THIN CAPITALISATION, CORPORATE TAX AGGRESSIVENESS AND FIRM VALUE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

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Abstract
This study examined the effect of thin capitalisation and corporate tax aggressiveness on firm value in listed consumer goods firms in Nigeria. The objective was to determine whether financing structure and corporate tax behaviour significantly influenced market valuation, with firm value proxied by Tobin's Q while firm size was incorporated as a control variable. Despite extensive studies on capital structure and tax planning, limited evidence exists on their joint effect on firm value in Nigeria. The study was anchored on Trade-Off Theory. The study adopted an ex-post facto research design using panel data obtained from 2012 to 2024 annual reports and financial statements of 19 listed consumer goods firms on the Nigerian Exchange (NGX). The data were analysed using descriptive statistics, correlation analysis, and robust random panel regression estimation. Diagnostic tests were conducted to ensure model validity, and the robust random effects panel regression model was employed to estimate the relationships among the variables. The empirical results revealed that thin capitalisation and corporate tax aggressiveness had positive but statistically insignificant effects on firm value, while firm size exhibited a negative but statistically insignificant relationship with firm value. The study concludes that these variables do not significantly influence the firm value of listed consumer goods firms in Nigeria and recommends greater emphasis on operational performance and value creation strategies.

Keywords: Corporate tax aggressiveness, firm value, thin capitalization, Tobin's Q

1.0 Introduction

Corporate financing and taxation decisions are central to corporate financial management because they influence firm performance, risk exposure, and market valuation. Firms typically design financing structures and tax planning strategies to improve profitability and maximize

shareholder wealth. One strategy frequently discussed in corporate finance and taxation literature is thin capitalisation, which occurs when firms rely heavily on debt financing relative to equity in order to benefit from the tax deductibility of interest payments. Because interest expenses are generally deductible in most tax systems, firms can reduce taxable income and corporate tax liabilities through increased leverage. While this practice creates tax shields that may enhance after-tax earnings, excessive reliance on debt financing may increase financial risk and the likelihood of financial distress, thereby influencing investor perception and firm value (Bui et al., 2023). In empirical corporate finance studies, firm value is commonly measured using Tobin's Q, which captures the relationship between a firm's market value and the replacement cost of its assets (Ahmad, 2023; Bui et al., 2023).

Closely related to debt-based financing strategies is corporate tax aggressiveness, which refers to managerial actions aimed at minimizing corporate tax obligations through various tax planning and avoidance strategies. By reducing tax payments, firms may increase available internal funds for investment, operational expansion, and shareholder returns. Consequently, tax planning activities may positively influence firm value through improved cash flow and financial performance (Nebie & Cheng, 2023). However, aggressive tax behaviour may also expose firms to regulatory scrutiny, reputational damage, and potential penalties, which may negatively affect investor confidence and market valuation (Elamer et al., 2024). As a result, empirical evidence on the relationship between corporate tax aggressiveness and firm value remains mixed, with some studies suggesting value enhancement while others report adverse valuation effects.

Despite the growing literature on capital structure and tax planning, the joint effect of thin capitalisation and corporate tax aggressiveness on firm value remains insufficiently explored, particularly in emerging economies. Most existing studies examine either capital structure or tax aggressiveness independently, thereby overlooking the possibility that firms may simultaneously use debt financing and tax planning strategies as complementary mechanisms to improve financial outcomes. This gap is especially relevant in developing markets where institutional frameworks, tax enforcement mechanisms, and capital market structures differ from those in advanced economies.

Nigeria provides a relevant context for examining these issues. The consumer goods sector represents a major component of the Nigerian manufacturing industry and plays a significant role in employment generation, industrial development, and capital market activity. Firms operating in this sector often face intense competition, macroeconomic volatility, and tax compliance pressures, which may encourage the adoption of debt financing and tax planning strategies. Although recent studies suggest that tax planning strategies can influence corporate financial performance in emerging markets (Igbinovia et al., 2024; Agustin, 2025), limited empirical evidence exists on how thin capitalisation and corporate tax aggressiveness jointly influence firm value within the Nigerian corporate environment.

