

## **IMPACT OF CAPITAL STRUCTURE ON THE PROFITABILITY OF SELECTED QUOTED BANKS IN NIGERIA**

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### **Abstract**

*The study focuses on capital structure and profitability of selected quoted banks in Nigeria. The study was based on secondary data obtained from annual report of the selected financial firms found on the internet covering a period of 2004 -2015. The study adopted an ex-post facto research design and it considers variables such as capital structure and profitability which were proxy by shareholders equity, loan advanced and Bank performance, which was represented by profit after tax. The data obtained were analysed using descriptive statistic (i.e. mean and standard deviation) and inferential statistic (i.e. Pearson correlation coefficient). The result of the analysis reveals that there is significant relationship between capital structure and profitability because their proxy bank performance and debt finance showed a positive correlation of ( $P < 0.000 = 0.625$ ) and ( $P < 0.000 = 0.895$ ) which implies that there is statistical significant between profitability and capital structure of the selected quoted bank. Therefore, the study recommends among other things that investor must pay more attention to the capital structure mix of quoted banks before investing in them.*

*Keywords: Equity, Debt, Quoted companies, Investment decision, Financing decision, Capital*

## INTRODUCTION

One of the primary objectives of most of the quoted companies is to ensure that they satisfy all the stakeholders involved in the business. These often make managers of firms to develop various strategies that will help them to make the most appropriate financing and investment decisions that will aid the realisation of the firm's objective. In making financing decision, one of the priorities of the manager is to ensure that the firm adopts a healthy financing mix or capital structure by all means possible (Ogebe et al,2013).Furthermore, whether a business newly began operation or is an already existing business concerns, it often requires significant amount of fund to carry out its activities as no success is achievable in the absence of little or no fund. This fund is generally referred to as capital. Capital therefore refers to the means of funding a business. This capital can be derived from two main sources. These sources are internal and external sources. The internal source refers to the funds generated from within an enterprise which is mostly the retained earnings. Firms may in the same vein look outside to source for their needed funds to enhance their activities. Any funds sourced not from within the operation of the organisation are termed external financing. The external funding may be obtained by increasing the number of co-owners of a business or outright borrowing in form of loan. Issuance of equity helps in sourcing for fund through external financing leading to increment in the number of owners where its holders are entitled to dividends when surplus is declared and after meeting the important company's obligations. In the same vein, the equity holders exercise a greater decision control over the firm because they bear the larger share of risk. On the other hand, outright borrowings by a company make her a creditor to the lenders. This may be through issuance of debentures, bonds or other forms of debt instruments. The holders of these are entitled to a fixed amount of interest to be paid before the equity or shareholders are paid. However, they have lesser control over decision in the organization. According to Dare and Sola (2010), capital structure is the debt-equity mix of business finance. It is used to represent the proportionate relationship between debt and equity in corporate firms' finances. Therefore, in this context, the composition of equity and a long term debt in a firms' capital is what we mean by capital structure. This is in line with the definition Chen, Ying Hong and Hammes Klaus (2005) as a mixture of debt and equity financing of a firm. An optimal capital structure is the best debt/equity ratio of a firm, which minimizes the cost of financing and maximizes the value of the firm. The capital structure of a firm as opined by Dare and Sola (2010) can take any of the following three alternatives:100% equity: 0% debt, 0% equity: 100% debt or X% equity: Y% debt. From the above, option one is that of a purely equity financed firm, that is, a firm ignores leverage completely and its benefits in financing its business activities.

### **Statement of the problem**

Capital structure mix is a major factor that constitute profitability of quoted banks in the world, this is because most banks with healthy mix of both equity and debt are to a large extent performing very well. However, most investors still make very poor investment decision, because they find it difficult to understand the trend of capital structure in most quoted banks. The problem of this study is to address some of the technicalities involve in understanding the capital structure of quoted banks in Nigeria.

### **Objective of the study**

The main objective of this study is to examine the impact of capital structure on profitability of selected quoted companies in Nigeria. While the specific objective is to

- ascertain the relationship that exists between bank performance and debt finance.
- determine the relationship between bank performance and equity finance.

### **Research Question**

- Does any relationship exist between bank performance and debt finance?
- What relationship exist between bank performance and equity finance?

### **Research Hypotheses**

Ho<sub>1</sub>: There is no relationship between bank performance (i.e.profit after tax) and Debt finance (i.e loan advanced)

Ho<sub>2</sub>: There is no relationship between bank performance and equity finance

## **LITERATURE REVIEW**

### **Conceptual Framework**

Capital structure refers to the firm's financing mix that exists between equity capital and a long term debt capital. The ability of banks to carry out their stakeholders' needs is tightly related to capital structure. Capital structure, in financial terms, means the way a firm finances its assets through the combination of equity and debt (Saad, 2010) Furthermore, Modern studies on capital structure dates back to more than fifty decades ago when the two American Economics - Modigliani and Miller (1958), published their seminar work. They proved that, under certain assumptions (existence of perfect market and the absence of taxes and transaction costs), costs of capital does not affect capital structure. That is; debt in a firm's capital structure does not affect the firm's value. This theory is normally referred to as irrelevant theory. However, they later, reviewed the irrelevant theory. Modigliani and Miller (1963) modified the irrelevant theory

by presenting proof that cost of capital affect capital structure and thus the value of the firm when the assumptions that there are no taxes or transaction cost were removed. They then opined that borrowing give a tax advantage, where the tax deducted from the interest results in tax shields, which in turn reduces the cost of borrowing and maximizes the firm performance (Miller, 1977). This requires the firm to make a trade- off between the cost of debt and the benefits of using debt.

