# Financial Indices And Financial Performance Of Listed Consumer Goods Firms In Nigeria

EMIFONIYE, A.A<sup>1</sup>, Prof. Olannye, A.P<sup>2</sup>, Prof. Osuji, C.C<sup>3</sup>

1Department of Banking and Finance, Faculty of Management Sciences, DELSU, Business Asaba, Nigeria 2Department of Banking and Finance, Faculty of Management Sciences, Delta State University, Nigeria 3Department of Banking and Finance, Faculty of Management Sciences, Delta State University, Nigeria

Abstract: This study examined financial indices and the financial performance of consumer goods firms listed on the Nigeria Exchange Group (NGX). Using secondary data from 15 years of published annual financial statements, it analyzes the impact of Short-Term Debt Finance (STDF), Long-Term Debt Finance (LTDF) on financial performance, measured by Return on Assets (ROA). Quantitative techniques, descriptive statistics, and a correlation matrix were employed to assess and test these relationships. Analyzing data from 15 listed consumer goods firms in Nigeria, the results reveal: STDF significantly affects ROA. LTDF positively and significantly affects ROA. These findings underscore the importance of a balanced financial mix in enhancing performance. The study concluded that well-balanced financial indices can enhance a firm's financial performance by optimizing its capital structure. The proportion of debt and equity in the financial indices determines the company's cost of capital and overall financial risk. The study recommended that consumer goods firms' quoted on the NEG should increase the equity portion of the debt-equity indices in their financial indices to improve firms' ROA. So, firms should always thrive to attain those optimal indices in order to achieve the overall objective of the organization. The study offers valuable insights for policymakers, investors, and corporate managers, recommending improved financial management and stronger corporate governance to support growth and competitiveness in the consumer goods sector.

**Key Words:** Financial Indices, Financial Performance, Consumer Goods Firms, Short Term Debt Financing, Long Term Debt Financing and Return of Asset

## INTRODUCTION

Over the last quarter-century, one of the most contentious issues in finance theory has been financial indices. Mukumbi, Eugine, and Jinghong (2020), the financial indices are how a firm finances its complete operations and expansion by mixing multiple sources of cash. Short-term debt, such as that required for working capital, is also considered part of the financial mix. Bonds and long-term notes payable are examples of debt, while ordinary stock, preferred stock, and retained earnings are examples of equity (Owonye, 2023). A company's financial mix can include long-term debt, short-term debt, ordinary equity, and preference shares. When analysts discuss financial mix, they usually refer to a firm's debt-to-equity ratio, which indicates how hazardous the company is (Alhassan, 2021). The goal of management is to achieve the ideal financial mix, often known as the optimal debt-to-equity mix.

Nigeria economy is home to different listed firms that are quoted in different sector of Nigeria exchange group, such as; the consumer goods sectors, industrial goods sector, oil and gas sector, banking sector, agricultural sector etc, but how these sector finance their operations in the bids to increase their financial performance is the focus of this study (Imeokparia, Adesanmi & Fadipe, 2021). Financial mix refers to a company's use of debt and equity financing. It stems from the dispute over the best financial mix and has been a topic of controversy for decades. The efficient use of debt in the financial mix lowers the weighted average cost of capital, assisting in the improvement in the firm's net returns (Owonye, 2023). The more debt financing of consumer and industrial goods firms fuses in its financial, the higher its debt. Hence, we can say that debt is one of the instruments that consumer and industrial goods firms need to improve their performance (Kenn-Ndubuisi & Onyema, 2018). Financial mix is employed to improve performance. The mix of corporate loan and equity is a strategic decision of corporate manager (Ahmadu, 2015) cited in Owonye, (2023). There are some advantages consumers and industrial goods firms can gain from raising fund from external source such as tax shield, because interest is a non-taxable expense, this will reduce profit and when profit is reduced, the amount to be paid as tax will also decrease. Another benefit is that it can be used to finance the company's project (Imeokparia, et al, 2021).

Consumer and industrial goods firms either employ debt or their own resources to fund their operations. The use of debt financing and borrowed capital to boost consumer and industrial goods firms operations and profitability. Debt is mostly calculated by dividing a company's long-term liabilities by its equity (Obumneme, Taiwo, Victor and Nurudeen, 2023). When a company is partially financed by both debt and equity, it is said to be financial mix. Most businesses thrive by maintaining a high level of liquidity, which is mostly achieved through the use of debt. Debt is used by many consumer and industrial goods firms to leverage their profits and capital. Hence, businesses are more inclined to use debt to increase assets, hence increasing production and profits (Kithandi & Katua, 2020). Thus, the primary goal of financial management of consumer and industrial goods firms is to build the financial

Vol. 9 Issue 4 April - 2025, Pages: 401-411

components in such a way that shareholders wealth is maximized as the primary measure of management performance. Hence, the effects of financial mix on financial performance as an indication of shareholders' wealth maximization in Nigerian consumer and industrial goods firms were examined in this study.

