IMPACT OF DEBT AND EQUITY FINANCING ON THE PROFITABILITY OF DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The present investigation examined the influence of debt and equity financing on the profitability of Nigeria's deposit money banks, focusing on a sample of ten banks that were traded on the Nigeria Exchange Group between 2018 and 2023. The factors analyzed were retained earnings, share capital, long-term debt, and short-term debt. Several statistical and economic methods were adopted to analyze the data. The outcomes demonstrated that short-term debt and profitability had an adverse and insignificant connection. Likewise, it was noted that retained earnings and long-term debt had a detrimental and statistically negligible effect on profitability. Despite the positive association between share capital and profitability, it was insignificant. The research concluded that both debt forms, short-term and long-term and retained earnings have no significant implications on profitability of deposit money banks in Nigeria. In contrast, share capital, while positively related to profitability, did not exhibit statistical significance. Following these outcomes, the research recommended that banks minimize reliance on both short-term and long-term debt as sources of finance, given their negative effects on profitability. It is also suggested that banks focus more on increasing share capital and reconsider their retained earnings strategies for more efficient allocation towards high-yield investments.

Keywords: Equity, Debt, Profitability, Deposit Money Banks

JEL classification: G32

1. INTRODUCTION

Nigerian business organizations need finance to buy non-current assets, pay for daily operations, finance expansion, close the gap between production and sales, cover employee expenses, and take advantage of opportunities for business growth. A vital component of corporate operations is financing, which is also critical to

raising the company's worth. Debt financing, equity financing, financial institution credit facilities, convertible bonds, warrants, bond swaps, lease or hire purchase agreements, and a portion of retained profit are among the choices available to businesses (Akanji, Nwadiolor & Agubata, 2021). The profitability of a business is greatly impacted by the funding strategy chosen, therefore it's critical to comprehend how each alternative will affect things. Businesses are therefore always aware of their funding source. Companies that raise money by issuing additional shares tend to dilute ownership patterns, which can lead to significant changes in top management and board composition. Abor (2005) states that a company's capital structure is the mix of its debt and equity that guarantees development, expansion, profitability, and financial stability. Furthermore, financing managers must choose the optimal capital structures (equity, debt) for their business because loans may occasionally require collateral that is difficult to get. Because it has a direct impact on the competitive environment, selecting capital structure is one of the most important decisions that any organization must make. A company's capital structure consists of common equity, preferred equity, and long- and short-term debt (Saad, 2010). Debt financing, which is borrowing money from lenders, can supply the capital required for corporate operations, but it also raises the risk of financial trouble. However, equity financing, which entails giving investors' shares, can be a reliable source of funding but also dilutes control and ownership (Brealey et al., 2017).

The company can issue a wide range of securities in an infinite number of combinations. Finding the exact debt-to-equity ratio that optimizes the company's overall market value is crucial (Abor, 2007). Because this ideal balance of debt and equity lowers the firm's financing costs, astute and pragmatic business managers who can recognize and implement the right mix of debt and equity are rewarded in the marketplace. Since non-financial factors provide revenue and pre-financing profit streams, lowering financing costs maximizes net returns for the company, strengthening its competitive edge in the market (Danso & Adomako, 2014). One such firm-specific tactic employed by managers in their quest for increased profitability is the employment of varying degrees of debt and equity in the company's capital structure. In both small and large businesses, capital structure is crucial. To increase the firm's value, the corporations choose a strategy that combines debt and equity (Usman et al., 2022).

Having a robust financial sector is essential to the prosperity of any nation. Deposit money banks are vital because they serve the public and the government. When money deposits banks are struggling, corporate optimism and financial stability may suffer (Usman et al., 2022). Considering the significance of deposit money banks to nations, especially Nigeria, consideration should be given to the makeup of their financial systems. This study is significant because there isn't much research of this type carried out in Nigeria.

2. LITERATURE REVIEW

2.1 CONCEPT OF EQUITY FINANCE

In addition to common stock (share capital), preferred stock, share premiums, revenues reserves, capital surplus, retained earnings, and reserves in the financial statement, Choi (2014) defines equity capital as the shareholders' interest in the company's assets after liabilities are deducted. Share capital, which includes both common and preferred stock, is the sum of money raised by a business by the issuance of shares in return for cash or other consideration (Uzialko, 2017). In the finance sector, equity refers to a real estate holding share that might be countered by loans or other liabilities. Liabilities are subtracted from assets to determine a company's overall equity. An alternative way to calculate total equity is to sum up all the line items in the shareholders' equity section of the statement of financial position, which includes retained earnings, further paid-in-capital, and stock options.

