

Imperative of Capital Structure on Financial Performance of Selected Deposit Money Banks (DMBS) in Nigeria

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ABSTRACT

This study is to determine the relationship between capital structure and financial performance of deposit money banks in Nigeria. The reason for this study stems from the fact that capital structure plays an important part in the decision making process of investors. Using ex-post facto research design and regression design to investigate the effect of capital structure on financial performance of deposit money banks in Nigeria. The population comprised all deposit money banks with both international and national authorization which are listed under the financial sector of the main investment market segment at the Nigerian Stock Exchange (NSE). The main tool is the panel least square using the multiple regression model, Statistical evaluation of the global utility of the analytic model so as to determine the reliability of the result obtained were carried out using coefficient of determination (r^2), the student T-test and F-test. Coefficient of Determination (r^2) Test. Based on the findings obtained from the results, the study suggests that, stakeholders in the banking industry should critically examined the proportion of short and long term debts when establishing deposit money banks' capital structure in Nigeria. In line with the findings of this study, it is recommended among others that: Shareholders of banks should put more emphasis on the use of debt finance and its optimal utilization, as this serves as a tool for controlling managers deceptive behavior. Banks should conduct an in depth study of the nature and the volume of debt portion of capital mixes in order to understand how best to optimize their capital structures for better performance in the future.

How to cite this paper: Obalakumo Anderson P | Dr. Odogu Laime I. "Imperative of Capital Structure on Financial Performance of Selected Deposit Money Banks (DMBS) in Nigeria" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-8 | Issue-3, June 2024, pp.804-815,



IJTSRD65009

URL:
www.ijtsrd.com/papers/ijtsrd65009.pdf

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KEYWORDS: capital structure, financial performance, deposit money banks

1. INTRODUCTION

In the wake of liberalization and globalization of economic policies across the world, investment opportunities have expanded, financing options have widened, and above all, dependence on capital markets has increased. A new business requires capital and still more capital is required if the firm is to expand. The required funds can come from many different sources and in different forms. Firms can use either debt or equity capital to finance their assets. The best choice is a mix of debt and equity (Anarfo & Appiahene, 2017). One of the most perplexing issues faced by financial managers is the relationship between capital structure, which is the mix of debt and equity financing, and stock prices. It is very commonly known that the value of a firm can be maximized by minimizing its cost of capital. Therefore, one of the major goals in current strategic

management is to identify the optimal capital structure. The optimal capital structure exists only when the debt and equity combine to reduce the cost of capital and enhance the firms' profitability. The management of the firm itself has to set their capital structure in a way to maximize their firm value, and this decision is really important (Anarfo, & Appiahene, 2017).

Capital structure has always been a topic of controversy in the field of corporate and modern finance; different researchers have different views and theories as they strive to determine an optimum capital structure to minimise a company's cost of capital and maximize its value (Awunyo, & Badu, 2022). This may be similar with banks though somewhat different regarding focus. Banks are very crucial institutions for the success of any economy,

hence Serwadda (2019) opines that their primary task is to receive funds from investors and then lend out to the business community that could be in need of those funds. Capital structure plays a critical role which enables an organization address the dilemma of whether or not an optimal capital structure can be achieved. Abor (2015) mentioned that a company needs to finance its operations and in doing so, they would need to choose a particular combination of equity and debt which forms a balanced capital structure. Therefore, total capital of a company is composed of both debt and equity which makes up a company's capital structure. Capital structure decisions are considered to be a vital managerial decision as it influences the shareholders' risk and return.

Sources of capital indicate the ability of the bank to attract more customers and make better investment opportunities (Aymen, 2018). Similarly, financial performance demonstrates the efficient use of resources and the ability to make a profit. It is a significant fact for stakeholders (depositors, creditors, shareholders, state and managers). For depositors, it shows them the profitability generated for their deposited funds. For creditors, it shows them the ability of the bank to meet commitments to them. For the state, financial performance indicates the ability of the bank to pay tax. For shareholders, financial performance indicates the return on their invested funds. For managers, financial performance indicates the benefit of their effort and human capital invested (Aymen, 2018).

On a daily basis, we hear corporate officers, professional investors, and analysts discuss a company's capital structure. Many may not know what a capital structure is or why they should even concern themselves with this term, but the concept of capital structure is extremely important. Capital structure not only influences the return a company earns for its shareholders, but also whether the firm survives less fortunate economic shocks (Awunyo, & Badu, 2022). The capital structure of companies refers to the way in which the company is financed through a mix of debt and equity capital. It is the proportion of resources attributed to the firm through different sources, which may include internal and external finances (Awunyo, & Badu, 2022). The means of financing employed for positive net present value projects has important implications on the corporation. The cumulative effect of these discrete financing decisions results in the capital structure of the firm, the composition of which has long been a focus of research in the corporate finance discipline. Capital structure represents the major claims to a corporation's assets. This includes the different types