Against this background, this study examines the effect of thin capitalisation and corporate tax aggressiveness on firm value in listed consumer goods firms in Nigeria. By focusing on the interaction between corporate financing and tax behaviour, the study contributes to the literature

on corporate taxation, capital structure, and firm valuation in emerging markets. The findings are expected to provide useful insights for investors, corporate managers, and policymakers regarding how financing decisions and tax planning strategies shape market valuation and financial sustainability.

This study focuses on listed consumer goods firms in Nigeria and utilizes secondary data obtained from the annual reports and financial statements of the selected firms over the study period. The analysis specifically investigates the effect of thin capitalisation and corporate tax aggressiveness on firm value, while firm size is included as a control variable in the empirical model. This study contributes to the literature in three ways. First, it extends the application of Trade-Off Theory by jointly examining thin capitalisation and corporate tax aggressiveness. Second, it employs robust panel estimation techniques and alternative model specifications to enhance the reliability of the findings. Third, it provides evidence from the Nigerian consumer goods sector, an emerging-market context that remains underexplored in the literature.

2.0 Review of Literature

Thin capitalisation describes a financing posture in which a firm maintains relatively high debt compared with equity, often to benefit from the tax deductibility of interest payments. In empirical corporate finance, this debt reliance is typically discussed as part of broader capital structure choices that can enhance firm value through tax shields but may also reduce value when leverage increases expected distress costs and financial constraints. Evidence from large-sample listed-firm studies shows that capital structure is systematically related to firm value, with valuation effects depending on how debt levels interact with risk and market expectations (Bui et al., 2023).

Beyond valuation, thin capitalisation is also studied as a tax-base–sensitive practice: when firms load up on debt, interest deductions can materially reduce taxable profit. Policy-oriented empirical work examining thin-capitalisation rule changes documents that such rules can alter firms' tax avoidance behaviour and their overall tax burden, supporting the view that thin capitalisation is used as a tax planning channel (Fitriantoro & Abbas, 2024).

Corporate tax aggressiveness

Corporate tax aggressiveness refers to tax-reducing strategies that push tax planning toward the more assertive end of the spectrum. Empirical evidence indicates that tax aggressiveness can affect firm value through competing mechanisms: (i) tax savings that increase after-tax cash flows and (ii) agency, enforcement, and reputational risks that can lead to valuation discounts. For instance, panel evidence from a large emerging-market sample finds a negative association between corporate tax aggressiveness and firm value, consistent with investor concerns about opacity and agency costs (Arora & Gill, 2022).

Recent evidence also shows that ownership structure and monitoring can shape the incidence and market implications of aggressive tax behaviour. A study in a leading corporate finance outlet documents systematic patterns of tax aggressiveness under concentrated ownership, reinforcing

the idea that governance conditions can influence both the propensity for tax aggressiveness and how markets interpret it (Kałdoński et al., 2024).

Firm value (Tobin's Q)

Firm value reflects investors' assessment of a firm's future earnings capacity, risk profile, and growth prospects. In empirical corporate finance, Tobin's Q is widely used as a market-based measure of firm value because it captures valuation relative to the firm's asset base and embeds forward-looking market expectations. Studies examining financing structure and valuation commonly operationalize firm value using Tobin's Q and estimate its sensitivity to leverage-related variables and other firm characteristics (Bui et al., 2023).

In tax research, Tobin's Q is also employed to evaluate whether tax planning strategies translate into market valuation gains. For example, evidence from Nigeria links tax planning proxies (including thin capitalization) to Tobin's Q–based value outcomes, suggesting that tax strategy can be relevant for market valuation in an emerging-market setting (Igbinovia et al., 2024).

Firm size

Firm size (often measured as the natural logarithm of total assets) captures the scale of operations and resource capacity. In valuation models, size is commonly treated as a control because it correlates with access to capital, diversification, information environment, and resilience to shocks factors that can influence both financing choices and market valuation. Large-sample corporate finance evidence routinely includes firm size when estimating the capital structure–firm value relationship, confirming its relevance as a conditioning firm characteristic in Tobin's Q models (Bui et al., 2023).

Theoretical Review

Trade-Off Theory posits that firms choose debt levels by balancing the tax advantages of debt (interest tax shields) against the expected costs of financial distress. Within this framework, thin capitalisation can raise firm value when tax shield benefits dominate, but beyond an optimal point, additional debt can reduce value through higher distress risk and constrained flexibility. The theory provides a useful lens for predicting a non-linear valuation response to leverage-related practices and for motivating why thin capitalisation may have ambiguous effects on Tobin's Q in practice.

