Determinnts of Capital Structure:Evidence from Nigerian Panel Data", African *Economics and Business Review,* Vol. 9, No. 1, pp.1 – 16
11. Muritala, T.A (2012), "An empirical analysis of capital structure on firms' performance in Nigeria", *International Journal of Advances in Management and Economics,*Vol.1, No. 5, pp. 116 – 124
12. Ahmad, Z., Abudullah, M.H.N. & Roslan, S. (2012), "Capital structure effect on firms performance: Focusing on consumer and Industrials sector on Malaysian firms", *International Review of Business research papers,* Vol. 8, No. 5, pp. 137 – 155.
13. Murray, Z.F., & Vidhan K.G. (2003), "Testing the pecking order theory of capital structure", *Journal of financial Economics,* Vol.67, 217 – 248
14. Pandey, I.M. (2005), *Essentials of Financial management*, 4th Reprint, New Delhi, Vikas Publishing House PVT Ltd.
15. Eriksson, M. and Hede, J. (1999), Optimal Capital Structure – A case study of three real estate companies, Masters' Thesis, Graduate Business School, School of Economics and Commercial Law, Goteborg University, pp1 - 134
16. Shen, G. (2012), "How does capital structure affect firms performance: Recent evidence from countries", (n.d). Retrieved from http://.arno.uvt.nl/show.cgi 12th Octobr, 2016.
17. Modugu, K.P. (2013), "Capital structure decision: An overview", *Journal of finance and bank management, Vol.* 1, No.1, pp. 14 - 27
18. Min-Tsung C. (2009), "Relative effects of debt and equity on corporate operating performance: A quartile regression study", *International Journal of Management,* Vol.26, No.1, pp.142
19. Twairesh, M. A. E. (2014), "The Impact of Capital Structure in Firm's Performance Evidence From Saudi Arabia", *Journal of Applied Finance and Banking*, Vol. 4. No. 2, pp. 183 – 193.
20. Simon-Oke, O.O., & Afolabi, B. (2011), "Capital structure and industrial performance in Nigeria (1997-2007)", *International Business and Management,* Vol. 2, No. 1, pp.100 - 106
21. Dare, F.D., and Sola. O. (2010), "Capital structure and corporate performance in Nigeria a petroleum industry: Panel data analysis", *Journal of Mathematics and Statistics,* Vol. 6, No. 2, pp. 168 – 173
22. Babalola, Y. A. (2012), "The Effect of Optimal Capital Structure on Firms Performance in Nigeria", *Journal Emerging Trends in Economic and Management Sciences (JETEMS),* Vol. 3 No. 2, pp. 131-133
23. Barine, M.N. (2012), "Capital structure determinants of quoted firms in Nigeria and lessons for corporate financing decisions",

Journal of finance and investment analysis, Vol.1, No. 2, pp. 61- 81

24. Pouraghajan, A., & Malekian, E. (2012), "The relationship between capital structure and firm performance evaluation measures: Evidence from the Tehran stock Exchange", *International journal of Business and Commerce,* Vol.1 No. 9, pp.166 – 181