of equities and liabilities (Awunyo, & Badu, 2022.). The debt-equity mix can take any of the following forms: 100% equity: 0% debt, 0% equity: 100% debt and X% equity: Y% debt. From these three alternatives, option one is that of the unlevered firm, that is, the firm shuns the advantage of leverage (if any). Option two is that of a firm that has no equity capital. This option may not actually be realistic or possible in the real life economic situation, because no provider of funds would invest his money in a firm without equity capital (Adekunle, & Sunday, 2020). This partially explains the term "trading on equity", that is, it is the equity element that is present in the firm's capital structure that encourages the debt providers to give their scarce resources to the business. Option three is the most realistic one in that, it combines both a certain percentage of debt and equity in the capital structure and thus, the advantages of leverage (if any) is exploited (Adekunle, & Sunday, 2020).

This mix of debt and equity has long been the subject of debate concerning its determination, evaluation and accounting (Bariweni, 2019). Financing and investment are two major decision areas in a firm. In the financing decision, the manager is concerned with determining the best financing mix or capital structure for his firm. Capital structure decision is the mix of debt and equity that a company uses to finance its business. Capital structure has been a major issue in financial economics ever since Modigliani and Miller showed in 1958 that given frictionless markets, homogeneous expectations, capital structure decision of the firm is irrelevant. By relaxing the assumptions and analyzing their effects, theories seek to determine whether an optimal capital structure exists or not, and if so what could possibly be its determinants (Bariweni, 2019). This has necessitated the need to examine the relationship between capital structure and the financial performance of deposit money banks in Nigeria.

Objectives of the Study

The main objective of this study is to examine the impact of capital structure on the financial performance of selected deposit money banks (DMBs) in Nigeria, while the specific objectives are:

To examine the impact of short term debt to total asset on return on assets of the selected deposit money banks in Nigeria.

To examine the impact of long term debt to total asset on return on assets of the selected deposit money banks in Nigeria.

With respect to the objectives stated above, the following research questions are raised:

What is the impact of short term debt to total asset on return on assets of the selected deposit money banks in Nigeria?

How does long term debt to total asset impact return on assets of the selected deposit money banks in Nigeria?

The following hypotheses, stated in both null and alternative forms, shall be tested in order to determine the relationship between capital structure and financial performance of selected deposit money banks in Nigeria:

H₀1: There is no impact of short term debt to total asset on return on assets of the selected deposit money banks in Nigeria.

H₀2: Long term debt to total asset has no impact on return on assets of the selected deposit money banks in Nigeria.

2. LITERATURE REVIEW

Conceptual Framework

Concept of Capital Structure

Capital structure, in financial terms, means the way a firm finances its assets through the combination of equity and debt (Berger, & Banaccorsi, 2020). Capital structure refers to the firm's financial framework which consists of the debt and equity used to finance the firm (Awunyo & Bandu, 2022). They also argued that capital structure in financial term means the way by which a firm finances its assets through the combination of equity, debt or hybrid securities. Capital Structure of a firm is the composition of different securities issued by the firm to finance its operations. It relates to the proportions of debt and equity that make up the liability owners' equity side of a firm's statement of financial position and often refers to the use of debt in a firm's capital structure as leverage (Awunyo & Bandu, 2022). The term "capital structure" according to Amidu, (2019) refers to the percentage of capital (money) at work in a business by type. There are two forms of capital: equity capital and debt capital. Dare and Sola, (2020) stated that a firm's capital structure implies the proportion of debt and equity in the total capital structure of the firm. Eniola, Adewunmi, and Akinselure, (2017) differentiated between capital structure and financial structure of a firm by affirming that the various means used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity. The capital structure of a firm as discussed by Eniola, Adewunmi, and Akinselure, (2017) does not include short-term credit, but means the composite of a firm's long-term funds obtained from various sources. Therefore, a firm's capital structure is described as the capital mix of

both equity and debt capital in financing its assets. However, whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance. While capital structure, preferred stock and common equity are mostly used by firms to raise needed funds, capital structure policy seeks a trade-off between risk and expected return. The firm must consider its business risk, tax positions, financial flexibility and managerial conservatism or aggressiveness in determining the target capital structure. While these factors are crucial, operating conditions may cause the actual capital structure to differ from the optimal capital structure (Khan, 2022). A capital structure decision is the mix of debt and equity that a company uses to finance its business (Bariweni, 2019). One of the importance of capital structure is that it is tightly related to the ability of firms to fulfill the needs of various stakeholders. Capital structure represents the major claims to a corporation's assets which includes the different types of both equities and liabilities (Bariweni, 2019). Khan, (2022) opined that capital structure is the way in which an organization is financed by a combination of long term capital (ordinary shares and reserves, preference shares, debentures, bank loans, convertible loan stock and so on) and short term liabilities such as a bank overdraft and trade creditors. According to Aymen (2018), capital structure of a firm is the components of its sources of financing, broadly categorized as equity and debt finance. Also, Skopljak, (2022) define capital structure as the mix of different securities. Besides, Khan, (2022) viewed firms' capital structure as the mix or combination of its financial resources available for carrying on the business and is a major determinant on how the business operates. According to him, financial capital is an uncertain but critical resource for all firms, as a result suppliers of the finance are to exert control over firms.