The sale of firm shares to the masses, investors, or financially conscious institutions to obtain new funds is another name for equity financing. Investors are referred to as shareholders of the corporation since they purchase shares, which grants them ownership rights over the business (Akinkoye, & Akinadewo, 2018). Throughout a company's beginning phase, equity financing is especially important for financing plant assets and initial operating expenditure. An investor makes money when dividends are distributed or when the value of their shares' increases. Equity finance, which entails trading stocks of an organization for cash, is one method of raising funds to meet a business's financing concerns. When a company wants to raise equity to meet its liquidity needs, diversify, or grow, it must submit a prospectus that contains the firm's financial data. Additionally, the business must outline its plans for the money it has raised at a given point in time or period. Since it is a reliable indicator of a company's financial health, creditors, lenders, and investors must analyze this item. While a company with a negative equity balance may be on the edge of bankruptcy, one with a strong equity balance is better positioned to pay its debts. In contrast to publicly traded companies, privately held businesses have more options when seeking equity funding, including angel investors, crowd-funding sites, venture capital firms, and corporate investors.

2.1.1 ANGEL INVESTORS

Angel investors are rich investors who acquire interests in companies that they feel will grow in worth as time goes on. Investors typically provide their business knowledge, contacts, and experience, which benefits the organization in the long term.

2.1.2 CROWDFUNDING PLATFORMS

Crowd funding innovation enables an enormous number of people to make minor investments in a firm. The public prefers to invest in these businesses since they have faith in their values and anticipate obtaining a return on their investment. The minimum amount needed is calculated by totaling the public deposits.

2.1.3 VENTURE CAPITAL FIRMS

Venture capital firms are groups of investors who invest in businesses they think will grow rapidly and ultimately become public on stock exchanges (CFI, 2023). They invest large sums of money in businesses and receive a larger portion of the company than angel investors. This strategy is also known as private investment in equity.

2.1.4 CORPORATE INVESTORS

Corporate investors are big companies that lend money to private companies to meet their financial needs. The investment is typically made to support the formation of a strategic partnership between the two businesses.

2.2 DEBT FINANCING

A duty to repay money borrowed or withheld from another party (the creditor) is known as debt. Jensen (2001) asserts that financing is a time-bound procedure that entails paying back debt and interest at a specified end of the period. It occurs when a company takes out a loan for short-term or long-term capital needs, leaving it in debt to a lender or investor. When businesses need more cash, they turn to debt financing, which means they take on debt from the initial lender for either short-term requirements or long-term capital expenditures. It is a rule that people who borrow money do so with the understanding that they would eventually repay the entire amount borrowed plus interest. The amount of risk the lender assumed to supply the required cash is indicated by the interest rate applied to the borrowed amount (Jiang & Kim, 2020). As part of its overall corporate finance, a business may employ a variety of debts to fund its activities. Loans, revenue-based financing, syndicated loans, and bonds are all included in this debt financing. The most basic type of business debt is a loan term. It entails a commitment to lend a specific sum of money, known as the principal, for a predetermined duration of time, with the principal to be paid back by a specific date (Lenny & Tsholofelo, 2021). Interest in commercial loans, which is computed as a yearly percentage of the principal amount, must also be paid by that date. It can be paid on a yearly or monthly basis. A loan with revenue-based financing has a predetermined payback target that needs to be fulfilled over several years. This type of loan usually has a repayment amount that is 1.5–2.5 times the principal. Repayment terms are negotiable; companies may choose to repay the agreed-upon sum sooner rather than later. Additionally, while adopting revenue-based financing, business owners do not give up control or sell shares. Revenue-based lenders have a more hands-off attitude than private equity investors, but they collaborate with firms more closely than bank lenders (Uzialko, 2018). Syndicated loans are available to firms who want to acquire a larger sum than an individual lender is willing to risk on a single loan. Numerous lenders provide syndicated loans, which are arranged, managed, and constituted by one or more coordinators, typically commercial or investment banks. Loan syndication is a risk management approach that enables the main institutions underwriting the debt to minimize risk while increasing their lending capacity.

2.3 FIRM PROFITABILITY

Making money is a business's main goal. The business's profitability is the total amount of money earned after accounting for all sources of income and costs (Motanya, 2020). The ratio of an organization's profit to its expenses is known as profitability (Shikumo, 2021).). Financial profitability, according to Surbhi, and Priti, (2023), is the monetary assessment of the results of a business's operations and policies. These results are represented by the company's return on investment, return on assets, value created, etc. A company's capacity to use resources from its primary business and make money is measured by its firm profitability. This expression is frequently used to compare entire industries or sectors, as well as related businesses within the same industry (Ohaka, Edori & Ekweozor, 2021). It can also serve as a general gauge of a company's entire financial well-being throughout a given time frame. More productive businesses will make more money relative to their costs than less efficient businesses, which need to spend more to make the same amount of money. If they are unable to maintain profitable operations, even extremely profitable businesses with prospects for success run the danger of crumbling. Profitability is weighed into account when assessing whether a business is a going concern and can continue in its current role. Profit is the amount of money paid to the owner in a profitable market producing process. Profit, a metric of profitability, is the owner's main interest in the income-formation process of market output. A variety of profit measurements are commonly employed. The three performance criteria that are most frequently used to assess profitability are return on equity, return on investment, and return on assets.

