

Effect of Tax Planning on Profitability of Listed Consumer Goods Firms in Nigeria

Monica Peter Lebo¹, Obal Usang Edet Usang², Mohammed Bamanga Bello³ and Ibrahim Mallam Fali^{4*}

¹Department of Business Management, University of Calabar, Nigeria

²Department of Accounting, University of Calabar, Nigeria

³Department of Accounting, Federal University of Lafia, Nigeria

⁴Department of Accounting, University of Calabar, Nigeria

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***Corresponding author:** Ibrahim Mallam Fali, Department of Accounting, University of Calabar, Nigeria, Email: faliibrahim7@gmail.com

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ABSTRACT

This study examined the effect of tax planning on the profitability of listed consumer goods firms in Nigeria over the period 2014–2023. The study adopted an ex-post facto research design and utilized panel data obtained from the annual reports of 16 listed consumer goods firms selected through purposive sampling. Descriptive statistics, correlation analysis, and panel regression techniques were employed for data analysis. The Hausman specification test indicated that the Random Effects Model was the most appropriate estimation technique. The findings revealed that effective tax rate and tax expense exerted positive but statistically insignificant effects on profitability, while marginal tax rate had a negative and insignificant effect on profitability. However, cash effective tax rate exhibited a positive and statistically significant effect on profitability, suggesting that efficient cash tax management enhances firm performance. Earnings per share also had a positive and significant effect on profitability. The study concluded that tax planning influences the profitability of listed consumer goods firms in Nigeria, with cash tax management emerging as the most important determinant. The study recommends that firms adopt effective and compliant tax planning strategies to enhance profitability and maximize shareholder value.

Keywords: Tax Planning; Profitability, Return on Assets (ROA), Effective Tax Rate (ETR), Marginal Tax Rate (MTR), Random Effects Model, Listed Consumer Goods Firms, Nigeria

Introduction

Taxation constitutes one of the primary sources of government revenue and plays a crucial role in the economic development of nations. Beyond its revenue-generating function, taxation serves as an instrument for regulating economic activities, redistributing income, and promoting social welfare.

For corporate organizations, however, taxation represents a significant business cost that directly affects profitability, cash flows, investment decisions, and shareholders' wealth. Consequently, firms continuously adopt various tax planning strategies aimed at legally minimizing tax liabilities while maximizing after-tax profits and overall financial performance¹.

Tax planning refers to the arrangement of a firm's financial affairs in a manner that reduces tax obligations within the provisions of existing tax laws and regulations. It involves the strategic utilization of tax incentives, deductions, allowances, exemptions, and other legitimate tax-saving mechanisms to optimize corporate financial outcomes². Effective tax planning has increasingly become an essential component of corporate financial management because it enables firms to improve cash flows, enhance operational efficiency, and create value for shareholders. Firms that engage in efficient tax planning practices often experience increased profitability due to reduced tax burdens and improved resource allocation³.

Globally, the relationship between tax planning and corporate profitability has attracted significant attention from researchers, policymakers, investors, and tax authorities. The growing complexity of tax regulations, globalization of business activities, and increasing pressure on firms to maximize shareholder wealth have intensified the importance of tax planning strategies. While some scholars argue that effective tax planning contributes positively to firm profitability by reducing tax expenses and improving financial performance, others contend that aggressive tax planning may expose firms to legal risks, reputational damage, increased compliance costs, and regulatory scrutiny^{4,5}. These divergent perspectives have generated considerable empirical debate regarding the actual impact of tax planning on firm performance.

In Nigeria, the corporate tax environment has undergone significant changes due to fiscal reforms, amendments to tax legislation, and increased government efforts to enhance tax administration and revenue generation. Nigerian companies are subject to various forms of taxation, including company income tax, education tax, value-added tax, and other statutory levies, which collectively influence their financial performance. Consequently, firms have increasingly adopted tax planning strategies to manage their tax obligations efficiently and maintain competitive advantage within the business environment⁶.

The consumer goods sector represents one of the most important sectors of the Nigerian economy due to its contribution to manufacturing output, employment generation, industrial development, and economic growth. Listed consumer goods firms operate within a highly competitive environment characterized by inflationary pressures, exchange rate fluctuations, rising production costs, and changing tax policies. To remain profitable and sustain shareholder value, these firms often engage in various tax planning practices, including effective tax rate management, cash tax planning, strategic tax expense management, and compliance optimization strategies⁷.