Concept of Financial Performance

The word "Performance" originates from the old French word 'Parfournir'; whose meaning is to bring through, to carry out, to do or to bring forth (Ogebe, Ogebe, & Alewi, 2023). Performance is an act of performing, implementing, achieving and fulfilling of the given tasks that needs to be measured against defined sets of precision, money, fullness and timing. In finance, it refers to the measurements of the company's policies, activities and operational results in financial terms. It is used to check a company's success, compliance and financial position. These results are reflected in the firm's return on investment, assets, equity, capital employed and profitability. Financial performance is an extent to which a company's financial health over a period of

time is measured. In other words, it is a financial action used in order to generate higher sales, profitability and worth of a business entity for its shareholders through managing its current and non-current assets, financing, equity, revenues and expenses. Its main purpose is to provide complete-to-the-point information to shareholders and stakeholders to encourage them in making decisions. It can be used to evaluate similar companies from the same industry or to compare industries in aggregation. Managing risk and increasing profitability of a firm within the corporate governance compliance is an essence of making good decisions. In order to take timely decision, accurate information and proper analysis of the sector is necessary (Ogebe, Ogebe, & Alewi, 2023). In line with this background, return on asset is one of the critical issues to consider when it comes to financial performance indicators, hence it is key to this study.

The concept of performance is a contentious issue in finance and accounting mainly because of its multidimensional meanings (Amidu, 2019). The profitability of a company measures its improvements over its functioning years. From the extant literature, researchers have applied several surrogates as metric measures of financial performance of banks. Such metrics according to Khan, (2022) include a combination of financial ratios analysis, benchmarking and measuring of performance against budget. Others include return on assets, returns on equity, net interest margin, and a host of others. The fundamental objective of every business organization is profit maximization. Profits are maximized at the point where total revenues exceed total cost. Profitability can be defined as the relationship between financial input (cost) and output (sale) over a fixed period of time. In this context, a bank is said to be profitable if it generates revenue in excess of cost by minimizing financial input at a given level of output. Thus, efficient management of profitability leads to higher returns on capital invested into the operation activity of the bank. In essence, the existence of a bank depends on the ability to engage in efficient credit risk selection and thus make profit from such process. Amidu, (2019) believes that the bulk of deposit money banks' profit - more than 75 percent of the profit, is however earned from interest on loan and investment which the bank makes using the money belonging to their depositors. However, when the interests charged by banks are higher than the cost of funds as well as the overall cost of doing business, it would result to profit. The interest on loan is largely influenced by the degree of risk in the exposure, the length of time of the exposure (tenor) and the size of the loan, in addition to monetary

policy rate prevailing (Amidu, 2019). In this vein, sustainable profit could be achieved by effective credit analysis and management.

Concept of Financial Performance of Deposit Money Banks in Nigeria

Financial performance is the financial condition of a company over a certain period of time. It is measured using different business-related formulae that enable users to calculate specific details in relation to a company's potential effectiveness. Financial performance gauges the ability of the management in utilizing the resources of the organization. Financial performance is examined differently by the users. For internal users, it is evaluated to assess their respective companies' welfare and position among other standards. For external users, financial performance is evaluated to indicate likely investment opportunities and to discover if a company is profitable. Deposit money banks in Nigeria form the bedrock of economic development in the country. As a component of the Nigeria financial system, banks play a prominent role in channeling savings from surplus economic units into activities that create wealth for the growth of the economy. They accept deposits from customers, which are short-term in nature and channel these to deficit units. The deposits are mostly repayable on demand. Therefore, there is need to ensure adequate liquidity of banks, while optimizing their profit performance. One of the main objectives of bank management is to efficiently manage and monitor liquidity and profitability. In view of this role, liquidity level directly affects the level of risk. Risk is the difference between planned and actual outcome of investment decisions. Inability to meet short term obligations (the withdrawal needs of depositors) will increase the risk exposure of banks. Accordingly, an institution short of liquidity may have to undertake transaction at a heavy cost resulting in a loss of earnings or in the worst scenario could result in bankruptcy of the financial institution. Certainly, some of the bank failures are associated with liquidity management risk and inadequate risk management techniques as it continues to hurt both performance and profitability in the banking sector. Therefore, it is very paramount for every bank to effect a balance between the maximization of profitability; arising from its lending operations and ensuring optimum liquidity to a level of safety. The conflicting issues between liquidity and profitability are crucial to shareholder, depositors, monetary authorities as well as depository institutions. The shareholders jointly own the bank and are generally concerned with profitability to help in evaluating the return on investment. The depositors are the main suppliers of funds used by the bank, and are more

interested in the liquidity level in order to assess the ability of the bank to meet their withdrawal needs. In the same vein, the monetary authorities are interested in the level of liquidity in the banking system, so as to avoid distress and illiquidity in the banking system and the economy. Also, depository institution management is more concerned with both liquidity and profitability because of the obligations to shareholders, depositors and regulatory authority. Thus to ensure for continuous survival of deposit money banks in Nigeria, banks should maintain adequate liquidity and earn adequate profit from their activities to make the banking system more efficient and stable, avoid distressed institutions, enhance risk management practice and the forced sale of bank assets (Amidu, 2019).

