

ANALYSIS OF DEBT FINANCING ON FINANCIAL PERFORMANCE OF LISTED
CONSUMER GOODS COMPANIES IN NIGERIA

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The study investigated the effect of debt financing on financial performance of listed consumer goods companies in Nigeria. The study addressed a number of objectives: to examine the effect of debt to equity ratio on return on assets of listed consumer goods companies in Nigeria; ascertain the effect of total debt ratio on the return on assets of listed consumer goods companies in Nigeria; and determine the effect of long-term debt ratio on the return on assets of listed consumer goods companies in Nigeria. The study adopted secondary panel data obtained from firms' annual reports and accounts from 2011 to 2022 and expo facto research design. Descriptive statistics was used to analyze the data and OLS Regression analysis was employed to test the hypotheses at 5% level of significance. The results revealed that debt-equity ratio was insignificant and negative effect on return on assets of listed consumer goods companies in Nigeria, similarity total debt ratio is not significant also documented negative relationship on return on assets of listed consumer goods companies in Nigeria, while long term debt ratio was also not significant at 5% level though has positive effect on return on assets of listed consumer goods companies in Nigeria. Based on these findings, the recommendation among others is that management of these firms should be careful when using debt as its source of financing its activities, they should seek to finance their activities with retained earnings and use debt as a last option as supported by the pecking order theory. Long term debt finance is mostly used by highly tangible firms, hence, policies that would encourage growing firms accumulate huge tangible assets should be pursued. Hence, tax concession and exemptions can be approved.

Key words: Leverage, Consumer Goods Sector, Profitability

1.0 Introduction

The management of firms is regularly faced with a harmonizing act of deciding how much funds should be raised by owners/shareholders by means of equity and the possible ways of raising externally funds from non-owners which is debt to make of the capital structure (Mutegi, 2016). Debt financing is a key source of capital in many growing firms since their retained earnings may not be sufficient enough or may be unavailable (Momanyi, 2018). Firms' financing sources are divided mainly into equity and debt, Ebe (2021).

Debt financing refers to the acquisition of capital from a specific lender to embark on business operations and repay it back within a fated time with interest (Manzano, 2019). Borrowing of loans from other banks, companies or financial institutions so as to support the operations of a business is referred to as debt financing. An interest expense is paid before the maturity period of the debt, within the loan principal being repaid at a future time (Hussain, Millman&Matlay, 2016). Capital structure has been described as a combination of equities finance and debt finance and is usually regarded as the one of the most significant financial variables because it is linked to the capacity of the company to meet the requirements of all its stakeholders such as employees, community, shareholders among others. Abeywardhana, & Magoro, (2017) and Ebe, Oge and Obiekwe (2022)

How much debt and how much of equity thus constitutes the critical question for financial managers. It seems certain factors need to be examined before deciding the makeup of capital for any firm. The structure could change over time but at any given point, modification may be made depending on whether the weight of debt is low or high Akaji, Nwadiolor, & Agubata, (2021). More debt could increase shareholders risk but when the conditions are right, it could increase their returns substantially Akeem, Ediwin, Kinjanjui & Kayode (2014). If debt-equity is well structured, the cost of capital could increase which will lead to increase in the value of the firm (Aziz & Abbas, 2019). Debt requires two types of preferences; short-term debt repayable within a period of twelve months (one accounting period) and long-term debt payable within a frame of more than twelve months (Adekunle & Sunday, 2010). Decision on source of financing is among the key financial decisions that are taken by firms since debt financing has an effect on the financial performance. Leverage financing provides the borrower with the prospect to finance an investment on short-term source at the same time spreading the cost of capital over time so as to meet the affordability and budgetary constraints (Vengesai&Kwenda, 2017). However, it is important, to note that the overreliance on equity financing may lead to liquidity issues within the company and possibility of failure to take advantage of possible growth opportunities that may be there (Amara & Aziz, 2014).

