INTERNATIONAL JOURNAL OF ACCOUNTANCY, FINANCE AND TAXATION
DEPARTMENT OF ACCOUNTANCY, IMO STATE UNIVERSITY, OWERRI.

IJAFT

ISSN: 3027-0378

IMPACT OF CAPITAL STRUCTURE ON FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

Obafunso, Rahmon Agboola[1], Murtala Abdullahi[2] & Nasirudeen Abubakare[3]

[123]*Department of Accounting, Kaduna State University, Kaduna, Nigeria.*
E-mail: rahmonobafunso@gmail.com, murtala.abdullahi@kasu.edu.ng, nasirubakaredr@gmail.com

K E Y W O R D S

Long-term debt, proprietary funds, return on capital employed, consumer goods firms.

A B S T R A C T

This study examined how capital structure influenced the financial performance of listed consumer goods firms in Nigeria. The study adopted an ex-post facto research design, relying on secondary data from 10 firms selected out of 21 listed on the Nigerian Exchange Group PLC between 2014 and 2023. The sample was selected using a judgmental-convenience sampling technique and a defined filtering criterion. Capital structure was measured using long-term debt and proprietary funds, whereas financial performance was evaluated through return on capital employed (ROCE). Data analysis was conducted using a generalized least squares regression analysis. The findings show that both the long-term debt ratio (LTDR) and proprietary funds (PROF) exert a positive and statistically significant influence on ROCE. The study concludes that long-term debt and proprietary funds are critical determinants of financial performance among the sampled firms and recommends that management pursue strategic approaches to long-term debt financing while ensuring the efficient use of proprietary funds to drive sustainable returns and improve operational efficiency.

Introduction

Financial performance remains a central indicator of an organization's ability to manage resources efficiently, achieve financial goals, and create long-term value for stakeholders (Richard et al., 2009). In Nigeria's listed consumer goods sector, financial performance serves not only as a gauge of profitability and operational effectiveness but also as a determinant of economic resilience and corporate sustainability. Globally, bodies such as the United Nations (2023) and the Organisation for Economic Co-operation and Development (OECD, 2023) associate robust financial performance with inclusive growth, environmental sustainability, and adherence to international best practices. At the regional level, bodies such as the African Union (2023), ECOWAS (2021) recognize financial performance as vital for industrialization and regional integration. Within Nigeria, the Financial Reporting Council (FRC, 2023) emphasizes the role of standardized financial reporting under the International Financial Reporting Standards (IFRS) in enhancing transparency and investor confidence.

Researchers have consistently explored different internal determinants of financial performance, with capital structure standing out as one of the most impactful. When effectively managed, long-term debt can support strategic expansion and asset acquisition (Brigham & Houston, 2018; Abor, 2005); however, excessive reliance on it may heighten financial burdens and diminish profitability (Iyoha, 2017). Proprietary funds or equity serve as a buffer against debt reliance, promoting financial independence (Pandey, 2010), though overly conservative equity positions might limit growth potential.

Although capital structure remains highly relevant, its composition—especially the balance between long-term debt and proprietary funds—continues to be a crucial determinant of financial performance and a significant factor in the success or underperformance of Nigeria's consumer goods sector. This gap is especially critical considering the recent economic turbulence in Nigeria, which has adversely affected the performance and strategic financing choices of consumer goods firms. From 2014 to 2018, the industry witnessed steady revenue and profit growth; however, this momentum waned between 2019 and 2023, marked by reduced profit margins and declining returns on capital employed (ROCE). Firms such as Dangote Sugar, Nestlé Nigeria, and Unilever Nigeria reported significant after-tax losses, attributed to unsustainable capital structures and increased interest burdens.

Empirical studies, including scholars, advocated an optimal mix of debt and equity to drive performance (Ross, 1977; Myers, 1984; Frank & Goyal, 2003), which had positive findings on the capital structure–financial performance relationship. Although capital structure has long been a central issue, the balance between long-term debt and proprietary funds remains crucial in determining financial performance and continues to be a significant factor driving either the underperformance or success of Nigeria's consumer goods sector. The consumer goods sector, being highly regulated and economically significant, provides an appropriate context for this investigation.

Accordingly, the study aims to investigate the impact of capital structure on financial performance of listed consumer goods firms in Nigeria. Specifically, it examines the individual impact of capital structure components on financial performance. By integrating these dimensions, the study offers valuable insights for corporate executives, investors, and regulators in formulating policies and strategies that foster financial resilience and sustainable growth.