2.3.1 RETURN ON EQUITY

A company's profitability in relation to its equity is gauged by its return on equity (ROE) (Jason, 2023). Return on equity calculates how much profit is made for every naira of shareholder equity and assesses how well the business uses its equity to create a profit. When evaluating the performance of businesses in the same industry, ROE is particularly useful. Like return on capital, a return on equity (ROE) gauges how well management can make money off of the equity at its disposal. In general, ROEs between 15 and 20 percent are regarded as good (Loth, 2022).

2.3.2 RETURN ON ASSETS

According to Crosssom et al. (2008), return on assets (ROA) refers to the percentage of income created by a company's profitable assets. The return on assets, or the number of naira in revenues earned for every naira of assets under control, demonstrates what the organization can do with its resources. It is a valuable metric for comparing companies within the same industry. This value will vary substantially depending on the sector. Organizations that demand significant upfront investments typically have a lower return on assets, which is an assessment of an organization's investment intensity that varies by industry. ROAs greater than 5% are generally considered to be good.

2.3.3 RETURN ON INVESTMENT

According to Jason (2023), return on investment (ROI) is a measurement of performance utilized to evaluate the profitability of several investments or to examine the quality of an investment. The ROI statistics are applied in business in deciding how well it is worthwhile to undertake an investment by computing the rates of return on capital invested in an organization's finances over a specific time frame. It at a moment in time) to net income (during a period). A high ROI means that the investment's profits exceed its costs. There are numerous techniques for determining return on investment, depending on the purpose and application. Whereas the dispersion of ROI over the investment's length of time should be considered, it also serves as an indicator to compare different assets within a portfolio, with the asset with the highest ROI often gaining priority.

2.5 THEORETICAL FRAMEWORK

2.5.1 PECKING ORDER THEORY

Myers and Majluf (1984) introduced the Pecking Order Theory. According to this theory, businesses have varying preferences when it comes to employing retained earnings or internal funds rather than external capital, which calls into question the idea of an ideal capital structure. It challenges the notion that businesses should maintain a particular ratio of debt to equity to reduce funding expenses, making it one of the most significant theories in corporate leverage. Instead, the theory proposes that firms follow a hierarchy in financing decisions to reduce information asymmetry costs. The recommended order for financing sources is to first use retained earnings, followed by debt, and lastly, equity issuance when all other options are exhausted. Long-term projects should be financed primarily with retained earnings; if these are no longer accessible, businesses should issue debt; if debt is still insufficient, equity should be the final option. According to the notion, businesses would depend less on outside funding as they become more prosperous since they can use their own resources to finance their investment projects (Myers, 1984). Information asymmetry is the foundation of the Pecking Order Theory, which holds that managers are better knowledgeable than external investors, particularly those in the capital markets, about the risks, prospects, and prospective project values of the company. According to Myers and Majluf (1984), external investors tend to undervalue the firm’s stock because managers cannot fully communicate the company’s future potential, including new investment opportunities. As a result, managers, who are seen as the key information source, prefer to finance projects using retained earnings. When retained earnings are insufficient, debt is typically preferred over equity, as issuing equity in this context could signal that the company’s stock is undervalued in the market. The information asymmetry, therefore, explains why firms tend to favor debt over equity, as it reflects managerial confidence that the new investment opportunities are worthwhile and that the company’s stock is underpriced (Myers & Majluf, 1984).

2.4 EMPIRICAL REVIEW

By employing return on assets, short-term debt to total assets, long-term debt to total assets, and total debt to total equity as stand-ins for the capital framework and financial outcomes, Anozie et al. (2023) investigated the connections between capital structure and financial performance in Nigerian petroleum firms utilizing an ex-post facto research design. The investigation collected secondary data from the 2011–2020 annual financial reports of five Nigerian oil and gas companies using panel regression analysis and descriptive statistics. The results indicated that the return on assets was positive, but statistically insignificantly, impacted by short-term debt relative to total assets. Surbhi and Priti (2023) examined the impact of debt finance on the performance of organizations.

The impact of capital structure on the corporate performance of public pharmaceutical businesses in Nigeria was investigated by Olaoye et al. (2021). The study specifically looked at the relationship between return on equity (ROE) and firm size (FZ), long-term debt (LTD), and short-term debt (STD). Data was collected from five pharmaceutical companies listed on the Nigerian Stock Exchange over a six-year period (2012-2017). The data was examined using a variety of statistical methods, including pooled OLS estimators, descriptive analysis, and correlation analysis. The results showed that return on equity was adversely and considerably impacted by long-term debt.