Agency Theory

Agency Theory explains how conflicts of interest between managers and shareholders (and between controlling owners and minority shareholders) can shape financing and tax choices. Tax aggressiveness may increase firm value if it primarily reflects efficient tax planning that transfers savings to shareholders; however, it may reduce value if it creates opacity, enables opportunistic behaviour, or increases expected penalties. Empirical evidence of valuation discounts associated with tax aggressiveness is consistent with this agency-cost channel (Arora & Gill, 2022).

Tax Shield Theory

Tax Shield Theory emphasizes the value implications of tax-deductible expenses (especially interest) suggesting that firms can enhance after-tax cash flows through debt financing. Thin

capitalisation is directly aligned with this logic because higher debt increases interest deductions and reduces taxable income. However, the value impact ultimately depends on whether markets view the tax benefits as sustainable and whether associated risks (distress, enforcement, reputational costs) outweigh the tax savings. Evidence that thin-capitalisation rules influence firms' tax avoidance behaviour further supports the relevance of tax shields as a practical mechanism linking financing structure and tax outcomes (Fitriantoro & Abbas, 2024).

This study is anchored on the Trade-Off Theory, which posits that firms seek an optimal capital structure by balancing the tax benefits of debt financing against the potential costs of financial distress. The theory is particularly relevant because thin capitalisation enables firms to benefit from interest tax shields that may enhance firm value, while excessive debt may increase bankruptcy risk and reduce market valuation. It also provides a basis for understanding how corporate tax aggressiveness, through tax-saving strategies, can improve after-tax earnings and shareholder wealth. Therefore, the Trade-Off Theory offers a suitable framework for explaining the relationship between thin capitalisation, corporate tax aggressiveness, and firm value among listed consumer goods firms in Nigeria.

Empirical Review

Thin Capitalization and Firm Value

Recent empirical studies have examined the relationship between debt financing structures and firm value, particularly within the context of tax planning and capital structure decisions. Thin capitalisation allows firms to benefit from the tax deductibility of interest payments, which can improve after-tax profitability and potentially enhance firm value. Empirical evidence suggests that firms often increase debt financing to exploit these tax advantages and reduce corporate tax obligations. However, excessive reliance on debt financing may increase financial risk and the probability of financial distress, which may negatively affect investor confidence and market valuation.

A recent empirical study examining the relationship between capital structure and firm value found that leverage-related strategies, including thin capitalisation practices, can significantly influence firm valuation because debt financing affects both risk perception and expected future cash flows (Bui et al., 2023). Similarly, research investigating corporate tax planning instruments in emerging economies indicates that thin capitalisation is commonly used as a tax planning mechanism that can influence corporate financial performance and value creation (Okwu, 2025).

Other empirical evidence suggests that thin capitalisation is associated with corporate tax planning behaviour and may indirectly influence firm value through improved profitability and financial performance. Studies examining listed firms in emerging markets show that firms with higher leverage ratios often engage more actively in tax planning activities because interest deductions reduce taxable income and improve after-tax earnings (Aprianti, 2025).

Despite these potential benefits, the valuation effects of thin capitalisation remain inconclusive. While some studies suggest that debt-related tax shields can increase firm value, others argue that excessive leverage may lead to financial distress costs that offset these benefits. This

divergence in empirical findings suggests the need for further investigation, particularly within emerging market contexts where regulatory environments and capital market structures differ from those in developed economies.

Based on the foregoing discussion, the following hypothesis is formulated:

H_{01}: Thin capitalization has no significant effect on firm value in listed consumer goods firms in Nigeria.

Corporate Tax Aggressiveness and Firm Value

Corporate tax aggressiveness has attracted significant attention in recent accounting and finance research due to its potential implications for firm performance and market valuation. Tax aggressiveness involves the use of tax planning strategies designed to reduce corporate tax obligations through legal or semi-legal mechanisms. By minimizing tax payments, firms may increase after-tax cash flows, which can improve internal financing capacity and potentially enhance shareholder value.

