

Effect of Liquidity Management on Profitability of Listed Consumer Goods Firms in Nigeria

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<https://doi.org/10.33003/fujafr-2026.v4i2.370.192-202>

Abstract

Purpose: This study examines the effect of liquidity management on the profitability of listed consumer goods firms in Nigeria over the period 2015–2024, with particular focus on how cash, quick and defensive interval positions translate into shareholder returns in a volatile emerging-market environment.

Methodology: A quantitative correlational design was adopted using panel data from five listed consumer goods firms purposively selected for continuous listing and data availability, yielding 50 firm-year observations. Liquidity was measured using the Cash Ratio, Quick Ratio and Defensive Interval Ratio, while profitability was proxied primarily by Return on Equity, with Return on Assets and Return on Investment used for sensitivity analysis. Secondary data drawn from audited IFRS financial statements were analysed using descriptive statistics, Pearson correlation and multiple regression in SPSS.

Results and Conclusion: The findings reveal a significant positive effect of the Cash Ratio on Return on Equity, while the Quick Ratio and Defensive Interval Ratio show weaker and largely insignificant direct effects on equity returns. The sensitivity analyses confirm that the Cash Ratio remains the dominant liquidity driver of profitability across alternative profitability measures. The study concludes that effective cash management is the strongest lever of shareholder returns among Nigerian consumer goods firms.

Implication of findings: The findings suggest that managers of Nigerian consumer goods firms should prioritise robust cash management practices, integrate liquidity planning with strategic decision-making, and balance short-term solvency with the opportunity cost of holding idle cash in order to enhance shareholder returns under volatile macroeconomic conditions.

Keywords: Liquidity management; Profitability; Consumer goods; Cash Ratio; Nigeria.

1. Introduction

Profitability remains a cornerstone of corporate survival, growth and sustainability, and serves as a barometer of stakeholder confidence and long-term viability (Akinleye & Ogunleye, 2019). For listed consumer goods firms in Nigeria, profitability indicators such as Return on Equity (ROE), Return on Assets (ROA) and Return on Investment (ROI) provide a quantifiable measure of how efficiently resources are deployed to generate income for shareholders. These indicators are particularly important in an operating environment characterised by foreign exchange volatility, inflation, infrastructural deficits and import dependence, which together intensify pressure on corporate cash flows (Ben-Caleb et al., 2013; Owolabi & Obida, 2012).

Closely tied to profitability is the firm's ability to manage liquidity. Liquidity management refers to the strategies and processes employed to ensure that adequate cash and liquid assets are available to meet short-term obligations while sustaining operational efficiency (Akinleye & Adeboboye, 2019). Three commonly used metrics capture different dimensions of liquidity: the Cash Ratio measures immediate solvency from cash and equivalents; the Quick Ratio extends this assessment to other liquid assets, excluding inventories; and the Defensive Interval Ratio (DIR) estimates the number of days a firm can

sustain operations using only its liquid assets (Samo & Murad, 2019). Each metric provides a distinct perspective on a firm's capacity to meet financial obligations.

The relationship between liquidity and profitability is not, however, straightforward. Holding excessive liquidity can lead to idle resources and forgone investment returns, while inadequate liquidity exposes firms to solvency risk and potential financial distress (Eljelly, 2004; Yameen et al., 2019). This trade-off is particularly acute for Nigerian consumer goods firms, which face thin margins, currency volatility and frequent supply chain disruptions amplified by global shocks such as the COVID-19 pandemic.

Empirical evidence on the liquidity-profitability nexus remains mixed. Akinleye and Ogunleye (2019) report a significant positive relationship between liquidity ratios and profitability among Nigerian manufacturing firms. Ugwu et al. (2021), however, find that the current ratio is negatively associated with firm performance while the quick ratio is positively but insignificantly related, suggesting that the relationship is sensitive to the specific liquidity proxy and sector. Etim et al. (2022) document significant positive effects of the current ratio, quick ratio and net working capital ratio on firm value among Nigerian manufacturing companies, but report an insignificant cash ratio. Adam and Ayagi (2024), publishing in FUJAFR on listed deposit money banks in Nigeria, similarly report mixed results, with cash ratio exerting a significant negative effect on return on equity while current ratio exerts a significant positive effect, suggesting that liquidity proxies behave differently across sectors. Despite the centrality of consumer goods firms to the Nigerian economy, and recent FUJAFR evidence on firm-level determinants of profitability in this sector (Garba, 2026; Kantudu et al., 2026), comparatively few studies isolate this sector and model multiple liquidity proxies against profitability over an extended period covering both pre- and post-pandemic conditions.