Profitability

The profitability of banking sector is important with the aim to estimate the constancy and reliability of the financial and banking sector (Skopljak, 2022). Another author described profitability as the variation between expenses and revenues through a fixed period of time, generally fixed period is consisting of one financial year (Sadiq, Kachollom, Dasuki, & Yusuf, 2017). This is essential for banks to generate sufficient amount of income that would lead them on the way to additional growth and expansion. Serwadda, (2019) assert that profitability decision is foremost a challenging part on the administration of the bank because numerous factors are involved in the decision. The profit planning and management is more complex in the highly challenging economic environment.

Capital Structure and Organizational performance

The relationship between capital structure and firm value has been the subject of considerable debate, both theoretically and empirically. The hot debates concerning the issue of capital structure and firm performance started since the influential work of (Serwadda, 2019). Thus, based on the implications of capital structure theories, many researchers have studied the relationship between capital structure and firms' financial performance from different perspectives in different environments and found mixed results. The study by Khan, (2022) who extended the work of Abor (2015) examined the relationship between capital structure and firm profitability by taking evidence from USA manufacturing and service industry firms. The findings of the study showed a positive relationship between short-term debt to total assets, total debt to total assets, and profitability of service industry and short term debt to total assets, long term debt to total

assets, total debt to total assets and profitability of manufacturing industry.

Eniola, Adewunmi and Akinselure, (2017) tested the influence of capital structure on firm's performance of 174 non-financial Swedish firms. The results of the study revealed that there is a significant negative relationship between capital structure and firm performance of listed Swedish firms. Khan, (2022) investigated the impact of capital structure choice on firm performance and the result of the study indicated that firm performance has weak to no relationship with capital structure choice. Aymen, (2018) also analyzed the impact of capital structure on firm performance of firms, the results of which showed that firm's capital structure had a positive impact on the firm's performance measures, in both the accounting and market's measures. Awunyo, & Badu, (2022) also carried out a study using data of microfinance institutions in Ghana and showed that higher leverage firm has higher profit efficiency. Hence, the study confirmed that a positive relationship exists between total debt ratio and profitability. Dare, and Sola, (2020) examined the impact of capital structure on the performance of 15 Nigerian manufacturing companies. The results showed that there is a negative and insignificant relationship between short-term debt to total assets, long term debt to total assets and return on asset and profit margin; while total debt to equity is positively related with return on asset and negatively related with profit margin. Short-term debt to total assets is significant using return on asset while long term debt to total assets is significant using profit margin. The work concluded that statistically, capital structure is not a major determinant of firm performance. Further, the firm's level of leverage, its debt maturity structure also affects firm's performance and failure (Dare, & Sola, (2020). Anarfo, and Appiahene, (2017) investigated and provided evidence that large firms and low growth rate firms prefer to issue long-term debt. In addition, they suggested that less risky and larger firms usually use more long-term debt. The finding of this study revealed that debt maturity is negatively related to the firm's risk, corporate tax, and earnings. In the same token, the debt structure choice could have an impact on both firm performance and failure risk. Therefore, it is important to test the relationship between capital structure, debt structure and the financial performance of the firm to make sound capital structure decisions. In summary, there is no single theory of debt-equity choice and empirical studies have given inconclusive results regarding the capital structure choice and its effect on firms' performance. Thus, this study attempts to seek the extent of debt usage and

differentiate which debt level give effects to the firms' financial performance.

Empirical Framework

The findings by Bariweni, (2019). concluded that a negative relationship exists between leverage and firm performance. With the above reviews, it is evident that the area of interest to this study has not been considered by scholars in this field hence the aim of this study to examine the effect of capital structure on the financial performance of firms in Nigerian manufacturing sector. Dare and Sola, (2020) have successfully identified firm characteristics such as size, R and D intensity, market-to-book ratio of assets, stock returns, asset tangibility, profitability, and the marginal tax rate as important determinants of corporate financing choices. It was reported that high market-to-book firms have low target debt ratios. On the other hand, consistent with market timing, high stock returns increase the probability of equity issuance, but have no effect on target leverage.