Literature review

Empirical review

The nexus between capital structure and the financial performance of listed consumer goods firms in Nigeria has been the focus of significant Scholarly interest. It builds on prior empirical research while addressing gaps in how capital structure explains financial performance outcomes.

Obafunso & Mazadu (2025) examined how capital structure influences financial performance among Nigerian consumer goods firms from 2014 to 2023, using panel data analysis and multiple regression. Findings revealed that long-term debt and proprietary funds showed insignificant negative effects. The study advised firms to strengthen long-term debt and equity to optimize capital structure and thus enhance financial performance. Müller & Krause (2023) explored the impact of capital structure on financial performance in 50 European manufacturing firms over a decade (2012–2022). Using panel data, they found that a balanced capital structure enhances profitability, while excessive debt diminishes it due to interest burdens. Although insightful, applying such a study to Nigeria's consumer goods sector with extended coverage to 2023 could yield different results - an area the present study intends to cover.

Additionally, Li & Singh (2024) focused on Asian consumer goods firms from 2013 to 2023, and the study assessed how debt financing affects profitability. The study revealed that elevated short-term debt ratios diminished profitability, whereas prudent utilization of long-term debt improved performance. The study recommended prioritizing long-term financing. However, it excluded key variables like proprietary funds, which the present research incorporates to better understand their combined effects.

Several studies that indicated a significant positive relationship between capital structure elements and financial performance include (Müller & Schneider, 2024; Li & Singh, 2024; Okeke & Mensah, 2024; González & Ramirez, 2023; Wong & Tan, 2024; Da Silva & Patel, 2023; Müller & Krause, 2023).

Theoretical framework

The pecking order theory and the stakeholder theory support and underpin this study.

Pecking Order Theory

The Pecking Order Theory, developed by Myers and Majluf (1984), explains firms' financing decisions through a preference hierarchy - beginning with internal funds like retained earnings and proprietary capital, followed by debt, and lastly equity, which is least preferred due to information asymmetry concerns. This theory suggests that firms opt for internal financing first to avoid signaling issues that may arise from issuing new equity. In the context of listed consumer goods firms in Nigeria, this theory provides insight into how financing choices - particularly under economic uncertainty - can affect financial performance indicators such as Return on Capital Employed (ROCE).

Methodology

This study adopted an ex post facto research design, relying on existing data without altering or manipulating the variables. The target population consisted of 21 consumer goods firms listed on the Nigerian Exchange Group Plc as at December 2023. Using a judgmental-convenience sampling technique, 10 firms were selected based on the inclusion criteria and the availability of complete financial statements

from 2014 to 2023. Data were sourced secondarily from these firms' published financial reports. For analysis, the study employed generalized least regression to evaluate the relationship between multiple independent variables and the dependent variable.

Variable Measurement

The measurement of the variables is indicated below in Table 2.

Variable Measurement and Model Specification

Variables	Definition	Measurement	Author
Dependent Variable			
Financial Performance (ROCE)	The reflection of an organization's financial health through profitability, liquidity, and return on investment.	Earnings before interest and tax (EBIT) divided by capital employed (total assets - current liabilities).	Kaplan and Norton (1996)
Independent Variable			
Long-Term Debt (LTDR)	This is considered as part of a firm's capital structure used to finance asset acquisition, with terms negotiated based on interest rates, covenants, and repayment schedules.	Long-term borrowings or debt from non-current liabilities divided by total equity.	Fabozzi and Peterson (2012)
Proprietary Funds (PROF)	This is a measure of a company's financial leverage, reflecting the proportion of equity financing relative to total assets.	Shareholders' equity divided by total assets.	Ross et al., (2016)

Source: Generated by the Researcher, 2024

Model Specification

The model specifications for the study are written below.

Direct Model

ROCEit = β0 + β1LTDit +β2PROFit +*e*it…… (1)

Where:

ROCE = Return on Capital Employed (Dependent Variable)

i = firms

t = times

β0 = Constant

β1 – β2 = Co-efficient

LTDR = Long-Term Debt – (Independent Variable)

PROF = Proprietary funds - (Independent Variable)

e = Error term.

Results and discussion

Table 3 below shows the descriptive statistics where the minimum, maximum, mean, standard deviation, kurtosis, and skewness of the data used in the study are captured.