This study addresses that gap by examining the effect of liquidity management on the profitability of listed consumer goods firms in Nigeria from 2015 to 2024.

The study contributes to the literature in three ways. First, it provides sector-specific evidence on the liquidity-profitability nexus from an emerging market context. Second, it employs a primary-DV plus sensitivity-analysis design, focusing on Return on Equity as the main outcome while corroborating findings using Return on Assets and Return on Investment, over a ten-year period. Third, it offers practical recommendations for managers, investors and policymakers seeking to balance short-term solvency with long-term value creation in the Nigerian consumer goods sector.

2. Literature review

Theoretical Framework

Three theories underpin this study. The Pecking Order Theory, proposed by Donaldson (1961) and refined by Myers and Majluf (1984), holds that firms prioritise internal financing, followed by debt and finally equity issuance, owing to information asymmetry between managers and external investors. Firms aligned with this theory typically maintain higher liquidity to reduce reliance on costly external financing.

The Liquidity Preference Theory, advanced by Keynes (1936), posits that economic agents prefer to hold liquid assets for transactional, precautionary and speculative motives. For firms, this translates into the strategic value of holding cash and near-cash assets to navigate uncertainty, particularly in volatile environments such as Nigeria.

The Trade-Off Theory, originally formulated by Kraus and Litzenberger (1973), focuses on the balance firms strike between the tax benefits of debt and the costs of financial distress. By extension, it provides a framework for understanding how firms balance liquidity reserves against investment opportunities to maximise value. Together, these theories explain why a positive relationship is expected between liquidity proxies and profitability measures, while also acknowledging the diminishing returns of excessive liquidity.

Empirical Review

Corporate liquidity, defined as the ease with which a firm can meet short-term obligations using its most liquid assets, is conventionally measured by the Cash Ratio, Quick Ratio and Defensive Interval Ratio, while profitability is captured through Return on Equity, Return on Assets and Return on Investment (Yameen et al., 2019; Samo & Murad, 2019). The empirical relationship between these measures is, however, sector- and context-dependent, as the studies reviewed below demonstrate.

Empirical studies on the liquidity–profitability nexus report mixed findings. Akinleye and Ogunleye (2019) examined Nigerian manufacturing firms using panel regression on annual financial data and reported that liquidity ratios, particularly the Cash Ratio, exert a significant positive influence on profitability. Ben-Caleb et al. (2013) analysed thirty manufacturing firms over the period 2006–2010 and found that the current and quick ratios were positively but insignificantly associated with profitability, while the cash conversion period was negatively associated. Owolabi and Obida (2012), studying selected manufacturing companies on the Nigerian Stock Exchange, reported that liquidity management has a significant effect on corporate profitability, with the Cash Ratio supporting operational continuity but reducing investment capacity when held in excess.

More recent Nigerian evidence is similarly nuanced. Ugwu et al. (2021) reported that the current ratio had a negative significant effect on profitability, while the quick ratio was positively but insignificantly associated, and the cash conversion cycle exerted a positive significant effect. Etim et al. (2022) employed fixed-effects panel regression on forty-two Nigerian manufacturing firms and reported that the current ratio, quick ratio and net working capital ratio significantly influenced firm value, whereas the cash ratio was insignificant. Akinleye and Adeboboye (2019) found that working capital management variables jointly explained variations in the performance of listed Nigerian manufacturing firms, although individual components such as the average payment period had no significant effect on earnings per share.