The study of Eniola, Adewunmi, and Akinselure, (2017) was limited to debt finance by using descriptive, correlation and regression analysis and discovered that there is a statistically significant effect between long and short-term liability on Return on Assets (ROA) and Return on Equity (ROE). However, a study by Nwude, and Anyalechi, (2018) revealed from the regression estimations showed that debt structure has a negative and significant impact on the performance of Nigerian quoted firms within the period under review. Sadiq, Kachollom, Dasuki, and Yusuf, (2017) tested the leverage predictions of the trade-off and pecking order models using Swiss data. According to them, the race between the trade-off theory and the pecking order theory is undecided; in fact, on many issues there is no conflict. In their study, firms with more investment opportunities apply less leverage, which supports both the trade-off model and a complex version of the pecking order model. Confirming the pecking order model but contradicting the trade-off model, more profitable firms use less leverage. Leverage is also closely related to tangibility of assets and the volatility of a firm's earnings. They also find that Swiss firms tend to maintain target leverage ratios.

Kachollom, Dasuki and Yusuf (2017) conducted a study on the effect of capital structure on the performance of Deposit Money Banks in Nigeria. The objective was to examine the effect of capital structure on the financial performance of Deposit Money Banks in Nigeria. Secondary data was obtained from the financial statements of Deposit Money Banks listed in the Nigerian Stock Exchange. Four banks were selected as samples and data from

their financial statements for a period of 10 years (2006 to 2015). The study has employed the use of Pearson correlation coefficient and general least squares (GLS) regression model to analyze the effect of capital structure on the performance of some selected banks. The performance variables used in the study were, ROA, ROE and ROCE. Findings from the study showed that capital structure has positive and significant effect on the financial performance of listed deposit money banks in Nigeria. The study of Anarfo, and Appiahene, (2017) sought to examine the effect of capital structure on the financial performance of firms in Nigerian manufacturing sector. The population of the study was all the listed manufacturing companies listed on the Nigerian Stock Exchange, a sample of 10 listed companies was selected. The research design adopted was ex-post facto using four models to analyze the impact of capital structure on firms' performance. The study used balanced panel data of 100 observations from the 10 listed companies for the periods ranging from 2007 - 2016. Descriptive statistics and regression were used as tools of analysis. The study revealed that there are statistically significant and non-significant effects of capital structure on performance variables. Finally, the study recommended that manufacturing companies should adopt balanced capital structure strategy that would optimise company's performance and corporate value.

Nwude & Anyalechi (2018) conducted a study on impact of capital structure on performance of commercial Banks in Nigeria. The study evaluated the influence of financing mix on the performance of commercial banks, and the causal link between debt-equity ratios. Data collated were analysed using correlation analysis, ordinary least squares regression analysis, fixed effect panel analysis, random effect panel analysis, granger causality analysis, as well as post estimation test such as restricted f-test of heterogeneity and Hausman test. The findings show that while debt finance exert negative and significant impact on return on asset, the debt-equity ratio has positive and significant influence on return on equity. Adeoye and Olojede (2019) conducted a study on the effect of capital structure on the financial performance of quoted deposit money banks in Nigeria. To achieve the objective of the study, they used a cross sectional time series secondary data covering the period of seven years (2012-2018) was extracted from the audited financial statement of ten (10) banks listed on the floor of stock exchange. The descriptive statistics, Pearson moment correlation and multiple linear regressions were used. The correlation results showed that capital structure is negatively correlated with financial performance (ROA and

ROE). Result from panel regression revealed that debt to equity though significant, impacted negatively on return on assets and return on equity, asset tangibility significantly impacted return on asset but insignificantly impacted return on shareholder's equity and also Age have a significant impact on return on asset and insignificant effect on return on equity.

The aim of the study of Berger, and Banaccorsi, (2020) was to examine the relationship between capital structure and financial performance of firms listed in the Nigerian stock exchange between 2012 and 2017. Data were extracted from 40 companies out of 169 companies which are listed on the Nigerian Stock Exchange as at 2018. Consequently, ordinary pooled least square was adopted to analyze the objective of study. The principal findings that originate from this study is that capital structure has a negative impact on return on equity and return on asset of the firm listed on the Nigerian stock exchange. In view of the above important findings that originated in this work, one of the recommendations was that all hands must be on deck by the Nigerian policy makers to embark on policy measure to reduce double digit interest rate in the financial sector in order to ensure self-liquidating debt capital in the listed firms in the Nigerian stock exchange. In another research by Serwadda (2019) on the effect of capital structure on banks' performance on Ugandan banks for a ten-year period, 2006 – 2015, panel regression models were used to determine the effects of capital structure on bank performance. Results portrayed that there was a positive relationship between capital structure variables and bank performance. It is between long term debts, total debt with net interest margin. There was also a positive relationship between total debt and return on assets. It was still the same between total debt and returns on equity. However, there was a negative relationship between short term debt and return on assets. Adekunle, and Sunday, (2020) examined the impact of capital structure choice on firm performance in Egypt, using a multiple regression analysis in estimating the relationship between leverage level and firms' performance, the study covered between 1997 and 2005. Three accounting based measures of financial performance (return on Equity, return on Assets and gross profit margin) were used. The result revealed that capital structure choice decision in general, has a weak-to-no impact on firms' performance.

