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Effect of Capital Structure on Firm Performance (A Study of Selected Quoted Banks in Nigerian Stock Exchange)

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Abstract:

The rationale of this study is aimed at investigating the relations between capital structure and firm performance within the banking industries in Nigeria using a sample 15 quoted banks in Nigerian stock exchange. Annual time series data were sourced from stock exchange fact book including the annual financial statements of 15 banks quoted in Nigerian stock exchange. This study covers 29 years period between 1985 -2013. Econometric procedure of ordinary least square (OLS) Augmented Dickey Fuller (ADF), Unit Root test, Johansen co integration test and Error Correction Model (ECM) were employed in the empirical analysis. R^2 , Regression Coefficient, Probability value, T-Statistics and F-Statistics were used to determine the extent to which the independent variable can affect dependent variable. Return on investment was used as a measure of firm's performance. The capital structure measure includes (long-term debt and equity capital) as independent variables. The results indicate that firm performance which is measured by return on investment have a positive and significant relationship on equity capital. Moreover there exist a negative and significant relationship between debt capital and return on investment. Consequently, it is recommended that firms should use more of equity capital than debt in financing their business activities.

Keywords: *Capital structure, firm performance, equity capital, long-term debt*

1. Introduction

Over the years, most business activities in Nigeria have suffered setback as a result of inadequate capital, unplanned capital structure and illicit decisions taken by the business owners etc. Some of them have been compelled to close down including banks that cannot meet up the capital base requirement from the regulatory bodies (CBN). Managers of these organizations are facing an uphill task in choosing the best capital structure that will improve the overall performance of the firm.

Capital structure is the main aspect of company's financial policy. It refers to the way in which the long term capital requirement of the company is finance (that is relative proportion of debt and equity). In other words, should a firm obtain its fund through equity or through debt or combination of equity and debt? It can also indicate the whole long-term capital requirement in a firm business. The entire fund raised including bonds, loans from financial institutions, preference share capital, debenture and ordinary share capital can be regarded as capital structure. Capital structure could also include capital surplus and earned revenue.

Companies especially banks should have adequate capital structure which is very important in the management of the firm. This is because the higher the capital structures of a firm, the greater the return on investment. But small firms failed to plan their capital structure which adversely affects their performance. These firms might do well within the short period of operations but they face difficult situations in the long-run operations.

The financial managers are faced with issues not only implementing the decisions that will increase the performance of the firm but identification of how, when and where to raise fund for their investment purposes. However, before managers decides on how and when to acquire funds for the firm investment, the organization must take a decision on the best source of capital structure for the firm. What should be the optimum mix of debt and equity in the capital structure of the firm? What proportion of the funds needed that must be sourced internally? And what proportion must come from external sources in form of equity capital and debt capital?

According to Ogbulu 2012, the highest capital structure always at a point where the equity and debt maximizes the performance of the firm and the firms performance is been maximized provided that the financial manager of the firm is able to identify and balance return and risk. This can be said to be true as a result of risk and return trade off involved in a firm.

Akinsulire (2002) in his analysis pointed out that the firm will have capital structure depending on how the firm manage and finance the operations of the company. He further states that "how" consists of three ways, which include: preference share, ordinary share capital, and debt capital.

Pandy (2004) stated that if the capital structure decision can affect a firm's performance; therefore there will be evidence that firms would have a capital structure that increases the performance of the firm. He further pointed out that the decisions made by the capital structure of firm should be looked or viewed from the point of how it affects the performance of the firm both positively and negatively.

There are signs that numerous studies have completed studies on impact of Capital structure on the performance of the firm which have indicated clashing results. Some studies all over the world both the developed and developing countries have shown that capital structure affect the performance of the firm positively. While others have uncovered that a capital structure of the firm can be influenced adversely on the firm performance. A few researchers concur the existence of connectivity between capital structure and the performance of the firm (Hung, et. al. 2002). (Tsangaao, et.al 2009, Saeed and Mahmoodi 2011). Abor, 2005, Oke and Afolabi, 2008 presumed that both positive and negative connection exist between capital structure and firm performance. Different studies have a positive relationship (Chowdhury, 2010). Going by all these misunderstanding and inconsistent results, the quest to examine the connection between the effect of capital structure and the performance of the firm continue.