When making capital structure decisions, it is prudent for the firms to take into account the tax advantage on the use of debt, the availability of collateral or the security used to secure debt, the availability of collateral or the security used to secure debt capital, ability to change the capital structure and firms vulnerability to financial risk. Generally, utilization of debt in capital structure will lead to an increase in gearing due to interest tax shield benefit (Manzano, 2019). Debt finance results to benefits such as tax shield and the decrease of free cash flow problems by enhancing managerial behavior while the expense of debt financing include agency expenses and bankruptcy cost which results from the conflicts between shareholders and debt holders (Fama& French, 2002). On the other hand, the inability to meet such financial obligations may perhaps result in loss of collateralized asset or even bankruptcy (Chepkwony, 2018). This is because its increases the risk perceptions of shareholders while raising financial costs in terms of interests and principal amount advanced at specified terms. A company with too much debt is likely to default on repayment of the interest. This would ultimately result into bankruptcy proceedings and financial distress (Acharya & Almeida, 2007). Thus, this reveals how significant financing decisions are, as they can define the going concern and financial performance of a firm.

Debt also offers business enterprises a tax shield; hence firms are motivated to borrow more to reap maximum tax benefits which translate to higher profits. Yet, anomalous obligation levels may constrain a firm into liquidation thus; supervisors ought to be quick to address chance elements, for example, high obligation value proportion which suggests that a company's risk is high.

According to Olang (2017) a higher degree of financial debt leads to a higher payment of interest which in turn affects negatively the firm's baselines of earnings.

Statement of the Problem

Financial analysts have argued in support of debt use and consider debt finance as good in enhancing firms performance provided it's acquired at the favourable rate and its proceeds utilized in a good way. However, this has not been the case with some firms. Some firms have acquired huge debt that have exceeded their net gains hence affecting their performance adversely as well as investor confidence therefore resulting to total collapse and even lead to closures. There have been consistent with results of some scholars on debt financing and financial performance of firms. (Ishola, 2018; Jaramillo & Schiantarelli, 2017; Kumar & Woo, 2010; Yung Chien, 2013. (Zeitun & Tian, 2017; Iavorskyi, 2013; Dada, 2014; Salawu, 2017). The debt overhang harms suggest that high levels of debt would discourage investments because of increased costs; thus short term long term and total debts of firms and end result is financial distress (Diamond & He, 2014) Debt financing of a firm can lead to bankruptcy and have an adverse effect on the performance of the firm if not properly utilized. These developments coupled with the lack of universal consensus of empirical findings triggered the need of this study.

The following hypotheses were tested in null form for this study.

- H0₁:** Long-term debt has no significant effect on return on assets of listed consumer goods companies in Nigeria
- H0₂:** Short-term debt has no significant effect on return on assets of listed consumer goods companies in Nigeria
- H0₃:** Total debt has no significant effect on return on assets of listed consumer goods companies in Nigeria

2.0 Review of Related Literature

2.1 Conceptual Review

Debt Financing

Debt financing involves an action that is bound by time for the repayment of debt and the debt's interest at an agreed end of the period. It occurs when a firm borrows needed cash resulting to debt to a lender or an investor for a short-term or for long-term capital needs of the firm. Miller (2019), when debt financing is resorted to by a firm resorts to; it means that the firm gets its cash needs from additional business or sources, resulting to debt acquired to the "original lender for either short-term needs or long-term capital expenditure." It is a policy that borrowing money involves having a consideration that the total amount borrowed with the interest will be paid back in the future Ohaka, Edori, & Ekwezor, (2020). The rate of interest charged on the amount borrowed shows the risk level undertaken by the lender for providing the needed fund (Matar & Eneizan, 2018). In debt financing, both ownership and control are not given up at anytime. And the interests paid are tax deductible. Optimal debt capital of firms have always been a critical issues in analyzing its performance vis-a-vis other factors relating to its growth such as firm's size, sale growth, the asset structure and tangibility (Omaliko & Okpala, 2020).