Empirical evidence indicates that tax planning strategies can influence firm value through improved profitability and financial flexibility. For instance, studies examining tax avoidance behaviour suggest that firms engaging in aggressive tax planning often experience improved financial outcomes because tax savings increase resources available for investment and operational activities (Paul, 2025).

However, the relationship between corporate tax aggressiveness and firm value is not always straightforward. Aggressive tax strategies may also expose firms to regulatory scrutiny, reputational risk, and potential penalties from tax authorities. Empirical studies examining tax avoidance behaviour among listed firms have shown that tax aggressiveness may increase financial opacity and reduce investor confidence, thereby negatively affecting market valuation (Tijjani, 2025). Furthermore, evidence from international studies suggests that the valuation consequences of tax aggressiveness depend on the institutional environment, corporate governance structures, and enforcement mechanisms within the country where firms operate. In environments with weak regulatory oversight or limited transparency, aggressive tax behaviour may create agency problems that reduce firm value. Conversely, in well-regulated environments, moderate tax planning may enhance firm value by improving after-tax profitability.

Given these mixed empirical findings, it is important to examine the relationship between corporate tax aggressiveness and firm value within specific institutional contexts such as Nigeria, where regulatory frameworks and tax enforcement mechanisms continue to evolve.

Based on the foregoing discussion, the following hypothesis is formulated:

H_{02}: Corporate tax aggressiveness has no significant effect on firm value in listed consumer goods firms in Nigeria.

Despite the growing body of empirical research on capital structure and corporate tax planning, existing studies have largely examined thin capitalisation and corporate tax aggressiveness separately, with limited attention to their combined effect on firm value, particularly within

emerging market environments. In addition, much of the available evidence is drawn from developed economies, where institutional frameworks, regulatory enforcement, and capital market structures differ significantly from those of developing countries. Empirical evidence from Nigeria remains relatively limited, especially within the consumer goods sector, which plays an important role in the country's manufacturing and capital market activities. These gaps in the literature create the need for further investigation into how thin capitalisation and corporate tax aggressiveness jointly influence firm value in listed Nigerian firms. Consequently, this study seeks to address this gap by providing empirical evidence on the effect of thin capitalisation and corporate tax aggressiveness on firm value in listed consumer goods firms in Nigeria.

3.0 Methodology

The study covered the period from 2012 to 2024 and utilized panel data obtained from the annual reports and financial statements of listed consumer goods firms on the Nigerian Exchange (NGX). The population comprised 21 firms, of which 19 were purposively selected based on the availability of complete and consistent data, resulting in 205 firm-year observations. Secondary data were sourced from the firms' annual reports and the NGX database. Firm value was measured using Tobin's Q, thin capitalisation by the debt-to-equity ratio, corporate tax aggressiveness by the effective tax rate, while firm size, measured as the natural logarithm of total assets, was included as a control variable.

The empirical model for the study is specified as:

$$TQ_{it} = \beta_0 + \beta_1 THINCAP_{it} + \beta_2 TAXAGR_{it} + \beta_3 FSIZE_{it} + \mu_i + \varepsilon_{it}$$

where TQ represents Tobin's Q (firm value), $THINCAP$ denotes thin capitalisation, $TAXAGR$ represents corporate tax aggressiveness, and $FSIZE$ captures firm size. The term μ_i represents firm-specific effects, while ε_{it} denotes the error term.Data analysis will involve descriptive statistics, correlation analysis, and panel regression estimation. In addition, diagnostic tests including multicollinearity, heteroskedasticity, Hausman specification test, and Breusch–Pagan Lagrange Multiplier test will be conducted to ensure the robustness of the regression results. All statistical analyses will be performed using STATA software, which is widely used for panel data analysis in empirical accounting and finance research. Potential endogeneity arising from omitted variables, reverse causality, and unobserved firm-specific effects was mitigated through the use of panel data estimation techniques and robustness checks based on alternative model specifications. Although the study employed alternative panel estimation techniques to mitigate endogeneity concerns, future studies may adopt dynamic panel estimators such as System GMM to further address potential reverse causality and omitted variable bias.