## **Theoretical Framework**

### ***Modigliani and Miller theory***

According to the MM theorem, Modigliani and Miller (1958) capital structure theory operates under perfect market and that the finances of a firm are not related to its value in perfect market. The real world however does not operate on the assumptions pointed out by the MM theory. This brought about a new research named the static trade-off theory which focussed on the relationship between capital structure theories and firm performance. According to the static trade-off theory, the choice of a firm concerning the usage of debt finance or equity finance is based on the cost benefits related with each source of funds. The utilisation of debt can have the advantage tax saving and bankruptcy cost. Therefore in deciding the optimal capital structure, the company must strike a balance between the cost and benefits linked with each source.

### ***Pecking Order Theory***

Another group of capital structure theories is the pecking order theory. This theory stated that companies prefer internal financing (income, amortization) and only in a situation when internal cash flow is insufficient for activity financing, they reach for external capital (loans, credits. e.t.c). To serve as a last resort, companies launch own external financing, for instance conducting shares issuance. The static trade-off theory is in support of the relevance of the capital structure. The theory advocates that the capital structures of firms are optimal and they move in the direction of the target. The theory also opines that when debt is utilised in capital structure, firms have the challenges of tax benefit and bankruptcy cost. Therefore, this calls for a trade-off amongst the two.

## **Empirical Framework**

According to Harris and Raviv (1991), there are several firm's specific characteristics and industrial factors that determine the choice of leverage ratio as conducted in many empirical studies. Most of these studies agreed that leverage increases with fixed assets, non-debt tax

shields, growth opportunities, firm size and decreases with volatility, advertising expenditures, research and development costs, bankruptcy probability, profitability and uniqueness of the product. In the case of SMEs however, Joshua (2008) stated some heterodox qualities of capital structure to include: industry, location of the firm, entrepreneur's educational background and gender, form of business, and export status of the firm to explain their capital structure and who revealed that there is a positive relation between firm performance and capital structure. Salteh, et al (2012) investigated the impact of capital structure on firm performance, using five performance measures (including return on equity, return on assets, earning per share, market value of equity to the book value of equity and Tobin's Q) as dependent variable and four capital structure measures (including short-term debt, long-term debt and total debt to total assets, and total debt to total equity) as independent variable. They selected 28 Iranian companies listed in Tehran Stock Exchange (TSE) as a sample. The study covered 2005 to 2009. The results indicate that firm performance, which is measured by (ROE, MBVR & Tobin's Q) is significantly and positively associated with capital structure, while there is a negative relation between capital structure and (ROA, EPS). They concluded that firm performance is positively or even negatively related to capital structure. Skopljak (2012), using data of Australian 15 Deposit-taking Institutions (ADIs) over the period 2005 – 2007, study the effects of capital structure on performance in the financial sector in Australia, discovered a robust relationship between capital structure and firm's performance. He discovered that at relatively low levels of leverage an increase in debt leads to increased profit efficiency hence superior bank performance; at a relatively high level of leverage, increased debt leads to decreased profit efficiency as well as bank performance. The implications of this finding is that there is an optimal level of debt and that a bank can help optimize the performance of management and general bank performance by simply choosing a capital structure which optimizes managerial incentives while keeping financial distress relatively low. Khan (2012) studied the relationship of capital structure decisions with the firm's performance using 36 engineering firms in Pakistan listed on the KSE as sample for the period 2003 -2009 using the panel econometric technique, Pooled Ordinary Least Square regression. His findings show that financial leverage measured by short term debt to total assets (STDTA) and total debt to total assets (TDTA) has a significant negative relationship with the firm's performance measured by Return on Assets (ROA), Gross profit margin (GM) and Tobin's Q.

Pouraghajan et al (2012), carried out a study of the impact of capital structure on the financial performance of companies listed on the Tehran Stock Exchange. For this purpose, they tested a sample of 400 firm-years among Companies Listed on the Tehran Stock Exchange in the form of 12 industrial groups during the years 2006 to 2010. Variables used to

measure the financial performance of companies are return on assets ratio (ROA) and return on equity ratio (ROE). They discovered, from the results, that there is a significant negative relationship between debt ratio and financial performance of companies, and a significant positive relationship between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures. However, the relationship between ROA and ROE measures with the firm age is not significant. In addition, the 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. Based on the differing conclusions of the various researchers above, this topic, capital structure and firm performance will continue to attract attention of scholars and researchers as no definite conclusion has been reached concerning the impact of capital structure on firm performance.

## **METHODOLOGY**

### **Research Design**

This study is based on the ex-post-facto research design, since it uses previously generated data to predict current behaviour of variable considered in this study.