Three recent FUJAFR studies provide directly relevant evidence. Adam and Ayagi (2024) examined the relationship between liquidity and profitability of nine listed deposit money banks in Nigeria over 2013–2022 using ordinary least squares regression and reported that cash ratio exerted a significant negative effect on return on equity, current ratio exerted a significant positive effect on return on equity, while free cash flow had a positive but insignificant influence on profitability. They concluded that liquidity is a material determinant of bank profitability and recommended self-liquidating policies for deposit money banks. Although their context is banking rather than consumer goods, the divergent direction of the cash ratio effect motivates a sector-specific re-examination of the cash–profitability link in the consumer goods sector. Garba (2026), focusing on listed consumer goods firms in Nigeria over 2010–2022 and using panel regression with robust standard errors, reported that firm age exerts a significant negative effect on profitability while firm size has no significant effect, thereby reinforcing the case for including firm-level controls when modelling profitability in the sector. Kantudu, Kurawa and Garba (2026) examined the moderating effect of board composition on the capital structure–financial

performance nexus among sixteen listed Nigerian consumer goods firms over 2010–2023 and found that capital structure is a significant determinant of both return on assets and Tobin's Q , with total debt to total assets and long-term debt to total assets exerting positive effects while total debt to equity exerts a negative effect. Their evidence on the importance of balance-sheet structure in Nigerian consumer goods firms underpins the present study's focus on how liquidity-side balance-sheet choices translate into shareholder returns.

Beyond Nigeria, Yameen et al. (2019) examined eighty-two Indian pharmaceutical companies between 2008 and 2017 and found that the current and quick ratios had a positive significant impact on profitability measured by ROA, while leverage, firm size and age had negative effects. Li et al. (2020) studied fifteen non-financial firms listed on the Ghana Stock Exchange between 2008 and 2017 and reported that liquidity had a significant adverse effect on ROE but an insignificant effect on ROA. Samo and Murad (2019) analysed forty Pakistani textile firms between 2006 and 2016 and reported a positive significant relationship between the current ratio and both ROA and ROE, alongside a negative impact of leverage on profitability. Eljelly (2004), in a foundational study of Saudi Arabian joint stock companies, found a significant negative relationship between profitability and liquidity, particularly for firms with high current ratios and longer cash conversion cycles.

Three gaps emerge from the review. First, most prior Nigerian studies focus on manufacturing or financial firms broadly defined, with limited isolation of the consumer goods sector despite its distinct exposure to currency risk and import dependence. Second, the literature reports inconsistent findings on the cash ratio in particular, with FUJAFR evidence from banking (Adam & Ayagi, 2024) pointing in the opposite direction to manufacturing-sector evidence, suggesting that sector- and period-specific evidence is needed. Third, few studies adopt a primary-DV plus sensitivity-analysis design that anchors hypothesis testing on a single profitability measure while validating robustness against alternative measures over an extended period covering both pre- and post-pandemic conditions. This study addresses these gaps using ten-year panel data (2015–2024) from five leading listed consumer goods firms.

From the foregoing review, the study tests the following null hypotheses, with the first hypothesis serving as the primary test and the remaining two used to assess robustness through sensitivity analysis:

H^{01} : There is no significant relationship between Cash Ratio and Return on Equity of listed consumer goods firms in Nigeria.

H^{02} : Quick Ratio does not significantly impact Return on Equity of listed consumer goods firms in Nigeria.

H^{03} : Defensive Interval Ratio does not significantly influence Return on Equity of listed consumer goods firms in Nigeria.

3. Methodology

Research Design

A quantitative correlational research design was adopted to examine the effect of liquidity management on profitability among selected listed consumer goods firms in Nigeria over a ten-year period (2015–2024). Panel data extracted from audited annual financial statements were used to quantify the variables

of interest, and statistical analysis was conducted to establish predictive relationships consistent with the formulated hypotheses.

Population and Sample

The study population comprised the thirteen consumer goods firms listed on the Nigerian Exchange Group as at 31 December 2024 and reporting under International Financial Reporting Standards. Using a purposive sampling technique, five firms were selected based on (i) continuous listing for at least ten years; (ii) availability of audited financial data across the study period; (iii) ranking among the highest by market capitalisation; and (iv) representation of both multinational and indigenous operators with diversified product portfolios, yielding 50 firm-year observations.

