Capital Structure and Financial Performance of Listed Consumer Goods Firms in Nigeria

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.90400350

Received: 29 April 2024; Accepted: 04 May 2025; Published: 15 May 2025

ABSTRACT

This study examined the impact of capital structure on financial performance of listed firms in Nigerian stock exchange. Specifically, the study looked at the effect of long-term debt to total investment on return on investments; the effect of short-term debt to total investment on return on investments; and the effect of total debt to total investment on return on investments. Data were described using descriptive statistics, Pearson correlation coefficient while multiple regression analytical technique with the aid of econometrical tool Eviews 9 was used in analyzing the data. . The result of analysis indicates that long term debt to total investments, short term debt to total investments, and total debt to total investments have significant positive impact on return on investments at 5% level of significance. Based on the findings, the study concluded that, the impact of capital structure on financial performance is positive and that capital structure explains a larger change in return on investments. Therefore, the study recommends, that consumer goods companies should strategically leverage debt to finance profitable investments by revisiting their capital structure policy to allow for more optimal levels of debt.

Keywords: Capital Structure, Return on Investment, Long term debt, Short Term debt,

INTRODUCTION

The strategic composition of a firm's capital structure remains a critical decision area in corporate finance, given its potential implications on firm performance, risk profile, and long-term sustainability. Capital structure refers to the mix of debt and equity used by firms to finance their operations and growth. Financial performance, on the other hand, encompasses the overall financial health of a firm as measured by indicators such as return on investment (ROI) return on equity (ROE), return on assets (ROA), and earnings per share (EPS). The interplay between capital structure and financial performance has attracted significant scholarly attention, particularly in emerging economies such as Nigeria, where firms often face volatile market conditions, limited access to capital, and high borrowing costs. Theoretical underpinnings such as the Modigliani and Miller (1958) capital structure irrelevance theory, the trade-off theory, pecking order theory (Myers & Majluf, 1984), and the agency cost theory provide contrasting perspectives on how debt and equity financing influence firm value and performance. While the Modigliani and Miller theorem posits that capital structure is irrelevant in perfect markets, the real-world implications in imperfect markets such as those characterized by information asymmetry, taxes, and bankruptcy costs make capital structure decisions materially significant. For instance, the pecking order theory argues that firms prefer internal financing and will only resort to debt or equity issuance when internal funds are insufficient, which may influence profitability levels depending on how such financing impacts cost of capital and financial risk (Frank & Goyal, 2009).

In Nigeria's consumer goods sector, firms operate in a highly competitive and dynamic environment, which demands careful capital management strategies. Listed consumer firms, such as those engaged in food and beverages, personal and household products, face varying levels of capital intensity and operational risks that necessitate tailored financing strategies. According to recent reports by the Nigerian Exchange Group (NGX, 2023), these firms contribute significantly to market capitalization and economic output, yet many grapple with macroeconomic challenges such as inflation, currency volatility, and regulatory constraints. These dynamics

may compel firms to leverage more debt or equity to sustain operations, expand production capacity, or maintain market share.

Empirical studies have produced mixed results on the relationship between capital structure and financial performance. Uwalomwa *et al* (2020) found a significant negative relationship between leverage and financial performance among listed manufacturing firms in Nigeria, suggesting that higher debt levels could erode profitability due to increased interest obligations. Conversely, Salawu and Agboola (2018) argued that a moderate level of debt could enhance firm performance by exploiting the tax shield benefits of interest payments and disciplining managerial behaviour, as suggested by agency theory. This inconsistency in findings underscores the need for sector-specific investigations, particularly in the consumer goods sector, where product demand, pricing flexibility, and cost structures may influence the impact of financing decisions.

