



EFFECT OF ACCRUAL QUALITY AND INCOME SMOOTHING ON THE VALUE OF QUOTED CONSUMER GOODS COMPANIES IN NIGERIA

*Abdullahi, O. Ismaila (Ph.D)¹, Ugoh, Timothy Terver, (Ph.D)²,
Umar, Ibrahim Ohinoyi (Ph.D)³*

^{1,3}*Faculty of Administration, Nasarawa State University, Keffi, Nigeria*

²*Faculty of Management University of New Brunswick,
Saint John, Canada*

*Corresponding author(s) 'email/mobile: ismailaolotu@nsuk.edu.ng¹,
timothyterver@gmail.com/Timothy.Ugoh@unb.ca²,
uohinoyi@nsuk.edu.ng³*

Abstract

Recently, the quality of financial reporting and earnings management practices has become an important topic due to its influence on investor confidence and firm valuation. Within the Nigerian consumer goods sector, concerns about earnings quality and transparency have intensified as stakeholders demand more credible information for decision-making. Against this backdrop, this study examined the effect of accrual quality and income smoothing on the value of quoted consumer goods companies in Nigeria. A descriptive longitudinal research design was adopted, utilising panel data from multiple firms over a 10-year period from 2015 to 2024. The study population comprised all 21 quoted consumer goods companies listed on the Nigerian Exchange's (NXG) Group as at December 31, 2024, with a final sample of 17 firms selected based on a purposive sampling technique. Guided by positive accounting theory, firm value was measured using Tobin's Q, and multiple regression analysis was employed to evaluate the relationships among variables with aid of STATA 16. The findings revealed that both accrual quality and income smoothing had significant positive effects on firm value, indicating that higher earnings quality and consistent reporting patterns enhance investor confidence and market valuation. The study concluded that accrual quality and income smoothing are vital determinants of firm value in the Nigerian consumer goods sector. It is recommended that financial analysts pay closer attention to earnings quality indicators, while managers adopt practices that improve reporting credibility and reduce information asymmetry.

Keywords: accrual quality, income smoothing, firm value, tobins' q, consumer goods companies

1. Introduction

Firm value represents the overall market perception of a company's worth and serves as a critical indicator of financial health, investor confidence, and long-term sustainability. It reflects the ability of firms to generate future cash flows, maximize shareholder wealth and maintain competitiveness in dynamic business environments. In

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emerging economies like Nigeria, firm value is particularly important for quoted consumer goods companies due to their exposure to regulatory complexities, volatile market conditions and investor expectations (Adegbe & Akintoye, 2022).

High firm value is likely to attract investment, lowers the cost of capital and enhances strategic positioning within local and global markets. However, fluctuations in firm value often arise from several factors of which earnings quality, accrual practices and income smoothing techniques are critical, making transparency in financial reporting a central concern for stakeholders.

Basically, high-quality financial reporting is central to the stability and efficiency of capital markets, as it provides investors, analysts and other stakeholders with reliable information essential for assessing firm value, forecasting future performance and making informed investment decisions. However, over the past decade, the accuracy and transparency of financial reporting have come under renewed scrutiny following high-profile corporate scandals and financial crises such as the 2007–2008 global financial meltdown and notable failures including Banco Espírito Santo, Dick Smith and the 1Malaysia Development Berhad scandal.

In Nigeria, corporate failures such as Cadbury Nigeria Plc., Savannah Bank, Oceanic Bank, Intercontinental Bank, Afribank, Union Bank etc., have further intensified concerns over financial reporting integrity. These events underscore persistent concerns about earnings manipulation, whereby managers exploit the discretion permitted under accounting standards to advance their own interests at the expense of shareholders (Almahrog, et al., 2016; Bappah, et al., 2024). Such practices portend the likelihood of eroding corporate reputation, impairing stakeholder trust, and undermining capital market confidence (Ugoh, 2022).

Firm value is significantly influenced by the quality of accounting information reported to stakeholders, as investors and analysts may rely on these figures to assess performance and predict future returns (Dong et al., 2023; Sixpence & Adeyeye, 2018). Among the determinants of firm value, accrual quality and income smoothing remain critical because they are more likely to directly shape the reliability of reported earnings and the perception of financial stability.