Table 3

Descriptive Statistics Result

Variables	Min	Max	Mean	Std. Dev.	Kurtosis	Skewness
ROCE	-0.6243	1.0484	0.179	0.2581	5.434	0.2581
LTDR	-4.6293	9.5906	0.5413	1.5444	25.9501	3.9741
PROF	-35.694	5.9382	-1.0328	5.257	22.7018	-4.094

Source: Extacted from STATA Output, 2025

The descriptive statistics reveal that, on average, listed consumer goods firms in Nigeria achieved a 17.90% return on capital employed (ROCE), indicating moderate profitability, though there is significant variability across firms. Long-term debt (LTDR) averaged 54.13% of capital structure, while the proprietary funds (PROF) had a negative mean (-1.03), suggesting low or negative equity among firms, possibly due to accumulated losses. Across all variables, skewness and kurtosis values indicate non-normal distributions, with highly skewed patterns reflecting disparities in capital structure practices and financial health engagement among the firms.

Correlation Matrix

The correlation matrix analysis presented in Table 4 revealed the relationships between the dependent variable (ROCE) and the independent variables, as well as among the independent variables themselves.

Table 4

Correlation Matrix Result

Variables	ROCE	LTDR	PROF
ROCE	1.0000		
LTDR	0.3043	1.0000	
PROF	0.2269	0.1079	1.0000

Source: Extacted from STATA Output, 2024

ROCE shows a moderate positive correlation with long-term debt (0.3043) and a weak positive correlation with proprietary fund (0.2269), suggesting that increases in these variables may slightly enhance financial performance. In contrast, proprietary funds correlate weakly with long-term debt (0.1079), implying that equity-backed firms still maintain some debt.

The multicollinearity test results in Table 5 showed that multicollinearity is not a significant issue among the independent variables, as all Variance Inflation Factor (VIF) values are below the critical threshold of 10.

Table 5

Multicollinearity Test

Variables	VIF	1/VIF
LTDR	1.01	0.988368
PROF	1.01	0.988368
Mean VIF	1.01	

Source: Extacted from STATA Output, 2024

Both Long-Term Debt (1.01) and Proprietary Fund (1.01) have the same VIFs, at a piece suggesting low levels but acceptable correlation. The mean VIF of 1.01 supports the absence of serious multicollinearity, and all tolerance values exceed the 0.1 threshold, at 0.9884 for each long-term debt and proprietary funds ratio, respectively, These results confirm that the predictors are not excessively correlated, allowing for stable regression estimates and accurate assessment of each variable's effect on financial performance.

Table 6

Summary of Regression Results

Generalized Least Square Regression (GLS)

ROCE	Coef.	Std. Err.	Z-value	P-value
LTDR	0.0473	0.0157	3.02	0.003
PROF	0.0056	0.0046	2.09	0.036
_cons	0.1633	0.0260	6.28	0.000
Obs	100			
Housman	2.82			
Prob. Housman	0.2442			
Het. Test	39.42			
Prob.Het.test	0			
WalChi2 (2)	15.03			
Prob>Chi 2	0.0005			

Source: Extacted from STATA Output, 2024

The Generalized Least Squares (GLS) regression results reveal that long-term debt ratio (LTDR) has a positive and statistically significant effect on return on capital employed (ROCE) ($\beta = 0.0473$, $p = 0.003$), suggesting that an increase in the long-term debt by 1% will result in an increase in the financial performance by 0.003 with the assumption that all other things being equal. Similarly, proprietary funds (PROF) exhibit a positive and significant relationship with ROCE ($\beta = 0.0056$, $p = 0.036$), indicating that an increase in the proprietary funds by 1% will enhance financial performance by 0.0056, assuming that all other things are equal. The model's overall significance is confirmed by the Wald Chi-square statistic ($\chi^2(2) = 15.03$, $p = 0.0005$), suggesting that the random effect is appropriate. The Hausman test ($\chi^2 = 2.82$, $p = 0.2442$) suggests that the random effects specification is appropriate. However, the heteroskedasticity test indicates the presence of heteroskedasticity ($\chi^2 = 39.42$, $p < 0.01$), justifying the use of GLS for robust estimation.

The findings indicate that both long-term debt ratio and proprietary funds are important drivers of financial performance among the studied firms, as evidenced by their positive and statistically significant effects on ROCE. Based on the study's null hypotheses, which posited that long-term debt ratio and proprietary funds have no significant effect on financial performance, the findings provide sufficient evidence to reject both null hypotheses. The positive coefficient of LTDR suggests that firms effectively utilizing long-term financing may achieve better operational returns, possibly due to the stability and growth opportunities such funding provides. Similarly, the significance of proprietary funds underscores the value of internal financing in sustaining performance, which aligns with thepecking order theory's preference for internal over external capital. The appropriateness of the random effects model, as indicated by the Hausman test, coupled with the model's strong overall significance, lends credibility to these results. Furthermore, the detection of heteroskedasticity validates the application of GLS, ensuring the robustness of the estimates and reinforcing the reliability of the conclusions drawn.