#### 1.2 Statement of the Problem

Researchers are studying the influence of financial composition on financial performance in Nigeria, although there is no definitive empirical outcome yet. Businesses in Nigeria must carefully analyse the optimal capital structure to enhance profitability. Investors in Nigeria seldom acknowledge the significance of the intricacies of the financial mix and its impact on the firm's success. Financial constraints have hindered the success of corporate entities in emerging countries, especially Nigeria. Defining the ideal financial mix of economic sectors in Nigeria relies on the growth and strengthening of distinct financial markets. Kennon (2019) describes the corporate sector as having several enterprises working in a fiercely competitive and deregulated environment. Financial globalisation has significantly transformed the operational landscape of businesses in Nigeria since 1987, granting Nigerian financial managers greater flexibility in determining their organisations' financial structure. The company's profitability will be significantly impacted by this financial move. The cost of debt, which is commonly referred to as interest amount, is a fixed expense connected with debt/borrowed funds. Furthermore, consumer and industrial goods firms that borrow a large amount from their creditors face a high cost of debt, which reduces profits/net income. Thus, financial leverage/debt has an impact on the financial performance and income levels of companies listed in Nigeria's consumer and industrial goods sectors.

Furthermore, while there are numerous empirical studies explaining the impact of financial mix on financial performance around the world, a comparative empirical research on the c consumer and industrial goods sectors is still lacking. To the best of the researcher's knowledge, there is only two study that that has been conducted on the impact comparison of financial mix on financial performance of firms (that is the study of Asaolu, 2021 and Owonye, 2023), while the other studies are either focus one sector or the other. Also, empirical findings on the nexus between financial mixes on financial performance in Nigeria listed firms are mixed (such as the studies of Asaolu, 2021; Owonye, 2023; Okonkwo, Adigwe, Ezu, and Oko, 2020; Oyakhire, 2019, etc.). In other words, scholars have no agreement on the effect of financial mixes on financial performance of companies in Nigeria. Hence, this study will attempt to add the knowledge and reduce the gap to the bare minimum. This study will be unique in the light of looking at all the listed consumer and industrial goods firms listed in the Nigeria Exchange Group. This reveals a noticeable gap in the empirical research between financial mix proxied with Short Term Debt Financing (STDF), and Long Term Debt Financing (LTDF)

#### 1.3 Research Questions

The following research questions were raise in order to achieve the objectives of this study:

- i. To what extent does Short Term Debt Financing (STDF) have effect on Return on Assets (ROA) of listed firms in Nigeria?
- ii. To what extent does Long Term Debt Financing (LTDF) have effect on Return on Assets (ROA) of listed firms in Nigeria?

# 1.4 Objectives of the Study

The main objective of this study is to examine the comparative analysis of financial indices on financial performance of listed consumer firms in Nigeria. The specific objectives are to;

- i. determine the effect of Short Term Debt Financing (STDF) on Return on Assets (ROA) of listed firms in Nigeria.
- ii. investigate the effect of Long Term Debt Financing (LTDF) on Return on Assets (ROA) of listed in Nigeria.

#### 1.5 Research Hypotheses

The following hypotheses were formulated to determine whether or not the relationship between the dependent variables and each of the independent variables was significant.

Vol. 9 Issue 4 April - 2025, Pages: 401-411

**H0**<sub>1</sub>: There is no significant effect between Short Term Debt Financing (STDF) and Return on Assets (ROA) of listed firms in Nigeria.

H<sub>02</sub>:

There is no significant effect between Long Term Debt Financing (LTDF) and Return on Assets (ROA) of listed firms in Nigeria.

#### REVIEW OF RELATED LITERATURE

#### 2.1 Concept of Financial indices

The company's financial mix is one of the most important decisions it will make. Technically speaking, a business's financial mix is the strategic allocation of debt and equity used to finance its assets, ongoing operations, and planned growth (Kateri, 2014). The financial mix of a corporation is made up of a variety of different securities (Gallegos-Mardones & RuizCuneo, 2020). According to Kenon (2019), there are two types of capital: equity capital and debt capital. Choosing the optimal capital structure in terms of risk/reward payback for shareholders is an essential component of good corporate governance and management. Every form of capital has advantages and disadvantages of its own. The proportion of debt to equity is referred to as the financial mix. While equity consists of paid-up share capital, share premium, reserves, and surplus or retained earnings, debt is mostly composed of longterm loans like debentures (Owolabi & Inyang, 2012). Each corporation must carefully choose its financial composition. The decision is critical because it affects a company's ability to interact with its competitive environment and because it must maximise revenues for a number of organisational stakeholders.

