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RESEARCH ARTICLE

LEVERAGE AND FINANCIAL PERFORMANCE: A STUDY OF SELECTED LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

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Debt Ratio, Debt to Equity Ratio, Return on Assets, Interest Coverage Ratio.

This paper focused on Leverage and Financial Performance, using a study of Selected Listed Deposit Money Banks in Nigeria, Deposit Money Banks tend to employ unordinary strategy in order to survive in the competitive environment. The most common method for banks to earn higher profit is to engage in high risk business activities as such this research investigated the relationship that exists between Leverage and Financial performance of Listed Deposit Money Banks in Nigeria. This study adopted a historical research design and ex post facto research design. The study also utilized panel data which simultaneously combines cross-sectional and time series data. The population of this study will consist of Thirteen (13) Deposit Money Banks, quoted in Nigeria (NSE, 2019). Using simple random sampling technique 5 Deposit Money Banks were selected. The study conducted a descriptive analysis and Ordinary least Square (OLS) regression technique and correlation was adopted to examine the relationship that exists between Financial Leverage and Financial performance. The result shows that Debt ratio (DR) has an insignificant positive relationship with Return on Assets (ROA) as indicated by the beta value of (0.345) and p-value of (0.058>0.05). There is a negative and significant relationship between Debt-equity ratio (DER) and Return on Assets as indicated by the beta value of (-0.016) and significant value of (0.010<0.05). The result also shows that Interest coverage ratio (ICR) has a positive and insignificant relationship with Return on Assets as indicated by the beta value of (0.004) and significant value of (0.096>0.05). On these grounds, the study concluded that there is a significant relationship between Leverage and Financial Performance of listed Deposit Money Banks in Nigeria. The study recommends that Deposit Money Banks management should ensure that financial decisions made by them are in consonance with shareholders' wealth maximization objectives which encompasses the profit maximization objective of the firm.

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INTRODUCTION

In the era of globalization and liberalization, banking is one of the primary sources in financing a country's economic activities. In order to promote a healthier economy, bank profitability is certainly one of the best tools to boost a country's growth and performance. Maximization of profit is a very crucial objective for a firm to remain in business and to withstand competition from firms operating in similar industry. It is a major pre-requisite for long-term survival and success of a firm while it is a key pre-condition for the achievement of other financial goals of a business entity¹.Profitability is a core measure of the performance of banks and it constitutes an essential aspect of its financial reporting. It reveals the firm's ability and capacity to generate earnings at a rate of sales, level of assets and stock of capital in a specific period of time².

Consequently, banks' profitability and modalities for improving it have generated serious debates in the literature and have remained topical in the field of economics, finance, accounting and management. However, due to the intermediation role of the banking system, higher returns may imply higher interest rates on loans. This informs a reason why monetary authorities are always poised to regulating the banking system. Increased regulations and counter deregulations have encouraged competition in the banking sector, and hence exposed banks to increased fragility. Banks may tend to employ unordinary strategy in order to survive in the competitive environment. The most common method for banks to earn higher profit is to engage in high risk business activities. Banks may involve in high risk loan disbursement activities because loans are the major instrument for banks to earn profit. To keep up with this level of activity they begin to dilute their capital structure by taking up loans themselves, as such the importance of financing decisions cannot be over emphasized.

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The finance factor is the main cause of financial distress⁴. Financing decisions result in a given capital structure and suboptimal financing decisions can lead to corporate failure. The objective of all financing decisions is wealth maximization and the immediate way of measuring the quality of any financing decision is to examine the effect of such a decision on the firm's performance. The capital structure puzzle involves a firm's decision that managers make a choice of ideal proportion of debt and equity that will minimize the firms cost of capital which is the optimal capital structure and in return maximizes shareholder's return. The capital structure of a firm consists of mix of internal and external sources of funds use to finance firms" asset. Financial leverage is the use of debt in a company's financial structure for magnification of earnings³. Finance managers are expected to choose the best option for a given resources to be funded and strike the right balance that can reduce cost and increase earnings for the shareholders. There are different schools of thoughts that have presented arguments on the optimal level of leverage that a firm should take. The ideal position can be ascertained by analysing the trade- off amongst the cost of bankruptcy and the tax advantage that firms save through charging of interest expenses⁶. Other historic work which disregards bankruptcy cost and tax advantage but focuses on the risk of leverage that will eventually make shareholders demand more compensation. For enrichment of high market value, firms and investors use different amalgamations of financial tools of debt and equity. Financial management make capital structure decisions to enhance returns of the firms in the area of corporate finance⁷.