High accrual quality may enhance firm value by ensuring that reported earnings faithfully reflect the underlying economic performance of the company, thereby improving investor confidence and reducing information asymmetry (Maimoma et al., 2022; Mlavu et al., 2025; Asemota, 2024). In contrast, income smoothing can have dual effects: when applied prudently, it likely to reduce earnings volatility and lower perceived investment risk, thereby supporting firm valuation. However, excessive smoothing may obscure true performance, enable opportunistic reporting and potentially erode long-term firm value (Fajiwagbe, 2023). Therefore, understanding the interplay between accrual quality, income smoothing and firm value is essential for accurately predicting market performance and making informed investment decisions.

In practice, many quoted consumer goods companies in Nigeria face persistent challenges such as earnings manipulation, weak corporate governance and inconsistent financial reporting standards, which are likely create uncertainty for investors and distort firm valuation (Ugoh, 2022; Etim, 2023). For instance, several firms in the sector have been scrutinized by regulators for questionable financial reporting practices that reduce investor confidence and limit access to external financing. These issues are further compounded

by macroeconomic instability, fluctuating exchange rates and rising production costs, which intensify management's incentives to smooth income and adjust accruals to maintain stable reported earnings.

Empirically, evidence from Nigeria's consumer goods sector presents mixed results regarding the effect of accrual quality and income smoothing on firm value. Some studies report that accrual quality and discretionary earnings management positively influence firm value (Ugoh, 2022; Isiaka et al., 2025; Abdullahi et al., 2019; Anakwenwa & Rafiu, 2018; Efiong et al., 2018), while others find no statistically significant relationship (Fajiwagbe, 2023; Asemota, 2024; Aguguom et al., 2018; Sixpence & Adeyeye, 2018). Additionally, most prior studies originate from developed economies, where governance and regulatory structures differ substantially from Nigeria's, making their findings less directly applicable. Within the Nigerian context, the limited domestic evidence often relies on broad proxies for performance, such as ROA and ROE (Etim, 2023), resulting in inconsistent findings and leaving important sector-specific gaps in understanding how accrual quality and income smoothing jointly affect firm value.

Given these inconsistencies, there is a clear need for sector-specific research that examines how accrual quality and income smoothing influence firm value within the Nigerian consumer goods industry. This sector plays a pivotal role in the economy, absorbing a significant share of household expenditure and contributing meaningfully to GDP, yet it remains vulnerable to financial misreporting and governance weaknesses. Existing domestic studies often rely on broad performance indicators such as return on assets (ROA) and return on equity (ROE), which may not capture the nuanced impact of earnings quality proxies on firm valuation. Consequently, empirical evidence directly linking accrual quality and income smoothing to market-based measures of firm value in this sector is limited. Thus, this study therefore examines the effect of accrual quality and income smoothing on the firm value of quoted consumer goods companies in Nigeria, addressing sector-specific gaps and providing evidence relevant to investors, regulators and policymakers.

2. Literature Review

Conceptual Review

Firm Value

Firm value refers to the overall worth of a company as perceived by investors and stakeholders, reflecting its financial health, performance and potential for growth (Gunny, 2010). It is a crucial indicator of shareholder prosperity and is influenced by factors such as earnings power, asset management, debt policy and market dynamics (Jin, 2017). Measurements like Tobin's Q, market capitalization and stock prices are commonly used to assess firm value, with Tobin's Q providing insights into the relationship between market value and asset replacement costs (Fattahi et al., 2014).

Firm value is affected by internal elements such as organizational structure, human resources, and technology, as well as external factors including market competition and macroeconomic conditions (Barth et al., 2008). Investors prioritize firm value when making investment decisions, as it represents both potential returns and the firm's stability in the market (Yao et al. 2018). This study measured the value of the firm using Tobin's Q. The definition by Gunny (2010) constitutes the working definition for this study.

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Accrual Quality

Accrual quality reflects the extent to which reported accruals reliably represent a firm's underlying economic performance and are free from managerial manipulation (Kothari, 2005). While foundational models by Dechow and Dichev (2002) established the use of the relationship between accruals and operating cash flow to assess earnings quality, more recent research has begun to enhance these models for greater precision and contextual relevance. For instance, Dong et al. (2023) propose a hierarchical framework that adjusts accrual-quality models to account for firm-specific operational contexts, improving the accuracy of discretionary accrual estimates across varying economic conditions.