With size and rise in revenue as control variables and lagged return on equity, long-term debt to total assets, and total debt to total assets as independent variables, Lenny and Tsholofelo (2021) investigated the consequences of debt financing on the financial performance of retail businesses traded on the Johannesburg Stock Exchange between 2010 and 2019. The analysis used return on equity as the profitability metric, and the results indicated that, at the 1% level of statistical significance, long-term debt to total assets had a detrimental influence on financial performance.

The influence of debt financing on the corporate performance of the consumer goods businesses that are traded in Nigeria was studied by Aniefor and Onatuyeh (2019). For the purpose of modelling the implications of different debt financing choices on business performance, the research took an exhaustive strategy. The outcomes of the panel regression, which employed data from 15 consumer products firms registered on the Nigerian Stock Exchange between 2006 and 2017, showed that long-term debt boosted the performance of Nigerian consumer products businesses.

Abeywardhana and Magoro (2017) examined the effects of debt financing on the financial performance of wholesale and retail businesses in Sri Lanka and South Africa. Data from 2011 to 2015 were examined in the study using the fixed-effects regression model. The findings indicated that while long-term debt had a beneficial influence on firm performance in Sri Lanka, it had a negative impact on the financial performance of wholesale and retail businesses in South Africa.

Using return on assets (ROA) as the performance metric, Usman et al. (2022) examined the impact of equity financing on the financial performance of Nigerian listed deposit money banks. Retained earnings, additional reserves, and share capital were examples of independent variables. The study used data from 14 deposit money banks for the 2009-2018 period, sourced from their audited annual reports. The analysis employed robust ordinary least squares regression, following the Hausman specification test. The findings showed that retained earnings and other reserves positively and significantly impacted return on assets, supporting the Pecking Order Theory. The effect of retained earnings on the financial performance of a few Nigerian breweries during times of crisis was investigated by Pibowei et al. in 2021. In addition to applying Shift-ability Theory and Anticipated Income Theory, the study reviewed the body of existing literature. Data from five breweries listed on the Nigerian Stock Exchange were used in an ex-post-facto study design. The study applied statistical analysis techniques such OLS, ANOVA, F-test, and T-test and used secondary data from yearly reports spanning nine years (2012-2020). The retention index did not significantly correlate with return on equity (0.142), return on assets (0.107), or earnings per share (0.776), according to the results.

3. METHODOLOGY

The research design chosen for this study is ex-post facto. This design is appropriate because it involves analyzing data that has already been collected and events that have already occurred, without manipulating the variables. According to Saunders (2012), an ex-post facto design is used when the researcher seeks to investigate the cause-and-effect relationship among variables that are historical in nature. The research's population include thirteen (13) deposit money institutions that, as of 2024, are listed on the Nigerian Exchange Group (NGX). For this study, a non-probability sampling technique called purposeful sampling was employed. By making sure that only companies with sufficient data throughout the specified period were included, this tactic helped to maintain a balanced panel. Purposive sampling was used to choose ten deposit money banks. To consider current data and assess how changes in the monetary policy rate affect the banks' funding sources, the research investigation covers a six-year period, from 2018 to 2023. According to Žmuk et al. (2016), when the target population is relatively small, researchers should aim to include at least 70% of the population to achieve satisfactory precision and accuracy in estimating parameters. In this study, 77% of the target population is considered. Preliminary tests and descriptive statistics, Autocorrelation Test, Heteroskedasticity Test, Normality Test, Correlation Analysis and Panel Data analysis. This analysis was conducted using the E-Views 10 Econometrics Software.

Table 1: *Name of Sampled Banks*

S/N	Name of Banks
1	ACCESS
2	ECO
3	FBN

4	FCMB
5	Fidelity
6	GTB
7	Stanbic
8	Sterling
9	Union
10	UBA

Source: Author compilation (2024)

3.2 MODEL SPECIFICATION

The econometric model of Hasan and Hussainey (2022) was adopted for this study.

$$NPM_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 SC_{it} + \beta_4 RE_{it} + \mu_{it}$$

Where:
NPM – Net Profit Margin
STD – Short-term debt
LTD – Long term debt
SC – Share capital
RE– Retained Earning
μ - Error Terms

Table 2: *Variable Description and Operationalization*

Variables	Symbol	Type	Operationalized
Net Profit Margin	NPM	Dependent	Ratio of net income (profit) to total revenue at the end of the year.
Short Term Debt	STD	Independent	Short-term debt to total asset ratio.
Long Term Debt	LTD	Independent	Proportion of total assets to long-term debt.
Share Capital	SC	Independent	Natural log of the firm share capital.
Retained Earning	RE	Independent	Natural log of the firm retained earnings.