The optimal capital structure maximizes profitability and shareholders' wealth. However, the effect of financial leverage on profitability may be positive or negative based on the productivity in the use of debt financing. A positive relation indicates that when the firms depend on debt as much as firm's needs; it will lead to enhance their performance. This explains why a financial manager depends on debt as financing source more than owner equity. If the effective debt ratio is exceeded, the firm would face financial difficulties and the positive effect of financial leverage might turn to negative⁸. Effective and efficient operations of the financial sector are very critical in any economy because the financial sector especially commercial banks serve as a fuel for running economic activities. Therefore, more attention has been focusing on how well banks are running. This calls for numerous studies on what drives bank profitability within a country, a region, and at the global level. This Study aims to determine the relationship that exists between Debt ratio, the ratio of Debts to Equity and ratio of Interest Coverage as components of financial leverage and Performance of Listed Deposit Money Banks in Nigeria.

Research Questions

Given the sensitivity and dynamics of the issues involved in this study, the study seeks to provide answers to the following questions:

- To what extent does Debt Ratio impact return on Assets? How does Debt to Equity ratio influence Return on Assets?
- Does Interest Coverage ratio affect Return on Assets?

Objective of the Study

The broad objective of this study is to investigate the relationship that exists between Financial Leverage and Financial performance of Listed Deposit Money Banks in Nigeria

To further determine the relationship that exists between Financial Leverage and Firm performance, the specific objectives below will be considered to:

- Ascertain the effect Debt ratio has on Return on Assets.
- Find out the influence Debts to Equity ratio has on financial performance of Deposit Money Banks.
-) Investigate the relationship that exists between Interest Coverage ratio

Review of Related Literature: In general context, financial leverage is the use of debt in a firm's capital structure. In finance, capital structure refers to the way a corporation finances its assets through combination of equity, debt or hybrid securities. A firm's capital structure is then the composition of its liabilities, for example, a firm that sells N20 billion in equity and N80 billion in debt, is said to be 20% equity financed and the firm's ratio of debt to total financing 80% in this example is referred to as the firm's leverage. Hence, a firm's capital structure is an indicator of the proportion of debt to equity.

The use of debt in a firm's capital structure is called financial leverage. The more debt a firm has, the greater is its degree of financial leverage⁹. Debt acts as a lever in the sense that using it can greatly magnify both gains and losses¹⁰. Hence, financial leverage increases the potential rewards to shareholders, but it also increases the potential for financial distress and business failures. The change in capital structure that is caused by an increase or decrease in the ratio of debt to equity is referred to as financial leverage¹¹. When a firm includes debt as a proportion of funds employed to finance its project, financial leverage is brought into being. Financial leverage is a company practice of the acquisition of part assets of the company with fixed interest capital with the hope of increasing ends results of the common stock holders. In theory, modern financial techniques would allow top managers to calculate accurately optimal trade-off between equity and debt for each firm. However, in practice; many studies found that most firms do not have an optimal capital structure. This is due to the fact that the managers do not have an incentive to maximize firm's performance because their compensation is not generally linked to it. Moreover, since managers do not share firm's profits with shareholders, they are very likely to increase company's expenditures by purchasing everything they like and surrounding themselves of luxury and amenities. Hence, the main concern of shareholders is ensuring that managers do not waste firm's resources and run the firm in order to maximize its value, which entails finding a way to solve the principal- agent problem. Financial leverage is the proportion of capital which is financed by debt as opposed to equity. Therefore, the higher the leverage, the higher the amount of debt in the capital structure of a firm.