Adaramola, Sulaiman, and Fapetu, (2022) noted that debt can have both a positive and negative effect on the value of the firm (even in the absence of corporate

taxes and bankruptcy cost). He built a model in which over investment and under investment can be alleviated by debt financing. His model assumes that managers have no equity ownership in the firm and receive utility by managing a larger firm. The "power of manager" may motivate the self-interested managers to undertake negative present value project. In order to solve this problem, shareholders force firms to issue debt. The research objective of the study carried out by Adeoye, and Olojede, (2019) was to establish effects of capital structure on the performance in financial perspective of Kurdistan manufacturing firms. Theoretically it is assumed that the capital mix a firm uses to finance its operations does not matter and that its future operating income generated by its asset is what determines its value. Multiple linear regression which included return on equity as independent variable, capital structure, liquidity, size and growth as the independent variables. These variables were used to establish whether capital structure decisions affect profitability of manufacturing firms in Kurdistan. The results obtained from the regression equations established a negative relation between total debt, size and financial performance which indicates using more of debt or assets are linked to a decrease in performance in financial perspective. The study further found out that financial performance increased with increase in liquidity and sales growth. From the findings outlined above, the study recommended that companies should consider borrowing less funds and use internal funds economically.

The aim of the study conducted by Ahmed, Ningi, and Dalhat, (2018) was to assess the impact of capital structure on the financial performance of deposit money banks in Nigeria. The study adopted an ex-post facto research design and it considered variables such as Long-term debt to Asset (LTD/TA), Short-term debt to total Asset (STD/TA) and Total debt to total Asset (TD/TA) of capital structure and financial performance which was proxied by Return on Asset (ROA). The study sourced secondary data using a convenient sampling technique based on the availability of data as at the period of the study. These data were obtained from annual financial report of the five sampled Deposit Money Banks in Nigeria covering a period of 2009 -2018. The data obtained were analyzed using descriptive statistic (that is, mean and standard deviation) and inferential statistic (that is, Pearson correlation and regression analysis). The results of the analysis revealed that while both short-term debt to total assets and total debt to total assets have significant positive impact on ROA, long-term debt to total assets has insignificant positive impact on ROA. Therefore, the study summarily

recommended that stakeholders of deposit money banks in Nigeria should use more of short term debts portion of capital structure, the manner of utilizing the resources while expanding the banks and the amount of investment on fixed asset to the ratio of short term debt should be given keen considerations.

Theoretical framework

Modigliani & Miller Theory

The Modigliani & Miler (MM) theory (1958) in Adeoye, and Olojede, (2019) demonstrated that under perfect capital is of information dissemination, the firm value is independent of its capital structure. According to Adekunle and Sunday, (2020), capital market is assumed to be perfect where the insider and outsider have free access to information and transaction cost is nonexistent, no taxation and bankruptcy cost. MM theory opines that valuation on firm is independent of its capital structure. That is, equity and debt choice does not matter and internal and external funds are perfect substitutes. Though, MM theory’s capital structure relevancy is in doubt, it has attracted much attention on the reasonableness of its assumptions which include the absence bankruptcy cost, tax and other imperfection which exist in the world. According to Amidu, (2019) there are various types of finance, each with peculiar characteristics. Hence, the nature of finances that these firms need could be short, medium or long term (or internal or external) in nature in order to do business operation.

Agency Cost Theory

The agency cost theory founded by Jensen and Meckling (1976) in Abor, (2015) posits that it is a contract in which one person (the principal) engages another person (agent) to perform a duty on his behalf which includes the delegation of duty and authority to the agent within the confined duties. Though, the professional management of separation of ownership from the management may result in agency conflict, there is insufficient work effort of manager (agent) in choosing inputs and output according to one’s preferences. As a result, the firm may fail to maximize the owners’ wealth and utilities. Abor, (2015) who were the first proponents of this theory asserted that as a continuous dilution of equity ownership of the large corporation, equity and control becomes more separated, which gives the managers an opportunity to pursue their interest instead of the shareholders. Berger, and Banaccorsi, (2020)

affirmed that debt financing is to restrict the tendency of the professional manager to move towards opportunistic behavior for personal gain. Thus, financing is geared towards reducing free cash flows within the firm by paying a fixed interest rate and this fixed interest payment would force the manager to deviate from negative investment and force them to work in the interest of the shareholders.

3. RESEARCH METHODOLOGY

The research design is based on the ex-post facto research design, since it uses previously generated data to predict current behaviour of variable used in this study. This study also utilized regression design as an attempts to investigate the effect of capital structure on financial performance of deposit money banks in Nigeria. The population comprised all deposit money banks with both international and national authorization which are listed under the financial sector of the main investment market segment at the Nigerian Stock Exchange (NSE). Therefore, according to the Central Bank of Nigeria website (2022), there are currently nineteen (19) deposit money banks with both international and national authorization. The main tool is the panel least square using the multiple regression method, Statistical evaluation of the global utility of the analytic model so as to determine the reliability of the result obtained were carried out using coefficient of determination (r^2), the student T-test and F-test. Coefficient of Determination (r^2) Test.