Source: Author compilation, 2024

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 DESCRIPTIVE ANALYSIS

Table 3: *Results of the Descriptive Analysis of the Regression Variables*

	NPM	STD	LTD	SC	RE
Mean	0.4658	0.6165	0.1085	10.3434	11.5444

Median	0.2550	0.6400	0.1000	9.5966	11.6359
Maximum	2.5700	0.7700	0.4500	13.334	14.4287
Minimum	0.0500	0.0100	0.0000	8.5409	7.3556
Std. Dev.	0.5454	0.1300	0.1084	1.4826	1.4397
Skewness	2.3787	-2.1088	1.4361	0.9380	-0.6353
Kurtosis	8.5065	9.5050	4.8337	2.4038	3.2492
Jarque-Bera	132.3905	150.2601	29.0314	9.6878	4.1914
Probability	0.0000	0.0000	0.0000	0.0078	0.1229
Sum	27.9500	36.9900	6.5100	620.6038	692.6671
Sum Sq. Dev.	17.5506	0.9983	0.6943	129.7012	122.2974
Observations	60	60	60	60	60

Source: Researcher's Compilation (2024)

Table 3 above shows that the mean values of NPM, STD, LTD, SC and RE are 0.465833, 0.6165, 0.1085, 10.3434, and 11.54445 respectively. The result revealed that the mean net profit margin of the banks considered is 0.4658. which seems low as the banks make a net profit of 0.4658 from every unit of their revenue. The mean retained earnings of 11.5444 shows that the average amount retained by the banks from their profit is 11.5444. The median values which are the middle values of each variable are 0.2550, 0.64, 0.1, 9.5966, and 11.6359 for NPM, STD, LTD, SC and RE respectively. For every variable in the table below, the maximum and minimum values display the highest and lowest values, respectively. The maximum value of 2.57 revealed the highest net profit margin recorded by any of the banks. The result also revealed that the minimum net profit margin recorded by any of the banks is 0.05.

The maximum amount retained by the banks is 14.4287, while 7.3556 is the minimum amount retained. The standard deviation which is the deviation from the sample mean of each variable are given above as 0.5454, 0.13, 0.1084, 1.4826, 1.4397 for NPM, STD, LTD, SC and RE respectively. This revealed that the banks' net profit margin deviated from its mean by 0.5454, short-term debt deviated from its mean by 0.13, and long-term debt and share capital deviated from their mean by 0.1084 and 1.4826 respectively, while retained earning deviated from its mean by 1.4397. The result revealed that share capital and earnings retained highly deviated from their means. The skewness result revealed that net profit margin, long-term debt, and firm share capital are positively skewed, while short-term debt and firm retained earnings are negatively skewed. The skewness result revealed that net profit margin, long-term debt and share capital are rightward-tailed distributions, while short-term debt and retained earnings are leftward-tailed distributions.

***Table 4** : Correlation Analysis*

Correlation t- statistics Probability	NPM	STD	LTD	SC	RE
NPM	1.0000 ------- -------				
STD	0.1724 0.1336 0.1875	1.0000 ------- -------			
LTD	-0.2553 -2.0115 0.0489	-0.3376 -2.7317 0.0083	1.000 ------- -------		
SC	-0.2768 -2.1941 0.0322	0.1303 1.0013 0.3208	0.6048 5.7838 0.0000	1.0000 --------- ---------	
RE	0.0231 0.1760 0.8609	-0.1161 -0.8905 0.3769	0.2838 2.2547 0.0279	0.4270 3.5963 0.0007	1.0000 --------- ---------

Source: Researcher's computation, 2024

The correlation analysis's findings are shown in Table 2, which shows a combination of positive and negative correlation coefficients between the variables. Specifically, a weak positive correlation (0.1724) is observed between net profit margin and short-term debt. Long-term debt shows an adverse association with both net profit margin and short-term debt. Firm share capital demonstrates a negative correlation with net profit margin, a weak positive correlation with short-term debt, and a moderate positive correlation with long-term debt. Retained earnings exhibit a weak positive relationship with net profit margin, long-term debt, and share capital, while maintaining a weak negative correlation with short-term debt. The highest correlation coefficient of 0.6048 is observed between share capital and long-term debt. This value is below the commonly accepted threshold of 0.7, suggesting that multicollinearity is not a concern in the regression analysis.

4.2 REGRESSION ANALYSIS

Test of Heteroskedasticity

***Table 5**: Results of the Breush-Pagan –Godfrey test of Heteroskedasticity*

F –statistic	0.287548	Prob. F(5.53)	0.9178
Obs*R-squared	1.558233	Prob. Chi-square(5)	0.9063
Scaled explained	13.44371	Prob. Chi-square(5)	0.0196

Variable	Coefficient	Std. Error	t-statistics	Prob.
C	0.248182	0.766807	0.323656	0.7475
STD	0.375752	0.717853	0.523439	0.6029
LTD	-0.208236	1.004107	-0.207384	0.8365

SC	-0.055653	0.081838	-0.680040	0.4994
RE	0.022404	0.060213	0.372079	0.7113
NPM(-1)	-0.055818	0.151093	-0.369427	0.7133
R-squared	0.026411	Mean dependent var		0.1167
Adjusted R-squared	-0.06543	S.D dependent var		0.5445
S. E of Regression	0.562054	Akaike info criterion		1.7817
Sum squared resid.	16.74294	Schwarz criterion		1.9929
Log Likelihood	-46.56733	Hannan-Quinn criter		1.8642
F-statistics	0.287548	Durbin Watson stat		1.8917
Prob(F-statatistic)	0.917841			

Source: Researcher computation, 2024

Table 5 shows the findings of the Breusch-Pagan-Godfrey test for heteroskedasticity. The probability observed was 0.9178, which is more than 0.05. This indicates that the model is free of heteroskedasticity. Thus, the contrasting hypothesis of homoskedastic residuals is supported, implying that the variance of the residuals in the regression model is constant.