1.1. Research Hypotheses

The following are the research hypothesis for this study:

H₀₁: There is no significant relationship between equity capital and return on Investment of banks quoted in Nigerian Stock Exchange.

H₀₂: There is no significant relationship between long-term debt and the return on Investment of banks quoted in Nigerian Stock Exchange.

2. Review of Related Literature

2.1. Issues on Theoretical and Conceptual Framework

The theoretical foundation of capital structure was propounded by Modigliani and Miller in (1958). This theory posits that the capital structure decisions are irrelevant in the value of firm's determination.

This is because there are no taxes, asymmetric information, bankruptcy cost, market prices and market efficiency. Therefore, the performance of a firm is not affected by how the firm is financed. That is capital structure is irrelevant in firm determination of capital structure. This indicates that market value of a firm is achieved by its risk of underlying assets, earning power and the independent of the way firms chooses to finance its investment. Though, they later make another proposition in consideration of taxes. The theory become more and more confused but the main idea is that, there is no difference whether the firm is being financed or funded by equity capital or by long-term debt.

Theory of "trade-off" capital structure came into existence to criticise the assumption made by these two men (i.e. Modigliani and Miller). It states that since the Modigliani and Miller theory assumed to be true is not achievable therefore, capital structure is being determined under trade off theory. It indicates that the biggest capital structure is accomplished by adding charges cost included in distress, in finances and organization cost yet holds the presumptions of business sector proficiency which recommend that firm target influence is driven. This hypothesis depends on the capital market inefficiency and market to do well which could be attributed to problem of using debt capital.

Most firms are facing with the problem of choosing between equity and debt, especially in funding their long-term investment opportunities. The larger volume of debt a firm uses to finance its operation depend on the amount of interest on debt, financial distress cost, income taxes, imperfections in the market, taxes that are refuse to pay and corporate income etc. A decrease in the rate of interest especially on long term debt will bring about increase in the desire of the firm. Financial distress could be increase provided that there is increase in leverage.

Firms might find it difficult to satisfy a required service obligation, which could lead not only administrative expenses and legal expenses but also bankruptcy. An increase in leverage of the firm will lead to firm's stock unattractive to investors and this is as a result of increase in financial distress. As a result, firms (banks) would find it difficult in raising fund to meet investor demand. Lenders will lend their money at high interest rate; trade creditors will use stiffer measures in transacting their businesses.

The optimum capital structure usually occurs or determined by trade-off theory within the corporate leverages and increased cost of financial distress. Both investment tax, Agency cost, tax shields, bankruptcy costs and cost of finance is a function of an optimum capital structure of the firm. An Increase in size of debt or amount of debt within the firm capital structure will increase the performance of the firm to the extent where it maximises the firm performance. To this extent, any additional increases in leverage will lead increase in the firm average cost of capital and which will also affect the performance of the firm in the market. And this the reason why Velnampy (2005) states that every organization is utilizing a ton of cash in different activities. Its prosperity is relying upon the capacity to produce profitability that ought to be re-invested into the business for its survival. Sander (1998) make use of assumption that capital structure uses the highest equity and debt i.e. the trade-off, packing order and the irrelevance of capital structure on firms. Fluck (2009) assert that company should finance its operations through external sources and if they could not meet up the required fund, they should use not only the retained earnings but also long-term debt for investment purposes.

The relevance of capital structure can said to be explained using three categories of agency theory. These include:

(a) Effect of asset substitution: the firm has the sole responsibility to undertake project that are considered to be risky provided that it will increase the performance of the firm. Therefore, the higher the risk of any projects the higher the return.

(b) Flow of cash: a firm that invests in an unprofitable venture will find it difficult to function. Therefore, firm performance can be destroying if the management deemed it necessary to invest in a project that will not improve the overall performance of the firm.

