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Capital Structure and Corporate Financial Performance of Quoted Manufacturing Firms in Nigeria

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Abstract
This study was carried out to examine the effect of Capital Structure on Corporate Performance of Quoted manufacturing firms in Nigerian from 2019-2023. Capital structure was proxied by total debt to total asset, total debt to total equity, short-term debt to total asset and long-term debt to total asset, while corporate performance was proxy by return on asset. The study adopted ex-post facto research design. Descriptive statistics, correlation, and regression analysis were used. Descriptive statistics was used to evaluate the characteristics of the data: and checks for normality. The correlation analysis was used to evaluate the relationship between the variables and to check for Multicollinearity. The multiple regression analysis was used to evaluate the effect of the independent variables on the dependent variable. The study findings, reveals that total debt to total asset structure, short- term debt to total asset, and long-term debt to total asset structure have an insignificant effect on the corporate performance of quoted manufacturing firms in Nigeria at 5% level of significant. While only total debt to total equity has significant effect on corporate performance of quoted manufacturing firms in Nigeria at 5% level of significance. The study concludes that total debt to total asset, total debt to total equity, short-term debt to total asset structure and long-term debt to total asset of structure of quoted manufacturing firms provided insights but statistically insignificant while total debt to total equity structure of quoted manufacturing firms proved relevant in determining corporate performance of manufacturing firms in Nigeria. The study recommends that Managers of manufacturing firms should invest more in building their total debt to total debt structure. The study also recommends that attention should be given by managers to equity capital structure. Since it is positive and significant because serve as the major source of capital.

Keywords
Total Debt, Total Equity, Short-Term Debt, Long-Term Debt, Return on Asset

1. Introduction
The relationships between capital structure and financial performance of firms (especially manufacturing firms) have been a subject of discussion in the literature amongst scholars of finance and accounting. Capital structure involves the decision involving the combination of the various sources of fund a firm uses to finance its operations and capital investments. These sources include the use of long-term debt finance called debt financing as well as preferred stock and common stock also called equity financing. One major goal of managers is to maximize shareholder s wealth through determination of best combination of financial sources for a firm and the maximization of the firm's value by determining

where to invest their resources. Capital structure represents the major claims to a corporation's asset. This includes the different types of equities and liabilities (Riahi-Belkaoui, 1999). The structure usually take these forms 100% equity, 0% debt, 0% equity, 100% debt and X% equity, Y% debt. From these three alternatives, the first option described that of an unlevered firm that is it ignores the advantage of any form of leverage. The second option is that of a firm that has no equity capital at all. This option may not be realistic or possible in the real life economic situation because providers of funds will not want to invest in a firm without equity capital. The third option is the most realistic in that it combined a certain percentage of both equity and debt in the capital structure and thus give the advantage of leverage (if any) to be explored. This mix of debt and equity has long been a subject of debate in finance literature concerning its evaluation and accounting

Financial performance is the measure of how well a firm can use its assets from its primary business to generate revenues. Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provide a valuable tool to stake holders which aids in evaluating the past financial performance and current position of a firm.

In Nigeria, several researchers have been carried out on capital structure and corporate performance of quoted manufacturing firms, but most of these studies focus mostly on one aspect of the components of capital structure and financial performance. These studies include that of Akinrinola, Tomori, and Audu, (2023): Anozie, Muritala, and Ininm, (2023): Meshack, Owa, Nwadialor and Chiedu (2022), Muhammad and Muhammad (2022) Esther Evbayiro-Osagie and Iyobo Enadeghe (2022), Akaji, Nwadialor and Agubata (2021): Aamir, Muhammad and Muhammed (2020).

From the prior studies on capital structure and firm performance, it is observed that these studies use different components of capital structure, analytical tools as well as methodology. This however, led to different results and findings

It is in view of the above that this paper is carried out to examine what constitute an appropriate mix of capital structure for manufacturing firms in Nigeria from 2019 to 2023.