Debt is the company's ability to utilize fixed financial charges to increase the earnings before interest and tax of a company's earnings per share. In the event that a company does not utilize fixed cost bearing securities, earnings before interest and tax will change and consequently lead to change in earnings per share. If a firm has no fixed financial charges especially preference dividend and interest it's an indication of financial leverage (Pandey, 2019). In order to increase earnings per share, a company can use leverage to amplify its earnings before interest and tax (Saleem, Rahman, & Sultana, 2014).

Utilising debt allows businesses to increase shareholder equity. Therefore, additional funding needs may be met by raising the claim of the owners through the issuance of common shares, the use of retained earnings, or by increasing the claim of the creditors by borrowing. The capital structure of a company is the result of the decision to use both equity and debt. The word "capital structure" denotes the proportion of stock to debt. In a company's capital structure, the debt portion is referred to as leverage (Pandey, 2019).

Financial leverage was defined as the ratio of the total market value of a company's debt capital to its total market value of equity by Lumby and Jones (2011). Financial leverage increases as debt does. A company can employ stock, debt, and preference shares to finance its investments. Financial leverage, also known as gearing, is the ratio of fixed-charge sources of capital, such as debt and preference shares, to owners' equity in the capital structure (Pandey, 2016).

#### 2.1.1 Measures of Financial Indices

There are several measures of financial leverage; used in the study such as Short Term Debt Financing (STDF), Long Term Debt Financing (LTDF), Total Debt Financing (TDF), Debt to Equity Financing (DTEF) and Interest Coverage Ratio (ICR) were discussed below;

#### 2.1.1.1 Short Term Debt Financing

Short-term debt financing is a liability that appears in the current liabilities section of a company's statement of financial condition, according to Ebire, Mukhtar, and Onmonya

Vol. 9 Issue 4 April - 2025, Pages: 401-411

(2018). Any debt that the business must pay off within a year is included in this commitment. The debt is typically composed of short-term bank loans, bank overdrafts, and company taken trade payables. When assessing a company's financial health, the value of this account is crucial. If the account is higher than the company's present assets, this seems to indicate that the company may not be in sound financial standing and may not have the resources to pay off its immediate commitments. Despite the fact that short-term debts have a 12-month payoff window, this account may also contain some long-term debt. Short-term debt is affected by a number of factors, including information costs and hazards, liquidation costs, the financial system's degree of development, the value of relationship lending, bargaining leverage, maturity matching, rules, and the nature of the project (Nawaz, Salman, & Shamsi, 2015).

Short-term debt financing, according to Olaniyi, Elulu, and Abdusalam (2015), is an account that is displayed in the current liabilities section of a company's statement of financial position and it consists of any debt that a company incurs that is due within a year. Shortterm bank loans are typically included alongside other types of debt in a company's liabilities sheet. Accounts receivable and inventories are two examples of short-term loans that are used to finance current assets that can be swiftly converted back into cash. Long-term debt, often known as debts, is a sort of non-current liability that is used to finance long-term assets like the purchase of land and the building or construction of a ship (Ubesie, 2016). The mathematical representation of this is Short Term Debts divided by Total Assets. Long-term assets should be financed with long-term liabilities, and short-term assets should be funded with short-term liabilities, according to the matching principle of finance.

According to Ebe, Ada, and Uwakwe (2021), short-term assets and liabilities are typically thought of as those things that will be consumed, liquidated, reach maturity, or be paid off within one accounting year. Current assets of a company, such as cash, inventories, accounts receivable, etc., are typically categorised as short-term assets while plant and equipment are typically categorised as long-term assets. However, if present assets are not fully utilised or liquidated throughout the year, they may be long-term. The definition of short-term debt or obligations according to (Ebe et al 2021; Mahajan & Singh, 2015) is defined as loans, bonds, or other instruments with a maturity date within a year. Growing within one accounting year suggests that the company may quickly assess its financial situation and get ready to choose from the best options available for managing the portfolio of the company's capital. The amount of a resource or loan funding that must be repaid to the financier within a year or a business cycle is agreed upon by accounting professionals to be short term debt. It can also be used to refer to a company's financial obligations that are anticipated to be repaid within one accounting period, or current liabilities.

#### 2.1.2 Long Term Debt Financing

These are debts that are not due for payment for another 12 months. Long-term debt in accounting generally refers to loans and other commitments made by a corporation that do not mature within a year of the date of the statement of financial condition. A loan, debenture, mortgage bond, or other obligation with a twelve-month grace period could be used to satisfy it (Oke and Fadaka, 2021). Long-term debt can be divided into two categories: bonds and notes. A borrowing corporation will provide bonds to a lender (investor) as a form of finance. On the certificate, commercial bonds are frequently issued with a stated interest rate (the nominal rate) and maturity date. Contrarily, notes are formal commitments to pay a certain amount to a lender at a particular date. They are granted for relatively small amounts of money, which a single lender can manage in terms of risk and necessary capital expenditure. According to Okoye, Amahalu, Nweze, and Chinyere (2016), the notes market is structured in a way that prevents everyday trading of them by regular investors.