Sources of Data

Secondary data were extracted from the audited annual IFRS financial statements of the sampled firms, sourced from company websites, the Nigerian Exchange Group repository and authorised library archives. Data points required for computing liquidity and profitability variables (cash and cash equivalents, current assets, inventories, current liabilities, operating expenses, net income, total assets, shareholders' equity and invested capital) were extracted directly from these public filings.

Variable Measurement

Table 1 summarises the operational definitions and measurement of variables used in the study.

Table 1: Variable Measurement

| Variable | Type | Proxy | Measurement |
|-----------------------------|---------------------|----------------------------------|--|
| Liquidity Management | Independent | Cash Ratio (CR) | Cash & Cash Equivalents ÷ Current Liabilities |
| | | Quick Ratio (QR) | (Current Assets - Inventory) ÷ Current Liabilities |
| | | Defensive Interval Ratio (DIR) | (Current Assets - Inventory) ÷ (Operating Expenses ÷ 365) |
| Profitability | Dependent (primary) | Return on Equity (ROE) | Net Income ÷ Shareholders' Equity |
| | Sensitivity | Return on Assets (ROA) | Net Income ÷ Total Assets |
| | Sensitivity | Return on Investment (ROI) | Net Profit ÷ Invested Capital |
| Control Variables | Control | Firm Size (FS); Firm Growth (FG) | FS = Log of Total Assets; FG = Annual % Change in Total Assets |

Source: Authors' compilation (2025).

Model Specification

The study estimates a primary regression model with Return on Equity as the dependent variable, plus two additional models with Return on Assets and Return on Investment for sensitivity analysis. The general specification is:

$$PROF_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 DIR_{it} + \beta_4 FS_{it} + \beta_5 FG_{it} + \epsilon_{it}$$

where $PROF_{it}$ is the profitability measure (ROE in the primary model; ROA and ROI in the sensitivity analyses) of firm i in year t ; CR, QR and DIR are the liquidity proxies; FS and FG are control variables; and ε is the error term.

A Priori Expectation

Consistent with the underlying theories, the study expects $\beta^1 > 0$ (Cash Ratio positively related to ROE), $\beta^2 > 0$ (Quick Ratio positively related to ROE) and $\beta^3 > 0$ (Defensive Interval Ratio positively related to ROE).

Estimation Technique

Data were analysed using SPSS Version 29.0. Descriptive statistics were computed to characterise the variables; the Shapiro–Wilk and Kolmogorov–Smirnov tests assessed normality; Pearson correlation analysis examined bivariate relationships; and multiple regression was used to estimate the primary ROE model and the two sensitivity models. Multicollinearity was examined using variance inflation factors (VIF), and the Durbin–Watson statistic tested for residual autocorrelation. The use of audited financial statements supported the validity and reliability of the data, and analysis was undertaken in compliance with academic norms on integrity and fair use of publicly disclosed information.

4. Results and discussion

Descriptive Statistics

Table 2 reports the descriptive statistics for the variables across the 50 firm-year observations.

Table 2: Descriptive Statistics

| Variable | N | Mean | Median | Std. Dev. | Min. | Max. | Skew. |
|-----------------|----|-------|--------|-----------|--------|-------|-------|
| ROE (%) | 50 | 18.24 | 16.80 | 12.65 | -8.30 | 52.10 | 0.847 |
| ROA (%) | 50 | 8.76 | 7.45 | 6.89 | -2.10 | 28.40 | 1.234 |
| ROI (%) | 50 | 15.43 | 14.20 | 9.87 | -1.50 | 41.80 | 0.692 |
| Cash Ratio | 50 | 0.347 | 0.290 | 0.248 | 0.056 | 1.120 | 1.456 |
| Quick Ratio | 50 | 1.089 | 0.985 | 0.627 | 0.234 | 2.870 | 1.089 |
| DIR (Days) | 50 | 127.6 | 118.0 | 68.4 | 28.0 | 298.0 | 0.923 |
| Firm Size (Log) | 50 | 10.67 | 10.54 | 0.89 | 8.95 | 12.45 | 0.234 |
| Firm Growth (%) | 50 | 12.80 | 11.20 | 15.60 | -18.40 | 56.70 | 0.789 |

Source: Authors' computation using SPSS (2025).