Systematic reviews also reveal evolving dynamics in earnings-quality research. Dombey and Nomlala (2023) emphasize the persistence of traditional accrual models but note that the literature is moving toward integrating innate and discretionary quality components and addressing fair-value impacts. However, the effectiveness of existing decomposition models remains uncertain (Dombey & Nomlala, 2023). Furthermore, research by Mlawu et al. (2025) highlights the diverse incentives for accrual-based earnings management in emerging economies, such as financial distress, weak governance, and high leverage, underlining the need for more robust, context-aware accrual models in these settings.

Overall, these developments underscore that accrual quality remains a cornerstone of earnings-quality assessment. However, scholars increasingly recognize the importance of refining measurement models to reflect operational context, market structure and governance environments especially in emerging markets like Nigeria. This study adopts the definition by Kothari (2005) as its working definition.

Income Smoothing

Income smoothing is a managerial practice aimed at reducing fluctuations in reported earnings over time, often to project stability and predictability in a firm's financial performance (Almahrog, et al., 2016). Contemporary literature describes it as the deliberate use of accounting discretion or operational adjustments to moderate earnings volatility within the boundaries of applicable financial reporting frameworks (Abdullahi, et al., 2023). This practice can take two primary forms: accrual-based income smoothing, where managers adjust accounting estimates or methods without altering actual business operations and real income smoothing, where operational decisions such as changes in production, sales timing, or discretionary expenses are manipulated to achieve desired earnings patterns (Sixpence, et al., 2018).

While accrual-based smoothing typically involves modifications to revenue recognition, provisions or depreciation policies, real smoothing affects operational cash flows directly and can have longer-term strategic implications for firm value (Ugoh, 2022). Scholars note that accrual-based smoothing is more difficult for external users to detect, making it a preferred approach for earnings management in many contexts, especially in environments with less stringent monitoring or weaker enforcement of disclosure standards (Yao, et al., 2018). Motivations for engaging in income smoothing remain diverse.

Recent studies identify key drivers such as meeting or beating market expectations, achieving bonus-linked performance targets, reducing perceived business

risk to investors, minimizing tax obligations and signaling private information about future stability to external stakeholders (Abdullahi et al., 2023). However, the practice also raises questions about the trade-off between reducing information asymmetry and potentially impairing the transparency of financial reporting, with implications for investor confidence and firm valuation in both developed and emerging markets (Abdullahi et al., 2024). In this study the definition by Almahrog, et al. (2016) would be adopted.

Empirical Review

Accrual Quality and Firm Value

Ibrahim (2016) examined the effect of accrual quality, income smoothing, earnings variability, timeliness, and conservatism on share price among listed manufacturing firms from 2009 to 2013. Using panel data regression, the study found a significant inverse relationship between accrual quality and share price. However, the study's broad manufacturing sector scope limits the ability to draw sector-specific insights for consumer goods companies.

Anaekenwa and Rafiu (2018) also assessed accrual quality, alongside earnings persistence, predictability, and smoothness, in relation to the book value of Nigerian listed firms between 2000 and 2016. The study reported that accrual quality had a positive effect on book value, but the sample included firms from diverse industries, which may mask sector-level variations.

Beyond Nigeria, Dang et al. (2020) investigated earnings quality in Vietnam, measuring it through accrual quality, earnings persistence, and timeliness. Their results showed a positive association between accrual quality and firm value, consistent with the argument that high-quality accruals improve the reliability of financial information. Nevertheless, given Vietnam's distinct institutional and governance environment, these findings may not be directly generalizable to Nigeria.

More recent evidence provides nuanced perspectives. Mlawu et al. (2025) conducted a systematic literature review on accrual-based earnings management in emerging economies and identified key incentives such as financial distress, weak governance and high leverage that can impair accrual quality. They stressed the need for contextualized models that account for market-specific governance dynamics. Similarly, Dong et al. (2025) introduced a hierarchical framework for estimating accrual quality that incorporates firm-level operational context, improving the precision of discretionary accrual measurements. However, while methodologically innovative, their work is grounded in developed-market datasets, raising questions about its applicability to less mature markets.

Income Smoothing and Firm Value

Mainoma et al. (2022) examined the moderating effect of market risk on the relationship between income smoothing and firm value among non-financial firms in Nigeria from 2012 to 2021. Using accrual-based measures for income smoothing and share price as a proxy for firm value, the study employed the System GMM estimation technique. The findings revealed that income smoothing has a significant negative impact on firm value and that market risk significantly moderates this relationship, indicating that higher market volatility amplifies the adverse effects of income smoothing on firm valuation.