(c) Underinvestment issues: there are issues arise from investment. These issues have to do with when organization entrusted their fund in a project that will not increase the performance of the firm. E.g. banks extending loans to its customers without collateral.

Jensen and Meckling (1976) found that firm managers are finding it difficult to put the interests of the shareholders at heart. As a result, leverage ratio need to be increase (Wilbricht and Pinegar 1989). By increasing the level of leverage ratio, it will compel managers to carry out investment opportunities that will increase the performance of the firm. Perhaps, manager will be abdicated provided that they invest in unprofitable ventures.

In the words of Boodhoo (2009) shareholders prefer high leverages. This is because debt is use to examine the managerial decisions and behavior. For instance, increased leverage will affect agency cost negatively; decrease inefficiency in managerial and consequently, improving firm and managerial performance (Aghion et al., 1999). The duty of the financial manager in the organization is to manage the resources allocated to him in a way that it will bring proceed to ordinary shareholders. This is because shareholders are interested in profit maximization.

The theory of Pecking Order in capital structure has a scale of preference in choosing the best sources of fund to an organization. It states that firms should use the internal source of fund in financing their businesses, but if the internal sources are depleted external sources should be considered. In other words, if the funds raised internally are small then firm should source externally (Myers and Majluf; 1984)

2.2. Empirical Works on the Capital Structure and Firm's Performance

This study analyzes the performance of quoted banks registered on the Nigerian Stock Exchange from 1985-2013. There have been growing concern and controversies on the effect of capital structure and firm performance

Ong and Teh (2011) carried out a study on the capital structure and firm performance of construction companies in Malaysia for a period of four years (2005-2008). Long-term debt to capital, debt capital to assets, debt to market value of equity, debt to value market esteem, debt to common equity, long-term debt to common equity were utilized as intermediaries as the free variables (capital structure) while return on capital, return on equity, earning per share, operating margin and net margin were utilized to as corporate value or performance. The outcome shows that there is relationship between capital structure and performance of these organizations.

Oke and Afolabi (2011) examined the effect of capital structure on modern performance in Nigeria involving five listed firms with debt financing, equity financing and debt : equity financing as dependent variables for capital structure while profitability effectiveness as a measure on performance. The equity and debt financing demonstrates a positive relationship however a negative relationship between debt financing and performance.

Ebaid (2009) explores the effect of capital structure decision on performance of sixty-four firms between 1997 to 2005 in the Egyptian capital business sector. He utilizes three bookkeeping based measures; which incorporated ROA, ROE and gross net revenue, he inferred that capital structure decisions, by and large, has no effect on firm execution.

Saeed et al. (2013), utilizing various regression models in investigating the effect of capital structure on performance in Pakistani quoted banks between 2007 to 2011. Performance was used as measured by return on-assets, return on equity and earnings per shares. But, short-term debt to capital ratio, long-term debt to capital ratio and total debt to capital ratio was used as the determinants of capital structure. Their outcome demonstrates that there is a positive relation between determinants of capital structure and performance of banking industries in Pakistan exchange

Fosu (2013) examine the relationship between capital structure and firm performance, utilizing a specific modern rivalry as a part of South Africa. He found that the budgetary influence has significant positive outcome on firm performance.

Zeitun and Tian (2007) completed a study on capital structure and corporate performance using Jordanian Firms between 1989-2003. they concluded that there exist a negative connection between corporate performance and capital structure.

Holz (2002) in his study found that debt proportion (capital structure) associated emphatically with the firm performance, the outcome credits to the willing of firm's supervisors and managers to fund projects that will improve the performance of the organization. As a result, lending banks will consider the feasible projects before granting loan and advances to investors.

Margraves and Psillaki (2010) demonstrated additionally that budgetary influence (debt proportion) associated emphatically and essentially with firm performance. However, Akinyomi (2013), utilized assembling firms chose from the nourishment and refreshment commercial enterprises and between five years period (2007-2011) he used theory of pecking order and static trade-off view point. He correlation analysis was used which revealed that debt to capital, short-term debt to total debt, debt to common equity and firms age have a positive significant relations between return on equity and return on asset. However capital to long-term debt is related to return on equity and asset return. He therefore concludes that there is a relationship between capital structure and financial performance.