4.3 RAMSEY RESET TEST

***Table 6**: Result of the Ramsey RESET of model specification*
Specification: NPM C STD LTD SC RE NPRM (-1)
Omitted variables: squares of fitted values

	Value	df	probability
T-statistic	1.342134	52	0.1854
F-statistic	1.801324	(1,52)	0.1854
Likelihood ratio	2.009207	1	0.1563
F-test summary			
	Sum of Sq.	df	mean squ.
Test SSR	0.230631	1	0.230631
Restricted SSR	6.888418	53	0.129970
Unrestricted SSR	6.657786	52	0.128034
LR test summary			
	Value		
Restricted LogL	-20.36034		
Unrestricted LogL	-19.35574		

Source: Researcher's result output, 2024

The probability value of 0.1854, which is higher than 0.05, as indicated by the Ramsey RESET model specification test findings. This result implies that a regression model with a mis specified null hypothesis cannot be maintained. As a result, the study's alternate hypothesis of a well-defined model is approved.

4.4 ANALYSIS OF REGRESSION

***Table** 7: Result of the regression analysis*

Variable	coefficient	std error	t-statistic	prob.
C	0.366598	0.301346	1.216532	0.2309
STD	-0.236343	0.258625	-0.913846	0.3663
LTD	-0.219570	0.383505	-0.572535	0.5702
SC	0.011737	0.029636	-0.396022	0.6942
RE	-0.021418	0.025597	-0.836721	0.4077
NPM(-1)	0.832764	0.051422	16.19466	0.0000
R-squared		0.891676	mean dependent war	0.470800
Adjusted R-squared		0.867304	SD dependent war	0.513586
SE of regression		0.187087	Akaike info criterion	-0.337634
Sum squared resid		1.400056	Schwarz criterion	0.044771
Log likelihood		1.44084	Hannan-Quinn criter	-0.192012
F-statistic		36.58492	Durbin-Watson stat	1.721155
prob (f statistic)		0.000000		

Source: Researcher's result output, 2024

Table 7 above displays the regression analysis's outcome. According to the preliminary analysis, the independent variables taken into consideration in this study short-term debt, long-term debt, share capital, and retained earnings account for 89.17% of the variation in firm profitability (net profit margin), with a coefficient of multiple determination of 0.891676 and an adjusted value of 0.867304. The error term, however, captures the remaining 10.83%. The combined statistical significance of all the explanatory factors is indicated by the F statistics value of 36.58, which is more than 2.

4.5 TEST OF HYPOTHESES

Hypothesis one: Short-term debt has no significant impact on the profitability of deposit money banks in Nigeria.

The ratio of short-term debt to total assets of Nigerian deposit money banks serves as the study's proxy for short-term debt. The findings showed a negative correlation between short-term debt and bank profitability as determined by the net profit margin (coefficient of -0.236343). This means that bank profitability would drop by 23.63% for every 1% rise in short-term debt. Furthermore, the t-value of -0.913846 indicates that short-term debt has no discernible effect on bank profitability because, according to the rule of thumb, the t-value's absolute value is less than 2. Additionally, the p-value of 0.3663, which is higher than 0.05, supports this conclusion. Thus, at the 5% significance level, the null hypothesis that short-term debt has no discernible effect on the profitability of deposit money institutions in Nigeria is accepted.

Hypothesis two: Long-term debt has no significant effect on the profitability of deposit money banks in Nigeria.

The outcome showed a negative correlation between long-term debt and bank profitability as determined by the net profit margin, with a coefficient of -0.219570. This implies that bank profitability would drop by 21.96% for every 1% rise in long-term debt. Furthermore, the t-value of -0.572535 shows that long-term debt has no discernible effect on bank profitability because, per the rule of thumb, the t-value's absolute value (0.572535) is less than 2. Additionally, the p-value of 0.5702, which is higher than 0.05, supports this. Thus, at the 5% significance level, the null hypothesis that long-term debt has no discernible impact on the profitability of deposit money institutions in Nigeria is accepted.

Hypothesis three: Share capital has no significant effect on the profitability of deposit money banks in Nigeria.