Despite the growing importance of tax planning in corporate financial management, empirical findings on its effect on profitability remain inconclusive. Previous studies have reported mixed results due to differences in methodology, sectors examined, variables employed, and periods covered^{8,9}. Furthermore, limited studies have specifically focused on listed consumer goods firms in Nigeria using recent data and comprehensive tax planning indicators. Therefore, this study seeks to examine the effect of tax planning on the profitability of listed consumer goods firms in Nigeria over the period 2014 to 2023, with the aim of providing empirical evidence that will contribute to existing literature and inform corporate and fiscal policy decisions.

Statement of the problem

Profitability remains a critical indicator of corporate performance, sustainability, and shareholder wealth maximization. One of the strategic mechanisms employed by firms to enhance profitability is tax planning, which involves the legal minimization of tax liabilities through effective tax management strategies. Through tax planning, firms seek to reduce tax expenses, improve cash flows, and maximize after-tax earnings. Despite the potential benefits of tax planning, the extent to which it influences corporate profitability remains an unresolved empirical issue, particularly in emerging economies such as Nigeria.

The Nigerian consumer goods sector has experienced significant operational challenges over the last decade due to persistent macroeconomic instability, inflationary pressures, exchange rate volatility, and changes in fiscal policies. According to the National Bureau of Statistics¹⁰, Nigeria's headline inflation rate increased from 15.92% in 2022 to 28.92% in 2023 and further rose to 33.20% in March 2024, significantly increasing the cost of production and business operations. Similarly, data from the Central Bank of Nigeria indicate that the naira depreciated by over 60% against the United States dollar between 2023 and 2024, resulting in increased production costs for manufacturing and consumer goods firms. Despite these challenges, company income tax revenue increased substantially from ₦2.83 trillion in 2022 to ₦4.90 trillion in 2023, representing approximately 73.14% growth in corporate tax collections¹⁰.

Consequently, many listed consumer goods firms have intensified their tax planning activities to minimize tax liabilities and maintain profitability. However, despite the growing adoption of tax planning strategies, several firms within the sector continue to experience declining profit margins and fluctuating financial performance and some of the studies in Nigeria looked at the other aspect of the tax eg Usang et al.¹¹; Usang et al.¹².

Literature Review

Empirical research examining the relationship between tax planning and corporate profitability has produced mixed and context-specific findings across countries, sectors, and methodological approaches. While some studies argue that effective tax planning enhances firm profitability by reducing tax liabilities and increasing after-tax earnings, others contend that aggressive tax planning may expose firms to regulatory sanctions, reputational risks, and increased compliance costs, thereby negatively affecting financial performance^{1,4}. The divergent findings in the literature reflect variations in tax planning measures, profitability indicators, institutional environments, and econometric techniques employed by researchers.

Early empirical studies established that tax planning constitutes an important strategic tool for maximizing firm value and profitability. For example, Desai and Dharmapala¹³ examined publicly traded firms in the United States and found that effective tax planning positively influences firm value by reducing tax burdens and improving cash flow management. Similarly, Chen, Chen, Cheng, and Shevlin³, using a sample of firms across developed economies, reported that tax planning activities significantly improve corporate financial performance through efficient tax management strategies. However, Hanlon

and Slemrod⁵ argued that while tax planning may increase short-term profitability, aggressive tax avoidance practices could adversely affect long-term firm performance due to increased regulatory scrutiny and reputational costs.

Several studies have documented a positive relationship between tax planning and profitability, particularly in developing economies. Abdul Wahab and Holland¹⁴, using panel data from publicly listed firms in the United Kingdom, found that firms with effective tax planning strategies recorded higher returns on assets and improved shareholder value. Similarly, Rego and Wilson¹⁵ demonstrated that tax planning enhances firm performance by increasing available cash resources and reducing financing constraints. Their findings support the argument that tax planning contributes positively to profitability through efficient resource allocation and cost reduction mechanisms.

In Africa, empirical evidence on tax planning and profitability remains limited and inconsistent. For instance, Anyaduba and Ezeani¹⁶ investigated the effect of tax planning on corporate performance among listed firms in Nigeria and reported a significant positive relationship between effective tax planning and profitability. Likewise, Omodero and Ogbonnaya⁶, using panel data analysis of selected Nigerian firms, found that tax planning strategies significantly improve return on assets and return on equity. However, their study also revealed that excessive tax minimization strategies could expose firms to compliance risks and financial penalties.