3.0 Results and Discussion

Descriptive statistics

Table 1:

Descriptive Statistics and Normality Test of Variables

Variable	Mean	Std. Dev.	Min	Max	Obs	Shapiro-Wilk W	Prob > z
Tobin's Q	5.20	17.00	0.31	159.00	205	0.259	0.000
Thin Capitalisation	81.00	37.00	-47.00	487.00	208	0.170	0.000
Tax Aggressiveness	-44.00	29.00	-41.00	47.00	208	0.114	0.000
Firm Size	17.00	2.30	11.00	21.00	208	0.929	0.000

Source: Author's computation (2026) using STATA 17.0.

Table 1 presents the descriptive statistics and normality test results for the variables used in this study. The results show that Tobin's Q has a mean value of 5.20 with a standard deviation of 17.00, indicating considerable variation in firm value among the sampled consumer goods firms. The minimum and maximum values of 0.31 and 159.00, respectively, further reflect the wide dispersion in market valuation across firms. Thin capitalisation records a mean value of 81.00 with a standard deviation of 37.00, suggesting significant differences in leverage structures among the firms. The observed values range from -47.00 to 487.00, indicating the presence of both low and highly leveraged firms within the sample.

Similarly, corporate tax aggressiveness shows a mean value of -44.00 with a standard deviation of 29.00, suggesting notable variations in tax planning behaviour among the firms. Firm size records a mean value of 17.00 and a relatively smaller standard deviation of 2.30, indicating moderate variation in firm size across the sample. The Shapiro Wilk normality test results reveal probability values below 0.05 for all variables, suggesting that the variables deviate from normal distribution. Nevertheless, such deviations are common in financial panel data and do not undermine the reliability of the regression analysis employed in this study.

Correlation matrix

Table 2:

Correlation Matrix of Study Variables

Variable	Tobin's Q	Thin Capitalisation	Tax Aggressiveness	Firm Size
Tobin's	1.000			
Thin Capitalisation	-0.034	1.000		
Tax Aggressiveness	0.029	0.017	1.000	
Firm Size	-0.475	-0.002	0.064	1.000

Source: Author's computation (2026) using STATA 17.0.

Table 2 presents the Pearson correlation matrix for the variables used in the study. The results indicate that thin capitalisation has a weak negative relationship with firm value with a correlation coefficient of -0.034, suggesting that higher reliance on debt financing may be slightly associated with lower firm valuation, although the relationship appears weak. Similarly,

corporate tax aggressiveness shows a very weak positive correlation with firm value (0.029), indicating that tax planning behaviour has only a minimal linear association with market valuation. In contrast, firm size exhibits a moderate negative relationship with firm value (-0.475), implying that larger firms in the sample tend to have relatively lower Tobin's Q values. Furthermore, the correlations among the independent variables are generally low, suggesting the absence of serious multicollinearity concerns among the explanatory variables used in the regression model.

Diagnostic Tests

Table 3:

Diagnostic Tests for Model Adequacy

Test	Statistic	Value	Prob. Value	Decision / Implication
Breusch–Pagan / Cook–Weisberg Test (Heteroskedasticity)	χ^2 (1)	450.10	0.0000	Presence of heteroskedasticity
Variance Inflation Factor (Multicollinearity)	Mean VIF	1.00	—	No multicollinearity problem
Ramsey RESET Test (Model Specification)	F (3,198)	74.80	0.0000	Possible omitted variable bias
Breusch–Pagan LM Test (Random Effects)	χ^2	189.31	0.0000	Panel effects exist
Portmanteau Test (Autocorrelation)	χ^2 (19)	19.00	0.4568	No autocorrelation
Modified Wald Test (Groupwise Heteroskedasticity)	χ^2 (19)	40,171,128.31	0.0000	Heteroskedasticity present
Hausman Specification Test	χ^2 (3)	7.76	0.0513	Random effects preferred

Source: Author's computation (2026) using STATA 17.0.