Short Term Debt 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. It shows the percentage of company assets that are financed with loans and other financial obligations that last over a year.

The short term debt ratio is calculated by dividing current liabilities by total assets. Both of these numbers can easily be found in the balance sheet. A lower debt ratio usually implies a more stable business with the potential of longevity because a company with lower ratio also has short term debt (Adeoye&Olojede, 2019).

Long Term Debt to Total Assets

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, Wude, Itiri, Agbadua, &Udeh, (2016) 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, 2013). 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. Long term debt is debt due for repayment in over 12 months and is not included in the current liabilities figure on the balance sheet. It includes mortgages and long term leases, but not general trading liabilities (Akinyomi, 2013). A high ratio usually indicates a higher degree of business risk because the company must meet principal and interest obligations. Potential creditors are reluctant to give financing to a company with a high debt position. However, the magnitude of debt depends on the type of business. For example, a bank may have a high debt ratio but its assets are generally liquid. A utility can afford a higher ratio than a manufacturer because its earnings are more stable (Khalaf, 2013).

Total Debt Ratio

The total debts to total assets ratio 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. In view of Aziz, Abbas, (2019) 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. 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. Almajali, Alamro, & Al-Soub, (2012) assert that 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 more risky for lenders.

Akaji et al confirm debt ratio assists investors and creditors (payables) analyse the overall debt burden on the company as well as a firm's ability to pay off its debt in the maturity date especially in uncertain economic periods. The debt ratio is calculated by dividing total liabilities by total assets. Both of these numbers can easily be found in the balance sheet.

A lower debt ratio usually implies a more stable business with the potential of longevity because a company with lower ratio also has an overall debt posture. Each industry has its own benchmarks for debt, but 0.5 is reasonable ratio (Ojo, 2012).

Financial performance

Performance is the most imperative measure for profitable of a company (Matar&Eneizan, 2018). Financial performance predominantly shows the sector of a business outcome as well as results, showing the overall financial health condition of the business sector over a particular time period (Naz, Ijaz& Naqvi, 2016). They further asserted that it shows how well a firm utilizes her resources in minimizing the wealth and profitability of the shareholders. It measures a company's health condition financially over a given period (Matar&Eneizan, 2018 & Naz, Ijaz& Naqvi, 2016) and shows the performance by the leadership (executive) of the firm (Matar&Eneizan, 2018). It is very important to users of financial information as it reflects the going concern of the firm. A firm with higher financial performance is likely to attract more investors than the one with lower financial performance. When a firm records high financial performance, it means that the firm effectively and efficiently utilized her resources well. Almajali, Alamro and Al-Soub, (2012) are of the opinion that a higher financial performance of a company means more effective and efficient the firm is using its available resources and afterward "contributes at the macro in the country's economy." A total assessment of financial performance of a firm takes into consideration various methods of measurement. Naz, Ijaz& Naqvi (2016) opined that though diverse ways are used in measuring financial performance, financial ratio is the most common one been used in finance and statistical inference fields. Omondi & Muturi (2013) state that "financial performance can be measured by growth in profitability, production capacity, sales growth and utilization of the capital and financial resource." this study will use return on assets as one of the indicators of profitability.

2.2 Theoretical Framework

This study anchored on Trade off Theory; trade off theory can be traced to the debate over M&M theorem (Ajibola, Wisdom & Qudus, 2018). Trade off theory has to do with cost-benefit analysis performed in business operations. The theory stated that the trade-off between the benefits the debts cost is the optimal capital structure. According to Graham and Harvey (2002), the tradeoff theory connotes firms' choice of leverage between the benefits and cost of debt and the trade off of costs and benefits of borrowing while holding firms asset constant as a determinant of a firms' optimal debt ratio. The trade off theory summarized the balance of diverse benefits and cost as it concerns debt for optimal capital structure.