To achieve this objective, the following hypotheses were formulated in null form:

$H0_1$: The Ratio of Total Debt to Total Asset has no significant effect on corporate performance of quoted manufacturing firms in Nigeria

$H0_2$: The Ratio of Total Debt to Total Equity has no significant effect on corporate performance of quoted manufacturing firms in Nigeria

$H0_3$: The ratio of short-term debt to total assets has no significant effect on corporate performance of quoted manufacturing firms in Nigeria

$H0_4$: The ratio of long-term debt to total assets has no significant effect on corporate performance of quoted manufacturing firms in Nigeria

2. Review of Related Literature

This section of the paper focused on conceptual framework, theoretical review and empirical studies.

2.1 Conceptual Framework

This section houses discussion on the concept of Capital Structure and Financial Performance as seen this:

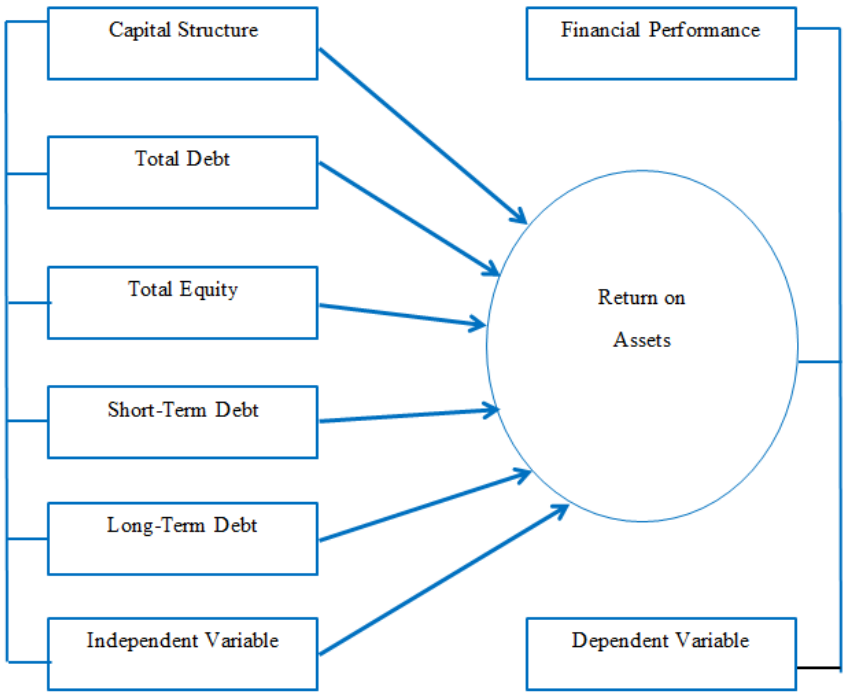

Fig. 1 Conceptual Framework (***Sources:*** Researchers Compilation, 2024)

2.1.1 Capital Structure

A firm's capital structure refers to the mix of its financial liabilities. There are two different ways of financing the assets of an organization; through internal equity or external debt. Capital structure refers to the way a corporation finances its assets through some combination of equity and debt (Tsai *et al*, 2010).

Capital structure is essential to how a firm finances its overall operations and growth by using different sources of funds. (Modigliani and Miller) theory is regarded as the broadly accepted capital structure theory because it is the foundation of capital structure theory which has been used by many researchers. It is recognized as a sort of structure with which firms receive direction and orientation concerning their business activities. It is also the heart of both a market economy and a democratic society. It is said to be the financing performance of a firm (Simon & Afolabi, 2011). In addition, capital structure represents a means for decision making of business firms and facilitates maximization of return on investment, as well as boosting the efficiency of financing and dividend decisions (Chandrasekharan, 2012).

Financing decisions generally facilitate the survival and growth of a business enterprise, which calls for the need to channel efforts of business towards realizing efficient decision, which will protect the shareholders interest. Capital structure decision is thus considered as one of the effective tools of management to manage the cost of capital.