The sampled firms recorded an average ROE of 18.24% (SD = 12.65%), an average ROA of 8.76% (SD = 6.89%) and an average ROI of 15.43% (SD = 9.87%). The Cash Ratio averaged 0.347, indicating that firms held approximately 35 kobo in cash and equivalents for every naira of current liabilities. The Quick Ratio averaged 1.089, signalling that firms could meet short-term obligations 1.09 times using non-inventory liquid assets. The Defensive Interval Ratio averaged 127.6 days (about 4.3 months) of operational coverage from liquid assets. Skewness values largely fall within the acceptable ± 2 range, suggesting reasonably normal distributions.

Normality Test

Table 3 reports the Shapiro–Wilk and Kolmogorov–Smirnov normality tests.

Although a few variables (ROA, Cash Ratio, Quick Ratio and Firm Growth) depart from normality, regression analysis is robust to moderate departures, particularly with samples approaching $n = 50$. The analysis therefore proceeds with appropriate caution.

Table 3: Normality Tests

| Variable | Shapiro–Wilk | df | Sig. | K-S | df | Sig. |
|-------------|--------------|----|-------|-------|----|-------|
| ROE | 0.954 | 50 | 0.052 | 0.108 | 50 | 0.200 |
| ROA | 0.921 | 50 | 0.003 | 0.134 | 50 | 0.032 |
| ROI | 0.967 | 50 | 0.178 | 0.094 | 50 | 0.200 |
| Cash Ratio | 0.889 | 50 | 0.000 | 0.156 | 50 | 0.004 |
| Quick Ratio | 0.924 | 50 | 0.004 | 0.142 | 50 | 0.018 |
| DIR | 0.958 | 50 | 0.078 | 0.112 | 50 | 0.200 |
| Firm Size | 0.978 | 50 | 0.456 | 0.089 | 50 | 0.200 |
| Firm Growth | 0.943 | 50 | 0.018 | 0.121 | 50 | 0.074 |

Source: Authors' computation using SPSS (2025).

Correlation Analysis

Table 4 presents the Pearson correlation matrix.

Table 4: Pearson Correlation Matrix

| | ROE | ROA | ROI | CR | QR | DIR | FS | FG |
|-----|-------|-------|-------|--------|--------|-------|-------|-------|
| ROE | 1.000 | | | | | | | |
| ROA | 0.784 | 1.000 | | | | | | |
| ROI | 0.823 | 0.691 | 1.000 | | | | | |
| CR | 0.412 | 0.298 | 0.367 | 1.000 | | | | |
| QR | 0.289 | 0.345 | 0.278 | 0.634 | 1.000 | | | |
| DIR | 0.234 | 0.198 | 0.312 | 0.456 | 0.523 | 1.000 | | |
| FS | 0.201 | 0.156 | 0.189 | -0.123 | -0.089 | 0.067 | 1.000 | |
| FG | 0.345 | 0.267 | 0.298 | 0.156 | 0.201 | 0.134 | 0.089 | 1.000 |

Note: ROE = Return on Equity; ROA = Return on Assets; ROI = Return on Investment; CR = Cash Ratio; QR = Quick Ratio; DIR = Defensive Interval Ratio; FS = Firm Size; FG = Firm Growth. Source: Authors' computation using SPSS (2025).

The profitability measures are strongly correlated ($r = 0.691-0.823$), indicating that they capture related but distinct dimensions of performance and providing initial justification for the sensitivity-analysis approach. The Cash Ratio shows moderate positive correlations with ROE (0.412), ROA (0.298) and ROI (0.367), while the Quick Ratio and DIR exhibit weaker but consistently positive correlations. Inter-correlations among the liquidity proxies range from 0.456 to 0.634, suggesting they measure related but distinct dimensions of liquidity. As none of the correlations exceeds 0.85, multicollinearity is unlikely to bias the regression estimates.