2.3 Empirical Review

Akaji, Nwadiakor and Agubata (2021) examined the effect of Debt Financing on Performance of Firms in Nigeria. The study measured debt financing using the variables of long term debt financing (LTDF), short term debt financing (STDF) and preferred stock financing (PSF) while firms performance was measured using Return on equity (ROE). Three hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using OLS Regression Model. The research design used is Ex Post Facto design and data for the study were obtained from the NSE Factbook, Annual Reports and Accounts.

The findings of the study showed that Debt Financing has significant and positive effect on firms' performance in Nigeria at 5% significant level. The study concluded that debt financing has improved firms performance over the years.

Abubakar (2020) study was carried out to determine the effect of financial leverage on the financial performance, using secondary data obtained from the annual reports of 7 quoted Oil and Gas firms in Nigeria, and the Nigerian stock exchange (NSE) daily official lists over the period 2005- 2016. Descriptive statistics such as mean, median, minimum, maximum, standard deviation, coefficient of variation, skewness and kurtosis were used in data presentation, while random effects panel estimator is applied in determining the effect of financial leverage variables as short-term debt ratio (STDR), long-term debt ratio (LTDR) and total-debt equity ratio (TDER) on the financial performance measured by the return on equity (ROE). The regression results from the random effects model (REM), the best panel estimator in this study as revealed by the F-test and the Hausman test for best model selection, indicate that STDR and LTDR have no significant effect on the financial performance, and TDER has a negative significant effect on the financial performance denoted by ROE.

Ohaka, Edori and Ekwezor (2020) study explored the effect of debt financing on firm's financial performance in Nigeria. The study adopted the random sampling techniques to arrive at the sample size of the study. Secondary data was used in the study. Panel econometric tools were used to analyze the panel data of various companies across sectors in the capital market. The results of the analysis revealed that, size of the firm; short term debt and long term debt have positive and significance impact on the financial performance of listed firms in Nigeria capital market.

Afolabi, Kajola, Olabisi and Asaolu (2019) investigated the relationship between leverage and financial performance of Nigerian firms between the years 2007 and 2016. The study adopted *ex-post facto* research design to retrieve and study data for events which were already in existence. Inferential statistics adopted econometrics models with a concentration on panel data using regression analysis to achieve the three specific objectives of the study. The surrogates for the independent variable (financial leverage) were Debt Ratio (DR); Debt-Equity Ratio (DER); and Interest Cover Ratio (ICR) while Return on Capital Employed (ROCE), the only dependent variable, was used as financial performance proxy. Three control variables – Firm Size (SZ), Sales Growth (SG) and Growth in Gross Domestic Product (GGDP) were included in the model to capture other firms – specific and macroeconomic variables that may have an influence on the financial performance of the selected firms. The Random Effects Generalised Least Squares (REGLS) revealed a positive and significant effect on leverage (DR and DER) and ROCE. The results also revealed that ICR has a positive but insignificant effect on ROCE.

Ndubuisi, Ifechi and Chijioke (2019) studied the relationship between financial leverage and firm financial performance in Nigeria using 80 non-financial firms quoted on the Nigerian Stock Exchange from 2000 to 2015. The total debt to capital ratio, debt to equity ratio, cost of debt, debt to asset ratio and long term debt to capital ratios were proxies for financial leverage. Panel data technique in the form of the pooled regression model, fixed effect model, random effect model, and the marginal model had been applied to test hypotheses. The findings revealed earnings per share is significant and negatively related to the debt to equity ratio and the total debt to total asset measures of financial leverage while the return on equity shows an insignificant relationship with the financial leverage measures in Nigeria. The result also exhibited a positive relationship with the total debt to capital ratio and the cost of debt while the total debt to asset ratio, long term debt to capital ratios and the debt to equity ratio were negative.

Aniefor and Onatuyeh (2019) study examined the Effect of Debt Financing on the Corporate Performance: A Study of Listed Consumer Goods firms in Nigeria. Based on data gleaned from the audited annual reports of fifteen (15) consumer goods firms listed in the Nigerian Stock Exchange (NSE) for the period 2006 to 2017, results of the panel regression technique revealed that total debt, long-term debt and short-term debt to asset ratios positively influence the performance of consumer goods firms in Nigeria.