The capital structure of a firm consists of debt and equity. Debt is further classified into short and long term. Accounting and finance literature often discuss these components as ratio of total assets and of equity. The components are discussed in details below;

2.1.1.1 Total Debt to Total Assets Ratio

The total debts to total assets measure the amount of the total funds provided by creditors in relation to the total assets of a firm. Generally, creditors would prefer low ratio for all debts because the lower the ratio the greater is the cushion against creditors losses in the event of liquidation. Total debt to total assets is a debt ratio that defines the total amount of debt relative to assets. This enables comparison of debt to be made across different companies. The higher the ratio the better degree of debt and consequently, financial risk. This is a broad ratio that includes long term debt and short term debt (borrowings maturity within one year) as well as all tangible and intangible assets (Akinsulire, 2014). Debt ratio is a solvency ratio that measures firm's total liabilities as a percentage of its total assets. In a sense, the debt ratio shows a company's ability to pay off its liabilities with its assets. In other words, this shows how many assets the company must sell in order to pay off all of its liabilities. This ratio also measures the financial debt of a company. Companies with higher levels of liabilities compared with assets are considered highly indebted and riskier for lenders

2.1.1.2 Total Equity to Total Debt Ratio

Total debt to total equity ratios measures the proportion of creditors fund in relation to shareholder's fund. Creditors would like this ratio to be lower; because the lower the ratio the higher the levels of firm's financing that is being provided by shareholders and the larger the cushion (margin of protection) in the event of shrinking asset values or outright losses. This a measure of how much suppliers, lenders, creditors and obligors have committed to the company versus what shareholders have committed (Kurfi, 2003). Total debt to total equity refers to the ratio of debt to equity capital of a company. As a result of the payment of interest and repayment of principal amount of the debt, a large part of the firm's cash flow would decrease (Magpayo, 2011). The debt to equity ratio shows the percentage of a company's financing that comes from creditors and investors. A higher debt to equity ratio indicates that more creditors financing (bank loans) is used than investors financing (shareholders).

2.1.1.3 Short Term Debt to Total Assets Ratio

This measures how relative short-term debts to total asset of a firm are to be repaid within an accounting period. Some scholars argued that the shorter the debt the better the firm is in improving its performance. The short term debt to total assets ratio is a measure of the financial leverage of the company. It tells what percentage of the assets is financed by short term debt. Short term debt is debt due for repayment within or less than 12 months and is not included in the long term liabilities figure on the statement of financial position. It includes creditors and accruals (Akinyomi, 2013). Short term debt to total assets ratio is the ratio that represents the financial position of the company's ability to meet its current financial requirements.

2.1.1.4 Long Term Debt to Total Assets Ratio

Long-term debt to total assets measures the relative weight of long-term debt to the capital structure (long-term financing) of a firm's long-term debt to- total assets. Long term debt to total assets ratio is the ratio that represents the financial position of the company's ability to meet its financial requirements. As this ratio is calculated yearly, decrease in the ratio would denote that the company is faring well, and is less dependent on debts for their business needs (Kurfi, 2003). The higher the level of long term debt, the more important it is for a company to have positive revenue and steady cash flow. It is very helpful for management to check its debt structure and determine its debt capacity (Akinsulire, 2014). The long term debt to total assets ratio is a measure of the financial leverage of a company.