Model Specification

The model specification for the study is mathematical presented as;

$$Y = \beta_0 + \beta_1 + \beta_2 + \beta_3 + \mu_0 \dots \dots \dots (1)$$

Hence;

$$ROA = \beta_0 + \beta_1 LDTA + \beta_2 SDTA + \beta_3 TDTA + \mu_0 \quad (2)$$

- Where: ROA = return on Asset
- LDTA= Long term Debt to Total Asset.
- SDTA= Short term Debt to Total Asset
- TDTA= Total Debt to Total Asset
- ROA= Return on Asset
- μ_0 = error term
- β_0 = constant
- Y = dependent variable

Decision rule: null hypothesis should be rejected if the p-value is < 5% significance level, otherwise it should be accepted.

4. Data Presentation and Analysis

Table 1: Descriptive Statistics

	ROA	LTDTA	STDTA	TDTA
Mean	0.779408	0.212024	0.954680	0.870082
Median	0.798050	0.203850	0.961250	0.904550
Maximum	0.882000	0.438300	0.995700	0.988300

Minimum	0.514900	0.095100	0.867600	0.428400
Std deviation	0.077527	0.073593	0.027397	0.121498
Skewness	-1.401416	1.100148	-1.473134	-2.570594
Kurtosis	5.230406	4.510099	5.265172	9.556591
Jarque-Bera	26.73036	14.83687	28.77395	144.6265
Probability	0.000002	0.000600	0.000001	0.000000
Sum	38.97040	10.60120	47.73400	43.50410
Sum Sq. Dev.	0.294510	0.265379	0.036778	0.723328
Observation	50	50	50	50

Note: *ROA = Return on Asset, *LTDTA= Long term Debt to Total Asset, *STDTA= Short term Debt to Total Asset, *TDTA =Total Debt to Total Asset.

Source: Authors' computations, using e-views9, 2024

Table 1 presents the result of descriptive statistics test utilizing the data mean, median, standard deviation, skewness and kurtosis. The study is assumed to be normally distributed when the mean of variables are similar to the value of median, skewness value is zero and kurtosis value is greater than or equal to or less than 3. A kurtosis with distribution greater than 3 is a leptokurtic distribution whereas 3 is the kurtosis of a normal distribution. A leptokurtic distribution (greater than 3) has a sharper peak with lower probability than a normal distribution of kurtosis whose value is equal to 3. A kurtosis with less than 3 is a platykurtic distribution which has a lower and wider peak with higher probability than leptokurtic and normal distribution. However, the diagnostic test reveals that no variables have the value of mean equal to value of median. Similarly, the skewness value and kurtosis value of the variables are both mix positively and negatively showing that their distributions are skewed to the right side as well as to left side of the table with the kurtosis value of variables range from 4.510099 to 9.556591. The negative skewed distribution is an indication that there is greater risk than what the standard deviation measures, while the positive skewed distribution is also showing that there is lower risk than what the standard deviation measures. The standard deviation overstates the risk for a positively skewed distribution while underestimating the risk for a negatively skewed distribution. Consequently, the mean value for return on asset is 0.779408%. This means the total assets turn over yield 77.94% profits during the period under review. Similarly, the mean value for LTDTA, STDTA and TDTA has an average value of 21.20%, 95.47% and 87.01% respectively. The minimum value for return on asset is 51.49% and the maximum value of 88.20%. The result of the descriptive statistics test shows that the LTDTA has a minimum number of 9.51% and a maximum number of 43.83%. STDTA has minimum number of 86.76% and the maximum number of 99.57% while TDTA has a minimum number of 42.84% and a maximum number of 98.83% respectively. The result shows that the TDTA has the highest standard deviation among the independent variables but it appears as the third contribution to dependent variable (ROA). STDTA has the least value for standard deviation and it therefore represents its highest contribution to the dependent variable of the study.

Test of Research Hypotheses

Correlation Results

In this section, the Pearson correlation Coefficients of the variables of the study are presented

Table 2: Correlation Matrix

	ROA	LTDTA	STDTA	TDTA
ROA	1			
LTDTA	0.1638 (0.4251)	1		
STDTA	0.3734 (0.0446)	-0.0512 (0.1197)	1	
TDTA	0.5353 (0.2584)	0.2020 (0.6855)	0.0960 (0.6162)	1

Source: Author's computations, using EViews9, 2024

The results in Table 2 show the correlation coefficients of the variables of capital structure LTDTA, STDTA and TDTA and financial performance that is ROA of the selected deposit money banks in Nigeria. The table shows

positive relationship between STDTA and ROA from the correlation coefficient of 0.0446 which is statistically significant (from the p-value of 0. 0.0446). This implies that, the more STDTA the lower the ROA. This relationship suggests that the larger STDTA improve performance positively and is statistical significant. Similarly, the results from the table indicate that, there is no significant statistical relationship between ROA and the LTDTA and TDTA from the correlation coefficient of 0.1638 and 0.553 which is not significant at p-value of 0.4251 and 0.2584. This relationship suggests that the larger LTDTA and TDTA improve performance positively and is not statistical significant.