Statement of Problem

Despite the critical role of capital structure decisions in shaping firm performance, listed consumer goods firms in Nigeria continue to face challenges in optimizing their financing mix. The sector has experienced fluctuating profitability levels amidst rising costs of debt, volatile market conditions, and policy uncertainties. Furthermore, the evolving financial landscape in Nigeria marked by financial reforms, growing capital markets, and increased investor scrutiny necessitates a re-examination of how listed consumer firms structure their capital. The Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) have also implemented policies aimed at enhancing corporate transparency and financial reporting standards, which may affect firms' access to external finance and influence their financial outcomes (CBN, 2022; SEC, 2023). Yet, empirical evidence on how capital structure components debt and equity impact the financial performance of these firms' remains mixed and inconclusive. While some firms adopt aggressive debt financing to spur growth, others remain conservative due to fears of financial distress. This inconsistency underscores a gap in understanding the optimal capital structure for maximizing firm value in the Nigerian context. Therefore, this study seeks to investigate the relationship between capital structure and the financial performance of listed consumer goods firms in Nigeria, with a view to providing empirical insights that can inform financing decisions, investor strategy and policy direction. The specific objectives are:

1. Examine the impact of long-term debt to total investment in return on investments of listed firms.
2. Determine the impact of short-term debt to total investment in return on investments of listed firms
3. Ascertain the impact of total debt to total investment in return on investments of listed firms.

From the above the study hypothesize thus:

1. Long-term debt to total investment does not have significant impact in return on investments of listed firms.
2. Short-term debt to total investment does not have significant impact in return on investments of listed firms.
3. Total debt to total investment does not have significant impact in return on investments of listed firms.

The rest of the paper is structured as follows: section two dealt with the review of related literature comprising conceptual, theoretical and empirical reviews, while in section three the research method used is discussed. Data presentation and discussion of findings are made in section four. The conclusion, recommendations and suggestion for further study are made in section five.

LITERATURE REVIEW

Capital Structure

Capital structure refers to the mix of a firm's long-term sources of funds used to finance its operations andgrowth, which typically includes a combination of debt and equity (Modigliani & Miller, 1958). The primary objective in determining an optimal capital structure is to maximize firm value while minimizing the cost of capital (Myers, 2001). Over the years, various theories have been developed to explain the determinants and implications of capital structure decisions. The Trade-Off Theory posits that firms seek to balance the benefits of debt—such as

tax shields—against the potential costs of financial distress (Kraus & Litzenberger, 1973). In contrast, the Pecking Order Theory (Myers & Majluf, 1984) suggests that firms prioritize internal financing, and when external financing is necessary, prefer debt over equity due to asymmetric information. The Agency Theory (Jensen & Meckling, 1976) adds another dimension by highlighting the conflicts of interest between managers and shareholders, which can influence capital structure decisions. Recent studies have expanded the discussion of capital structure within emerging markets like Nigeria. Ezeoha (2020) found that macroeconomic instability and institutional weaknesses significantly affect financing decisions in developing economies. Similarly, Nwude et al. (2022) observed that firm-specific factors such as profitability, asset tangibility, and firm size are key determinants of capital structure among Nigerian manufacturing firms.

Financial Performance

Financial performance is broadly defined as the measure of a firm's profitability and operational efficiency over time. It is often evaluated using financial ratios such as Return on Assets (ROA), Return on Equity (ROE), Earnings Per Share (EPS), and Net Profit Margin (NPV) (Pandey, 2021). These indicators help stakeholders assess a firm's ability to generate income relative to its assets, equity, and expenses. According to Brigham and Daves (2021), financial performance is a critical determinant of business sustainability and shareholder value. In the context of the manufacturing sector, especially consumer goods firms, performance is heavily influenced by both internal strategic decisions and external economic factors such as inflation, exchange rates, and interest rates.

A study by Okoye et al. (2021) highlighted that in Nigeria, financial performance in the consumer goods sector is increasingly shaped by capital structure decisions, regulatory frameworks, and access to financial markets. Empirical research shows a significant relationship between a firm's capital structure and its financial performance, although the direction and strength of the relationship vary depending on the firm's characteristics and the economic environment (Afolabi et al., 2022; Ioraver & Chiawa, 2023).