Concept of Capital Structure: A firm's capital structure refers to the mix of its financial liabilities. As financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms. There are two different ways of financing the assets of an organization; through internal equity or external debt. Capital structure refers to the way a corporation finances its assets through some combination of equity and debt^{12.} These are common stock, preferred stock and retained earnings (untaxed reserves) as well as bank loans, bonds, accounts payable and line of credit. Capital structure according to Wikipedia refers to the way a corporation finances itself through some combination of equity, debt or hybrid securities. From these definitions, it is eminent that capital structure in summary refers to the structure of a firm's liability. Hence, the capital structure theory is highly relevant to the firm's safety and growth, as well as the debtholders" safeguard for a sustainable economy. How to plan financing decision using a particular means or mix of funding to maintain a proper capital structure is an important issue of concern demanding urgent for financing managers if their sectors is ever to play a major role in economic development. The ability of companies to carry out their stakeholders" needs is tightly related to capital structure

Concept of Leverage: Financial leverage is a measure of how much firms use equity and debt to finance its assets. A company can finance its investments by debt and equity¹³. Leverage and cash flow impact the degrees to which firms manage their earnings¹⁴. They continue that it depends on economic group or industry a firm belongs to their degree and extent of managed earnings varies. Company's employ financial leverage to earn more on the fixed charges funds than their costs. As debt increases, financial leverage increases. The major reason behind using financial leverage by company is to maximize the shareholders" fund under favourable economic conditions. The role of financial leverage in magnifying the return of the shareholders" is based on the assumptions that the fixed- charges funds (such as loan and debentures) can be obtained at a cost lower than the firm's rate of return on net assets¹⁵.

In general context, financial leverage is the use of debt in a firm's capital structure. In finance, capital structure refers to the way a corporation finances its assets through combination of equity, debt or hybrid securities. A firm's capital structure is then the composition of its liabilities for example, a firm that sells N20 billion in equity and N80 billion in debt, is said to be 20% equity financed and the firm's ratio of debt to total financing 80% in this example is referred to as the firm's leverage. Hence, a firm's capital structure is an indicator of the proportion of debt to equity¹⁶. The use of debt in a firm's capital structure is called financial leverage. The more debt a firm has, the greater is its degree of financial leverage. Debt acts as a lever in the sense that using it can greatly magnify both gains and losses. Hence, financial leverage increases the potential rewards to shareholders, but it also increases the potential for financial distress and business failures¹⁷. The change in capital structure that is caused by an increase or decrease in the ratio of debt to equity is referred to as financial leverage. When a firm includes debt as a proportion of funds employed to finance its project, financial leverage is brought into being. Financial leverage is a company practice of the acquisition of part assets of the company with fixed interest capital with the hope of increasing ends results of the common

stock holders. Leverage refers to the extent to which firms make use of their money, borrowings (debts financing) to increase profitability and is measured by total liabilities to equity. Leverage refers to the proportion of debt to equity in the capital structure of a firm. The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm.

Measuring Degree(s) of Leverage(s) Operating Leverage: Operating Leverage can be measured as the percentage change in Earnings before Interest Tax relative to a given change in turnover, i.e.:

% Change in Turnover

The following equation is also used for calculating

$$\frac{\text{DOL: DOL} - Q(S - V)}{Q(S - V) - F}$$

Where Qistheunito foutput, Sisthe unitsellingprice, Vistheunit variable cost, and Fis the total fixed costs.

Review of Relevant Literature and Previous Empirical works: Previous studies had been carried out, by other researchers on the relationship that exists between Financial Leverage and Financial performance of firms. Attempt has been made here, on some of the past studies to highlight on their findings in companies. A study investigating the trends of working capital management (aggressive and conservative policies) and its effect on firms" profitability and value. Using annual data for 59 industrial firms listed in Amman Stocks Market for the period of 2003 to 2011, the results show that following conservative investment policy by having high level of short-term investment have positive effect on the firm's profitability and value. However, following the aggressive financing policy has a negative impact on the firm's profitability and value. Finally, this study finds that firm Size, firm Growth and Growth Domestic Production (GDP) Growth has a positive impact on the firm's profitability and value with no effect of financial leverage, but financial leverage has a significant effect on firm value

METHODOLOGY

Research Design: This study adopted a historical research design and ex post facto research design. An ex post factor research design is a quasi-experimental study examining how independent variable affects a dependent variable .Panel data which simultaneously combines cross-sectional and time series data was adopted. Data was collected on Debt ratio, Debt to Equity ratio, Interest Coverage ratio, Firm size and Return on Assets.