The Regression Results

This part of the study gives the results on the determinants of financial performance of selected banks in Nigeria. For all regressions examined, the hausman test was carried out in order to choose between random and fixed effects model. This assists us to reject the random effect and opted for fixed effect estimator. Table 3 presents the regression result of the dependent variable (ROA) and the independent variables of the study (LTDTA, STDTA and TDTA). The presentation cut across in line with the analysis of the relationship and impact between the independent variables and the dependent variable of the study and the cumulative analysis.

Table 3: Summary of Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LTDTA	0.086867	0.123397	0.703965	0.4850
STDTA	0.936554	0.326140	2.871632	0.0062
TDTA	0.310692	0.074991	4.143030	0.0001
C	0.403447	0.313071	1.288675	0.2040
R-squared	0.397798			
Adjusted R-squared	0.358524			
S.E. of regression	0.062093			
Sum squared resid	0.177354			
Log likelihood	70.09381			
F-statistic	10.12879			
Prob(F-statistic)	0.000031			
Durbin-Watson stat	2.192765			

Dependent Variable: ROA

Source: Author's computations, using EViews9, 2024

The result in Table 3 shows that when ROA was utilized as dependent variable to measure the bank financial performance, LTDTA has a t-value of 0.703965 and a beta value of 0.086867 which is not significant at all level. This implies that LTDTA has positive and not statistical significant impact on the ROA of selected Deposit Money Banks in Nigeria. This means that for every increase in the number of LTDTA, it has no significant impact on the ROA of selected Deposit Money Banks in Nigeria. This provides evidence supporting the acceptance of the null hypothesis one of the study which states that LTDTA has no significant impact on the ROA of Selected Deposit Money Banks in Nigeria. Table 3 provides result in respect of impact of STDTA on ROA of selected deposit money banks in Nigeria. The STDTA has a t-value of 2.871632 and a beta value of 0.936554 which is significant at all level. This signifies that STDTA has positive and significant impact on the ROA of selected Deposit Money Banks in Nigeria. This provides us an evidence to reject the null hypothesis two of the study which states that STDTA has no significant impact on the ROA of

selected Deposit Money Banks in Nigeria. Also the result on the Table 3 shows that there is positive and strong significant impact of TDTA on ROA with t-value of 4.143030 and a beta ratio of 0.310692 at 5% significant level. This is an indication that the TDTA is appreciated and the increase is consistent with increase in ROA. This also provides us an evidence to reject the null hypothesis three of the study which states that TDTA has no significant impact on the ROA of selected Deposit Money Bank in Nigeria. The model reveals that R² is about 39.8% implying that the variable used account for 39.8% variation in the dependent variable. This means that 39.8% LTDTA, STDTA and TDTA account for the variation in ROA. The model also met the test of auto correlation as the DW statistics is 2.19. The result of this study revealed that STDTA and TDTA have positive and significant impact on banks' ROA in Nigeria as revealed by (t- value of 2.871632, Beta value of 0.936554 and t- value of 4.143030 Beta value of 0.310692) respectively, this result concurs with results of Sadiq, Kachollom, Dasuki and Yusuf (2017). Findings from the study showed that capital

structure has positive and significant effect on the financial performance of listed deposit money banks in Nigeria. However, the result is in disagreement with the result established by Nwude and Anylachi (2018); Serwadda (2019) who all found that short term debt has a negative significant relationship with ROA. The disagreement may be as a result of time frame of the studies. Also the study's result unfold that LTDTA has positive and insignificant impact on banks' ROA in Nigeria, this is as indicated by (t-value of 0.703965 & Beta value of 0.086867) respectively. This result did not agree with the result of the study conducted by Nwude and Anylachi (2018) who found that debt finance exert negative and significant impact on return on assets.

5. CONCLUSION

The major objective of this study is to determine the relationship between capital structure and financial performance of deposit money banks in Nigeria. The reason for this study stems from the fact that capital structure plays an important part in the decision making process of investors. The findings of the study showed that STDTA and TDTA have statistically significant impact on financial performance measured by return on assets at 5% significant level while LTDTA has statically insignificant impact on banks ROA in Nigeria. Based on the findings obtained from the results, the study suggests that, stakeholders in the banking industry should critically examined the proportion of short and long term debts when establishing deposit money banks' capital structure in Nigeria. In line with the findings of this study, it is recommended among others that: Shareholders of banks should put more emphasis on the use of debt finance and its optimal utilization, as this serves as a tool for controlling managers deceptive behavior. Banks should conduct an in depth study of the nature and the volume of debt portion of capital mixes in order to understand how best to optimize their capital structures for better performance in the future.

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