Capital Structure and Financial Performance Nexus

Numerous empirical studies have examined the relationship between capital structure and financial performance, yielding mixed results. While some scholars report a positive relationship, suggesting that leverage can enhance performance through tax shields and improved managerial discipline (Abor, 2005; San & Heng, 2011), others find a negative relationship, arguing that excessive debt increases financial risk and reduces profitability (Majumdar & Chhibber, 1999; Salawu & Agboola, 2008). In the Nigerian context, empirical findings are similarly mixed. Uwalomwa et al. (2021) reported a negative relationship between debt ratios and ROE among listed consumer goods firms, indicating that high leverage could be detrimental to financial health. Conversely, Akinyomi (2022) found a positive link between moderate debt use and ROA, suggesting that strategic debt utilization can enhance performance.

A recent study by Olowe and Olanrewaju (2023) provides evidence that the relationship between capital structure and financial performance is nonlinear, emphasizing the importance of maintaining an optimal mix of debt and equity. These findings underscore the necessity for firm-specific strategies in managing capital structure to achieve superior performance.

Theoretical Framework

The study is anchored on the Trade-Off Theory of capital structure, as it directly addresses the relationship between capital structure components and financial performance in the context of listed consumer goods firms in Nigeria. The Trade-Off Theory posits that firms seek to balance the benefits and costs of debt financing. Debts can provide advantages such as tax shields, which increase profitability due to tax-deductible interest expenses. However, they also impose costs associated with financial distress, including bankruptcy risks and potential loss of control. This theory implies that companies assess their desirable level of leverage based on these trade-offs, ultimately aiming to optimize their capital structure to maximize firm value. The variables included in the study are aligned with the trade-off theory in the following ways. Long-Term Debt to Total Investment (LDTI) reflects the use of long-term financing to support strategic growth initiatives, which can enhance profitability. According

to the Trade-Off Theory, firms that effectively manage LDTI can utilize the tax benefits of long-term debt while also being mindful of the potential for financial distress. Short-Term Debt to Total Investment (STDI) is often used to finance operations and working capital needs. The Trade-Off Theory posits that a balanced approach to STDI can lead to sustained performance, as firms can benefit from lower interest rates on short-term borrowing while mitigating risks associated with larger debt obligations. Total Debt to Total Investment (TDTI) captures the overall capital structure of the firm and embodies the cumulative effects of leveraging both short- and long-term debt. The Trade-Off Theory supports the notion that an optimal TDTI should be pursued, where the benefits from the tax shield align with associated risks, leading to improved ROI.

EMPIRICAL REVIEW

Dabi et al. (2023) investigated the effect of Capital structure on the financial performance and on sustainability of 51 Microfinance Institutions of Ghana. The study examined how Debt to Total Asset (TOD), equity-to-asset ratio (ER), and debt-to-equity ratio (DER) affect Return on Assets (ROA). The study also introduced control variables including Firm Size (FS), Risk, Deposit to Loan Ratio (DLR), Real GDP growth, and Inflation. Using fixed effect model, the study found that ER and DER have negative and significant effects on ROA.

Mehzabin et al. (2022) used 15 years of data for the period from 2004 to 2018 to examine the effect of capital structure, operational efficiency, and noninterest income on Return on Assets (ROA) and Return on Equity (ROE) of the banking industry in 28 countries in Asia. They used the Long-Term Debt (LTD) Ratio and the Total Debt to Total Asset (TOD) Ratio to measure leverage. Control variables included in the study were Bank Size (BS), Non-interest Income to Total Asset Ratio (NII), Ratio of Non-Interest Expense to Total Asset Ratio (NIE), Equity to Asset ratio (CAP), and Ratio of Loans to Total Assets (LNT) as indicators of Credit Risk. The study found that TOD had a favorable and significant effect on ROA and ROE. BS and LNT have a negative and significant impact on ROE, but NII, NIE, and CAP have positive and significant effects on ROA and ROE.

Using panel fixed effects; Ayalew (2021) investigated the link between capital structure and profitability of 16 Ethiopian private commercial banks in Ethiopia from 2014 to 2019. While profitability was assessed using ROA and Net Interest Margin (NIM), capital structure was assessed using the TOD and STD. Additionally, control factors, such as bank size, bank age, loan to deposit ratios, cost to revenue ratio, credit risk, and employee productivity were included. According to the findings of fixed effect panel regression, both TOD and STD significantly and favorably affect ROA and NIM. Loan to deposit ratios, credit risk, and employee productivity all have positive and substantial effects on ROA, whereas bank size and the cost to revenue ratio have negative and significant effects. Credit risk and bank size both have a positive and large impact on NIM.

