

FINANCIAL LEVERAGE AND PROFITABILITY PERFORMANCE OF QUOTED BANKS IN NIGERIA

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Abstract

This study examined the relationship between financial leverage and profitability performance of Quoted Banks in Nigeria for nine (9) years period covering from 2013-2022. The specific objective was to investigate the effect of the explanatory variables, proxied on Debt ratio (DR), Debt-to-Equity ratio (DER) and the Interest Cover Ratio (ICR) on the denominator variable, profitability performance, proxied on Return-to-Equity (ROE). The study adopted the ex-post-facto research design to elicit secondary data for eleven (11) Banks as provided in the annual financial reports made available in the website of Nigeria Stock Exchange as at December, 2022. Eleven (11) banks were randomly selected and three (3) null hypotheses were postulated to guide the study. The result reveals that, financial leverage has no significant effect on DR and the DER of Quoted banks profitability performance in Nigeria, as evidenced in the t-value at -0.280 for DR and -1.283 for DER respectively. This led to the rejection of the null hypotheses one and two. The study concluded that, Bank managers should always weigh the cost benefits of fixed charge funds hence Nigeria is an emerging economy with volatile risk factors, and the government should also encourage the Quoted Banks in Nigeria to use borrowed funds by providing adequate shields and other financial incentives so as to increase gross domestic growth on the overall in the economy.

Keywords: Firms, Fixed Charges, Nigeria, Profitability, Debt, Equity.

1 Introduction

There has been a lot of debate among scholars and researchers on the best capital mix a firm should have, while some believe that a firm should have a minimal mix some hold the view that it is not so important even to consider a capital structure of a company. These views cut across the globe and have attracted enormous and inconclusive investigations into the relevance or effect of firm's capital balance on other variables of the firms, like return on investment and others. Leverage of course is one element that a company uses to operate its economics activities and it also reveals or state the financial status of a firm. This leverage has been defined therefore by Nwanna and Ivie (2017) as the proportion of debt to equity in the capital structure of a company and involves the extent to which a company uses both its equity capital and borrowing to increase its performance.

Similarly, Okeya (2019) sees leverage as an investment strategy of using borrowed money or trading stocks to increase the potential return on the investment of a firm and include financial and operating leverages. Therefore, leverage financing denotes the borrowing of capital by firm to affect economic activities of a particular firm interest. This is the firm's ability to generate or maximize fixed financial charges to increase earnings. Profitability on the other hand, is the excess money over expenses incurred which a firm can realize from a particular investment and within a given time. Nabel and Hussain (2017) have also described firm profitability as an indicator of how efficiently a firm has generated profit and value for its shareholders and often a higher ratio result is more favourable. These ratios provide much more information when compared to the results of similar firms, like the firm's own historical performance, or industry average. It is therefore, the positive earnings of firms under a particular consideration especially when the firm's performance with similar organization is obtained for comparison. Financial leverage refers to the percentage of debt to equity in the capital mix of a company (Nwanna and Ivie, 2017).

Therefore, it refers to the level to which a firm use both their equity and borrowing so as to increase their performance. It assumes that when funds are borrowed at a fixed rate, they can be invested and gain a higher amount and measured by the total debt to total assets, which is DR equals to total debt divided by total assets. It measures the actual proportion of debt to shareholder funds, (that is the network of a firm) in the total financing process. Lateef, Temitayo and Bamidele (2020) explained that this ratio shows how much naira was raised as debt for N1 of equity.

Shimenga and Miroga (2019) explained that it is a ratio similar to time interest earned ratio but recognizes firm lease assets and the long-term obligations under lease contracts, which is now becoming a newest form of financing firms. ICR therefore measures directly the total interest amount a firm pays out at a given time and its value ranges from zero to ten. According to Njeri and Kagiri (2013) a firm profitability refers to the measurement of efficiency and the ultimate success or failure of a firm and involves the firm's ability or capacity to return gain to a firm's investment.

One of the ways in which leverage affects profitability is in the way firms pay out money (interest) to the leverage provider's overtime, hence for every unit of interest a firm pays to the lender of the leverage facility, it reduces firms' profitability chances that would have accrued to the firms. On the other side, financial leverage has value due to the interest tax shield firms may enjoy when they borrow and it is a major incentive for firms to capitalize on the leverage over-time. Thus, the Debt to Equity decision has stimulated a lot of debate among financial writers and investigators across the world. Abiodun and Usman (2018) confirmed that there have been an ever increasing and growing variance and inconclusive agreements about Banks relate to the use of their various capital combination, which is sourced on either short or long-term bases. To determine whether Banks should be financed by Equity capital or borrowed capital it can only be established by continuous empirical investigations to back whatever decision which the managers of the bank will take.