Aziz and Abbas (2019) empirically investigated debt financing effect on firms' performance on Pakistan nonfinancial sector. The study attempted to examine the association of various debts financing on firms' performance in fourteen (14) sectors of Pakistan by employing the secondary method of data collection. Data were collected from fourteen (14) various sectors (Pakistan Stock Exchange) for nine (9) years period spanning from 2006-2014. Using the correlation analysis to check the strength of the relationship, the result indicates a negative effect though significance on financial performance in Pakistan.

Ishola (2018), while considering the sensitivity of performance to Long-term debt Long-term debt from 2010-2014, using Degree of Operating Leverage (DOL), Degree of Financial Leverage (DFL), Degree of Combined Leverage (DCL), as a proxy for capital structure; and Dividends Per Share (DPS), Earnings Before Interest and Taxes (EBIT) as measures of firm performance. Data were collected from selected foods and Beverages Companies, the study analyzed the degree(s) of leverage ratio and the percentage change in DPS relative to percentage change in EBIT, and reported a positive relationship between capital structure and firm performance. The study concluded that irrespective of the dividend policy adopted by a firm, the rate of change in Long-term debt is a major determinant of firm's performance.

Methodology

Research Design

The study used ex-post facto research design. It was carried out in Nigeria and only listed consumer goods companies in Nigeria active for the 11 year study period (2011-2022) on the floor of the Nigerian Stock Group were utilized. The study population covered 22 deposit money banks, 19 insurance companies and 10 investment companies in Nigeria as at 31st December, 2022. The sample via purposive sampling is made up of only eight manufacturing listed firms Nigeria. Note that panel least squares regression analysis, specifically Hausman specification test will be performed to determine the best suited approach to panel regression between the fixed effect model (FEM) and random effect model (REM). Statistical significance of the parameter estimates will be determined using T-statistics at 5% level of significance and the test of goodness of fit for the models shall be carried out using the R² technique. The Fisher-statistic test will be used to determine the overall significance of the regression models. Durbin –Watson statistics would test for the presence or absence of auto-correlation. Variance Inflation Factor (VIF) test will be employed to test for multicollinearity in the models.

The functional model specifications are as follows:

$$ROA = f(STDR, LTDR, TDR) \dots\dots\dots (1)$$

Explicitly the models become;

$$ROA_{it} = \beta_0 + \beta_1STDR_{it} + \beta_2LTDR_{it} + \beta_3TDR_{it} + \mu_{it} \dots\dots\dots (2)$$

Where:

ROA = Returns on asset

STDR = Short-term debt Ratio

LTDR = Long-term debt Ratio

TDR = Total debt Ratio

β_0 = Constant/Intercept

$\beta_1, \beta_2, \beta_3$ = Coefficient of associated variables.

μ = Error term

i = Selected firm

t = Time series

4.0 Results

Descriptive Statistics

Table 4.2: Descriptive statistics of the data

stats	LTDR	TDR	DER	ROA
mean	.1270625	.5622722	1.628435	.1275722
max	.3327	.881	7.4031	.3776
min	.0174	.3211	.473	-.1184
sd	.0776111	.1360756	1.272662	.1128289
skewness	.77872	.3112445	2.380486	.1810482
kurtosis	3.00361	2.435996	9.303858	2.655877

Source: Researcher’s computation using STATA 13 (2023)

Descriptive statistics show that the mean values of the firms’ LTDR, TDR, DER from 2012 to 2020 averaged 0.13, 0.56 and 1.63 respectively with standard deviations of 0.07, 0.136 and 1.27 respectively. The standard deviations indicate the degree of variations from the mean. The data also shows that the average ROA of the firms from 2012 to 2020 is ₦0.13 with a standard deviation of ₦0.11. The DER data indicates that the firms on the average use more of debt capital than equity capital. The maximum value of ROA was ₦0.38 while the minimum was -₦0.11. This extreme large values of ROA implies that some companies in the sample performed poorly while some had very good ROA when compared to the average value. The distribution of LTDR, TDR and ROA was normally skewed (skewness < 1) while that of DER was highly skewed (skewness > 1). The kurtosis values for LTDR, TDR, DER, ROA indicated the extent of symmetrical distribution, the lesser the kurtosis, the more symmetrical the distribution.