2.1.2 Financial performance

Financial performance is referred to as a firm's ability to generate new resources from day-today operations over a given period (Bora, 2008). It involves meeting an entity's goal of enhancing shareholders' wealth and profit-making which are

among the major objectives of a firm (Pandey, 2005). Shareholder's wealth is mainly influenced by growth in sales, improvement in profit margin, capital investment decisions, and capital structure decisions (Arnott & Asness, 2003). Various indicators have been used to measure the financial performance of firms by various scholars. The study by Okwo (2012) measured the financial performance of firms in the brewery sector in terms of operating profit margin. Similarly, a study by ZhengSheng and NuoZhi (2013) measured the business performance in terms of operating revenue to determine the optimal allocation of asset structure on financial performance. Olatunji *et al*. (2014) used the net profit of the commercial banks as the measure of their financial performance. Further, a study by Wamugo *et al*. (2014), on the relationship between capital structure and performance of non-financial listed firms, used ROA and ROE as the indicators of a firm's performance. This approach was also taken in a study on the effects of asset structure on the financial performance of listed manufacturing firms where the financial performance of these firms was evaluated in terms of ROA and ROE (Mawih, 2014). This study used return on assets.

2.2 Theoretical Review

This paper reviews static trade- off and firm performance theories as they relate to capital structure.

2.2.1 The Static Trade-Off Theory

This theory looks at the trade-off between tax benefit of debt and the costs of bankruptcy. It argues that while investment decision and firm assets are held constant, an optimal capital structure is attained when the tax benefit of debt equals to leverage associated costs which include financial distress, bankruptcy and agency (Myers, 2001). The theory assumes the existence of different target leverage for different firms due to firm's specific factors and also believes that firms are already at their presumed targets (Myers, 2001). This study is therefore, anchored on the static trade-off theory and this is so because in the context of this study, this theory implies that for companies to continue to perform financially well and not face distress, their financing structure is germane and hence managers have to ensure an optimal capital structure and this decision according to the theory will depend on the trade-off between tax benefit of debt and the costs of bankruptcy. Hence the theory directly identifies that an optimum capital structure is at the core of corporate survival.

2.2.2 The Firm Performance Theory

The firm performance theory was propounded by Benjamin Forler in 1954. The firm performance theory states that firms must obtain cash equilibrium to remain solvent. Certain events can cause a firm to lose cash equilibrium. The firm performance theory suggests that losing cash equilibrium creates financial stress on the firm. The ability to pay obligations as they come due, how much firm performance had the company maintained, how the company obtains cash and how it spends cash can indicate whether a company remains financially healthy or has become distressed. Since the strategic manager's perception can affect different types of firm' performances (operating, investing, financing), information from the firm performance statement may indicate what stage of financial performance a firm is in, and provide information about management actions to regain cash equilibrium and achieve it organizational responsibilities..

2.3 Empirical Studies

This section reviews extant literature on the effect of capital structure on corporate performance of quoted manufacturing firms.

Akinrinola, O.O., Tomori, O.G., Audu, S.I. (2023): This study explored the effects of capital structure on financial performance of quoted manufacturing firms in Nigeria. The study used panel least square multiple regression to examine secondary data gathered from the 14 sampled organizations' financial statements from 2011 to 2020. The null hypothesis that there is no statistically significant link between total-debt-to-total equity and return on assets of manufacturing entities in Nigeria was accepted. The study rejected the second hypothesis relating to long-term-debt -to-total-assets. The study recommended that management of manufacturing corporations that are active on the stock market should strive to increase their long-term-debt to-total-assets so as to improve their business operations and by extension, their financial performance.

Anozie, O.R., Muritala, T.A., Ininm, V.E. et al. (2023): This study examines the impact of capital structure on the financial performance of Nigerian oil and gas companies. Using an ex-post facto research methodology, the short-term debt to total asset, long-term debt to total asset, total debt to total equity, and return on asset variables were investigated as proxies for capital structure and financial performance, respectively. Based on the data's availability at the time of the inquiry, the study used an easy sampling strategy to gather secondary data. These data covers the years 2011 through 2020 and were compiled from the annual financial reports of five Nigerian oil and gas companies. Descriptive statistics and panel regression analysis were used to analyze the data. The analysis' findings shows that while long-term debt to total assets has a negative significant influence on return on assets, short-term debt to total assets and total debt to total equity had positive insignificant impacts.