# METHODOLOGY

#### 3.1 Research Design

The Ex-Post Facto research design was used. Ex-Post Facto research design helps provide answers to the questions of who, what, when, where and how associated with a particular research problem. Ex-Post Facto research design was used to obtained information concerning the current status of the phenomena and to describe 'what exists' with respect to variables or condition in a situation which explicitly suits the topic under study. This type of research design is one that takes place after the event or fact had taken place. The design involved the collection of secondary data from annual reports and accounts of fifteen (15) companies in the consumer and industrial goods sectors that were evaluated using appropriate tools.

#### 3.2 Population and Sample Size

Vol. 9 Issue 4 April - 2025, Pages: 401-411

The population of this study is a finite population, that is, the total 28 firms in the consumer goods firms listed in the Nigeria exchange group, which now serve as the population of the study. Due to the difficulties and the inability in accessing the annual reports and accounts of some of these firms and in the bid to conform the data to uniformity, 15 firms were selected and these firms represent the sample size of the study.

#### 3.3 Sampling Technique

The study applied judgmental sampling technique because in drawing the sample of 15 firms of consumer listed in the Nigeria exchange group. It was done purposively by the researcher due to the availability of annual reports and accounts of the 15 firms of consumer good sectors.

# 3.4 Method of Data Collection

The secondary source of data used for this study is the annual reports and accounts of 15 consumer goods firms listed in the Nigeria exchange group during the financial years of 2013 to 2023. These data measures financial mix, proxied with Short Term Debt Financing (STDF), Long Term Debt Financing (LTDF) and Total Debt Financing (TDF), Debt to Equity Financing (DTEF)) and financial performance proxied with Return on Assets (ROA)) of the listed consumer and industrial goods sectors in Nigeria exchange group. In addition, another source of data were through references to the library and the review of different articles, papers and relevant previous studies.

#### 3.5 Techniques of Data Analysis

The quantitative technique of data analysis was adopted in this study. This study made used of descriptive statistics to assess the spread of the variables among the studied companies, minimum as well as maximum values for the variables. The correlation matrix was used to test the independent variables in relation to the dependent variables if the relationship between each of the independent variables in relation to the dependent variable is positive or negative in order to ascertain if an increase or decrease in each measures of financial mix (independent variables); namely; Short Term Debt Financing (STDF), and Long Term Debt Financing (LTDF) have an effect on the financial performance (dependent variable) was proxy by with Return on Asset (ROA). This was followed by panel unit root test to test the stationary of the data while the Pendroni cointegration test was conducted to ascertain the long run relationship in the data set. In view of the hypotheses formulated for this research, the tool of data analysis for the research is the Panel Multiple Regression Model (PMRM). This was used for the analysis because the research is empirical in nature and the data for the study is a balance panel data. Specifically the methods of analysis employed in the study of Ordinary Least Square (OLS), Random Effects Model (REM) and Fixed Effects Model (FEM). OLS was used as a basis of comparison with previous empirical studies. However, using traditional OLS alone may produce spurious regression problem that can lead to statistical bias. As such, REM and FEM was also adopted after which Hausman's Specification test was carried out. This suggests the adoption of either REM or FEM for the study, and was used through the E-VIEW 9.0 statistical package.

# RESULTS AND DISCUSSION

#### 4.1 Data Presentation

This section presents and analyzes the data collected from the consumer and industrial goods sectors, focusing on 15 companies listed on the consumer & industrial goods sector of the Nigeria Exchange Group. The data, derived from the annual reports and accounts of these companies, pertain to financial indices such as STDF, and LTDF with financial performance represented by ROA.

**Table 4.2.1: Descriptive Statistics for Consumer Goods Firms** 

|           | ROA       | STDF      | DTEF      |
|-----------|-----------|-----------|-----------|
| Mean      | 0.074136  | 0.405248  | 1.668332  |
| Median    | 0.069874  | 0.343097  | 1.126609  |
| Maximum   | 0.297832  | 2.501740  | 47.92299  |
| Minimum   | -0.340632 | -0.013399 | -2.982845 |
| Std. Dev. | 0.095528  | 0.382592  | 4.846010  |
| Skewness  | -0.863266 | 3.483485  | 8.861233  |
| Kurtosis  | 6.065540  | 17.75740  | 84.76089  |

Vol. 9 Issue 4 April - 2025, Pages: 401-411

| Jarque-Bera  | 51.57687 | 1109.665 | 29162.21 |  |
|--------------|----------|----------|----------|--|
| Probability  | 0.000000 | 0.000000 | 0.000000 |  |
|              |          |          |          |  |
| Sum          | 7.413580 | 40.52482 | 166.8332 |  |
| Sum Sq. Dev. | 0.903434 | 14.49127 | 2324.897 |  |
|              |          |          |          |  |
| Observations | 150      | 150      | 150      |  |

Source: E-VIEW Version 9.0 Output, 2025.