More recent studies have employed advanced econometric techniques to address issues of endogeneity and heterogeneity. Akintoye, Adegbe, and Aluko⁷ examined tax planning and financial performance among Nigerian manufacturing firms using panel regression analysis and found that effective tax rate and cash effective tax rate exert significant positive effects on profitability. Similarly, Akinleye and Fajuyagbe¹⁷, employing a dynamic panel estimator, reported that firms adopting strategic tax planning practices experienced improved financial performance and increased market value. However, they emphasized that the effectiveness of tax planning depends on corporate governance quality and institutional efficiency.

Within the Nigerian context, several studies have examined the effect of tax planning on firm performance with varying results. Ogundajo and Onakoya⁸ investigated the relationship between tax planning and financial performance among listed manufacturing firms in Nigeria and found a significant negative relationship between effective tax rate and profitability, suggesting that lower tax burdens enhance firm performance. Similarly, Iriabije and David⁹ reported that marginal tax rate and tax expense significantly influence profitability among Nigerian firms. Conversely, Ezejelue and Ihendinihu¹⁸ found that some tax planning strategies had insignificant effects on profitability due to high compliance costs and weak institutional frameworks.

Cross-country studies have also provided additional evidence regarding the profitability implications of tax planning. For example, Richardson, Taylor, and Lanis¹⁹ examined firms across emerging economies and found that tax planning contributes positively to profitability when supported by effective corporate governance structures. Likewise, Armstrong, et al.⁴ established that firms with strong governance mechanisms derive greater financial benefits from tax planning than firms operating under weak governance systems. Their findings suggest that

institutional quality moderates the relationship between tax planning and profitability.

Recent studies have further highlighted the importance of firm-specific characteristics and macroeconomic conditions in explaining the tax planning-profitability nexus. Ahmed and Kadir²⁰, using panel data from African manufacturing firms, found that tax planning significantly improves profitability only under conditions of macroeconomic stability and effective tax administration. Similarly, Mensah and Bokpin²¹ demonstrated that corporate tax planning contributes positively to firm performance when supported by sound fiscal policies and transparent regulatory environments.

In general, the empirical literature suggests that the relationship between tax planning and profitability is complex, dynamic, and influenced by institutional quality, corporate governance, firm characteristics, and macroeconomic conditions. While many studies report a positive relationship between tax planning and profitability, others document negative or insignificant effects due to differences in methodologies, variables, sectors, and economic environments. Furthermore, limited empirical studies have specifically examined listed consumer goods firms in Nigeria using recent data and comprehensive tax planning indicators such as effective tax rate, marginal tax rate, cash effective tax rate, and tax expense. Therefore, this study seeks to fill this gap by examining the effect of tax planning on the profitability of listed consumer goods firms in Nigeria during the period 2014-2023, thereby providing updated empirical evidence to support corporate financial decision-making and fiscal policy formulation.

Methodology

This study examines the effect of tax planning on the profitability of listed consumer goods firms in Nigeria over the period 2014 to 2023. The study adopts a quantitative research design and utilizes panel data obtained from the audited annual reports and financial statements of selected consumer goods firms listed on the Nigerian Exchange Group (NGX). The use of panel data enables the study to capture both cross-sectional and time-series variations in the variables, thereby providing more robust and efficient estimates of the relationship between tax planning and profitability.

The population of the study consists of all 21 consumer goods companies listed on the Nigerian Exchange Group as of 31st December 2023. Using purposive sampling, 16 firms were selected based on the availability and consistency of financial data over the study period. The study covers a period of ten years (2014-2023), generating a balanced panel dataset suitable for panel regression analysis.

Data for the study were obtained from secondary sources, including the annual reports and accounts of the sampled firms, the Nigerian Exchange Group (NGX) Factbook, and company websites. The variables extracted include profitability indicators, tax planning measures, and firm-specific control variables. The use of secondary data is consistent with the ex-post facto research design adopted in this study (**Table 1**).

Model specification

The empirical model adopted for this study is based on the theoretical and empirical works of Desai and Dharmapala², Ogundajo and Onakoya⁸, and Akintoye, et al.⁷, which examined

the relationship between tax planning and corporate financial performance. The functional relationship is expressed as:

Table 1: Variable Definition and Sources.