Population of the Study: The population of the study consisted of fourteen (13) Deposit Money Banks quoted in Nigeria (NSE, August 2019).

Sampling Technique and Sample size: The study adopted a simple random sampling technique in selecting a sample size of 5 from a population of13 which will be studied for a period of 10 years (2008-2017).

Variables	Measurement
Dependent variable	
ROA	Earnings after Tax/Total Assets
Explanatory variables	
Debt ratio	This is measured by the total debt to total assets
Debt to Equity ratio	This is a measure of the proportion of debt to Shareholders' funds.
Interest Coverage ratio	Indicates the ratio of net operating income (or EBIT) to
	interest charges
Control variables	
Firm Size	Natural logarithm of book value of total assets
Source: Authors Compilation	

Table 4.1.1 Descriptive Statistics

Ν		Minimum	Maximum	Mean	Std Deviation	Skewness	Kurtosis
ROA	50	-0.0195	0.0571	0.02	0.0151	0.26	0.418
DR	50	0.7084	0.8796	0.8271	0.0423	-1.239	1.083
DER	50	2.4294	7.3051	5.0765	1.2615	-0.32	-0.58
ICR	50	1.1288	5.4196	2.3935	0.9718	1.086	1.024
FSIZE	50	8.6677	9.719	9.2466	0.2796	-0.227	-0.743
Valid N (listwise)	50						

Source: Research Findings

Table 4.2 Correlations

		ROA	DR	DER	ICR	FSIZE	
	Pearson Correlation	1					
ROA	Sig. (2-tailed)						
	N	50					
	Pearson Correlation	-0.087	1				
DR	Sig. (2-tailed)	0.546					
	Ν	50	50				
	Pearson Correlation	-0.16	.968**	1			
DER	Sig. (2-tailed)	0.266	0				
	N	50	50	50			
	Pearson Correlation	0.235	603**	616**		1	
ICR	Sig. (2-tailed)	0.101	0	0			
	Ν	50	50	50		50	
	Pearson Correlation	0.185	.687**	.695**	471*	*	1
FSIZE	Sig. (2-tailed)	0.199	0	0	0.001		
	Ν	50	50	50		50	50

**. Correlation is significant at the 0.01 level (2-tailed). Source: Research Findings

Table 4.3 Model Summary

Model	R	R Square	Adjusted R	Std. Error of	Durbin-	_
			Square	The Estimate	Watson	
1	.544a	0.296	0.234	0.01320262	1.734	

a.Predictors: (Constant), FSIZE, ICR, DR, DER

b.Dependent Variable: ROA

Source: Research Findings

Table 4.4 ANOVA^a

Sum of			Df	Mean	F	Sig.
	Squares			Square		
	Regression	0.003	4	0.001	4.736	.003b
1	Residual	0.008	45	0		
	Total	0.011	49			

a.Dependent Variable: ROA

b.Predictors: (Constant), FSIZE, ICR, DR,DER Source: Research Findings

The researcher adopted simple random because it gives equal chance to all members of the population to form the sample for possible examination. The secondary data was obtained from the firm's audited annual reports over a period of 10 years (2008-2017).

Measurement of Variables: The use of secondary data becomes necessary because, it captures past development which provides the needed background to establish degree of validity and reliability hence, they are prepared by professionals. In this study, various data analytical technique will be employed to process data collected.

Description of Variables

Method of Data Analysis

The study adopted Ordinary Least Square (OLS) regression analysis and Correlation to test the relationship between Financial Leverage and Financial performance of selected listed Deposit Money Banks using Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSION OF FINDINGS