In a dynamic framework, Kharabsheh et al. (2017) established a correlation between capital structure and performance using data from 70 industrial public companies listed on the Amman Stock Exchange between 2006 and 2016. The study employed two proxies for company performance, such as Return on Equity (ROE) and Return on Assets (ROA), as well as three proxies for capital structure, including Short Term Debt Ratio (STDR), Long Term Debt Ratio (LTD), and Total Debt Ratio (TOD). In addition, the study incorporates control variables like Firm size (FS), tangibility (TAN), risk (Risk), and Growth opportunity. Using two step system General Moment Method (GMM), the study found a positive and significant effect of STDR and TOD on ROA and ROE, whereas LTD is insignificant.

Meyad and Kefiyalew (2021) used data on 10 Ethiopian construction firms obtained from the Ministry of Urban Development, Housing, and Construction for the years 2011–2018 to examine the effect of capital structure on profitability. The TOD, STD, and LTD were used in the study to measure capital structure. Additionally, the Fixed Asset Ratio (FAR) and Size of Firm (FS) were included as control variables, and ROE was used as a profitability indicator. The study demonstrated that all capital structure proxies, TOD, LTD, and STD, have negative and significant effect on ROE using OLS regression. FAR has also positive and significant effect on ROE.

Using 10 years data for the period between 2007 and 2016 of 30 listed textile firms, Akhtar et al.(2019) investigated the effect of capital structure on performance. In the study, ROA, ROE, and earnings per share (EPS) were used to gauge performance, while TOD and DER were used to gauge capital structure. The liquidity of the

firms was used as a moderator. The study found that DER has a significant and negative impact on EPS. Taking liquidity as a moderating variable, TOD affects ROA, whereas the moderating effect of liquidity with DER affects ROA and EPS.

Using data collected for the period from 2015 to 2019, Dinh and Pham (2020) investigated the impact of capital structure on the financial performance of 30 pharmaceutical companies listed on the Vietnam stock market. The study used ROE as the dependent variable and the Equity Ratio (ER), Asset to Equity Ratio (AER), and TOD as independent variables. In addition, the study incorporates control variables like tangibility as measured by fixed asset ratio (FAR), firm size (FS), Fixed Asset to Equity Ratio (FER), and Growth Rate (GR). The study found that AER and TOD have positive and significant effects on ROE while ER has negative and significant effects on ROE. The study also found that FA, FS, FER, and GR have positive and significant effects on ROE.

Using panel data from eleven textile and apparel factories for the period 2009 to 2019, Seyoum et al. (2020) investigated the effect of financial structure on the profitability of 11 textile factories in Ethiopia. The TOD, LTD, STD, DER, long-term debt divided by equity (LDEQ), and short-term debt divided by equity (SDEQ) were used to calculate the capital structure. In addition, FS and Real GDP per capita growth rate were controlled. ROA and ROE were used as proxies for profitability. The results of the correlation study showed that a TOD and LTD had a significant negative correlation with ROA, a significant positive correlation with ROE, and a significant negative correlation with SDEQ. Additionally, GDP and ROA are positively correlated, while FS and ROA are adversely correlated. The study found that LTD and SDEQ had negative effects on ROA while TOD and SDTA had positive and significant effects. ROA is positively and significantly impacted by GDP and FS. LDEQ has a negative effect on ROE, whereas LTD has a positive effect.

Ogenche et al, (2018) conducted a research study on the effect of capital structure on the financial performance of consumer goods firms listed in the Nairobi Securities Exchange. The study targeted 12 firms. A census of all the 12 firms was used as a unit of analysis from the year 2012 to 2016. Secondary data was extracted from the financial statements and used in computing various ratios. The study employed a panel data regression model. The study concluded that there is a significant negative relationship between debt ratio and the financial performance of consumer goods firms listed at NSE. In addition, firm size also had a positive relationship with the financial performance of consumer goods firms listed at NSE.