4. Panel Regression

Hausman Specification Test

The Hausman specification test tests the null hypothesis that the random effect model is the preferred model to be used. The decision rule is to accept the null hypothesis where the p-value of the cross section random effect is greater than the 0.05 absolute Mackinnon value. If the null hypothesis must be rejected, the fixed effects model is the model to use.

Table 2: Correlated Random Effects-Hausman Test

T e s t	S u m m a r y	Chi-Sq. Statistic	Chi-Sq. d.f.	P r o b .
Cross-section random	1 2 . 7 1 3			0.0053

The result as presented in Appendix shows that the p-value of the chi-square statistics of the Hausman test between the fixed effects model and the random effects model (0.0053) < 0.05, therefore the null hypothesis is rejected and the fixed effect models (FEM) is preferable for the model. The study then proceeds to interpret the fixed effects model.

Analysis and Discussion of Fixed Effects Model (Dependent variable=ROA): Cross-section Fixed Effects.

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. xtreg ROA DER TDR LTDR, fe
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Fixed-effects (within) regression           Number of obs   =           72
Group variable: FIRMSID                   Number of groups =            8

R-sq:  within = 0.0185                    Obs per group:  min =            9
        between = 0.2012                    avg =           9.0
        overall = 0.0099                    max =            9

                                           F(3, 61)       =           0.38
corr(u_i, Xb) = -0.2668                    Prob > F       =           0.7650
```

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DER	-.0025385	.0190112	-0.13	0.894	-.0405538	.0354767
TDR	-.0769767	.1857384	-0.41	0.680	-.4483835	.2944301
LTDR	.0491562	.2062785	0.24	0.812	-.363323	.4616355
_cons	.168742	.0738131	2.29	0.026	.0211436	.3163405
sigma_u	.09258684					
sigma_e	.08029455					
rho	.57074484	(fraction of variance due to u_i)				

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F test that all u_i=0:           F(7, 61) =           11.07           Prob > F = 0.0000
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Source: Researcher’s computation using STATA 13 (2023)

The cross-section fixed effects model estimation is presented in Table 4.4 above. The regressors were debt-equity ratio (DER), total debt ratio (TDR) and long-term debt ratio (LTDR) and the constant (C).

The first regressor, DER was shown to have a negative coefficient implying a negative effect on ROA. The prob. value of DER (0.894) > 0.05 indicating that the coefficient of debt-equity ratio is not statistically significant at 5% alpha level.

The coefficient of TDR is negative and not significant (prob>0.05) meaning that total debt ratio negatively and insignificantly influences the firms’ ROA.

The third regressor, LTDR has a positive and insignificant coefficient implying that the effect of Long-term debt ratio on the firms’ ROA is positive and not statistically significant. The constant (C) is the average effect of ROA in the model when the independent variables are datasets equal to zero. From the results, the constant is shown to be positive and statistically significant. The estimation shows the Rho to be 0.571 which means that 51.7% of the variance in ROA is due to differences across panels. This further indicates the panel effect in this model. The F-test has a probability value of 0.0000 which indicates that the F-test is statistically significant. The implication of the joint F-test is that the U_i which represents the fixed effect is statistically significant. It indicates that the model is statistically significant.

**Table 3 Post Estimation Test
Multicollinearity Test**

Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly related and this usually constitutes a problem. The classical assumption of OLS regression model assumed that the error terms are normally distributed and independent (that is the error terms are uncorrelated); the explanatory variables are not perfectly correlated (absence of multicollinearity). To examine the existence of multicollinearity, a Variance Inflation Factor (VIF) test was conducted in this study. The result of the Variance Inflation Factor (VIF) test is presented below:

Table 4: Variance Inflation Factors

. vif

Variable	VIF	1/VIF
TDR	6.26	0.159654
DER	5.09	0.196562
LTDR	1.56	0.642657
Mean VIF	4.30	

From table 4.5, we can see that the highest variance inflation factor (VIF) is 6.26 and the mean VIF is 4.30. The rule of thumb for the Variance Inflation Factor is that a value of 10 and above is an indication of perfect multicollinearity (Gujarati, 2004). This result therefore proved the absence of perfect multicollinearity among the independent variables.

Discussion of Findings

The FE estimation showed that debt to equity ratio has negative effect on the financial performance of selected listed consumer goods companies firms in Nigeria. This can be observed from the value of beta coefficient of -0.002538 with p-value of 0.894 indicating that the p-value is not statistically significant at 5%. This implies that increasing debt to equity ratio has a negative effect of ROA of the sampled listed manufacturing firms in Nigeria. However, the individual effect of debt to equity ratio in this model is not significant. The result supports the findings of Ajayi&Araole (2017), Akeem, Edwin, Kiyanjui&Kayode (2014) Adeoye&Olojede (2019) who found that debt equity ratio is negatively associated with performance of firms while the result is also consistent with the findings of Oke, Saheed&Quadiri (2019), Ajibola, Wisdom &Qudus (2018) who found that debt to equity ratio has an insignificant impact on return assets (ROA). The results also reveal that the second predictor, the total debt ratio also has a negative effect on ROA judging from its coefficient of -0.076976. The P-value of the TDR coefficient is shown to be 0.680 which led to the conclusion that the effect of total debt ratio on the ROA of the sampled firms is not significant. This finding is supports the findings of Adeoye&Olojede (2019) Ajibola, Wisdom &Qudus (2018), Ajayi&Araole (2017), Akeem, Edwin, Kiyanjui&Kayode (2014) who found that total debt ratio has negative influence on ROA of firms. Also, Usman (2019) and Ajibola, Wisdom &Qudus (2018) found that TDR didn't have a significant effect on ROA.

Furthermore, the result showed that long term debt ratio has a positive effect on financial performance of the sampled listed firms in Nigeria. The implication of this finding is that the higher the long term debt to total assets ratio of a firm the better the quantum of profit to be reported by the firm. The beta coefficient of the variable is 0.049156 and the p-value is 0.812 which is not significant at 5% level of significance. This indicates that long term debt ratio has no significant effect on return on assets of the firms. The result agrees with the study of Usman (2019) and Ajibola, Wisdom &Qudus (2018) whose findings were that long term debt ratio does not have significant effect on ROA of firms.

The combined and overall effect of the predictor variables on the explained variable showed that the model is adequate and free from misspecification. The F-test value of 11.07 with Prob. of 0.0000 which is significant at 1% level of significance shows that the model is well fitted with the variables of the study.

5. Conclusion

This study established the relationship between debt financing variables and profitability of an entity. So every company should execute efficient capital structure to make profit and ensure going concern. From the analysis conducted, it was discovered that debt-equity ratio has a negative effect on profitability of listed firms in Nigeria. Again, from the findings it was also found that total debts ratio also negatively affects profitability of listed manufacturing firms and finally, the study concludes that long-term debt ratio has a positive significant with firms' profitability, although insignificantly. In view of this, manufacturing firms should rely more on debt and further on equity as a source of finance so as to boost their financial performance. Above all the empirical result revealed that long term debt is preferred as sources augmenting the capital considering a firm's capital structure. Managers of manufacturing firms in this regard should prudent when seeking credit advance from the money market or other finance raisers to follow the right direction.

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