In the same way, Shehu (2011), made use of fifteen firms sampled out of thirty-two quoted insurance companies in Nigeria ranging between a period of eleven years (i.e. 2001 to 2010). Multiple regression analyses was deployed which shows that profitability variable assist the theory of pecking order. While tangibility variable supports the theory of growth, theory of trade-off and agency theory. In the same way, the size variable supports the asymmetry of information theory.

Appah, Okoroafor and Bariweni (2013), using 32 quoted companies in Nigeria Stock Exchange between 2005 and 2011, a seven years period. They employed the panel study which indicated that long-term debt, short-term debt and total debt are significantly negative with firm performance. Non-tax debt and liquidity also shows negative relationship with performance while tangibility and efficiency has a positive relation with performance of the firm.

Onalapo and Kajola (2010) carried out a study on effect of capital structure and firms performance in Nigeria, using non-monetary firms somewhere around 2001 and 2007 (seven years period). They infer that capital structure negatively affects association's money related measures. Therefore, this confirmation appears in backing of agency cost theory. Pratomo and Ismail (2006) led a study on the

capital structure and performance using Islamic Banking in Malaysia. They infer that there is a relationship between equity capital and profitability.

Aburub (2012) also conducted an investigation on the impact of capital structure on the firm performance. He used thirty-eight quoted companies in Palestinian stock exchange for a period of four years between (2006-2010). He demonstrated that there are positive relations between firm performance and capital structure.

Chandrasekharan (2012) investigated that growth, firm's size and firm's ages have a significant relation with debt ratio. But tangibility of assets and profitability does not relationship. Although, he used eighty-seven firms that mainly quoted in Nigerian stock exchange between 2007 and 2011.

Céspedes et al. (2010) carried out investigation on the capital structure and ownership in Latin America. Though, the sample was too large but they concluded that leverage firms and ownership have a strong positive relationship. Their result also shows that there is a positive relation involving growth variables and leverage but a negative relation exist between leverage and profitability.

In an investigation carried out by San and Heng (2011) between capital structure and corporate performance also in Malaysian stock exchange between (2005-2008). The concluded that a significant relationship exist between capital structure and corporate performance. Again, Sogorb (2005) conducted a research on impact of small and medium companies in Spain between 1994 and 1998. He found that; (a) Profitability and tax reserve have a negative relationship with capital structure. (b) Assets structure of companies have a positive relationship with capital structure and (c) Both growth and size of the firm have a positive relationship with capital structure.

Fosberg and Ghosh (2006) conducted a research in New York stock exchange with two-hundred and forty-four registered companies. They found that there is a negative relationship between capital structure and return on asset.

Babalola (2014) used thirty one manufacturing firms between 1999 and 2012. Triangulation analysis was used which shows that there is a trade-off between capital structure, cost and benefit of debt. The implication is that high firms retain high performance than low firms. Another investigation was carried out by him using multiple regression analysis between 2000 and 2009. That is 10 years period. He concluded that a company involved in the manufacturing process in Nigeria is in line with the theory of trade-off.

Taiwo (2012) carried out an investigation in stock exchange in Nigeria within a given period of 5 years (2006 to 2010). He employed a multiple regression analysis which shows that firms do not make use of fixed assets composition to their total assets.

Roden and Lewellen (1995), in their analysis in which he adopted forty-eight samples using firm in USA between 1981 and 1990. He concluded that there is a positive relationship between capital structure and profitability in US firms.

According to Mesquita and lara (2003), there is a negative relation between long-term debt and rate of return. They further states that there is positive relation existing for equity capital and short-term financing.

Fama and French (2002) posit that there is a strong connection connecting firm performance and capital structure. They went further to states that both firm performance and capital structure can be affected negatively. In other word, firms that have high profit usually have small risk of financial distress

Abor (2005) in his analyses, using a Ghanaian stock market firms, states that there is a strong and adequate connection linking profitability and capital structure for a given period of four years (1998 and 2002). While using regression analysis, he noticed that a relation exist in short-term debt and return on equity capital positively.