The data used for the study were obtained from online annual financial report of the five(5) selected banks considered in this study and these banks are Stanbic-Ibtc, Wema, First, UBA and Diamond bank.

### **Model Specification**

$$BP = a + \beta_1EQ + \beta_2DB + \mu \text{----- } 1)$$

Where:

BP = Bank Performance as measure by PBT

EQ= Bank Equity finance

DB= Bank Debt finance (Loan advanced)

$\mu$  = stochastic term (error term)

### **Data Analysis Approach**

The data obtained were analysed using Descriptive Statistics (i.e. Mean and Standard deviation) and Inferential Statistics (i.e. Pearson Correlation Coefficient)

## ANALYSIS AND FINDINGS

### Descriptive Statistics

Table 1. Descriptive Statistics

Variables	Minimum	Maximum	Mean	Standard Deviation
Bank performance	-4,582.1	49,118.2	16.779.5	14,661
Equity Finance	16,543.5	23,839.6	43,681.1	73,110.5
Debt finance	12,110.2	14,321.5	28,441.9	15,110.2

The descriptive statistic above shows that the bank performance represented by profit after tax has an average profit of N16.779.5m which is between minimum loss value of N4.582.1m and N49.118.2m while the standard deviation is N14.661m, furthermore, the above statistic also shows that Equity finance represented by shareholders equity has an average profit of N43,681.1m which were between the minimum value of N16,543.5m and Maximum value of N23,839.6m with standard deviation N73.110.5m. While the final variable Debt Finance represented by loan advanced has average profit of N28,441.9m which range from a minimum value of N12,110.2m to a Maximum value of N14,321.5m and a standard deviation of N15,110.2m The descriptive statistic interpretation for all the variables above establishes that bank performance has the highest variation in value because it records the highest values for all the descriptive parameters used.

### Hypotheses Testing

Ho<sub>1</sub>: there is no relationship between bank performance (i.e. profit after tax) and Debt finance (i.e. loan advanced)

Table 2. Pearson Correlations Coefficients

		Bank Performance	Debt Finance
Bank performance	Pearson Correlation	1	.625
	Sig. (2-tailed)		.000
	N	12	12
Debt Finance	Pearson Correlation	.895	1
	Sig. (2-tailed)	.000	
	N	12	12

The Pearson correlation coefficient statistic above reveals that bank performance and Debt Finance have statistical significant relationship because they both show a positive value of 0.625 and 0.895 and this implies that bank performance changes immediately the debt finance improves, this also means that both variable have proportional relationship with each other. These accounts for the reason why most successful banks ensure that there is stable/Optimal trend in their debt structure since these has significant relationship with performance of the organisation.

Ho<sub>2</sub>: There is no relationship between bank performance (i.e. profit after tax) and equity finance (i.e. Shareholders equity).

Table 3. Pearson Correlations Coefficients (a)

		Bank Performance	Equity Finance
Bank performance	Pearson Correlation	1	.625
	Sig. (2-tailed)		.000
	N	12	12
Equity Finance	Pearson Correlation	.722	1
	Sig. (2-tailed)	.000	
	N	12	12

The Pearson correlation coefficient statistic above reveals that bank performance and Equity finance have critical relationship with each other since they both demonstrate a positive value of 0.625 and 0.722 and this infers that bank performance changes immediately the equity finance increases, This likewise implies that both variable have corresponding association with each other, which is also a strong motivation that drives most successful banks to seek equity finance as one of the best approach to improve their performance.

## CONCLUSION AND RECOMMENDATIONS

The study concludes that capital structure significantly determines the profitability of the selected quoted banks. This is because the proxy of these variables (bank performance, equity finance and debt finance) showed positive values of 0.625, 0.895, 0.722 which demonstrates that there is statistical significant relationship between the variables considered. Therefore based on these findings the study advances the following recommendations;

- i. Management of Nigerian banks should consider the use of more debt (i.e. should have an optimal perspective for debt usage) in their capital structure mix as this will have an automatic effect of reducing the overall cost of capital as a result of its tax advantage that accrue to the organisation when this decision is taken, and this often could lead to enhanced financial performance of the organisation.
- ii. Management of quoted banks having problem with their performance should consider issuing of shares to new shareholders as this will help to provide equity finance which can significantly help to improve the performance of the bank.
- iii. Investor of quoted banks in Nigeria should pay more attention to the trend in the capital structure mix of quoted banks before investing in them because this often determine determines amount of return that is expected from such banks.

### **SUGGESTIONS FOR FURTHER STUDIES**

This study basically looks at Impact of capital structure on the profitability of selected quoted banks in Nigeria, it represents the capital structure and profitability variables with proxy such debt finance (loan advanced), Equity finance (Shareholders equity and bank performance (profit after tax) respectively. But, to have a more detailed understanding about capital structure there is need to observe the following topics:

- i. Impact of capital structure on stock market behaviour of quoted companies in Nigeria
- ii. Appraisal of capital structure and financial performance of quoted companies in Nigeria.
- iii. Effect of capital structure on gearing of quoted companies in Nigeria.

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