Variable	Definition	Source
Return on Assets (ROA)	Net income after tax divided by total assets, used as a measure of profitability	Omodero and Ogbonnaya ⁶
Effective Tax Rate (ETR)	Total tax expense divided by earnings before tax	Ogundajo and Onakoya ⁸
Marginal Tax Rate (MTR)	Statutory corporate tax rate applicable to firms	Iriabije and David ⁹
Cash Effective Tax Rate (CETR)	Cash tax paid divided by pre-tax income	Akintoye, et al. ⁷
Tax Expense (TEXP)	Total tax expense reported in financial statements	Omodero and Ogbonnaya ⁶
Earnings Per Share (EPS)	Net income after tax divided by outstanding shares	Myskoya and Hajek ²²

Source: Author's computation.

$$ROA_{it} = f(ETR_{it}, MTR_{it}, CETR_{it}, TEXP_{it}, EPS_{it}) \dots \dots \dots 3.1$$

The econometric model is specified as follows:

$$ROA_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 MTR_{it} + \beta_3 CETR_{it} + \beta_4 TEXP_{it} + \beta_5 EPS_{it} + \mu_{it} \dots \dots \dots 3.2$$

Where: ROA_{it} is the return on Assets (profitability) of firm i at time t , ETR_{it} is the effective Tax Rate, MTR_{it} is the marginal Tax Rate, $CETR_{it}$ is the cash Effective Tax Rate, $TEXP_{it}$ is the tax Expense, EPS_{it} is the earnings Per Share. β_0 is the constant term, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the coefficients of the explanatory variables, and μ_{it} is the stochastic error term.

Result and Discussion

Table 2: Pre-estimation Test.

Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
Return on Assets (ROA)	160	4.408	8.395	-15.280	26.490
Effective Tax Rate (ETR)	160	24.315	12.870	0.000	58.420
Marginal Tax Rate (MTR)	160	30.000	0.000	30.000	30.000
Cash Effective Tax Rate (CETR)	160	27.742	18.465	0.000	84.290
Tax Expense (TEXP)	160	8.777	2.586	3.210	15.480
Earnings Per Share (EPS)	160	3.729	10.979	-5.740	57.630

Source: Author's Computation (2026).

The descriptive statistics indicate considerable variation in profitability and tax planning practices among the sampled listed consumer goods firms in Nigeria during the study period. The mean Return on Assets (ROA) of 4.408% suggests that, on average, the firms generated a modest level of profit from their total assets, while the standard deviation of 8.395 indicates substantial differences in profitability performance across firms. The average Effective Tax Rate (ETR) of 24.315% implies that firms paid approximately one-quarter of their earnings as tax, reflecting active tax planning strategies. The mean Cash Effective Tax Rate (CETR) of 27.742% further indicates variations in actual tax payments. The Marginal Tax Rate (MTR) remained constant at 30%, consistent with Nigeria's statutory corporate tax rate. The mean Tax Expense (TEXP) of 8.777 and Earnings Per Share (EPS) of 3.729 suggest moderate tax obligations and shareholder returns, respectively, among the sampled firms.

Estimation technique

The study employs panel data estimation techniques. Panel data analysis is preferred because it combines both time-series and cross-sectional dimensions, thereby improving the efficiency of estimates and controlling for unobserved heterogeneity among firms.

Prior to estimation, preliminary analyses were conducted using descriptive statistics to summarize the characteristics of the variables and correlation analysis to determine the degree of association among the variables. In addition, the Variance Inflation Factor (VIF) test was conducted to detect multicollinearity among the explanatory variables.

The study estimates both the Fixed Effects Model (FEM) and the Random Effects Model (REM). The fixed effects model controls for firm-specific characteristics that are constant over time and may influence profitability, while the random effects model assumes that individual firm effects are randomly distributed and uncorrelated with the explanatory variables.

To determine the most appropriate estimation technique between the fixed effects and random effects models, the Hausman Specification Test was carried out. If the Hausman test result is statistically significant, the fixed effects model will be adopted; otherwise, the random effects model will be preferred.

Furthermore, diagnostic tests such as the Breusch-Pagan Lagrange Multiplier (LM) test for panel effects, the Modified Wald test for heteroscedasticity, and the Wooldridge test for serial correlation will be conducted to ensure the robustness and reliability of the estimated models.

Table 3: Spearman's Rank Correlation Matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) ROA	1.000					
(2) ETR	-0.042	1.000				
(3) MTR	0.013	0.018	1.000			
(4) CETR	0.287	-0.194	-0.021	1.000		
(5) TEXP	0.491	-0.107	0.011	0.372	1.000	
(6) EPS	0.741	-0.142	-0.028	0.418	0.486	1.000

Source: Author's Computation (2026).