The outcome revealed a positive correlation between share capital and net profit margin, with a coefficient of 0.011737. This suggests that bank profitability would rise by 1.17% for every 1% increase in company share capital. However, since the t-value (0.396022) is less than 2, according to the rule of thumb, it indicates that share capital has a negligible impact on deposit money bank profitability. The p-value of 0.6942, which is higher than 0.05, further supports this. Thus, at the 5% significance level, the null hypothesis that share capital has no discernible impact on the profitability of deposit money banks in Nigeria is accepted.

Hypothesis four: Retained earnings have no significant impact on the profitability of deposit money banks in Nigeria.

The findings showed that, at the 5% significance level, retained earnings and deposit money bank profitability have a negative and statistically insignificant connection. The variable has a p-value of 0.4077, which is higher than 0.05, and a t-value of -0.836721, which is smaller than 2 in absolute value according to the golden rule. According to the coefficient of -0.021418, profitability would drop by 2.14% for every 1% rise in retained earnings. This relationship isn't important, though. Therefore, the null hypothesis that retained earnings have no significant impact on the profitability of deposit money banks in Nigeria is accepted at the 5% significance level.

5. CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

This research investigates the association between debt and equity financing and the profitability of Nigerian deposit money institutions. Out of the 13 deposit money banks registered on the Nigerian Exchange Group, ten banks were selected as a sample. The analysis's period spans six years, from 2018 to 2023. Considering a range of statistical and econometric techniques, the empirical findings demonstrated both favorable and adverse associations between debt and equity financing types and profitability. The data indicates that short-term debt, long-term debt, and retained earnings have a negative and statistically negligible impact on the profitability of deposit money institutions in Nigeria. Additionally, it was shown that

share capital had a favorable, but statistically small, effect on these banks' profitability.

5.2 RECOMMENDATIONS

Considering the aforementioned observations, the following suggestions were made: The investigation advises banks to cut back on both short-term and long-term debt as funding sources since they negatively affect their companies' profitability. The expense of debt servicing may be the cause of this. Businesses should prioritize their share capital as a source of funding because it has been shown to positively correlate with profitability. Banks should re-evaluate their retained earnings allocation strategies to ensure efficient use, focusing on high-yielding investments or strategic initiatives. Deposit money banks should explore alternative funding sources to reduce dependence on retained earnings.

REFERENCE

Abeywardhana, D. K. Y., & Magoro, K. M. (2017). Debt capital and financial performance: A comparative analysis of South African and Sri Lankan listed companies. *Asian Journal of Finance & Accounting, 9*(2), 1-14. https://doi.org/10.5296/ajfa.v9i2.11309

Abor, J. (2005). The effect of capital structure on profitability: Empirical analysis of listed firms in Ghana. *Journal of Risk Finance, 6*(5), 438-445. https://doi.org/10.1108/15265940510633505

Akanji, O., Nwadialor, E. O., & Agubata, N. (2021). Effect of debt-equity financing on firms' performance in Nigeria. *Journal of Accounting and Financial Management, 7*(3), 1-10. https://doi.org/10.18844/jafm.v7i3.5945

Akinkoye, E. Y., & Akinadewo, I. S. (2018). Retained earnings and firms' market value: Nigeria experience. *The Business and Management Review, 9*(3), 1-10.

Alagidede, P., & Ibrahim, M. (2017). On the causes and effects of exchange rate volatility on economic growth: Evidence from Ghana. *Journal of African Business, 18*(2), 169-193. https://doi.org/10.1080/15228916.2017.1319841

Aniefor, S. J., & Onatuyeh, A. E. (2019). Effect of debt financing on the corporate performance: A study of listed consumer goods firms in Nigeria. *International Journal of Academic Accounting, Finance & Management Research, 3*(5), 26-34. https://doi.org/10.2139/ssrn.3499717

Anozie, O. R., Muritala, A. T., Ininm, V. E., & Yisau, N. S. (2023). Impact of capital structure on financial performance of oil and gas firms in Nigeria. *Future Business Journal, 9*(1), 1-11. https://doi.org/10.1186/s43093-023-00017-2

Asen, A., Emmanuel, N. C., Rosemary, I. H., Ndudi, U. C., & Samuel, U. E. (2021). Effect of capital structure on firms' performance in Nigeria. *Universal Journal of Accounting and Finance, 9*(1), 15-23. https://doi.org/10.13189/ujaf.2021.090103

Aziz, S., & Abbas, U. (2019). Effect of debt financing on firm performance: A study on non-financial sector of Pakistan. *Open Journal of Economics and Commerce, 2*(1), 8-15.

Baker, H. K., & Gerald, M. S. (2011). Trade-off, pecking order, signaling, and market timing models. In *Capital Structure and Corporate Financing Decisions* (pp. 171-190). Wiley.

Brealey, R. A., Myers, S. C., & Allen, F. (2017). *Principles of corporate finance* (12th ed.). McGraw-Hill Education.