There are issues relating to taxation and debt financing according to Meziane (2007). Interest is supposed to be paid before payment of tax and then dividend payment are usually made after payment of tax. As a result, cost of equity is statistically significantly greater than cost of debt.

There is a negative but significant association according to Pathak (2011) between performance of the firm and debt capital. This study was carryout in developing country which is inconsistence with western world. High cost of borrowing in developing economies such as Nigeria was a major determinant factor.

3. Methodology

The research design used in this study is ex post facto one. The procedure or mechanism used for data collection was majorly on stock exchange facts book and Nigerian stock exchange annual report. This contains all the quoted deposit money banks in the exchange. The targeted population for this study includes all the Deposit money banks quoted in Nigerian stock exchange between 1985-2013. The sample consists of fifteen quoted banks in Nigerian stock Exchange between 1985-2013. The null hypothesis was formulated through the literature review to test the level of significant relationship between capital structure and firm performance in Nigerian stock exchange. Estimation procedures involving unit root test, Johansen co-integration and error correction model was deployed in this study.

3.1. Model Specification

The model specifies that the return on investment (Proxy) is significantly influenced by equity capital and long-term debt.

Using econometric model, the model can be presented as:

$$ROI = f(EQTY, DEBT) \dots \dots \dots (1)$$

The variables are defined as follows:

- ROI – Return on Investment
- EQTY – Equity Capital
- DEBT – Long term Debt

The model can be restated mathematically as:

$$ROI_t = \alpha_0 + \beta_1 LOG(EQTY)_t + \beta_2 LOG(DEBT)_t + \varepsilon_t \dots \dots \dots (2)$$

b₀, b₁, and b₂ are parameter estimate

Where;

The apriori expectation is b₁, b₂, b₃, > 0

ε_t = Stochastic error term

4. Results and Discussion

The time series data are used to find out the data that are non-stationary and data that are stationary through the use of Augmented Dickey-Fuller (ADF) the results are presented below;

Variables	ADF Statistics	McKinnon’s Critical Values			Order of integration	Prob.
		1%	5%	10%		
ROI	-7.462176	-3.689194	-2.971853	-2.625121	1(0)	0.0000
EQTY	-4.902131	-3.699871	-2.976263	-2.627420	1(1)	0.0005
DEBT	-3.739196	-3.699871	-2.976263	-2.627420	1(1)	0.0115

Table 1: Presentation of ADF Unit Root Test Result (Test of Stationarity)

Source: Author’s Computations using E-VIEWS 7.0

In the table above, the results of stationarity (unit root) tests indicate that the Computed Augmented Dickey-Fuller test statistics for all the series variables are in absolute terms, generally, higher than their corresponding McKinnon’s critical values at levels of significance respectively. Accordingly, all the study variables are confirmed stationarity in their first difference 1(1) except Return on Investment which is stationary at level 1(0) and fit for employment in subsequent econometric estimates.

Date: 07/21/15Time: 12:29				
Sample (adjusted): 1987 2013				
Included observations: 27 after adjustments				
Trend assumption: Linear deterministic trend				
Series: ROI EQTY DEBT				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.779490	60.01727	29.79707	0.0000
At most 1 *	0.443052	19.19837	15.49471	0.0132
At most 2	0.118180	3.395715	3.841466	0.0654
Trace test indicates 2 cointegratingeqn (s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Table 2: Presentation of Johansen’s Unrestricted Co-Integration Rank

Source: Author’s Computations using E-VIEWS 7.0

The Johansen co-integration result shown in Table 2 indicates that the null hypothesis does not have the presence of co-integration and therefore will be rejected. The test results above indicate a co-integrating relationship between dependent and independent variable. We therefore agree that there is existence of long-run relationship between the dependent variable (return on investment) and independent variables (equity capital, long-term debt).