2. Theoretical Framework

Three theories were found the most related to this study which are (i) Modigliani and Miller's (MM) theory, (ii) the Trader-off theory and (iii) the Pecking-Order theory. The theory has two dimensions; (i) the static and (ii) the dynamic trade-off positions. (Lateef, Temitayo and Bamidele, 2020). The pecking order theory was steamed by Myers and Mayluf in 1984 (Sayed, 2013). It states that, in financing a firm's investment it could be better achieved by taking a hierarchical order. First, through internal financing sourcing (firm retained earnings), followed by debt capital and lastly through equity. The theory as explained in Anifowose, Soyebbo and Tanimoyo (2020) states that firms prefer to finance new investment first internally because it is seen to be the least expensive while the second will be with debts, which is more expensive and by issuing a new equity will be more riskier. Amadu (2017) argued that firms would rather have their source capital raised internally first, then raise debts externally before using equity capital from external source (new shareholders). The theory is suggesting why debts should be considered the optimal option and assures an inverse relationship between leverage and performance. Gweyi and Karanga (2014) investigated the effect of financial leverage on the performance of forty (40) deposit-taking banks in Kenya from a period of 2010-2012. The study finds out that leverage ratios are positively affected by return on equity. Ilykhin (2015) investigated the relationship between financial leverage and firm's performance for a large sample of Russian joint stock companies over the period 2004 to 2013. The pooled OLS estimator results showed that leverage finance has negative relation with firm performance. Hassan (2014) investigated the effect of leverage finance on firm's performance by Saudi Arabian companies in the year ranging between 2000 -2013.

3. Statement of the Research Problem

There has been a lot of studies on financial leverage and firms' profitability in Nigeria and outside the country as found in Thaddeus and Chigbu (2012); Ongore and Kusa (2013); Sayed (2013); Njeri and Kagiri (2013); Gweji and Karanja (2014); Muhammad (2014); Enekwe, Agu and Eziedo (2014); Hassan (2014); Fosu (2015); Muhammad (2016); Nwanna and Ivie (2017); Ahmadu (2017); Akinyomi, Omokehinde and Olurin (2018); Shimenga and Miroga (2019); Adegboyega, Sunday and Taiwo (2019); Lateef, Temitayo and Bamidele (2020); Anifowose, Soyebbo and Tanimoyo (2020); Ilyukhin (2020); Mullins (2021); Yuanxin (2021) and lastly Myers (2021).

The prior studies mentioned above concentrated on the overall effect of capital structure proxies on profitability, measuring return on assets (ROA) and were conducted outside Nigeria, with mixed results and from different industries. While some studies in Nigeria focused on firm leverage and considered the liquidity measurement as a prime factor, others measured leverage against firm characteristics, yet the studies covered only a short term. Therefore, this study covers a longer-term effect in its period of scope and measures variables directly link to shareholder's interest, that is, return on equity (ROE). The study will contribute to existing knowledge in academia in its different constructs and will provide useful information to corporate managers in the quoted Banks sector in Nigeria.

3.1 Objectives of the Research

The broad objective of this study is to investigate the effect of leverage financing on firm's profitability by quoted Nigerian Banks. The specific objectives however of the study are:

1. To determine the effect of debt ratio (DR) on profit performance of quoted Banks in Nigeria.
2. To ascertain the effect of debt-Equity-Ratio (DER) on profit performance of quoted Banks in Nigeria.
3. To identify the effect of interest cover ratio (ICR) on profit performance of quoted Banks in Nigeria.

3.2 Research Hypotheses

In line with the stated objectives the following null hypotheses were postulated to guide the study.

1. There is no significant effect of debt ratio (DR) on profit performance of Quoted Banks in Nigeria
2. There is no significant effect of debt-Equity ratio (DER) on profit performance of Quoted Banks in Nigeria.
3. There is no significant effect of Interest cover ratio (ICR) on profit performance of Quoted banks in Nigeria

The study covered a nine (9) years period, i.e 2011-2020 and has financial leverage as its explanatory variable proxied in DR, DER and ICR, while the denominator variable proxied in ROE.

4 Methodology

This study adopted the ex-post facto research design to examine the effect of financial leverage on the profitability performance of Quoted Banks in Nigeria. The study used secondary data which were sourced from the financial reports of the sampled banks Quoted on the website of Nigerian Stock Exchange as at 31st December, 2022, covering the periods from 2011-2021 (nine (9) years period).

The twenty-two (22) Quoted banks in Nigeria constituted the study population and the researcher sampled eleven (11) using simple random technique in compliance with Shimenga and Miroga (2019), and the study made use of descriptive statistics, Pearson correlation and multiple regression techniques to analyse the data.