Table 4.2.1 above shows the comparative descriptive statistics for the ROA, STDF, LTDF, for the 15 companies each listed in the consumer sectors in the NXG. ROA had a mean of 0.0741 for the 15 consumer goods firms within the period 2013 to 2023, with a maximum and minimum of 0.2978 and -0.3406 respectively while the Std. Dev. value is 0.0955. This shows that ROA volatility is about 9.55%.

STDF consumer goods firms recorded a minimum value of -0.0134, maximum value of 2.5017, an average value of 0.4052 and Std. Dev. value of 0.3826. This shows that STDF volatility is about 38.26%. By implication, it means that STDF in consumer goods sector has been on tremendously increased.

LTDF, measures long term debt divided by total assets. From the descriptive statistics result above, the 15 consumer goods firms LTDF have a minimum value of 0.0069, maximum value of 1.8824, an average value of 0.1834 and Std. Dev. value of 0.2127. This shows that LTDF volatility is about 21.27%. This implies that the 15 consumer goods firms within the period 2013 to 2023 recorded the highest volatility of 21.27%, by implication, it means that LTDF in consumer goods sector firms has been on tremendously increase.

#### 4.3 Data Analysis

#### 4.3.1 Correlation Matrix

Correlation analysis is used to examine the relationship between dependent and independent variables. It measures the linear association between two variables. Their value lies between -1 and +1. +1 indicates that there is a positive linear relationship between two variables and are perfectly related while -1 indicates a negative linear relationship between two variables.

**Table 4.3.1: Correlation Output for Consumer Goods Firms** 

|      | ROA       | STDF     | LTDF     |
|------|-----------|----------|----------|
| ROA  | 1.000000  |          |          |
| STDF | -0.506154 | 1.000000 |          |
| DTEF | 0.242963  | 0.358915 | 1.000000 |

Source: E-VIEW Version 9.0 Output, 2025.

In Table 4.3.1, which showed the correlation output for the consumer and industrial goods firms for the duration 2013-2023, shows a coefficients (r) for consumer goods firms; STDF (r=-0.5062), LTDF (r=-0.2430), this implies that most of the variables are positive;y correlated with ROA when compare with the coefficients (r) for STDF (r=-0.1251), Also, all the coefficients for the variables in both consumer goods firms lower than the threshold of 0.7, this implies the absent of multi-colinearity in the data set.

**Table 4.3.2: Variance Inflation Factors Multicollinearity Test** 

|          | Consumer Goods Firms    |              | Industrial Goods Firms  |              |
|----------|-------------------------|--------------|-------------------------|--------------|
| Variable | Coefficient<br>Variance | Centered VIF | Coefficient<br>Variance | Centered VIF |

Vol. 9 Issue 4 April - 2025, Pages: 401-411

| С    | 1.103524 | NA       | 172.3182 | NA       |
|------|----------|----------|----------|----------|
| STDF | 0.852440 | 1.272622 | 208.8837 | 1.368271 |
| LTDF | 3.539042 | 2.024296 | 576.5466 | 1.898371 |

Source: EVIEW, 9.0 Outputs, 2025.

Since the data for the study are panel, the multicollinearity test was conducted to ascertain if the data contained multicollinearity, this is presented in Table 4.3.2. Multicollinearity occurs in a data set when two or more independent variables in multiple regression models are highly correlated. In order to ensure that the results of this study are valid, the variance inflation factor (VIF) computed as shown in Table 4.3.2. Furthermore, the Centered Variance Inflation Factor (CVIF) statistics for all the independent variables consistently lies between 1.2726, 2.0243, 1.2684 and 2.2732 for STDF and LTDF, respectively for consumer goods firms. This indicates the absence of multicollinearity problems among the variables under investigation because they are lesser than cut off value of VIF of 10. Values of VIF that exceed 10 are often regarded as indicating multicollinearity.

#### 4.3.3 Data Validity Test

Since the data are panel data, spanning for 2013-2023 (11years), the validity test was carried out using the Breusch-Godfrey Serial Correlation LM Test, Heteroskedasticity Test: Breusch-Pagan-Godfrey and Ramsey RESET Test in order to ascertain the validity of the data for the analysis. This is presented in Table 4.3.3.1 below;

Table 4.3.3.1: Data Validity Test: Consumer Goods Firms

| Breusch-Godfrey Serial Correlation L M Test: |          |                     |          |
|--|----------|---------------------|----------|
| F-statistic                                  | 1.120448 | Prob. F(2,14)       | 0.3537   |
| Obs*R-squared                                | 2.897549 | Prob. Chi-Square(2) | 0.2349   |
|  |          | Durbin-Watson stat  | 1.660951 |

#### Heteroskedasticity Test: Breusch -Pagan-Godfrey

F-statistic 1.822188 Prob. F(4,16) 0.1739 Obs\*R-squared 6.572435 Prob. Chi-Square(4) 0.1603 Scaled explained SS 2.691619 Prob. Chi-Square(4) 0.6107 Durbin-Watson stat 1.428003