This shows results of the descriptive statistics analyzed over the ten-year period. The table below shows descriptive statistics summary of the variables that were obtained from the analysis. Table 4.1 shows that the mean ROA of the deposit money banks was 0.0200 with minimum and maximum values of -0.0195 and 0.0571 respectively. This means that the average performance in financial terms for the deposit money banks was 2% with a standard deviation of 1.51%. The results also indicate that the average debt-ratio (DR) for the banks was 0.8271 with the minimum and maximum values being 0.7084 and 0.8796 respectively. The standard deviation value of 0.0423 means that the data for the debt ratio are clustered around the mean. The findings also found that the average value of debt-to-equity ratio (DER) was 5.0765 with minimum and maximum values being 2.4294 and 7.3051 whereas the average interest coverage ratio was 2.3935 with 1.1288 and 5.4196 as minimum and maximum values respectively. The average value of 2.3935 for interest coverage ratio implies that the sampled deposit money banks can service their interest charges or expenses for about two times during the period of the study. The results from table 4.1 also indicates that the average size of the banks in term of the natural log was 9.2466 with minimum and maximum value of 8.6677 and 9.7190 respectively. The skewness values were 0.260, -1.239, -0.320, 1.086 and -0.227 while the kurtosis values were 0.418, 1.083, -0.580, 1.024 and -0.743 respectively. The skewness and kurtosis values are less than -2 and +2 which indicates that the data is normally distributed.

Data Analysis and Interpretation Correlation Analysis: Correlation analysis was done on the study variables to test the degree of association amongst the variables. The table 4.2 below shows correlation analysis results. According to the correlation output (Table 4.2), the result shows that Debt ratio (DR) and Debt-equity ratio (DER) have negative relationship with Return on Assets (ROA). The strength of their relationship is indeed at -8.7% and -16% for Debt ratio (DR) and Debt- equity ratio (DER) respectively. It indicates that as Debt ratio (DR) and Debt-equity ratio (DER) increases, the Return on Assets (ROA) decreases and vice versa. The column of significance level of the table below shows that Debt ratio (DR) and Debt-equity ratio (DER) for this study are statistically insignificant with their Return on Assets (ROA). The results from Table 4.2 also indicate that Interest coverage ratio (ICR) has a positive relationship with return on asset (ROA) from the correlation coefficient of 0.235 which depicts a 23.5% relationship between interest coverage ratio and financial performance. However, this relationship is insignificant at all levels of significance (p=0.101). The control variable Firm size (FSIZE) also has a positive relationship with Return on Assets with coefficient value of 0.185 and statistically insignificant with return on asset (p=0.199). The objective of the research was to study and explain the relationship between financial leverage and financial performance of deposit money banks listed on the Nigerian Stock Exchange. The study focused on debt ratio, debt-equity ratio and interest coverage ratio as the independent variables and incorporated firm size as the control variable while financial performance measured using ROA was the dependent variable. The population of the study consisted of fourteen deposit money banks listed on the Nigerian Stock Exchange of

which five banks were selected using simple random sampling technique. The study made use of secondary data sourced from the financial statements of sampled banks for a period of ten years (2008-2017). The findings revealed that average ROA ratio for the deposit money banks was 0.0200 and that the mean debt ratio, debt-equity ratio and interest coverage ratio were 0.8271, 5.0765 and 2.3935 respectively. The findings also revealed that the average size value in terms of the natural log was 9.2466. Additionally, the findings found that debt ratio and debt-equity ratio had an insignificant negative correlation with financial performance (ROA) while interest coverage and firm size had a positive and insignificant correlation with financial performance of deposit money banks listed on the NSE. The findings revealed that the R-square value was 0.296; hence, an indication that the study variables explained 29.6% of the variation in the dependent variable (ROA) while 70.4 is explained by other factors outside the model and the error term. The ANOVA results found a significant relationship between the study variables. Additionally, the study found that debt ratio and interest coverage ratio had an insignificant positive relationship with financial performance while debt-equity ratio had a negative and significant relationship with financial performance and firm size had a significant positive relationship with financial performance of deposit money banks listed on the Nigerian Stock Exchange.

Recommendations

The study found that debt ratio has an insignificant positive relationship with financial performance of deposit money banks listed on the Nigerian Stock Exchange. Secondly, the study found that debt-equity ratio has a significant negative relationship with financial performance of deposit money banks listed on the Nigerian Stock Exchange. The study also revealed that interest coverage ratio has a positive and insignificant relationship with financial performance of deposit money banks listed on the Nigerian Stock Exchange. Finally, the results of the study showed that firm size has a positive and significant effect on the financial performance of deposit money banks listed on the Nigerian Stock Exchange.

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