Meshack, Owa, Nwadialor and Chiedu (2022) studied long term debt financing and financial performance of listed manufacturing firms in Nigeria. Their study employed an ex-post facto research design. The sample used for the research consists of 75 non-financial firms listed on the Nigerian Exchange Group. The study scope covers 2010-2019. Panel regression was employed for the inferential analysis. On the overall, the study finding reveals that LTDE has significant positive impact on ROE but insignificant in relation to TOBINQ while LTDA has a significant negative

impact on ROE as well as with Tobin Q. The study recommends the need for firms to engaged long term debt productively and reduce the agency cost that accompanies debt financing.

Muhammad and Muhammad (2022) examined the effect of debt on firm behavior of 167 registered manufacturing companies in G-7 countries. The sample of the study is taken from the building companies, the yearly financial statements of 2007–2018 have been taken from world stock exchange and Thomson Reuters Data Stream. In this study, regression analysis is directed with panel data over the period of 2007–2018 using ordinary least square summary statistics, correlation matrix and generalized method moments. Data were analyzed by employing E Views and Stata 13 software. The significant findings of the current study indicated that profitability have positive association with debt level Esther Ikavbo Evbayiro-Osagie and Iyobo Best Enadeghe (2022) Researched on impact of capital structure on return-on-assets (ROA) performance of non-financial firms in Sub-Sahara Africa for a period of nine (9) years (2012-2020). A total of forty (40) non-financial firms were studied using their capital structure variables of long term debt to equity (LTDQ), total debt (TD), total debt to equity (TDQ), and total debt to total assets (TDTA) as well as their ROA performance. The panel data analysis technique was employed. It was found that LTDQ, TD and TDQ have positive impact on ROA performance; while TDTA has a negative impact on ROA performance, and all variables were significant at 1 percent level. The study recommends that, since long term debt to equity strongly explains corporate performance in the Sub-Saharan African Countries, management should sustain their current policies and should also be very sensitive in determining the appropriate amount of long term debt that ought to be included in their capital structure build up.

3. Methodology

The paper adopted ex-post facto method for the study. This research design was considered appropriate because the researchers had no control over the study variables. The population of the study comprised of 86 quoted firms under the manufacturing sector in Nigeria. Secondary data was sourced from 10 manufacturing firms that made the sample. The regression model used by Gbadebo (2022) was adapted to incorporate the study's variables as seen below:

$$ROA = f(TDTA, TDTE, SDTA, LDTA)$$

The econometric specification is as follows:

$$ROA_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 TDTE_{it} + \beta_3 SDTA_{it} + \beta_4 LDTA_{it} + eit$$

Where:

β_0 = Intercept of X variable of company
$\beta_{1-}\beta_4$ =Coefficients of explanatory variables indicating their relationships to the observable variable.
ROA = Return on Asset
TDTA = Total Debt to Total Asset
TDTE = Total Debt to Total Equity
SDTA = Short-term Debt to Total Asset
LDTA = Long-term Debt to Total Asset
e = Error term
it = Firm i at time t

Table 1 Operational Measurement of Variables

Variables	Acronym	Measures/Proxy	Author(s)
Total Debt to Total Assets	TDTA	Total Debt/Total Assets	(Akinyomi 2013)
Total Debt to Total Equity	TDTE	Total Debt/Total Equity	(Khalaf 2013)
Short-Term Debt to Total Assets	SDTA	Short-Debt/Total Assets	(Amara & Bilal 2014)
Long-Term Debt to Total Assets	LDTA	Long-Debt/Total Assets	(Abdullahi 2013)
Return on Assets	ROA	Profit After Tax/Total Assets	(Berman, Kaylly, and Cese (2013)

Source: Generated by the Researcher (2024)

4. Results and Discussion of Findings

4.1 Descriptive Statistics

The descriptive statistics of the dataset from the sampled listed firms are presented in table 2.