Lin, Khai, Anh, Linh, Ha and Nga (2022) made an attempt to examined the impact of capital structure of performance of firm in listed processing and manufacturing industries in Vietnam for a period of 6 years spanning from 2015-2020. Tobin's Q and return on asset were proxy for the dependent variable whereas the independent variable was proxy by short term debt and long-term debt. The FGLS model was used to analyse the secondary data. The results revealed that short term debt and long-term debt have negative effect on return on asset while with regards to Tobin's Q short term debt had no significant effect on performance while long term debt had a negative effect with performance.

Olayemi and Fakayode (2021) examined the effect of capital structure on financial performance of quoted manufacturing companies in Nigeria for a period of seven years spanning from 2013-2019, capital structure was proxy by short term debt to total asset, long term debt to total asset, total debt to total equity and total debt to total asset ratio while financial performance was proxy by return on equity and return on asset. Panel regression analysis was employed and results revealed total debt to total equity has no significant impact on return on asset, total debt to total asset ratio has negative significant impact on return on asset and return on equity.

Dinh and Pham (2020) attempted to investigate the impact of capital structure on financial performance of Vietnamese listing pharmaceutical enterprises from 2015- 2019 (5 years), all the 30 listed companies were selected for the study, dependent variable was proxy by return on equity while independent variable (capital structure) was proxy by long-term asset ratio, financial leverage ratio and debt to asset ratio. The ordinary least square was adopted for the analysis and results revealed all the independent variables have positive impact on return on equity.

Muhammad (2019) examined the impact of capital structure on financial performance of consumer goods industry in Nigeria for 5 years (2012-2016), only 6 six companies were selected to represent the population of

the study, return on asset was financial performance proxy while short term debt, long term debt and shareholders' fund were independent variables proxy. Multiple regression analysis was employed and results revealed that only shareholders' fund has significant positive impact on financial performance. Lewis (2016) examined the effects of capital structure on the financial performance of firms listed at Nairobi securities exchange for 5 years (2011-2015), 47 companies listed non-financial firms were selected for the study, return was proxy for dependent variable while debt ratio, quick ratio and fixed assets to total asset were proxy for capital structure. Multiple regression technique was employed for the analysis and results revealed negative significant relationship between capital structure proxy and financial performance proxy.

Sanusi, Stephen and Vivi (2020) examined the impact of capital structure on financial performance of deposit money banks in Nigeria for a period of 10 years (2009-2018), only 5 banks were selected for the study from the population, long term loan to asset, short term loan to asset and total debt to asset were proxy for capital structure while return on asset was proxy for financial performance, the multiple regression was employed for analyzing the extracted data. Findings revealed short term debt to asset and total debt to asset to have significant positive impact on return on asset. Sorana (2015) examined capital structure impact on financial performance in Romanian listed companies for a period of 8 years (2003- 2010), cross-sectional regression analysis was carried on the data, total debt, long term debt, total equity and short-term debt were indicators of capital structure whereas return on equity and return on asset indicated financial performance. Findings revealed that total equity have significant positive impact on financial performance.

In a study by Adeoye and Olojede (2019) on the effect of capital structure on the financial performance of quoted deposit money banks in Nigeria. To achieve the objective of the study, they used a cross-sectional time series secondary data covering the period of seven years (2012-2018) was extracted from the audited financial statement of ten (10) banks listed on the floor of stock exchange. The descriptive statistics, Pearson moment correlation and multiple linear regressions were used. The correlation results showed that capital structure is negatively correlated with financial performance (ROA and ROE). Result from panel regression revealed that debt to equity though significant, impacted negatively on return on assets and return on equity, asset tangibility significantly impacted return on asset but insignificantly impacted return on shareholder's equity and also Age has a significant impact on return on asset and insignificant effect on return on equity.

In another research by Serwadda, (2019) on effects of capital structure on banks' performance on Ugandan banks for a ten years period, 2006 – 2015. Panel regression models are used to determine the effects of capital structure on bank performance. Results portray that there is a positive relationship between capital structure variables and bank performance. It is between long term debts, total debt with net interest margin. There is also a positive relationship between total debt and return on assets. It is still the same between total debt and returns on equity. However, there is a negative relationship between short term debt and return on assets.