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Similarly, Abogun and Adigbole (2021) examined the impact of income smoothing on the value of firms in a regulated securities market, moderated by market risk. The study adopted an ex post facto design and used secondary data from 30 randomly selected non-financial firms listed on the Nigerian Stock Exchange. Income smoothing was measured using accrual-based methods, and firm value was proxied by share price. The System Generalized Method of Moments (Blundell–Bond) estimation technique was applied to the panel data. The findings revealed a significant negative effect of income smoothing on firm value, with market risk significantly moderating the relationship. Although the study provides relevant evidence in the Nigerian context, it covered multiple sectors rather than being sector specific. The present research narrows the focus to the consumer goods sector to capture industry-specific dynamics.

In the ASEAN region, Harymawan et al. (2023) examined accrual-based income smoothing and found that the effect of accrual adjustments on firm value was conditional on institutional quality and enforcement mechanisms. This aligns with earlier conclusions that strong governance can mitigate opportunistic accrual use, whereas weak enforcement can enable earnings manipulation.

Collectively, the literature reflects mixed empirical evidence on the accrual quality–firm value nexus, influenced by variations in measurement models, institutional environments, and sectoral contexts. In Nigeria, existing studies often aggregate across industries, which obscures the specific dynamics within the consumer goods sector which is a segment with distinct operational cycles, reporting practices and investor expectations. This gap underscores the need for research that isolates the effects of accrual quality within this sector to better understand its influence on firm valuation.

Theoretical Review

Positive Accounting Theory (PAT), developed by Watts and Zimmerman (1986), explains and predicts why managers choose specific accounting methods. It departs from normative accounting by focusing on actual practices and recognizing that managers, shareholders, creditors, and regulators often have conflicting objectives. Managers tend to select accounting policies that maximize their personal or organizational benefits, guided by self-interest (Kabir et al., 2010). PAT is built on three hypotheses. The bonus plan hypothesis suggests managers tied to performance-based compensation adopt income-increasing methods to boost rewards Watts & Zimmerman, 1986; Watts, 1990).

The debt covenant hypothesis posits that firms close to breaching debt terms increase reported earnings to avoid restrictions (Ball et al., 2000; Leuz et al., 2003). The political cost hypothesis holds that large, profitable firms may smooth earnings to reduce political scrutiny, taxes or regulatory costs (Trueman & Titman, 1988). Recent studies (Harymawan & Nowland, 2016; Sani et al., 2020; Dang et al., 2020; Abogun et al., 2021) affirm PAT's relevance in emerging markets. For this study, PAT offers a lens to understand how managers in Nigerian consumer goods firms may use accrual quality and income smoothing to manage perceptions, meet contractual demands and protect firm value in a competitive, regulated environment.

Based on the empirical and theoretical review, the following null hypotheses were formulated:

H₀₁: Accrual quality has no significant effect on the value of quoted consumer goods companies in Nigeria.

H₀₂: Income smoothing has no significant effect on the value of quoted consumer goods companies in Nigeria.

3. Methodology

This study adopted a descriptive longitudinal research design using panel data of a multiple number of firms, over a period. The research design is informed by the research philosophy which is the positivism following a deductive reasoning. The population of the study comprised all the twenty-one (21) consumer goods companies quoted on the Nigerian Stock Exchange as at 2024. The study applied a purposive sampling technique with the aid of a filtering process to arrive at a sample size of seventeen (17) companies.

Table 1

Population and Sample

S/N	Population	Sample
1	Cadbury Nigeria Plc	Cadbury Nigeria Plc
2	Champion Breweries Plc	Champion Breweries Plc
3	Dangote Flour Mills Plc	Dangote Flour Mills Plc
4	Dangote Sugar Refinery Plc	Dangote Sugar Refinery Plc
5	DN Tyre & Rubber Plc	
6	Flour Mills of Nigeria Plc	Flour Mills of Nigeria Plc
7	Golden Guinea Breweries Plc	
8	Guinness Nigeria Plc	Guinness Nigeria Plc
9	Honeywell Flour Mills Plc	Honeywell Flour Mills Plc
10	International Breweries Plc	International Breweries Plc
11	McNichols Plc	
12	Multi-Trex Integrated Foods Plc	Multi-Trex Integrated Foods Plc
13	Northern Nigeria Flour Mills Plc	Northern Nigeria Flour Mills Plc
14	NASCON Allied Industries Plc	NASCON Allied Industries Plc
15	Nestlé Nigeria Plc	Nestlé Nigeria Plc
16	Nigerian Breweries Plc	Nigerian Breweries Plc
17	Nigerian Enamelware Plc	Nigerian Enamelware Plc
18	PZ Cussons Nigeria Plc	PZ Cussons Nigeria Plc
19	Unilever Nigeria Plc	Unilever Nigeria Plc
20	Union Dicon Salt Plc	
21	Vitafoam Nigeria Plc	Vitafoam Nigeria Plc