Table 2 Descriptive Statistics of the Variables

Variables	ROA	TDTA	TDTE	SDTA	LDTA
Mean	0.605200	0.136760	0.571600	0.278000	0.191680
Median	0.590000	0.130000	0.550000	0.273000	0.182000
Maximum	0.880000	0.189000	0.830000	0.550000	0.455000
Minimum	0.400000	0.070000	0.360000	0.091000	0.024000
Std. Dev.	0.125403	0.030229	0.149546	0.114476	0.144962
Skewness	0.784097	-0.179881	0.421382	0.264488	0.235487
Kurtosis	2.969486	3.383057	2.193340	2.949784	1.519193
Jarque-Bera	2.562668	0.287669	1.417657	0.294102	2.515216

Probability	0.277667	0.866031	0.492221	0.863250	0.284333
Sum	15.13000	3.419000	14.29000	6.950000	4.792000
Sum Sq. Dev.	0.377424	0.021931	0.536736	0.314512	0.504337
Observations	250	250	250	250	250

Source: E-View (2024)

Table 2 presents the descriptive statistics of the study variables showing the number of observations, mean values, standard deviation, minimum and maximum values of the data set. The paper made use of data obtained from 10 listed companies for 5 years giving 250 number of observations.

Financial performance (ROA) revealed a mean value of 0.605200, maximum and minimum value of 0.880000 and 0.400000 respectively. The large difference between the maximum and minimum value shows that the sampled companies used for the study are homogeneous in terms of performance. The study also revealed that on average during the period, the selected firms have total debt to total asset (TDTA) value of 0.136760, and its maximum and minimum values are 0.189000 and 0.070000 respectively. The average value of the total debt to total equity (TDTE) is 0.571600, and its maximum and minimum values are 0.830000 and 0.360000 respectively. The average value of the short-term debt to total asset (SDTA) is 0.278000, and its maximum and minimum values are 0.550000 and 0.091000 respectively; while the average value of the long-term debt to total asset (LDTA) is 0.191680, and its maximum and minimum values are 0.455000 and 0.024000 respectively. The large differences between the maximum and minimum value show that the firm's data used for the study are homogeneous.

The result shows that within the period under review, the selected sampled companies have more total debt to total equity than any other capital.

4.2 Correlation Analysis

In evaluating the relationship that exists among the variables, the study employed the Pearson Correlation Coefficient, and the result obtained is summarized in the table below

Table 3 Correlation Analysis of Sampled Quoted Manufacturing Firms

Variables	ROA	TDTA	TDTE	SDTA	LDTA
ROA	1.000000	0.303711	-0.559911	-0.028880	-0.326408
TDTA	0.303711	1.000000	-0.113190	-0.276867	0.080320
TDTE	-0.559911	-0.113190	1.000000	-0.073138	0.582686
SDTA	-0.028880	-0.276867	-0.073138	1.000000	-0.329454
LDTA	-0.326408	0.080320	0.582686	-0.329454	1.000000

Source: E-Views (2024)

Table 3 above, shows the relationship among the various components of capital: total debt, total equity, short-term debt and long-term debt. The correlation analysis result shows that a negative relationship exists between return on assets and total equity (-0.559911), short-term debt (-0.028880), and long-term debt (-0.326408); but has a positive relationship with total debt to total asset (0.303711). The result also shows that total debt to total assets have a negative relationship with total debt to total equity (-0.113190) and short-term debt to total asset (-0.276867), but has a positive relationship with long-term debt to total asset (0.080320). The total debt to total equity has a positive relationship with long-term debt to total asset (0.582686) but has a negative relationship with short-term debt to total asset (-0.073138); while short-term debt has a negative relationship with long-term debt to total asset (-0.329454).