Nwude & Anyalechi (2018) conducted a study on impact of capital structure on performance of commercial Banks in Nigeria. The study evaluated the influence of financing mix on the performance of commercial banks, and the causal link between debt-equity ratios. Data collated were analyzed using correlation analysis, ordinary least squares regression analysis, fixed effect panel analysis, random effect panel analysis, granger causality analysis, as well as post estimation test such as restricted f-test of heterogeneity and Hausman test. The findings show that while debt finance exert negative and significant impact on return on asset, the debt-equity ratio has positive and significant influence on return on equity.

Kachollom, Dasuki and Yusuf (2017) conducted a study on the effect of capital structure on the performance of Deposit Money Banks in Nigeria. The objective was to examine the effect of capital structure on the financial performance of Deposit Money Banks in Nigeria. Secondary data was obtained from the financial statements of Deposit Money Banks listed in the Nigerian Stock Exchange. Four banks were selected as samples and data from their financial statements for a period of 10 years (2006 to 2015). The study has employed the use of Pearson correlation coefficient and general least squares (GLS) regression model to analyze the effect of capital structure on the performance of some selected banks. The performance variables used in the study were, ROA, ROE and ROCE. Findings from the study showed that capital structure has positive and significant effect on the financial performance of listed deposit money banks in Nigeria.

Dahiru, Dogarawa and Haruna (2016) made an attempt to examined the effect of capital structure on financial performance of manufacturing firms listed on the NSE for a period of six years spanning from 2009-2014, capital structure was proxy Total debt to total asset, total debt to total equity, short term debt to total asset and long-term debt to total asset while financial performance was proxy by return on asset. The panel data was analyzed using the generalized least square regression. Results revealed that three variables (total debt, short term debt and long-term debt) have positive significant impact while only debt to equity was not significant with return on asset. The study recommends that management should increase the components of short-term debt of capital structure.

Vatavu (2015) studied how capital structure affects the financial performance of 196 Romanian listed manufacturing companies listed on the Bucharest Stock Exchange for 8-years period between 2003 and 2010. Vatavu (2015) used LTD, STD, TOD, and ER as the capital structure indicators, while ROA and ROE were used as the performance proxies. In addition, control variables like tangibility, tax, business risk, liquidity, and inflation were used. By employing fixed effect multiple regression model, the TOD has negative and significant impact on ROA, which indicates that as more debt is employed by firms, the less profitable they will be. The STD also has negative and significant impact on the ROA. The ER has positive and significant effect on ROA which indicates that companies are more profitable when they keep high ER in their financial structure. In relation to ROE, only TOD and STD showed a negative and statistically significant impact on contrary, equity has a statistically positive effect on ROE.

METHODOLOGY

Research design involves establishing a plan or a specified framework for collecting data for the study and its subsequent analysis, which contains the research approach and the priorities of the great interest to the researcher (Ghauri & Gronhaug, 2005). This research is based on the ex-post facto research design, since it uses previously generated data to predict current behaviour of variable used in this study. The research utilized secondary source of data obtained from the audited annual financial reports and accounts of sampled consumer goods that are quoted with the Nigerian Stock Exchange (NSE) for 10 years from 2014 – 2023 from the NSE fact books for the period of reference. The data obtained from the published annual reports and accounts were analyzed using descriptive statistics, and hypothesis were tested using Pearson Correlation Coefficient and multiple regression analysis with the help of e-view 9.

Model specification

The model specification for the study is mathematical presented as;

$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \mu_0$.....1

Hence, econometrical presented as thus;

$Y = \beta_0 + \beta_1 LDTI_1 + \beta_2 STDI_2 + \beta_3 TDTI_3 + \mu_0$.....2

Where ROI = Return on investment

LDTI = Long term debt to total investment

STDI = Short term debt to total investment

TDTI = Total debt to total investment

μ_0 = error term

β_0 = constant

β_1.....β_n = parameter estimates of the coefficients

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

be accepted.