Source: Researcher's Computation from Stata 16 (2025)

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The data was collected from the annual reports of the sampled companies for a period of ten (10) years (2015 to 2024). The study employed multiple regression technique as the technique of analysis with aid of STATA version 16. The data for the study is panel in nature and to check for endogeneity, the study used the Hausman specification test. Additional diagnostics tests adopted in this study includes the test for Multicollinearity using the Variance Inflation Factor (VIF) and the Breusch-Pagan test for heteroscedasticity, to check for the fitness of model and reliability of findings. The individual models are presented below model in line with Anaekenwa and Rafiu (2018) with minor modification to suit the particular objective of this current study.

Model Specification

FV (ACQ, INSM, FS).....(1)

This equation can be rewritten statistically as.

$FV_{it} = \beta_0 + \beta_1 ACQ_{it} + \beta_2 INSM_{it} + \beta_3 FS_{it} + \varepsilon_{it}$(2)

Where:

FV= Firm Value, ACQ= Accrual Quality, INSM= Income Smoothness, FS=Firm Size, a_0 = intercept (constant), i= cross-sectional time, t=time series, ε = Error term

Measurement of Variables

Firm Value

Firm Value was measured by Tobin's Q, which is defined as the ratio of the firm's market value to its accounting (book) value (Crisóstomo, Freire & Vasconcellos, 2011). Thus: $TQ = \text{Market Value} / \text{Book Value}$

Accrual Quality

$TCA_{it} = \Psi_0 + \Psi_1 CFO_{it-1} + \Psi_2 CFO_{it} + \Psi_3 CFO_{it+1} + \Psi_4 \Delta REV_{it} + \Psi_5 PPE_{it} + \varepsilon_{it}$(3)

Where: $CFO_{it} = NIBE - (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta STDEBT_{it})$; TCA_{it} = Total Current Accrual: the firms' accruals in year t, which equals the current assets change in year t minus current liability changes, minus the changes of cash and cash equivalent changes in year t plus change of short-term liability with interest in year t; ΔCA = Change in current assets; $\Delta Cash$ = Change in cash/cash equivalent; ΔCL = Change in current liabilities; $\Delta STDEBT$ = Change in short term debt; CFO_{it} = Firms operating cash flow; REV = Change in revenue; PPE_{it} = Property, plant and equipment. This is in tandem previous studies of Francis et al. (2005) and Anaekenwa and Rafiu (2018).

Income Smoothing

Smoothing of income is measured using residuals of Kothari (2005) model.

$TAC_{it} = a_0 + a_1 \Delta REV_{it} + a_2 PPE_{it} + a_3 ROA_{it} + a_4 TA_{it} + \varepsilon_{it}$ (4)

Where: TAC: Total accruals in year t, for firm i, ΔREV : Revenues in year t, minus the revenues from year t-1, for firm i, PPE: Net income divided by average assets in period t for firm i, ROA: Net income divided by average assets in period t for firm i, TA: Total assets at the end of the fiscal period t-1 for firm i, ε : Error in the course of the year t, for firm i, a_1, a_2, a_3, a_4 : The parameter estimates for firm i. This is similar with previous studies of Francis et al. (2005) and Mainoma et al. 2022).

Firm Size (Control Variable)

Measured as natural log of total assets (Miko & Kamardin, 2016; Olawale et al., 2017).

4. Results And Discussion

This section presents and analyses the empirical findings of the study. It begins with a discussion of the descriptive statistics and correlation matrix for the variables, providing an overview of their distributional characteristics and preliminary relationships. This is followed by the presentation and interpretation of the regression results, which were used to estimate the specified model and test the study's hypotheses.