# Ramsey RESET Test

Equation: UNTITLED

Specification: LADSMEs C NMS BMS INTR MPR

Omitted Variables: Squares of fitted values

t-statistic 4.865551 15 0.1302 F-statistic 23.67358 (1, 15) 0. 2102 Likelihood ratio 19.88924 1 0.1240

#### -VIEW, 9.0 Outputs, 2025

The serial correlation LM test in Table 4.3.3.1 details that there is no element of serial correlation in the models owing to the fact that the p-values of the f-statistics are insignificant at 5% level of significance for all the variables for the firms listed in the consumer and industrial goods sector in the POS.

The situation in which the variability of a variable is unequal across the range of values of a second variable that predicts it leads to problem of heteroskedasticity. To ensure that there is homoscedasticity in the model estimation, the heteroskedasticity

Source: E

test via the BreuschPagan-Godfrey was performed. With the result there is no problem of heteroskedasticity in the models as the p-values of the f-statistics are insignificant at 5% significance level for all the variables for the firms listed in the consumer goods sector in the POS.

Finally, it confirms that the model is homoskendastic since the probability values of five parameters are greater than 0.05 level of significance. Ramsey test result reveals that our model is correctly specified and is stable for regression analysis for all the variables for the firms listed in the consumer and industrial goods sector in the POS.

# 4.4 Test of Hypotheses

**Decision Rule:** Accept the Null hypothesis  $(H_0)$  if the t-value calculated is lesser than table statistics at 5% level of significant or 95% degree of confidence. Reject  $H_0$  when t-calculated is greater than t-table value at 0.05 significant levels. The significance of the relationship is based on the P-value. When the associated P-value is less than 5%, then the relationship between the independent variable and dependent variable would be said to be significant but when it is greater than 5%, then it would be insignificant.

Table 4.4.1: Test of Hypotheses (Multiple Regression Result) Multiple Regressions for Consumer Goods Firms

| Variable           | Coefficient | Std. Error      | t-Statistic | Prob.    |
|--------------------|-------------|-----------------|-------------|----------|
| С                  | 0.098145    | 0.015894        | 6.174857    |          |
|                    |             |                 |             | 0.0000   |
| STDF               | -0.065125   | 0.030854        | -2.110740   | 0.0374   |
| LTDF               | 0.174707    | 0.070078        | 2.493026    | 0.0144   |
|                    | 0.357359    | Mean depend     | ent         |          |
| R-squared          |             | var             |             | 0.074136 |
| Adjusted R-squared | 0.323176    | S.D. depende    | nt var      | 0.095528 |
| S.E. of regression | 0.078590    | Akaike info cri | terion      | -        |
|                    |             |                 |             | 2.191015 |
| Sum squared resid  | 0.580583    | Schwarz criter  | ion         | -        |
|                    |             |                 |             | 2.034705 |
| Log likelihood     | 115.5507    | Hannan-Quint    | n criter.   | -        |
|                    |             |                 |             | 2.127753 |
| F-statistic        | 10.45430    | Durbin-Watso    | n stat      | 1.939342 |
| Prob(F-statistic)  | 0.000000    |                 |             |          |

Source: E-VIEW Version 9.0 Output, 2025.

More also, Table 4.4.1 above shows the level of significance for STDF, LTDF on ROA of listed consumer and industrial goods firms in Nigeria, which served as the basis for testing the hypotheses.

# **Test of Hypothesis One**

**H0**<sub>1</sub>: There is no significant relationship between STDF and ROA of listed firms in consumer and goods sectors in the Nigeria exchange group.

The Multiple Regression result in Table 4.4.1, the coefficient of STDF is -0.0651 with a tvalue of -2.1107 and associated p-value (sig. value) is 0.0374 was recorded for the consumer goods firms. This suggests that it has negative effect on ROA of consumer goods firms in Nigeria. This implies that, the effect is significant given the fact that the p-value of 0.0374 is lesser than 0.05 (5%) level significance. Hence, thereby accept the alternate hypothesis and reject the null hypothesis, which says that there is no significant relationship between STDF and ROA of consumer goods firms,

# Test of Hypothesis Two

**H0**<sub>2</sub>: There is no significant relationship between LTDF and ROA of listed firms in consumer and industrial goods sectors in the Nigeria exchange group.

Also, the Multiple Regression results in Table 4.4.1 above, the coefficient of LTDF is 0.1747 and -28.0579, with a t-value of 2.4930 and -1.1685 and associated p-value (sig. value) is 0.0144 and 0.2456 for the consumer and industrial goods sectors firms respectively. This suggests that LTDF has positive effect on ROA of consumer goods sectors firms while that of industrial sector firms recorded negative effect on ROA respectively. This implies that, the effect of LTDF on ROA is significant for consumer goods firms evident with the p-value of 0.0144. Hence, thereby accept the alternate hypothesis and reject the null hypothesis for consumer goods sector firms, which say that there is no significant relationship between LTDF and ROA of consumer goods firms in Nigeria.