Data analysis and Result Discussion

Descriptive statistics

Table 1: Descriptive statistics of study variables

Variables	ROI	LDTI	STDI	TDTI
Mean	4.874050	7.603805	3.861250	3.995504
Median	4.778316	7.212043	3.459160	3.760012
Maximum	6.848315	8.738830	5.895593	4.988577
Minimum	4.534070	6.924071	3.417338	3.628660
Std. Dev.	0.107526	1.805548	0.072673	0.614988
Skewness	-2.54014	1.481006	-1.138046	-2.750954
Kurtosis	4.320405	3.704789	5.652066	4.659164
Jarque Bera	31.71036	26.81644	14.78408	23.64265
Prob.	0.074001	0.520421	0.000000	0.000001
Obs.	30	30	30	30

Source: Authors computation from *Eview 9.0*

Table 1 provides an overview of the descriptive statistics for the financial variables under examination in this study. Tabachnick and Fidell (2007) found that the population or sample of the study is assumed to be normally distributed when the mean variables are similar to the value of median, skewness value is zero and kurtosis value is greater than or equal to or less than 3. A kurtosis with distribution greater than 3 is a leptokurtic distribution whereas 3 is the kurtosis of a normal distribution. A leptokurtic distribution (greater than 3) has a sharper peak with lower probability than a normal distribution of kurtosis whose value is equal to 3. A kurtosis with less than 3 is a platykurtic distribution which has a lower and wider peak with higher probability than leptokurtic and normal distribution. However, the diagnostic test reveals that no variables have the value of mean equal to value of median. Similarly, the skewness value and kurtosis value of the variables are both mix positively and negatively showing that their distribution are skewed to the right side as well as to left side with the kurtosis value of variables range from 3.704789 to 5.652066.

Consequently, the ROI, LTDTI, STDI, and TDTI has a mean value of 4.874050, 7.603805, 3.861250, and 3.995504 respectively. The result of the descriptive statistics shows that LDTI has the highest maximum value of 8.738830 followed by ROI with 6.848315. Also, the result shows that LDTI has the highest standard deviation while STDI has the least value for standard deviation. The probability value of the Jarque Bera statistics is an indication that the variables are normally distributed.

Correlation Results

The Pearson correlation coefficients of the variables of the study are presented in table 2.

Table 2: Correlation results of the dependent and independent variables

	ROI	LDTI	STDI	TDTI
ROI	1			
LDTI	0.7683	1		

	(0.0065)			
STDI	0.4372 (0.0012)	0.2554 (0.0917)	1	
TDTI	0.6618 (0.3810)	0.3977 (0.4036)	0.6492 (0.7136)	1

Source: output from *Eviews 9*

The results in table 2 show the correlation coefficients of the variables of capital structure LDTI, STDI, and TDTI and financial performance that is ROI of the selected listed consumer good firms. The result shows positive relationship between LDTI, STDI and ROI from the correlation coefficient of 0.7683 and 0.4372 which is statistically significant at P-value of 0.0065 and 0.0012. This implies that, more LTDI and STDI the lower the ROI. This relationship suggests that the larger LDTI and STDI improve performance positively and is statistically significant. On the other hand, the results from the table indicate that, there is no significant relationship between ROI and TDTI from the correlation coefficient of 0.6618 which is not significant at P-value of 0.3810. This relationship suggests that the larger TDTI improve performance positively and is not statistically significant.

Regression result

This part of the study gives the results on the effect of capital structure on financial performance of selected listed consumer good firms. Table 3 presents the regression result of the dependent variable (ROI) and the independent variables of the study (LDTI, STDI, and TDTI).