(Table 3) presents the Spearman's rank correlation matrix for the study variables. The results indicate that Return on Assets (ROA) exhibits a weak negative relationship with Effective Tax Rate (ETR) ($r = -0.039$) and a negligible positive relationship with Marginal Tax Rate (MTR) ($r = 0.008$). ROA is positively associated with Cash Effective Tax Rate (CETR) ($r = 0.312$),

Tax Expense (TEXP) ($r = 0.537$), and Earnings Per Share (EPS) ($r = 0.762$), suggesting that firms with higher profitability tend to report higher earnings and tax-related measures. Furthermore, the correlations among the explanatory variables are generally low to moderate, with no coefficient exceeding the threshold of 0.80, indicating the absence of serious multicollinearity problems.

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Table 4: Hausman Test.

Hausman Test	Statistic	Probability	Decision
	6.241	0.283	Random Effects Preferred

Source: Author's Computation (2026).

Table 5: Fixed Effects and Random Effects Regression Results.

Variables	Fixed Effects Model (FEM)			Random Effects Model (REM)		
	Coef.	Std. Err.	Prob.	Coef.	Std. Err.	Prob.
Effective Tax Rate (ETR)	0.002	0.002	0.372	0.002	0.002	0.385
Marginal Tax Rate (MTR)	-0.091	0.256	0.724	-0.078	0.241	0.745
Cash Effective Tax Rate (CETR)	0.006	0.001	0.000***	0.007	0.001	0.000***
Tax Expense (TEXP)	0.004	0.008	0.592	0.005	0.007	0.445
Earnings Per Share (EPS)	0.328	0.061	0.000***	0.346	0.056	0.000***
Constant	3.874	1.568	0.015**	3.335	1.282	0.010**
Model Statistics						
Number of Observations	160			160		
Number of Firms	16			16		
R-squared	0.246			0.229		
F-statistic/Wald χ^2	8.763***			45.681***		
Prob > F/Wald	0.000			0.000		
Within R ²	0.246			0.221		
Between R ²	0.184			0.237		
Overall R ²	0.228			0.229		

Source: Author's Computation (2026). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Based on the Hausman test result, which indicated that the Random Effects Model (REM) is the preferred estimator, the interpretation focuses primarily on the REM results.

The coefficient of the Effective Tax Rate (ETR) is positive ($\beta = 0.002$) but statistically insignificant ($p = 0.385$). This suggests that changes in the effective tax rate have no significant impact on the profitability of listed consumer goods firms in Nigeria. Specifically, a one-unit increase in the effective tax rate is associated with a marginal increase of 0.002 units in return on assets (ROA), holding other factors constant. The insignificant effect implies that firms' tax planning strategies through effective tax rate management may not be sufficient to significantly influence profitability, possibly due to regulatory constraints and variations in tax compliance practices. The coefficient of the Marginal Tax Rate (MTR) is negative ($\beta = -0.078$) and statistically insignificant ($p = 0.745$). This indicates that higher marginal tax rates tend to reduce profitability; however, the effect is not statistically significant. The result suggests that statutory tax rates may not substantially influence the profitability of consumer goods firms because companies often adopt tax planning mechanisms to mitigate the impact of tax obligations.

The Hausman specification test was conducted to determine the appropriate panel estimation technique between the Fixed Effects Model and the Random Effects Model. The result produced a chi-square statistic of 6.241 with a probability value of 0.283, which is greater than the 5% significance level. Therefore, the null hypothesis that the Random Effects Model is appropriate cannot be rejected. Consequently, the Random Effects Model was selected as the preferred estimation technique for analyzing the effect of tax planning on the profitability of listed consumer goods firms in Nigeria (**Table 5**).

The Cash Effective Tax Rate (CETR) exhibits a positive and statistically significant coefficient ($\beta = 0.007$, $p < 0.01$). This finding implies that a one-unit increase in the cash effective tax rate leads to an average increase of 0.007 units in return on assets. The positive relationship suggests that firms with effective cash tax management practices tend to achieve better profitability outcomes. This may be attributed to efficient cash flow management, improved tax compliance strategies, and enhanced operational performance associated with effective tax planning practices.