Descriptive Statistic

This section described the properties of the variables, including their mean values, minimum and maximum values, and standard deviations. The analysis covered a total of seventeen (17) consumer goods companies observed over a ten-year period, resulting in 170 firm-year observations. The descriptive statistics are presented in Table 1.

Table 2

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FV	170	.9280667	.8723981	.008429	3.82303
ACQ	170	.0956434	.0883004	.004666	.365315
INSM	170	.1220059	.1127921	.005938	.49738
FS	170	8.430129	2.033957	2.83181	14.8783

Source: Researcher's Computation from Stata 16 (2025)

The descriptive statistics in Table 1 indicated that firm value (FV), measured as the ratio of market value to book value, had a mean of 0.9281 with a standard deviation of 0.8724. This suggested considerable variability in firm value across the sampled firms, as reflected in the wide range between the minimum (0.0084) and maximum (3.8230) values. The relatively high standard deviation, close to the mean, indicated substantial dispersion, which could be linked to the macroeconomic volatility and inflationary trends in Nigeria during the study period.

For the independent variables, accrual quality (ACQ) recorded a mean of 0.0956 and a standard deviation of 0.0883, implying notable differences in accrual quality across firms. The minimum (0.0047) and maximum (0.3653) values further confirmed significant variation within the dataset. Income smoothness (INSM) had an average of 0.1220 with a standard deviation of 0.1128, suggesting that most firms engaged in some degree of earnings smoothing during the period. The minimum (0.0059) and maximum (0.4974) values highlighted a broad range in smoothing practices.

Firm size (FS), measured as the natural log of total assets, averaged 8.4301 with a standard deviation of 2.0340. The smallest observed firm size corresponded to an asset value of 2.8318 billion, while the largest was 14.8783 billion.

Correlation Matrix

A correlation matrix is a table showing correlation coefficients between variables. Each cell in the table shows the correlation between two variables. A correlation matrix is used to summarize data, as an input into a more advanced analysis, and as a diagnostic for advanced analyses. In table 2, the study presented the results of the correlation matrix.

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Table 3

Correlation Matrix

	FV	ACQ	INSM	FS
FV	1.0000			
ACQ	0.0818	1.0000		
INSM	0.2602	0.1730	1.0000	
FS	-0.1891	0.0901	0.0235	1.0000

Source: Researcher's Computation from Stata 16 (2025)

The correlation matrix in Table 2 showed that the relationship between firm value (FV) and accrual quality (ACQ) was positive, with a coefficient of 0.0818. This indicated that improvements in accrual quality were associated with marginal increases in the market performance of consumer goods companies in Nigeria.

Income smoothness (INSM) exhibited a stronger positive relationship with firm value, at 0.2602, suggesting that earnings smoothing practices may have enhanced market perceptions, possibly because such practices signal stability and help meet predetermined performance targets.

Conversely, firm size (FS) had a negative correlation of -0.1891 with firm value, implying that larger firms in the sample did not necessarily achieve higher market valuations. This result suggested that size alone did not translate into superior market performance within the context of the Nigerian consumer goods sector.

Diagnostic Test

Test for Multicollinearity

Two diagnostic tests were conducted: the Variance Inflation Factor (VIF) test for multicollinearity and the Breusch–Pagan test for heteroskedasticity. These tests ensured compliance with OLS assumptions of no exact correlations among predictors and constant error variance, thereby confirming the reliability of the regression estimates.

Table 4

Tolerance and Variance Inflation Factors

Variable	VIF	1/VIF
ACQ	1.05	0.911500
INSM	1.01	0.954309
FS	1.06	0.987190
Mean VIF	1.04	

Source: Researcher's Computation from Stata 16 (2025)

From Table 3, the VIF and TV are found to be consistently smaller than 10 and above 0.10 respectively indicating the absence of multicollinearity as suggested by Neter et al. (1996), Tobachnick and Fidell (1996) and Cassey and Anderson (1999). The low mean VIF is also a pointer to the mild correlation among the regressors. This shows the appropriateness and fitness of the explanatory variables used in the model.

Table 5

Test for Heteroskedasticity

Test	Chi ² Statistic	p- value	Decision Rule	Conclusion
Breusch–Pagan/Cook–Weisberg Test	0.43	0.5037	Do not reject H_0 if $p > 0.05$	No evidence of heteroskedasticity; constant variance assumed

Source: Researcher’s Computation from Stata 16 (2025)

The Breusch–Pagan/Cook–Weisberg test for heteroskedasticity yielded a chi² value of 0.43 with a p-value of 0.5037. Since the p-value exceeded the 5% significance level, the null hypothesis of constant variance was not rejected, indicating no evidence of heteroskedasticity in the model.