Regression Results – Primary Model (ROE)

In line with the reviewer’s guidance that hypothesis testing should focus on a single dependent variable, the primary regression model uses Return on Equity (ROE) as the dependent variable, with the Cash Ratio, Quick Ratio and Defensive Interval Ratio as the explanatory variables and firm size and firm growth as controls. ROE was selected as the primary outcome because it directly measures the return generated for the residual claimants in whose interests liquidity policy is ultimately set. Table 5 reports the results.

Table 5: Regression Results for the Primary Model (Dependent Variable: ROE)

| Variable | Coefficient | Std. Error | t-Statistic | Sig. | VIF |
|-------------|-------------|------------|-------------|-------|------|
| (Constant) | -12.456 | 8.934 | -1.394 | 0.170 | n/a |
| Cash Ratio | 18.567** | 6.234 | 2.979 | 0.005 | 1.67 |
| Quick Ratio | 4.231 | 3.456 | 1.224 | 0.228 | 1.89 |
| DIR | 0.034 | 0.028 | 1.214 | 0.231 | 1.45 |
| Firm Size | 2.134 | 1.456 | 1.466 | 0.150 | 1.23 |
| Firm Growth | 0.267** | 0.089 | 3.000 | 0.004 | 1.18 |

R² = 0.398; Adj. R² = 0.330; F = 5.834;

Sig. = 0.000; Durbin-Watson = 1.876

Note: ** significant at $p < 0.01$; * significant at $p < 0.05$. Source: Authors’ computation using SPSS (2025).

The primary model is statistically significant ($F = 5.834$, $p < 0.001$) and explains 33.0% of the variance in ROE. VIF values below 2.0 confirm the absence of multicollinearity, and the Durbin-Watson statistic of 1.876 indicates that residual autocorrelation is not a concern.

Three hypothesis tests are conducted within the primary model. First, the Cash Ratio has a significant positive effect on ROE ($\beta = 18.567$, $t = 2.979$, $p = 0.005$), and H^{01} is therefore rejected. A unit increase in the Cash Ratio is associated with an 18.567 percentage-point increase in ROE, indicating that Nigerian consumer goods firms holding stronger cash buffers deliver materially higher returns to equity holders. The finding is consistent with Akinleye and Ogunleye (2019), Owolabi and Obida (2012) and the Liquidity Preference Theory of Keynes (1936), and contrasts with the negative cash-ratio-ROE result reported by Adam and Ayagi (2024) for Nigerian deposit money banks. The divergence is plausibly explained by sectoral differences: in consumer goods firms, cash buffers protect against import-cost shocks and supply-chain disruptions, whereas in banks excess cash earns lower returns than productive lending, depressing ROE.

Second, the Quick Ratio has a positive but statistically insignificant effect on ROE ($\beta = 4.231$, $t = 1.224$, $p = 0.228$), and H^{02} is therefore not rejected. The direction of the coefficient is consistent with theoretical expectation, but the magnitude is not statistically distinguishable from zero, indicating that once the Cash Ratio is controlled for, additional liquidity from inventories and receivables does not translate into significantly higher equity returns. This result aligns with the insignificant quick-ratio findings of Ben-Caleb et al. (2013) and Ugwu et al. (2021).

Third, the Defensive Interval Ratio has a positive but statistically insignificant effect on ROE ($\beta = 0.034$, $t = 1.214$, $p = 0.231$), and H^{03} is therefore not rejected. The implication is that, after controlling for the Cash Ratio and Quick Ratio, the number of days of operational coverage from liquid assets adds no statistically

detectable incremental explanatory power for equity returns. Among control variables, Firm Growth exerts a significant positive effect on ROE ($\beta = 0.267, p = 0.004$), while Firm Size is positive but insignificant.

Sensitivity Analysis

To assess the robustness of the primary results, the same regression specification was re-estimated using Return on Assets and Return on Investment as alternative dependent variables. Tables 6 and 7 report the results.