The study concludes that long-term debt and proprietary funds are significant determinants of financial performance, as measured by return on capital employed (ROCE), among the sampled firms. The positive and statistically significant impact of long-term debt suggests that strategic use of long-term financing can enhance operational returns by providing stability and supporting growth initiatives. Likewise, the significance of proprietary funds highlights the critical role of internal financing in sustaining and improving performance, consistent with the pecking order theory's preference for internal capital over external sources. These findings underscore the importance of a balanced capital structure that leverages both external long-term debt and internally generated funds to optimize financial outcomes.

Based on the study's conclusions, it is recommended that management of listed consumer goods firms adopt a strategic approach to long-term debt financing, ensuring that such funds are deployed towards investments that generate sustainable returns and improve operational efficiency. Boards and financial managers should

also prioritize the effective mobilization and utilization of proprietary funds, strengthening internal revenue generation through cost control, operational efficiency, and value-added activities. Firms should aim for a balanced capital structure that combines the stability of long-term debt with the flexibility and lower cost of internal financing, thereby enhancing overall financial performance.

Future studies could expanding the scope to include other sectors or conducting a cross-country comparative analysis could provide deeper insights into how industry and institutional contexts influence these relationships. Finally, incorporating qualitative measures, such as management decision-making processes and corporate governance practices, could offer a more holistic understanding of the dynamics between financing decisions and performance outcomes.

References

Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, 6(5), 438–445. https://doi.org/10.1108/15265940510633505

African Union. (2023). *AU strategy for regional integration and industrial development*. https://au.int

Brigham, E. F., & Houston, J. F. (2018). *Fundamentals of financial management* (15th ed.). Cengage Learning.

Da Silva, R., & Patel, S. (2023). Financial leverage and corporate growth in emerging markets. *Emerging Markets Finance Journal*, *19*(2), 78-98.

ECOWAS. (2021). *ECOWAS Vision 2050: Towards an inclusive and sustainable development.* Economic Community of West African States.

Financial Reporting Council of Nigeria. (2023). *Annual report 2023*. https://www.frcn.gov.ng

Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics, 67*(2), 217-248.

Iyoha, F. O. (2017). *Financial management principles and applications.* Benin: Ambik Press.

Müller, H., & Krause, T. (2023). Capital structure and financial performance: Evidence from the European manufacturing sector. *European Financial Review*, *35*(2), 155-178.

Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance, 39*(3), 575–592. https://doi.org/10.1111/j.1540-6261.1984.tb03646.x

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221. https://doi.org/10.1016/0304-405X(84)90023-0

Obafunso, R. A., & Mazadu S. A. (2025). Impact of capital structure on financial performance of listed consumer goods firms in Nigeria. 1(1), 113-126. *Impressive Journal of Management and social sciences,* https://doi.org/10.33003/ijmass-2025.vlil.13.113-126.

Okeke, C., & Mensah, J. (2024). Debt maturity structure and firm performance in African consumer goods firms. *African Journal of Corporate Finance*, *20*(1), 78-96.

Organisation for Economic Co-operation and Development. (2023). *OECD economic outlook, volume 2023 issue 1*. https://doi.org/10.1787/16097408

Pandey, I. M. (2010). *Financial Management* (10th ed.). Vikas Publishing House.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). *Measuring organizational performance: Towards methodological best practice.* Journal of Management, 35(3), 718–804. https://doi.org/10.1177/0149206308330560

Ross, S. A. (1977). The determination of financial structure: The incentive-signaling approach. *Bell Journal of Economics, 8*(1), 23-40.

Ross, S. A., Westerfield, R. W., & Jaffe, J. (2016). *Corporate finance* (11th ed.). McGraw-Hill Education.

United Nations. (2023). *World investment report 2023: Investing in sustainable energy for all*. United Nations Conference on Trade and Development (UNCTAD). https://unctad.org/publication/world-investment-report-2023

Wong, J., & Tan, S. (2024). Capital structure and market performance of Southeast Asian consumer goods firms. *Asia-Pacific Journal of Business Finance*, *27*(3), 65-84.