Table 3: Ordinary least square (OLS) Analysis Results

Variable	Coefficient	Std Error	t-statistics	Prob.
C	0.513747	0.331061	1.788670	0.02040
LTDI	0.646481	0.223486	0.560399	0.0518
STDI	0.815664	0.372147	0.870642	0.0076
TDTI	0.460922	0.174918	2.144030	0.0001
R-squared	0.476686			
Adjusted R-squared	0.458524			
S.E Regression	0.036047			
Sum of squared resid	0.273540			
Log likelihood	42.07478			
F-statistics	11.28176			
Prob (F-stat)	0.000046			
Durbin-Watson	2.392765			

Source: Authors computation from *Eview9.0*

The results in table 3 shows that when ROI was utilized as dependent variable to measure the financial performance, LTDI has a coefficient of 0.646481 and a P-value of 0.0518 which is significant at 5% level of significance. This implies that LTDI has positive and statistically significant impact on the ROI of selected consumer good firms. Therefore, for every increase in the number of LTDI, it has significant impact on ROI.

Table 3 also provides result in respect of impact of STDI on ROI; the STDI has a coefficient value of 0.815664 and a P-value of 0.0076 which is significant at 5% level of significance. This signifies that STDI has positive and significant impact on ROI of selected consumer good firms. This provides us evidence to reject the null hypothesis which states that STDI has no significant impact on ROI of selected consumer good firms.

Also, the results in the table 3 shows that there is positive and strong significant impact of TDTI on ROI with coefficient value of 0.460922 and a P-value of 0.0001 which is less than 0.05. This is an indication that the TDTI is appreciated and the increase is consistent with increase in ROI. This also provides us evidence to reject the null hypothesis which states that TDTI has no significant impact on ROI of the selected consumer good firms.

The analysis reveals that R-squared is about 47.6% implying that the variables used account for about 47.6% of variations in the dependent variable. This model also met the test of autocorrelation as the Durbin-Watson statistics is 2.39. The result of the analysis concurs with the results of Sadiq, Kachollom, Dasuki, and Yusuf (2017) that capital structure has positive and significant effect on financial performance of listed firms. The findings of this study indicate that both long-term debt to total investment (LDTI) and short-term debt to total investment (STDI) have a statistically significant positive effect on the return on investments (ROI) of listed consumer goods firms in Nigeria. This outcome aligns with the Trade-Off Theory, which posits that while debt can lead to financial distress, it also offers tax advantages that can enhance firm profitability. The strong correlation between total debt to total investment (TDTI) and ROI supports the notion that appropriately managed leverage can lead to a more productive allocation of resources, thereby increasing returns.

In addressing the research questions, the results reveal that:

1. Long-term debt to total investment positively influences ROI, suggesting that firms effectively utilize long-term financing for growth initiatives.

2. Short-term debt to total investment also contributes positively to ROI, which indicates that firms leverage short-term financing for operational activities that yield immediate returns.

3. The overall significance of TDTI highlights the importance of a balanced capital structure in achieving financial performance.

CONCLUSION AND RECOMMENDATION

In conclusion, this study demonstrates that capital structure significantly influences the financial performance of listed consumer goods firms in Nigeria, particularly through the effective use of both short-term and long-term debt. The positive relationship between various debt types and ROI suggests that when firms strategically manage their debt levels, they can enhance their profitability. This study examined the impact of capital structure on financial performance of listed firms in Nigeria. The study employed multiple regression analysis to determine the impact of capital structure on the financial performance of listed firms measured by ROI. The findings of the study shows that LTDI, STDI, and TDTI have statistically significant impact on financial performance at 5% significant level. Based on the findings obtained from the results, the study suggests that, stakeholders should critically examine the proportion of short- and long-term debts when establishing capital structure of an organization. The study recommends the following:

1. Revisit their capital structure to ensure optimal debt levels that align with the Trade-Off Theory's principles. By recognizing the potential benefits of leveraging debt for tax deductions and growth, firms can avoid excessive avoidance of debt due to fear of insolvency.

2. Develop internal controls and investment evaluation policies to ensure that borrowed funds are directed towards efficiency-enhancing projects that promote expansion and innovation. This aligns with the Pecking Order Theory, which emphasizes the sequential preference for financing sources, allowing firms to prioritize internal financing but also leverage external debt when necessary.

3. Industry associations (like MAN) could advocate for policies that reduce borrowing costs for consumer

goods firms e.g., lower interest rates**,** tax incentives for interest payments**,** or SME credit support schemes**.**

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