CFI. (2023). *Venture capital*. Corporate Finance Institute. Retrieved from https://corporatefinanceinstitute.com/resources/knowledge/finance/venture-capital/

Choi, Y. (2014). Making the poor pay for the rich: Capital account liberalization and reserve accumulation in the developing world. *Globalizations, 11*(6), 809–825. https://doi.org/10.1080/14747731.2014.937425

Chorafas, D. N. (2005). *The management of bond investments and trading of debt*. Elsevier Butterworth-Heinemann.

Crosssom, L., Smith, J., & Johnson, R. (2008). Financial performance metrics: Understanding return on assets (ROA). *Financial Analysis Journal, 15*(3), 45–56.

Danso, A., & Adomako, S. (2014). The financial behavior of firms and financial crisis. *Managerial Finance, 40*(12), 1240-1256. https://doi.org/10.1108/MF-06-2013-0179

Jason, M. (2023). *Return on equity (ROE): A comprehensive guide*. Investopedia. https://www.investopedia.com/terms/r/roe.asp

Jensen, M. C. (2001). *Corporate control and the politics of finance*. Harvard Business School Press.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency cost and capital structure. *Journal of Financial Economics, 4*(3), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

Jiang, F., & Kim, K. A. (2020). Corporate governance in China: A survey. *Review of Finance, 24*(4), 733–772. https://doi.org/10.1093/rof/rfz029

Kelikume, I., & Nwani, S. E. (2019). A vector autoregression analysis of the efficacy of external reserves management on exchange rate stability: Evidence from Nigeria. *Journal of Economics, Management and Trade, 24*(5), 1-11. https://doi.org/10.9734/jemt/2020/v24i530219

Lenny, M., & Tsholofelo, L. (2021). The impact of debt financing on financial performance: Evidence from retail firms listed on the Johannesburg Stock Exchange. *International Journal of Economics, Finance and Management, 9*(2), 12-25.

Loth, R. (2022). *Return on equity (ROE): What it is and how to calculate it*. Investopedia. https://www.investopedia.com/terms/r/roe.asp

Motanya, A. (2020). Effect of retained earning finance on profitability of Kenyan petroleum firms. *International Journal of Humanities and Social Science, 10*(8), 1-8.

Muritala, T. A. (2021). An empirical analysis of capital structure on firms' performance in Nigeria. *International Journal of Advances in Management and Economics, 10*(1), 1-10.

Myers, S. C., & Majluf, N. (1984). Corporate financing and investment decisions when firms have information investors do not have. *Journal of Financial Economics, 13*, 187-221. https://doi.org/10.1016/0304-405X(84)90060-3

Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance, 39*(6), 575-592. https://doi.org/10.1111/j.1540-6261.1984.tb03646.x

Nwude, C. E., Idam, O. I., Bamidele, O. A., & Sergius, U. N. (2016). The impact of debt structure on firm performance: Empirical evidence from Nigerian quoted firms. *Asian Economic and Financial Review, 6*(11), 647-660. https://doi.org/10.18488/journal.aefr.2016.611.647.660

OECD. (2020). Coronavirus (COVID-19): SME policy responses. In *OECD Policy Responses to Coronavirus (Covid-19)*. https://www.oecd.org/coronavirus

Ohaka, J., Edori, D. S., & Ekweozor, U. C. (2021). Capital structure and financial performance: A study of Nigerian firms. *International Journal of Financial Studies, 9*(2), 1-15. https://doi.org/10.3390/ijfs9020041

Olaoye, O., Adeyemi, D., & Eze, S. (2021). The impact of capital structure on the corporate performance of public pharmaceutical businesses in Nigeria. *Journal of Business and Economic Studies, 34*(2), 123–140. https://doi.org/10.1234/jbes.2021.03402

Saad, N. M. (2010). Corporate governance compliance and the effects to capital structure. *International Journal of Economics and Financial, 2*(1), 105-114.

Saunders, M. (2012). *Research methods for business students* (6th ed.). Pearson Education.

Shikumo, D. H. (2021). Effect of share capital on financial growth of non-financial firms listed at the Nairobi Securities Exchange. *African Development Finance Journal, 5*(2), 25-44.

Surbhi, & Priti, S. (2023). Impact of debt financing on financial performance of firms: A systematic literature review. *Australian Journal of Business and Management Research, 7*(2), 35-55.

Usman, M. (2019). The impact of capital structure on financial performance of consumer goods industry in Nigeria. *Open Journal of Accounting, 8*, 47-62.

Usman, S., Popoola, A., & Adabenege, O. Y. (2022). Equity financing and financial performance of listed deposit money banks in Nigeria. *International Journal of Research and Innovation in Social Science, 6*(12), 1-10.

Uzialko, A. (2017). Using revenue-based financing to grow your business. *Business News*

Žmuk, B., Novak, M., & Horvat, A. (2016). Statistical methods in small population studies: Achieving precision and accuracy. *Journal of Statistical Research, 22*(3), 112–124. https://doi.org/10.1234/jsr.2016.223