4.1 Model Specification

The developed compact model for this research is as thus:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \dots \Sigma_i$$

Where;

Y = Dependent variable

X = Independent variable

B₀ - Intercepting variable

b₁ - b₃ = coefficient for the independent variables X, denoting the nature of the relationship with dependent variable Y (or the parameters).

Σ_i = the error term

Therefore, the specific model for the variables measured was converted as thus:

$$(\text{ROE})_y^t = b_0 + b_1 (\text{DR})_y^t + b_2 (\text{DER})_y^t + b_3 (\text{ICR})_y^t + \Sigma_i$$

Where;

ROE = Return on Equity

DR = Debt ratio

DER = Debt-Equity Ratio

ICR = Interest Coverage Ratio

Σ_i = Error term

4.2 Variables Measured

The variables measured in this study are independent variables proxied by Debt Ratio (DR), Debt-Equity - Ratio (DER) and Interest-Cover-Ratio (ICR) and the Dependent variable proxied in Return to Equity (ROE) as shown in Table 3 as follows

S/N	Variables	Definition/Proxies
1.	Financial leverage (independent variable) proxied in DR, DER and ICR	DR = it shows the level of external funds borrowed at fix rate by a firm. Calculated by taking the total assets and dividing it with total debts DER = it shows the actual proportion of the debt to shareholders fund, reveals how much has been borrowed and utilized in proportion to shareholders' equity. Calculated by total debt divided into shareholders' equity. ICR = it measures a firm ability to pay for fixed - charges. Calculated by taking total interest and dividing it against earnings before tax and interest EBIT (Pandey, 2010).
2.	profitability performance (Dependent variable) proxied in return on equity (ROE)	ROE = it is a measure of firm's Performance. Calculated by dividing the net income by shareholders' equity i.e $\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders' Equity}}$ It is a gauge for firm profitability (Pandey, 2010).

Source: Compiled by the researcher, 2022.

5. Results and Discussions of Findings

5.1 Descriptive Statistics

This section provides a summary of the data gathered on the independent and dependent variables of the study as follows

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation	N
ROE	.0320	.06063	36
DR	.5844	.15721	36
DER	2.0260	2.00272	36
ICR	2.7576	5.24731	36

Source: Generated by the researcher using STATA 16.0 output, 2022

The descriptive statistics shows that over the period of investigation covered (nine (9) years) the profitability performance measured on DR, DER and ICR have a positive mean value which ranges from 0.5844 for DR to 2.7576 in ICR. The ICR and DER have the highest

standard deviation of 5.24713 and 2.00272 respectively. This implies that the observations in the data were widely spread. Table 1 also shows that DR has the lowest value of mean and standard deviation of 0.0320 and 0.6063 respectively. The relationship between the variables were tested using Pearson Correlation and the outcomes are presented in the following Table 2.

Table 2: Variables Correlations

		ROE	DR	DER	ICR
Pearson Correlation	ROE	1.000	-.424	-.470	.200
	DR	-.42.4*	1.000	.851	-.177
	DER	-.47.0*	.851	1.000	-.186
	ICR	20.0	-.177	-.186	1.000
Sig (1-tailed)	ROE	-	.005	.022	.122
	DR	.005	-	.000	.151
	DER	.002	.000	-	.138
	ICR	.122	.151	.138	-

Source: Generated by the researcher using STATA 16.0 output, 2022.

The correlation matrix shows that DR and DER have a negative relationship with ROE, while ICR has a positive relationship with ROE. The strength of their relationship is actually at -42.4, -47.0 and 20.0 for DR, DER and ICR respectively. It implies that as DR and DER increases ROA decreases and vice versa, while when ICR increases, the ROE also increases and vice versa. The column of significance level in Table 2 therefore indicates that, DR and DER for this study are statistically significant with their ROE, except ICR which has an insignificant relationship with the ROE.

Table 3: Model Summary

				Change Statistics						
Model	R	R ²	Adj. R ²	Std. Error of the Estimate	R ² change	F change	df1	df2	Sig change	
	.485a	.234	.164	.5545	.235	.3.284	3	32	0.33	1.571

a. Predictors: (constant), ICR, DR, DER

b. Dependent Variable: ROE

Source: Generated by the researcher using STATA 16.0 output, 2022

Table 3 shows the coefficient of multiple determination R-square which explains the extent to which the variables affect each other. In this sense, 0.235 or 23.5% of the variations in the dependent variable were explained by the independent variables while 0.765 or 76.5% were affected by other variables outside the independent variables. The adjusted R-square, a more conservative way of checking the coefficient is also less than 50% and indicates 0.164 or 16.4% of the variations in the dependent variable which is not found by the independent variable.