The Breusch-Pagan test reports a significant statistic ($\chi^2 = 450.10$, $p < 0.01$), indicating the presence of heteroskedasticity in the model. This violates the assumption of constant error variance and therefore justifies the use of robust standard errors in the panel regression to obtain consistent and reliable parameter estimates.The VIF results show values close to 1.00 for all explanatory variables, indicating the absence of multicollinearity. This suggests that the explanatory variables are not highly correlated and can be included simultaneously in the regression model without distorting coefficient estimates.The Ramsey RESET test is statistically significant ($F = 74.80$, $p < 0.01$), suggesting the possibility of model misspecification or omitted variables. To mitigate the potential effects of these issues, the study employed robust panel estimation techniques and alternative model specifications through robustness checks using both Random Effects and Fixed Effects estimators. The consistency of the results across the alternative estimators enhances confidence in the reliability of the findings. Nevertheless, the significant RESET statistic indicates that some relevant variables may not have been captured in the model; therefore, the findings should be interpreted with caution.The Breusch-Pagan LM test is significant ($\chi^2 = 189.31$, $p < 0.01$), indicating the presence of panel effects across firms. This confirms that a panel regression model is more appropriate than pooled OLS, as it accounts for firm-specific heterogeneity.

The Portmanteau test reports a non-significant probability value ($p > 0.05$), indicating the absence of serial correlation in the model. This supports the validity of the panel regression

framework since the residuals are not systematically correlated across time. The Modified Wald test shows strong evidence of heteroskedasticity across panels ($p < 0.01$), suggesting that the variance of the error terms differs across firms. This further justifies the application of robust panel regression techniques to correct for heteroskedasticity and ensure efficient estimates. The Hausman test reports a probability value greater than 0.05 ($p = 0.0513$), indicating that the difference between the fixed effects and random effects estimators is not statistically significant. This supports the selection of the random effects model, which is more efficient under the assumption that firm-specific effects are uncorrelated with the explanatory variables. Taken together, these diagnostic tests justify the use of a Robust Random Effects Panel Regression model, which corrects for heteroskedasticity while accounting for firm-specific panel effects in the dataset.

Panel regression results

Table 4a:

Model Summary Statistics

Statistic	Value
Number of Observations	205
Number of Groups	19
Wald Chi-square (3)	4.08
Prob > Chi-square	0.2532
R-squared (Within)	0.1591
R-squared (Between)	0.3161
R-squared (Overall)	0.2261
Sigma_u	12.676
Sigma_e	10.574
Rho (Panel Variance Fraction)	0.5897

Source: Author's computation (2026) using STATA 17.0.

Table 4b:

Robust Random Effects Panel Regression Results

Variable	Coefficient	Robust Std. Error	z-Statistic	p-value	95% Confidence Interval
THINCAP	0.000250	0.000925	0.27	0.787	-0.001562 to 0.002062
TAXAGR	0.000654	0.000364	1.80	0.073	-0.000060 to 0.001368
FSIZE	-5.542803	2.971554	-1.87	0.062	-11.366940 to 0.281335
Constant	101.397900	52.633300	1.93	0.054	-1.761426 to 204.557300

Source: Author's computation (2026) using STATA 17.0.

The model summary statistics indicate that the panel regression analysis is based on 205 observations drawn from 19 firms, reflecting the panel structure of the dataset. The Wald Chi-square statistic of 4.08 with a probability value of 0.2532 indicates that the explanatory variables do not jointly exert a statistically significant effect on firm value at the 5 percent level. The R-squared values show that the explanatory variables account for 15.91% of the variation within firms over time, 31.61% of the variation between firms, and 22.61% of the overall variation in firm value, indicating moderate explanatory power typical of firm-level financial panel data.

The variance components further show that sigma_u (12.676) represents the standard deviation of the unobserved firm-specific effects, while sigma_e (10.574) reflects the standard deviation of the idiosyncratic error term. The value of rho (0.5897) indicates that approximately 58.97% of the total variation in firm value is attributable to differences across firms, while the remaining variation is due to changes within firms over time. This relatively high proportion of cross-sectional variation confirms the appropriateness of using a panel data estimation approach, as firm-specific effects play a substantial role in explaining variations in firm value.

Table 4b presents the results of the Robust Random Effects Panel Regression examining the effect of thin capitalisation, corporate tax aggressiveness, and firm size on firm value measured by Tobin's Q. The results indicate that thin capitalisation (THINCAP) has a positive but statistically insignificant effect on firm value, with a coefficient of 0.00025 and a p-value of 0.787. This suggests that variations in firms' debt-to-equity structures do not significantly influence the market valuation of the sampled consumer goods firms. Although debt financing may provide tax advantages through interest deductibility, the extent of leverage employed by the firms does not appear to be a major determinant of firm value.