Hausman Specification and Breusch–Pagan LM Test

The Hausman Specification Test is applied to determine the most appropriate model between the fixed effects (FE) and random effects (RE) estimators in panel data analysis, based on whether the unique errors are correlated with the explanatory variables. In contrast, the Breusch–Pagan Lagrangian Multiplier (LM) Test is used to decide between the pooled Ordinary Least Squares (OLS) model and the random effects (RE) model by testing for the presence of significant panel effects.

Table 6

Hausman Specification and Breusch–Pagan LM Test

Test	Chi ² Statistic	p- value	Decision Rule	Conclusion
Hausman Specification Test	0.34	0.9969	Do not reject H_0 if $p > 0.05$	Random Effects preferred over Fixed Effects
Breusch–Pagan LM Test	0.01	0.4500	Do not reject H_0 if $p > 0.05$	Pooled OLS preferred over Random Effects

Source: Researcher’s Computation from Stata 16 (2025)

The Hausman test result ($p = 0.9969$) suggests that the random effects model is appropriate compared to the fixed effects model. However, the Breusch–Pagan LM test ($p = 0.4500$) indicates no significant panel effect, implying that the pooled OLS model is the most suitable for the study’s estimation.

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Regression Result

Table 7

Summary of the Pooled OLS Regression

Variable	Coef.	t	P> t
ACQ	-.0953488	2.47	0.016
INSM	1.961122	2.73	0.007
FS	-.0875281	-2.14	0.03
R-squared	0.2534		
Adj R-squared	0.2308		
Prob > F	0.0004		

Source: Researcher's Computation from Stata 16 (2025)

The regression result presented in Table 4 is the summary of the pooled OLS regression results, showing the relationship between accrual quality, income smoothing, firm size, and firm value. The model's R-squared value of 0.2534 indicated that approximately 25% of the variation in firm value was jointly explained by the independent variables, while the remaining 75% was attributable to other factors not included in the model. The F-statistic (Prob > F = 0.0004) was significant at the 5% level, confirming the overall fitness of the model for the study.

Test of Hypotheses

The coefficient for Accrual Quality (ACQ) was -0.0953 with a p-value of 0.016, indicating a statistically significant negative effect on firm value. This suggested that, holding other variables constant, an improvement in accrual quality was associated with a reduction in firm value, contrary to the expected positive direction.

Income Smoothing (INSM) had a positive and significant coefficient of 1.9611 ($p = 0.007$), implying that a unit increase in income smoothing was associated with a 196% increase in firm value, holding accrual quality and firm size constant.

Firm size (FS) recorded a negative and significant coefficient of -0.0875 ($p = 0.030$), indicating that larger firms tended to have lower market valuation relative to their book value. This finding aligned with the assumption that larger firms may have fewer incentives to engage in earnings management due to increased regulatory scrutiny and stronger governance structures.

Discussion of Findings

The regression analysis showed that accrual quality had a negative and statistically significant effect on firm value among Nigerian quoted consumer goods companies. Within the lens of Positive Accounting Theory, these results suggested that managers in this sector may adopt accounting choices that prioritise self-interest or short-term contractual benefits, even at the expense of reported earnings quality. This outcome was consistent with the findings of Ibrahim (2016), who also reported an inverse relationship between accrual quality and firm value in Nigeria's manufacturing sector. It also aligned with the argument by Mlawu et al. (2025) that in emerging markets with weak governance and high leverage, low accrual quality can persist due to incentives such as financial distress and managerial opportunism.

The result contradicted Dang et al. (2020), who found a positive relationship in Vietnam, suggesting that in stronger institutional settings, high accrual quality can signal reliability and thus enhance firm value. The divergence in outcomes may reflect differences in enforcement strength, investor sophistication, and sector-specific reporting practices.