# 4.5 Discussion of Findings

The p-value of STDF are 0.0374 and 0.7577 for the consumer and industrial goods firms respectively, which is less than the set value of 0.05 for the consumer goods firms. The coefficients of STDF are -0.0651 and 4.4719 for the consumer goods firms respectively, which implies that STDF has a negative trend with ROA of the consumer goods firms. STDF can provide firms with quick access to funds, allowing them to fund working capital needs, manage cash flow fluctuations, and seize immediate growth opportunities.

The p-value of LTDF are 0.0144 and 0.2456 for the consumer and industrial goods firms respectively, which is less than the set value of 0.05 for the consumer goods firms. The coefficients of LTDF are 0.1747 and -28.0579 for the consumer goods firms respectively, which implies that LTDF has a positive trend with ROA of the consumer goods firms can provide firms with a more sustainable financial index, reducing refinancing risks and offering greater stability. However, if firms fail to generate sufficient returns from their long-term investments or face adverse market conditions, the burden of long-term debt obligations can strain profitability and hinder the ROA

#### CONCLUSION AND RECOMMENDATIONS

## **5.1 Summary**

Based on the results obtained from the analysis, using the descriptive statistics and correlation matrix and the multiple regression analysis was run, at 0.05 level of significant (95% confidential interval) was used. The following are the findings from the study;

i)STDF has negative and significant effect on ROA of listed consumer goods firms.

ii)LTDF has positive and significant effect on ROA of listed consumer goods firms.

#### 5.2 Conclusion

Well-balanced financial indices can enhance a firm's financial performance by optimizing its capital structure. The proportion of debt and equity in the financial indices determines the company's cost of capital and overall financial risk. Finding the right balance between debt and equity allows companies to benefit from tax shields and lower cost of debt, while also maintaining financial flexibility and investor confidence. By carefully managing the financial indices, companies can minimize the risks associated with excessive debt or overreliance on equity financing. However, it is essential to note that the effect of financial indices on financial performance may vary across firms due to industry-specific factors, company size, management efficiency, and economic conditions. The consumer goods sector in Nigeria encompasses a wide range of companies with distinct characteristics and business operations. Therefore, it is crucial for firms to conduct in-depth analyses of their specific situations and create a financial indices strategy tailored to their needs and goals.

ii). Similarly, LTDF should be applied to long term business plans of the consumer and industrial goods firms in Nigeria to maximize their earning potentials as well as generate reasonable utility for the debt.

#### References

- Abdullah, H., & Tursoy, T. (2019). Financing structureand firm performance: evidence of Germany under IFRS adoption. *Review of Managerial Science*, 5(2),1-20
- Abubakar, A. (2017). Effects of financial leverage on financial performance of non-financial quoted companies in Nigeria. *FUDMA Economic and Development Review (FEDER)*, 1(1), 37-53.
- Abubakar, A. (2020). Financial leverage and financial performance of oil and gas companies in Nigeria. *Open Journals of Management Science (OJMS), 1*(1), 28-44.
- Abubakar, A., Maishanu, M. M., Abubakar, M. Y., & Aliero, H. M. (2018). Financial leverage and financial performance of quoted conglomerates firms in Nigeria. *SokotoJournal of Management Studies*, 14(1), 85-100.
- Adeoye, D. S. & Olojede, O. S. (2022). Impact of capital structure on financial performance of selected quoted food and beverages manufacturing industries in Nigeria. *Journal of Economics, Management and Trade*, 28(1), 1-14.
- Adeniyi, A. J., Marsidi, A., Babatunji, A. S. (2020). Financing structureand Commercial Banks Performance in Nigeria, *International Journal of Academic Research in Accounting, Finance and Management Sciences* 10 (1): 239-249
- Ahmadu, A. (2021). Financial leverage and financial performance of oil and gas companies in Nigeria: A re-examination. *Turkish Journal of Computer and Mathematics Education*, 12(3), 4170-4180.
- Ahmed, F., Awais, I.,& Kashif, M. (2018). Financial leverage and firms' performance: Empirical evidence from KSE-100 Index, *Etikonomi Jurnal Ekonomi*, 17(1), 4556.
- Ajayi, O. D. & Zahiruddin, B. G. (2016). The Impact of Capital Structure on Firm Performance: Empirical Evidence from Nigeria. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 7(4), 23-30.
- Alhassan, I. (2021). Capital structure and financial performance of consumer goods companies in Nigeria. *International Journal of Accounting Research*, 6(2), 58-67.
- Alkhatib, K. (2016). The determinants of LEV of listed companies. *International Journal of Business and Social Science*, 3(24), 78-83.
- Asaolu, A. A. (2021). Capital structure and Firm Performance: A comparative Study of Oil & Gas and Manufacturing Sectors in the United States of America. *Business and Management Studies*, 7(1), 29-44.
- Asaolu, A. A. (2021). Capital Structure and Firm Performance: A comparative Study of Oil & Gas and Manufacturing Sectors in the United States of America. *Business and Management Studies*, 7(1), 29-44.
- Ayuba, H., Bambale, A. J. A., Ibrahim, M. A., & Sulaiman, S. A. (2019). Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria. *Journal of Finance, Accounting & Management*, 10(1), 517.
- Ebe, E. C., Ada-Mac-Ozigbo & Uwakwe, C. (2021). Effect of debt financing on performance of money Deposit banks in Nigeria. Association of management and social Sciences Researchers of Nigeria (AMSSRN) 1, 1-16.
- Ehiedu, V. C., Onuorah, A. C.& Mbagwu, O. N. (2022). Financial leverage and performance of listed oil and gas firms in Nigeria. *International Journal of Management (IJM), 14,* 422-440.
- Etale, L. M. (2020). Dangote Cement PLC Capital Structure and Financial Performance Link in Nigeria: Empirical Analysis. *American International Journal of Business Management*, 3(8), 01-10.
- Gallegos Mardones, J., & Ruiz Cuneo, G. (2020). Capital structure and Performance in Latin American Companies. *Economic Research-Ekonomska istraživanja*, 33(1), 21712188.
- Ganiyu, Y., Adelopo, I., Rodionova, Y., & Samuel, O. (2019). Capital structure and firm performance in Nigeria. *African Journal of Economic Review*, 7(1), 31-56.
- Habibu, A., Abdu, J. B., Murtala, A. I. & Sulaiman, A. S. (2019). Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria. *Journal of Finance, Accounting and Management*, 10(1), 57-74.