4.3 Regression Analysis

Table 4 Return on Asset (ROA) Model of Sampled Quoted Manufacturing Firms

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.718324	0.171435	4.190072	0.0005
TDTA	1.027789	0.774198	1.327554	0.1993
TDTE	-0.416480	0.187279	-2.223847	0.0378
SDTA	-0.018874	0.214157	-0.088133	0.9306
LDTA	-0.054141	0.202103	-0.267889	0.7915

R-squared	0.737425	Mean dependent var.	0.605200
Adjusted R-squared	0.724910	S.D. dependent var	0.125403
S.E. of regression	0.108667	Akaike info criterion	-1.424199
Sum squared resid.	0.236171	Schwarz criterion	-1.180424
Log likelihood	22.80249	Hannan-Quinn criter.	-1.356587
F-statistic	2.990493	Durbin-Watson stat	1.738070
Prob. (F-statistic)	0.043649		

Source: E- Views (2024)

The R-squared which is the co-efficient of determination or measure of goodness of fit of the model tests the explanatory power of the independent variables in any regression model

From our result, the R-squared (R^2) is 74% in the ROA model above. This shows that our model displayed a good fit because the R^2 is closer to 100%, which means that these explanatory variables can impact up to 74% out of the expected 100%, leaving the remaining 26% which would be accounted for by other variables outside the models as captured by the error term. These values indicate that capital structure influences the performance of quoted manufacturing firms. Capital structure variables can explain about 74% of the variation in the performance of quoted manufacturing firms in the Nigeria. The F-statistics measures the overall significance of the explanatory parameters in the model, and it shows the appropriateness of the model used for the analysis, while the probability value means that model is statistically significant and valid in explaining the outcome of the dependent variables.

From table 4 above, the calculated value of the f-statistics is 2.990493 and its probabilities are 0.043649 which is less than 0.05. We, therefore, accept and state that there is a significant relationship between the variables. This means that the parameter estimates are statistically significant in explaining the relationship in the dependent variable. The probability of the f-statistics value for quoted manufacturing firms indicates that the model used for the analysis was statistically significant at 5%.

The t-statistics help in measuring the individuals' statistical significance of the parameters in the model from the result report. It is observed from table 4.3 above that only total debt to equity (TDTE) was statistically significant at 5% with its value as -2.223847. This implies that it has contributed significantly to corporate performance (ROA) of quoted manufacturing firms at the rate of 5% level of significance; whereas the remaining variables such as total debt to total asset (TDTA), short-term debt to total asset (SDTA), and long-term debt to total asset (LDTA) with their values as 1.327554, -0.088133 and -0.267889 respectively are not statistically significant at 5% level of significance.

The Durbin Watson value of 1.738070 which is approximated as 2 reveals the absent of autocorrelation in the model used for the analysis. The apriori criteria are determined by the existing accounting theory and state the signs and magnitude of the variables from the result. Total debt to total equity (TDTA), short-term debt to total asset (SDTA), and long-term debt to total asset (LDTA) have a negative sign and their values are -2.223847, -0.088133, and -0.267889 respectively in the ROA model above, this implies that increase in total debt to total equity (TDTE), short-term debt to total asset (SDTA) and long-term debt to total asset (LDTA) will decrease the corporate performance (ROA) by 222%, 8.8%, and 27% respectively.

4.4 Hypotheses Testing

Table 5 The hypotheses stated in their null forms in chapter one are tested in this section

Independent Variable	P-Values	Significant or insignificant @ 5%	Remarks
TDTA	0.1993	Insignificant	Accept Null Hypothesis
TDTE	0.0378	Significant	Reject Null Hypothesis
SDTA	0.9306	Insignificant	Accept Null Hypothesis
LDTA	0.7915	Insignificant	Accept Null Hypothesis

4.5 Discussion of Findings

This section discusses the findings of the study in line with the tested hypotheses as follows:

4.5.1 Total Debt to Total Asset (TDTA)

The test of hypothesis one based on effect of total debt to total asset on the financial performance of quoted manufacturing firms in Nigeria reveals a t-value of 1.327554 and p-value 0.1993. This implies that total debt structure have a positive influence on corporate performance (ROA) of our sampled manufacturing firms though was statistically insignificant at 5% since its p-value was greater than 0.05. This result, therefore, suggests that we should accept the null hypothesis and reject the alternative hypothesis, which states that total debt structure has no significant effect on the performance of quoted manufacturing firms in Nigeria. This means that increase in the total debt structure of sampled quoted manufacturing companies indicates the higher performance of manufacturing firms in Nigeria; though the performance is not that significant. With a positive influence on performance, this conforms to our apriori expectation. This finding is in line with that of Clement O.O. & Olufemi D.A (2022). Again, this finding is in variance with the result of the study of Mwaniki and Omegwa (2017), which shows that total debt structure has a significant effect on corporate performance.

4.5.2 Total Debt to Total Equity (TDTE)

The second hypothesis was centered on the effect of total debt to total equity on financial performance of quoted manufacturing firms in Nigeria. The findings show a t-value of -2.223847 and p-value 0.0378. This findings indicate that total debt to total equity have a negative influence on corporate performance (ROA) of our sampled manufacturing companies in Nigeria and was statistically significant at 5% since its p-value was less than 0.05. This result, therefore, suggests that we should accept the alternate hypothesis and reject the null, which states that total equity structure has a significant effect on corporate performance of quoted manufacturing firms in Nigeria. This means that increase in the total equity structure of sampled companies indicates lower performance of the sampled manufacturing firms in Nigeria.

This finding is in line with the findings of the studies of Etale, L, Edoumiekumo, A.R, Kpolode, O.P and Nkak, P.E (2020) which confirm with the significant effect of total equity structure on corporate performance. The findings disagree with that of Akinrinola, O.O., Tomori, O.G., Audu, S.I. (2023): which show that there is no significant relationship between total debt to total equity and firm performance in Nigeria.

4.5.3 Short-Term Debt to Total Asset (SDTA)

Our third hypothesis focus on the effect of short*term debt to total asset on financial performance of quoted manufacturing firms in Nigeria. Our findings show a t-value of -0.088133 and p-value of 0.9306. This indicate that short-term debt structure appears to have a negative influence on corporate performance (ROA) of our sampled companies in Nigeria and was statistically insignificant at 5% since its p-value was greater than 0.05. This result, therefore, suggests that we should accept the null hypothesis and reject the alternative hypothesis, which stated that the current asset structure has no significant effect on the corporate performance of quoted manufacturing firms in Nigeria. This means that increase in the short-term debt structure of sampled quoted manufacturing companies indicates a lower performance of the firms in Nigeria. This finding is in variance with the findings of the studies of Clement O.O. & Olufemi D.A (2022), which reveal that short-term structure has a significant effect on performance, but is in line with the findings of Leszek (2013) that reveal an insignificant effect of short term debt to total asset structure on financial performance

4.5.4 Long-Term Debt to Total Asset (LDTA)

The fourth hypothesis of the study centered on the effect of long-term debt to total asset on financial performance of quoted manufacturing firms in Nigeria. The result of our findings revealed a t-value of -0.267889 and p-value 0.7915. This shows that long-term debt structure has a negative influence on corporate performance (ROA) of our sampled manufacturing companies in Nigeria and was statistically insignificant at 5% since its p-value was greater than 0.05. This result, therefore, suggests that we should accept the null hypothesis and reject the alternative hypothesis, which states that long-term debt structure has an insignificant effect on the corporate performance of quoted manufacturing firms in Nigeria. This means that increase in the long term debt structure of sampled manufacturing companies indicates the lower performance of the firms in Nigeria. This is in line with the study of Meshack, Owa, Nwadialor and Chiedu (2022) that finds insignificant effect of long-term debt structure on corporate performance.

5. Conclusion and Recommendation

Based on the result of the analysis the study concludes that total debt, total equity, short-term debt and the long-term debt constitute the major components of manufacturing firm's capital structure. The study therefore recommends manufacturing firms should try to maintain a balance mix of equity and debt in their capital structure.

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