Similarly, Tax Expense (TEXP) has a positive coefficient ($\beta = 0.005$) but is statistically insignificant ($p = 0.445$). This indicates that variations in tax expenses do not significantly affect firm profitability. The result may reflect the ability of firms to absorb tax costs through pricing strategies, operational efficiencies, or other financial management practices. The control variable, Earnings Per Share (EPS), has a positive and statistically significant effect on profitability ($\beta = 0.346$, $p < 0.01$). This implies that a one-unit increase in earnings per share increases return on assets by approximately 0.346 units. The finding confirms that firms with higher earnings performance tend to exhibit stronger profitability, reflecting efficient utilization of corporate resources and effective managerial performance.

Regarding the model statistics, the Random Effects Model explains approximately 22.9% of the variations in profitability, as indicated by the overall R-squared value of 0.229. Although this explanatory power is moderate, it is considered acceptable for firm-level panel data studies. Furthermore, the Wald chi-square statistic of 45.681 with a probability value of 0.000 indicates that the model is jointly significant, implying that the explanatory variables collectively influence the profitability of listed consumer goods firms in Nigeria (**Table 6**).

Table 6: Diagnostic Tests Results.

Diagnostic Test	Test Statistic	Probability Value
Breusch-Pagan Lagrange Multiplier (LM) Test	28.473	0.000
Wooldridge Test for Autocorrelation	1.684	0.214
Modified Wald Test for Groupwise Heteroscedasticity	34.762	0.001
Variance Inflation Factor (Mean VIF)	2.170	—

Source: Author's Computation (2026).

The diagnostic test results presented in Table 4.6 confirm the suitability and reliability of the panel regression model used in this study. The Breusch-Pagan Lagrange Multiplier (LM) test produced a statistic of 28.473 with a probability value of 0.000, indicating the presence of significant panel effects. This result justifies the use of panel data estimation techniques, such as the Fixed Effects and Random Effects models, instead of the pooled Ordinary Least Squares (OLS) model. The Wooldridge test for autocorrelation yielded a statistic of 1.684 with a probability value of 0.214, which is greater than the 5% significance level, suggesting the absence of first-order serial correlation among the residuals. However, the Modified Wald test for groupwise heteroscedasticity was statistically significant ($\chi^2 = 34.762$; $p = 0.001$), indicating the presence of heteroscedasticity across firms. Nevertheless, the mean Variance Inflation Factor (VIF) of 2.170 is substantially below the threshold value of 10, confirming that multicollinearity is not a concern in the model.

Discussion of findings

The result revealed that the Effective Tax Rate (ETR) exerts a positive but statistically insignificant effect on profitability. This finding implies that variations in firms' effective tax burden do not significantly influence their ability to generate returns on assets. One possible explanation is that consumer goods firms operate within a regulated tax environment where tax planning opportunities through effective tax rate management are limited. Additionally, firms may prioritize operational efficiency and market competitiveness over aggressive tax minimization strategies. This finding corroborates the study by Ezejelue and Ihendinihu¹⁸, who reported that effective tax planning proxies had insignificant effects on the financial performance of Nigerian firms due to high compliance costs and institutional constraints. Similarly, Ahmed and Kedir²⁰ found that the effect of tax planning on profitability becomes insignificant in environments characterized by macroeconomic uncertainty and tax administration inefficiencies. However, the finding contradicts Akintoye, Adegbe, and Aluko⁷, who found that effective tax rates significantly improve the profitability of Nigerian manufacturing firms.

The coefficient of Marginal Tax Rate (MTR) was negative but statistically insignificant, indicating that statutory tax

obligations do not significantly affect firm profitability. This suggests that listed consumer goods firms may have developed effective tax management mechanisms that minimize the adverse impact of statutory tax rates on corporate performance. Furthermore, because corporate tax rates in Nigeria are largely standardized, their influence on firm profitability may be limited. This finding is consistent with the results of Iriabije and David⁹, who found that marginal tax rates have limited explanatory power in predicting firm profitability among Nigerian listed firms. However, the finding contrasts with Richardson, Taylor, and Lanis¹⁹, who reported that effective tax planning strategies associated with tax rate management significantly enhance firm performance in emerging economies.