- Kenn-Ndubuisi, J. I. & Nweke, C. J. (2019). Financial Leverage and Firm Financial Performance in Nigeria: A Panel Data Analysis Approach. *Global Journal of Management and Business Research: C Finance*, 19(4), 13-20.
- Kennon, J. (2019). An Introduction to Capital Structure: [on line] Available: https://www.thebalance.com (August 31, 2019).
- Kithandi, C. P. A. & Katua, C. (2020). Financial Leverage and Financial Performance of the Energy and Petroleum Sector Companies Listed in The Nairobi Securities Exchange. *International Journal of Scientific and Research Publications*, 10(3), 559-565.
- Mohsin, A. (2020). Impact of leverage on financial performance: Evidence from Pakistan food and fertilizer sector. *Journal of Critical Reviews*, 7(13), 473-482.
- Mukumbi, M. C., Eugine, K. W., & Jinghong, S. (2020). Effect of Capital Structure on the Financial Performance of Non-Financial Firms Quoted at the Nairobi Securities Exchange. *International Journal of Science and Business*, 4(4), 165-179.
- Obumneme, R. A., Taiwo, A. M., Victor, E. I. & Nurudeen, S. Y. (2023). Impact of capital structure on financial performance of oil and gas firms in Nigeria. *Future Business Journal*, *9*(11), 1-9.
- Oke, O. M. & Fadaka, F. B. (2021). Capital structure and firm performance: Evidence from Nigerian consumer goods manufacturing firms. *Academy of Accounting and Financial Studies Journal*, 25(2), 1-10.
- Okonkwo, U. C., Adigwe, P. K., Ezu, G. K. & Oko, E. O. (2020). Effect of Capital Structure on Financial Performance of Oil and Gas Companies Quoted on the Nigerian Stock Exchange. *The International Journal Of Business & Management*, 8(4), 293-304.
- Okoye, G.O. (2019). FL and profitability performance of financial institutions in Nigeria. *Global Journal of Education, Humanities and Management Sciences (GOJEHMS)*, 1(2), 203-207.
- Olarewaju, O. R. (2019). Dynamic relationship between capital structure and quoted manufacturing firms' performance in Nigeria. *International Journal of Economics, Finance and Management Sciences*, 7 (3), 82-87.
- Olayemi, O. O. & Fakayode, O. P. (2021). Effect of capital structure on financial performance of quoted manufacturing companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 9(5), 73-89.
- Opoku-Asante, K., Winful, E. C., Sharifzadeh, M. & Neubert, M. (2022). The relationship between capital structure and financial performance of firms in Ghana and Nigeria. *European Journal of Business and Management Research*, 7(1), 236-244.
- Osuji, C. C. & Odita, A. (2012). Impact of capital structure on the financial performance of Nigerian non financial firms, *Arabian Journal of Business and Management Review(OMAN Chapter)*, 1(12), 43-61.
- Owonye, B. (2023). Financial indices and financial performance of firms in Nigeria: a comparative study of the oil & gas and consumer goods firms listed in Nigeria. *Innovations*, 72, 1055-1065.