Similarly, corporate tax aggressiveness (TAXAGR) exhibits a positive but statistically insignificant relationship with firm value, with a coefficient of 0.00065 and a p-value of 0.073. The positive coefficient suggests that firms engaging in tax planning activities may experience improved after-tax cash flows and enhanced financial flexibility, which could potentially improve market valuation. However, the lack of statistical significance at the conventional 5 percent level indicates that the observed relationship is not sufficiently strong to conclude that corporate tax aggressiveness significantly influences firm value among the sampled firms.

The results further reveal that firm size (FSIZE) has a negative but statistically insignificant effect on firm value, with a coefficient of -5.5428 and a p-value of 0.062. This finding suggests that larger firms tend to record lower Tobin's Q values than smaller firms, although the relationship is not statistically significant at the 5 percent level. One possible explanation is that larger firms may have reached a more mature stage of growth, resulting in relatively fewer growth opportunities and lower market valuation multiples.

The constant term is positive ($\beta = 101.3979$) and marginally insignificant at the 5 percent level ($p = 0.054$), indicating that the baseline level of firm value remains positive when all explanatory variables are held constant. Overall, the regression results suggest that neither thin capitalisation, corporate tax aggressiveness, nor firm size exerts a statistically significant effect on firm value among listed consumer goods firms in Nigeria at the 5 percent significance level, although corporate tax aggressiveness and firm size exhibit weak relationships that may be considered marginally significant at the 10 percent level.

Robustness Check

To ascertain the robustness of the main regression results, a Fixed Effects (FE) regression model with cluster-robust standard errors was estimated.

Table 5a:
Model Statistics

Statistic	Value
Number of Observations	205
Number of Firms	19
R^2 (Within)	0.1592
R^2 (Between)	0.3156
R^2 (Overall)	0.2257
F-statistic (3,18)	1.04
Prob > F	0.3967
Sigma_u	14.7870
Sigma_e	10.5735
Rho	0.6617

Source: Author's computation (2026) using STATA 17.0.

Table 5b: Robust Fixed Effects Panel Regression Results

Variable	Coefficient	Robust Std. Error	t-Statistic	p-value	95% Confidence Interval
THINCAP	0.000431	0.001086	0.40	0.696	-0.001850 to 0.002711
TAXAGR	0.000490	0.000358	1.37	0.188	-0.000263 to 0.001242
FSIZE	-7.059340	4.647529	-1.52	0.146	-16.823440 to 2.704755
Constant	127.381300	80.434050	1.58	0.131	-41.604380 to 296.367000

Source: Author's computation (2026) using STATA 17.0.

The robustness check was conducted using a Fixed Effects Panel Regression Model to ascertain whether the results obtained from the Robust Random Effects Model remain stable under an alternative estimation technique. The results reveal that thin capitalisation (THINCAP) has a positive but statistically insignificant effect on firm value ($\beta = 0.000431$, $p = 0.696$). This finding is consistent with the main regression results, indicating that variations in firms' debt-to-equity structures do not significantly influence market valuation. Similarly, corporate tax aggressiveness (TAXAGR) maintains a positive coefficient ($\beta = 0.000490$), but the relationship remains statistically insignificant ($p = 0.188$). This suggests that although tax planning activities may potentially enhance after-tax earnings and firm value, there is insufficient statistical evidence to conclude that corporate tax aggressiveness significantly affects firm value among the sampled firms. Firm size (FSIZE) also retains its negative association with firm value ($\beta = -7.059340$, $p = 0.146$), indicating that larger firms tend to exhibit lower Tobin's Q values than smaller firms. However, the relationship is not statistically significant, implying that firm size does not exert a significant influence on firm value within the study period.

The consistency in the signs of the coefficients with those obtained from the Robust Random Effects Model suggests that the direction of the relationships remains stable across alternative panel estimation techniques. Specifically, thin capitalisation and corporate tax aggressiveness consistently exhibit positive effects, while firm size consistently exhibits a negative effect on firm value in both models. Furthermore, all explanatory variables remain statistically insignificant at the conventional 5 percent significance level under both estimation approaches.