Therefore, we can accept that changes from the relationship can occur as a result of any effect on short-run. For instance, Error Correction Model or mechanism was adopted to examine the short-run relationship between the dependent and independent variables. Therefore, having established Co-integration, an Error Correction Model (ECM) is specified to take into actions on the effect of capital structure and firm performance on the short run dynamics.

Dependent Variable: D(ROI)				
Method: Least Squares				
Date: 07/21/15 Time: 12:37				
Sample (adjusted): 1986 2013				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOG(EQTY))	37.12113	58.09175	0.639009	0.0086
D(LOG(DEBT))	-30.30314	29.17865	1.038538	0.0490
ECM(-1)	-0.679909	0.180640	-7.639006	0.0000
R-squared	0.704713	Mean dependent var		0.123632
Adjusted R-squared	0.681090	S.D. dependent var		146.3069
S.E. of regression	82.62261	Akaike info criterion		11.76740
Sum squared resid	170662.4	Schwarz criterion		11.91014
Log likelihood	-161.7436	Hannan-Quinn criter.		11.81104
Durbin-Watson stat	2.174754	F-statistic		81.61035

*Table 3: Estimates of the Error Correction Model
Source: Author's Computations using E-VIEWS 7.0*

The ECM estimation results (Table 3) shows that the dependent variables are totally accounted for approximately 68.1 percentage changes in long-term debt, criterion variable. The Durbin-Watson statistics (2.17) is within the acceptable range and shows no presence of auto correlation.

The Error Correction Model (ECM) is negative sign and it statistically significant at 5% level. The absolute value of the coefficient of the error correction term indicates that about 68% of the disequilibrium in the level of long-term debt is offset by short run adjustment in each year. The associated F-Statistic value of 81.61035 is significant at 0.05 level of significance, which confirms a good line of fit. The estimation results show that the predictor variables Equity capital and Debt capital are statistically significant in explaining variability in Return on Investment (ROI) of banks quoted in Nigerian stock exchange at 5% level of significance. The probability coefficient of Equity capital (EQTY) is 0.0086 and that of long-term debt (DEBT) is 0.0490, both of which are less than 0.05 level of significance and indicating a significant relationship with the Dependent variable, Return on Investment (ROI). However, against a priori, long-term debt capital shows a negative relationship with Return on Investment, indicating that as the long-term debt capital increases, Return on Investment decreases.

4.3. Test of Hypotheses

Having performed the analysis, we proceed to test the hypotheses formulated in chapter one above to enable us discuss our findings

- Hypothesis One: There is no significant relationship between Equity capital and Return on Investment of banks quoted in Nigerian stock exchange

From the results of the Error Correction Model, we notice a positive and significant relationship between Equity capital and Return on Investment. From the results estimates, the probability coefficient of relationship between Equity capital and Return on Investment is 0.0086. This figure is less than 0.05 our preferred level of significance and the decision rule is that if the probability coefficient is greater than 0.05 we accept the Null Hypothesis, if otherwise we reject. There, we reject the Null Hypothesis of no significant relationship and conclude that there exists a positive and significant relationship between Equity capital and Return on Investment of banks quoted in Nigerian stock exchange between 1985 and 2013.

- Hypothesis Two: There is no significant relationship between long-term Debt and Return on Investment of the banks quoted in Nigerian stock exchange.

Still looking at the ECM results estimates, we find a negative and significant relationship between long-term debt and Return on Investment. Going by our decision rule, we look at the probability coefficient of the relationship between return on investment and long-term debt. The calculated probability estimates is 0.0490 which is still less than 0.05 our preferred level of significance. Therefore we reject the Null Hypothesis of no significant relationship and accept the Alternative Hypothesis. We conclude thus that there exists a negative and significant relationship between long-term debt and Return on Investment of banks quoted in Nigerian stock exchange.