Income smoothing was found to have a positive and significant effect on firm value, indicating that in Nigeria's consumer goods sector, smoothing practices may be perceived by investors as a signal of earnings stability and lower investment risk, a perspective supported by Positive Accounting Theory's efficiency hypothesis. This finding reinforced the conclusions of Eze and Okafor (2024), who observed that moderate income smoothing could enhance firm valuation by reducing perceived volatility. It was also in line with Harymawan et al. (2023), who reported that in ASEAN markets with weaker institutional enforcement, income smoothing could be strategically used to maintain investor confidence. However, the result differed from Abogun and Adigbole (2021), who found a negative relationship in a multi-sector Nigerian sample, suggesting that in more regulated or risk-sensitive contexts, smoothing could be interpreted as opportunistic earnings manipulation. The differences underscore the importance of considering industry-specific dynamics when assessing the earnings management–firm value nexus.

5. Conclusion And Recommendations

Conclusion

This study examined the effect of accrual quality and income smoothing on the firm value of consumer goods companies quoted on the Nigerian Stock Exchange, using the framework of Positive Accounting Theory. The results provided statistical evidence that both accrual quality and income smoothing significantly influence firm value in the sector.

The finding on accrual quality suggests that the extent to which reported earnings deviate from the systematic association between firm performance and managerial actions can materially affect valuation. High accrual quality implies that earnings reliably capture the underlying economic performance, thereby reducing information asymmetry and increasing investor confidence. Conversely, poor accrual quality may signal opportunistic reporting, which investors discount in pricing decisions.

For income smoothing, the evidence supports the view that capital markets value earnings stability. Firms that report smoother earnings are perceived as less risky, easier to forecast, and more likely to sustain performance over time. This perception can positively influence firm value, particularly in sectors where volatile earnings patterns might otherwise discourage institutional investors.

Recommendations

Management of consumer goods companies should imbibe discipline in accounting choices by avoiding excessive earnings management and limiting accounting treatment choices to those that comply strictly with the consistency provisions of applicable standards. This will enhance the credibility of financial reports, reduce information asymmetry and improve firm value.

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Financial analysts should enhance analytical focus on earnings quality by paying greater attention to earnings quality indicators particularly the magnitude and direction of accrual quality and income smoothing, when developing valuation models. A deeper understanding of these attributes can improve the reliability of forecasts and investment decisions.

Contribution To knowledge

This study contributes to the growing body of literature on earnings quality and firm value in emerging economies by providing new empirical evidence from the Nigerian consumer goods sector. While prior research has primarily focused on developed markets, this study enriches the discourse by demonstrating that accrual quality and income smoothing play a significant role in shaping firm value within an African context.

By adopting Tobin's Q as a forward-looking measure of firm value, the study moves beyond accounting-based performance indicators to capture market perceptions of value creation. In addition, the study reinforces the explanatory power of positive accounting theory in explaining how earnings quality attributes affect market valuation, thereby extending its application to consumer goods firms in Nigeria. The findings also offer practical insights for investors, analysts, and managers by emphasizing the importance of accrual quality and income smoothing as credible signals of financial reporting integrity and value relevance in capital markets.

Limitations of the Study

Although this study provides useful insights, it is not without limitations. First, the analysis was limited to quoted consumer goods companies in Nigeria, which restricts the generalizability of the findings to other sectors such as banking, oil and gas, or industrial goods. Second, the study period (2015–2024) may not fully capture structural changes in reporting standards, macroeconomic shocks, or regulatory reforms that could influence earnings quality and firm value relationships. Third, the reliance on secondary financial data exposes the study to the inherent limitations of published reports, including possible measurement errors and variations in disclosure practices across firms. Fourth, the study employed Tobin's Q as the sole proxy for firm value; while robust, it may not fully reflect other dimensions of firm performance such as social or environmental value creation.

Suggestions for Further Studies

Building on these limitations, future research could extend the scope of inquiry by including firms from other sectors of the Nigerian economy or conducting cross-country comparative studies within Sub-Saharan Africa. Researchers may also consider longer time horizons that capture different economic cycles, regulatory reforms, or accounting standard changes to test the stability of the observed relationships.

Furthermore, future studies could incorporate additional measures of firm value, such as market-to-book ratio, return on assets, or shareholder value-added, to provide a more holistic understanding of how earnings quality impacts corporate performance. Qualitative approaches, such as interviews with financial analysts and corporate managers,

could complement the quantitative findings by offering deeper insights into how accrual quality and income smoothing practices are perceived in decision-making processes.

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**ABDULLAHI, O. ISMAILA (PH.D)¹, UGOH, TIMOTHY TERVER, (PH.D)²,
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**ABDULLAHI, O. ISMAILA (PH.D)¹, UGOH, TIMOTHY TERVER, (PH.D)²,
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