Overall, the Fixed Effects results provide strong support for the robustness of the study's findings. The similarity in coefficient signs, statistical significance levels, and overall conclusions across both the Random Effects and Fixed Effects models indicates that the findings are not sensitive to model specification. Consequently, the robustness analysis strengthens confidence in the reliability and consistency of the study's conclusion that thin capitalisation, corporate tax aggressiveness, and firm size do not significantly affect the firm value of listed consumer goods firms in Nigeria at the 5 percent level of significance.

Discussion of Findings

The regression results indicate that thin capitalisation has a positive but statistically insignificant effect on firm value among listed consumer goods firms in Nigeria. This finding implies that variations in firms' debt-to-equity structures do not significantly influence their market valuation. The result is generally consistent with the view that while debt financing may provide tax advantages through interest deductibility, excessive leverage may also increase financial risk and the likelihood of financial distress, thereby offsetting potential valuation benefits. Empirical evidence by Bui et al. (2023) similarly suggests that the effect of capital structure on firm value depends largely on how leverage interacts with firm risk and investor expectations. The insignificant relationship observed in this study may therefore reflect the balancing effect between tax shield benefits and financial distress costs, which is consistent with the predictions of the Trade-Off Theory. Furthermore, firms in the Nigerian consumer goods sector may rely more on operational efficiency, product market performance, and growth opportunities than on leverage-based tax advantages to enhance firm value.

The results further reveal that corporate tax aggressiveness has a positive but statistically insignificant effect on firm value. Although the positive coefficient suggests that firms engaging in tax planning activities may benefit from improved after-tax earnings and enhanced internal cash flows, the relationship is not statistically strong enough to conclude that corporate tax aggressiveness significantly influences firm value at the conventional 5 percent significance level. This finding suggests that the market may not place substantial value on tax-saving activities alone when assessing firm performance and future prospects. While the result aligns with the argument that tax planning can improve financial outcomes by increasing resources available for investment and operational expansion (Paul, 2025), the absence of statistical significance indicates that such benefits may not be sufficiently pronounced to affect market valuation. The finding also contrasts with Arora and Gill (2022), who reported a negative relationship between tax aggressiveness and firm value due to concerns relating to agency costs and financial opacity. The difference in findings may be attributed to variations in institutional environments, regulatory frameworks, and investor perceptions across countries. In the Nigerian context, tax planning activities may be viewed as routine corporate financial management practices rather than as a significant determinant of shareholder value.

Overall, the findings suggest that neither thin capitalisation nor corporate tax aggressiveness significantly influences the firm value of listed consumer goods firms in Nigeria. The results imply that investors may place greater emphasis on other firm-specific factors such as

profitability, operational performance, growth prospects, corporate governance quality, and market conditions when determining firm valuation.

5. Conclusion and Recommendations

This study examined the effect of thin capitalisation and corporate tax aggressiveness on firm value in listed consumer goods firms in Nigeria using panel regression analysis. The findings reveal that thin capitalisation has a positive but statistically insignificant effect on firm value, indicating that variations in firms' leverage structures do not significantly influence market valuation within the sampled firms. Similarly, corporate tax aggressiveness was found to have a positive but statistically insignificant relationship with firm value, suggesting that although tax planning activities may improve after-tax earnings and financial flexibility, their influence on market valuation is not sufficiently strong to be statistically significant. Overall, the results indicate that neither thin capitalisation nor corporate tax aggressiveness significantly affects firm value among listed consumer goods firms in Nigeria.

The findings suggest that investors may place greater emphasis on other determinants of firm value, such as profitability, growth opportunities, operational efficiency, corporate governance quality, and prevailing market conditions, rather than on financing structure or tax planning activities. The results further imply that the potential benefits associated with debt-related tax shields and tax minimisation strategies may be offset by concerns relating to financial risk, uncertainty, and other firm-specific factors.

Based on these findings, it is recommended that corporate managers adopt prudent financing strategies that maintain an appropriate balance between debt and equity financing, rather than relying excessively on leverage as a means of enhancing firm value. Firms should also ensure that tax planning activities remain compliant with existing tax regulations and are undertaken primarily to improve operational efficiency rather than solely to influence market valuation. For policymakers and tax authorities, efforts should be directed toward strengthening regulatory oversight, transparency, and compliance mechanisms to promote responsible corporate tax practices. Future studies may incorporate additional firm-specific, governance, and macroeconomic variables to provide deeper insights into the factors that influence firm value in emerging market economies such as Nigeria.

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