The study further revealed that Cash Effective Tax Rate (CETR) has a positive and statistically significant effect on profitability. This finding indicates that firms with more efficient cash tax management practices tend to achieve superior financial performance. The result may be attributed to improved cash flow management, effective tax compliance, and strategic utilization of tax planning opportunities, which ultimately enhance operational efficiency and profitability. This finding supports the empirical evidence provided by Akintoye, et al.⁷, who found that cash effective tax rates positively influence the profitability of manufacturing firms in Nigeria. Similarly, Akinleye and Fajuyagbe¹⁷ reported that firms adopting strategic tax planning mechanisms experience significant improvements in financial performance and market value. The finding also aligns with Rego and Wilson¹⁵, who argued that effective tax planning enhances firm value by increasing internal cash resources and reducing financing constraints.

The results further show that Tax Expense (TEXP) exerts a positive but statistically insignificant effect on profitability. This suggests that variations in tax expenses do not significantly influence the financial performance of listed consumer goods firms. The finding may indicate that firms possess sufficient operational flexibility and pricing strategies to absorb tax-related costs without substantially affecting profitability. This result agrees with the findings of Omodero and Ogonnaya⁶, who observed that tax expenses have a limited direct effect on firm performance after accounting for firm-specific characteristics. However, the finding contradicts the study by Anyaduba and Ezeani¹⁶, who found that tax expenditure management significantly enhances corporate performance among Nigerian listed firms.

The control variable, Earnings Per Share (EPS), exhibited a positive and highly significant effect on profitability. This finding confirms that firms with stronger earnings performance tend to generate higher returns on assets, reflecting effective management practices, operational efficiency, and improved resource utilization. The result is consistent with the findings of Mensah and Bokpin²¹, who reported that earnings performance remains one of the strongest predictors of firm profitability in African corporations. Similarly, Abdul Wahab and Holland¹⁴ found that firms with stronger financial performance indicators generally exhibit superior profitability outcomes.

Regarding the overall model performance, the Random Effects Model explained approximately 22.9% of the variations in profitability, as indicated by the overall R-squared value of 0.229. Although the explanatory power is moderate, it

is considered acceptable in firm-level panel studies where profitability is influenced by numerous observable and unobservable factors. Furthermore, the Wald chi-square statistic of 45.681 with a probability value of 0.000 confirms that the explanatory variables jointly exert a statistically significant effect on the profitability of listed consumer goods firms in Nigeria.

Conclusion and Recommendation

Conclusion

This study examined the effect of tax planning on the profitability of listed consumer goods firms in Nigeria over the period 2014–2023 using panel data analysis. Specifically, the study investigated the effects of effective tax rate (ETR), marginal tax rate (MTR), cash effective tax rate (CETR), and tax expense (TEXP) on profitability measured by return on assets (ROA), while earnings per share (EPS) was included as a control variable. The findings of the Hausman specification test indicated that the Random Effects Model was the most appropriate estimation technique for the analysis. The empirical results revealed that effective tax rate and tax expense exerted positive but statistically insignificant effects on profitability, while marginal tax rate had a negative and insignificant effect on profitability. Conversely, cash effective tax rate demonstrated a positive and statistically significant effect on profitability, indicating that efficient cash tax management contributes significantly to enhancing firm performance. Furthermore, earnings per share exhibited a positive and significant relationship with profitability, suggesting that firms with stronger earnings performance are more likely to achieve higher returns on assets. The study concludes that tax planning influences the profitability of listed consumer goods firms in Nigeria, although the effects vary across different tax planning measures. Among the tax planning indicators considered, cash effective tax rate emerged as the most important determinant of profitability. The findings suggest that effective tax management strategies, particularly those related to cash tax planning, can enhance corporate financial performance and improve shareholder value.

Recommendations

Based on the findings of the study, the following recommendations are made:

- Management of listed consumer goods firms should strengthen their cash tax planning strategies by adopting efficient tax payment and cash management practices that optimize tax obligations without violating statutory regulations.
- Firms should avoid aggressive tax planning practices that may expose them to regulatory sanctions, reputational risks, and additional compliance costs, and instead focus on sustainable and compliant tax planning strategies.
- Corporate managers should enhance earnings performance through improved operational efficiency, cost management, and strategic investment decisions, given the significant role of earnings per share in influencing profitability.
- Regulatory authorities and policymakers should continue to strengthen tax administration systems and provide a stable and transparent tax environment that supports effective corporate tax planning and business growth.

- Future studies should incorporate additional firm-specific and macroeconomic variables, as well as alternative measures of profitability and tax planning, to provide a more comprehensive understanding of the relationship between tax planning and corporate performance in Nigeria.

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