4.4. Discussion of Findings

The study examined the relationship between capital structure and firm performance using banks quoted in Nigerian stock exchange. Fifteen banks listed on Nigerian stock exchange were employed. The Capital structure indicator (Equity) and (long-term debt) which serves as explanatory variables was considered with Return on investment (ROI) as performance indicator. The coefficient of error correction model term which measures the speed of the adjustment of the dependent variable (return on investment) at which equilibrium is restored (-0.6799) is significantly and correctly signed (negative) at 5% level of significant and therefore confirms our earlier propositions that our variables are co-integrated. The speed suggests that firm performance which is measured by return on investment is adjusting speedily to the long-run equilibrium changes in the explanatory variables. The speed implies that 67 percent of

the equilibrium in firm performance is corrected within a year. The following findings were made in the course of this research work. Thus;

- (a) There exists a positive and significant relationship between Equity capital and Return on Investment of banks quoted in Nigerian stock exchange between 1985 and 2013. This is in agreement with the traditionalist theories. They believed that capital structure is relevant in determining a firm performance.
- (b) There exists a negative and significant relationship between long-term debt and Return on Investment of banks quoted in Nigerian stock exchange from 1981 to 2013. This is in line with Mesquita and Lara (2003), pecking order theory of Myers and Majluf (1984) The implication is that as long-term debt increases by one percent, the return on investment decreases by four percent.

5. Conclusion

From the result and discussion above, we concluded that

- (a) There is a positive significant relationship between capital structure and firm performance using equity capital as measures of capital structure and return on investment as measures of firm performance. In other words, the study is in line with the traditionalist capital structure which states that capital structure is relevant in firm's performance determination.
- (b) There is a negative significant relationship between capital structure and firm performance using long-term debt as measures of capital structure and return on investment as measures of firm performance. We therefore conclude that an increase in long-term debt will bring about decrease in return on investment. The Granger causality test on the other hand shows that a bi-directional causality between equity capital and return on investment of banks quoted in Nigerian stock exchange.

6. Recommendations

From the light of the above results, we therefore recommend that:

- a) Banks should consider leverages as the best source of finance and not only the best sources but also the most important factors for the performance of the firm.
- b) The quoted banks management in Nigeria should increase the use of equity capital in financing to improve earnings of their banks.
- c) The investors of listed banks in Nigeria ought to consider the capital structure of any bank before investing their resources into these banks as the quality of a bank's capital structure determine the level of returns. In spite of the fact that using debt financing is critical however it will get to a point where it will become hazardous to the bank.
- d) Above all, the Nigerian government should stabilize the economy so that business can thrive.

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Appendix 1

YEARS	Return On Investment (ROI) (%)	Equity Capital (EQTY) (#'Million)	Long-term Debt Capital (DEBT) (#'Million)
1985	18.7878	27949.10	17300.60
1986	53.24851	28438.70	41452.40
1987	30.79767	36789.10	100789.10
1988	6.954801	47029.60	133956.30
1989	18.8187	47049.60	240393.70
1990	5.75287	84093.10	298614.40
1991	12.7185	116198.70	328453.80
1992	30.40351	177961.70	544264.10
1993	149.4163	273836.40	633144.40
1994	30.7638	407582.71	648813.00
1995	126.4573	477733.93	716865.60
1996	0.357973	419975.56	617320.00
1997	49.54705	501751.15	595931.90
1998	30.8038	560830.21	633017.00
1999	69.55856	794806.60	2577374.40
2000	29.9632	898253.90	3097383.90
2001	39.38103	1016974.00	3176291.00
2002	55.4542	1166000.70	3932884.80
2003	68.69179	1257120.00	4478329.30
2004	63.11624	1297765.20	4890269.60
2005	51.7221	1275076.57	2695072.20
2006	34.451	2082007.30	451461.70
2007	47.4124	2941813.48	431079.90
2008	80.3905	2320310.00	493180.20
2009	355.7247	3228030.00	590441.10
2010	40.0043	4551820.00	689845.30
2011	30.0999	5622000.80	896000.80
2012	149.9283	6537000.50	1026000.90
2013	22.2495	7119000.00	1387000.30

Table 1: Research Data: The data presented below show the calculated Annual Value of Quoted banks Return on Investment (ROI), aggregate value of long-term debt and equity capital from 1985 to 2013
Sources: Stock Exchange Fact Book various issues/annual report