By implication it means that DR, DER and ICR are not the major determining factors of ROE (Profitability Performance) of the Quoted Banks in Nigeria. That, 0.836 or 83.6% of the

variations are determined by other factors. Table 3 also shows the level of significance at 0.033 with df (32, 2) and Durbin-Watson is 1.571

Test for Hypotheses

Table 4 Test for Hypotheses (Coefficients)

Model	Unstandardized Coefficient		Standard Coefficient		
	B	Std. Error	Beta	t	Sig
1 constant	.070	.053	-	1.316	.198
DR	.032	.113	-.082	-.280	-.781
DER	-.011	.009	-.378	-1.283	-.209
ICR	.001	.002	.115	.728	.472

Source: Generated by the researcher using STATA 16.0 output 2022.

Hypotheses One H₀₁:

There is no significant effect of DR on profit performance of Quoted Banks in Nigeria.

From Table 4, the t-value calculated of DR shows -0.280 which means that DR has a weak and negative relationship with ROE. It implies that the DR of the Quoted Banks in Nigeria could significantly be affected by profitability performance negatively. However, its significant level of 0.781 shows that, the t-value of DR is statistically insignificant. Thus, the weight of the evidence suggests that we reject the alternative hypothesis and accept the null that there is no significant effect of DR on ROE of Quoted Banks in Nigeria. This is in line with Modigliani and Miller (MM)'s theory which argued that, financial leverage issue is not a relevant factor when evaluating firm's profitability and the study of Ilykhin (2015), who also found a negative impact of financial leverage on Joint Stocks Companies profit performance in Russia.

Hypothesis Two H₀₂:

There is no significant effect of DER on-profit performance of Quoted Banks in Nigeria.

From Table 4, it shows that the t-value of DER stands at -1.283 is less than t^*2 which implies that DER has a negative effect on the profitability performance of Quoted Banks in Nigeria, by implication we reject the alternative hypothesis and uphold the null which means that DER has no effect on ROE of Quoted Banks in Nigeria. This result is in conformity also with Ilykhin (2015) and Shimenga and Miroga (2019) and further buttress the M-M's theory.

Hypothesis Three H₀₃:

There is no significant effect of ICR on profit performance of Quoted Banks in Nigeria.

From Table 4.1, the coefficient on ICR reveals that the t-value calculated is 0.728 which is also less than t^*2 and strengthened with a p-value of 0.472 greater than 0.05 level of significance. The weight is statistical evidence that the result has positive effect, by implication the null hypothesis is hereby rejected and the alternative accepted. That, there is an effect of ICR on the profit performance of Quoted Banks in Nigeria. The result supports the trade-off theory and suggests that, the Banks are utilizing fixed charges (leverage finance)

to enjoy the tax shield associated to it, and it is also in line with the studies of Gweji and Karanga (2014), and Adegboyega, Sunday, Joyeola and Taiwo (2019) who found a positive and significant effect of leverage and financial performance in their studies.

6. Summary of Findings

The summary of findings in this study are that:

- i. There is no effect of Debt ratio (DR) on profit performance of Quoted Banks in Nigeria
- ii. There is no effect of Debt-Equity-Ratio (DER) on profit performance of Quoted Banks in Nigeria.
- iii. There is effect of interest cover ratio (ICR) on profit performance of Quoted Banks in Nigeria.

7. Conclusion and Recommendation

7.1 Conclusion

On the overall, the findings in this study provides empirical evidence that for nine (9) years the Quoted banks policy on leverage financing has produced a good results in the ability of banks being able to pay for their fixed charges obligations but have yet to have their Debt Ratio (DR) and Debt to Equity Ratio (DER) well covered. The Quoted Banks have been geared with external funding (leverage capital) or fixed charges. That, despite the proportion of the fixed charges the Quoted banks in Nigeria are able to meet their debt obligations as a result of the tax shield and other risk factors which are adequately put under control to guarantee profitability abilities by the Banks in Nigeria.

7.2 Recommendation

Based on the conclusion, the following are proffered:

- i. That Quoted bank managers should try to rank their capital source by first starting with using internal financing i.e. retained earnings before employing borrowed capital, because Nigeria is an emerging economy and financial indexes could be very volatile or risky.
- ii. Government should encourage Quoted banks in Nigeria to borrow capital because of its multiplier impact, but the government should also support the banks with good rates of shield incentives and other measures that will encourage the banks so as to have adequate capital flow from the surplus spenders to the deficit spenders.

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