Table 6: Sensitivity Analysis – Dependent Variable: ROA

| Variable | Coefficient | Std. Error | t-Statistic | Sig. | VIF |
|-------------|-------------|------------|-------------|-------|------|
| (Constant) | -8.234 | 5.467 | -1.506 | 0.139 | n/a |
| Cash Ratio | 7.892* | 3.812 | 2.070 | 0.044 | 1.67 |
| Quick Ratio | 4.567* | 2.113 | 2.161 | 0.036 | 1.89 |
| DIR | 0.019 | 0.017 | 1.118 | 0.270 | 1.45 |
| Firm Size | 1.234 | 0.890 | 1.387 | 0.172 | 1.23 |
| Firm Growth | 0.156** | 0.054 | 2.899 | 0.006 | 1.18 |

$R^2 = 0.367$; Adj. $R^2 = 0.295$; $F = 5.110$;
Sig. = 0.001; Durbin-Watson = 1.923

Note: ** significant at $p < 0.01$; * significant at $p < 0.05$. Source: Authors' computation using SPSS (2025).

Table 7: Sensitivity Analysis – Dependent Variable: ROI

| Variable | Coefficient | Std. Error | t-Statistic | Sig. | VIF |
|-------------|-------------|------------|-------------|-------|------|
| (Constant) | -9.876 | 6.234 | -1.585 | 0.120 | n/a |
| Cash Ratio | 12.345** | 4.567 | 2.703 | 0.010 | 1.67 |
| Quick Ratio | 3.234 | 2.456 | 1.317 | 0.195 | 1.89 |
| DIR | 0.041* | 0.020 | 2.050 | 0.046 | 1.45 |
| Firm Size | 1.567 | 1.023 | 1.532 | 0.133 | 1.23 |
| Firm Growth | 0.198** | 0.063 | 3.143 | 0.003 | 1.18 |

$R^2 = 0.421$; Adj. $R^2 = 0.355$; $F = 6.401$;
Sig. = 0.000; Durbin-Watson = 1.854

Note: ** significant at $p < 0.01$; * significant at $p < 0.05$. Source: Authors' computation using SPSS (2025).

The sensitivity analyses provide consistent support for the primary findings. The Cash Ratio remains significant in both alternative models (ROA: $\beta = 7.892, p = 0.044$; ROI: $\beta = 12.345, p = 0.010$), confirming that cash management is the most consistently powerful liquidity driver of profitability in the Nigerian consumer goods sector. The Quick Ratio becomes significant in the ROA model ($\beta = 4.567, p = 0.036$), reflecting its closer conceptual link to asset-side efficiency, but remains insignificant in the ROI model. The Defensive Interval Ratio is significant only in the ROI model ($\beta = 0.041, p = 0.046$), where it adds incremental explanatory power consistent with the Trade-Off Theory of Kraus and Litzenberger (1973). These sensitivity results corroborate the conclusion drawn from the primary ROE model – namely, that effective cash management is the dominant lever of profitability among Nigerian consumer goods firms – and they nuance the picture by showing that the Quick Ratio and Defensive Interval Ratio play supplementary roles when profitability is measured against assets and invested capital respectively. Together, the primary model and the sensitivity analyses align with the conclusions of Etim et al. (2022) and Yameen et al. (2019), and they complement the FUJAfr evidence reported by Adam and Ayagi

(2024), Garba (2026) and Kantudu et al. (2026) on the joint role of balance-sheet structure and firm-level characteristics in shaping profitability in Nigerian firms.

5. Conclusion

This study examined the effect of liquidity management on the profitability of listed consumer goods firms in Nigeria over the period 2015–2024. Using panel data from five leading firms, the primary regression model with Return on Equity as the dependent variable shows that the Cash Ratio exerts a significant positive effect on ROE, while the Quick Ratio and Defensive Interval Ratio are positively but insignificantly related to ROE. The model explains 33.0% of the variance in ROE. Sensitivity analyses using Return on Assets and Return on Investment as alternative dependent variables confirm the robustness of the primary finding: the Cash Ratio remains a significant positive driver across all three profitability measures, the Quick Ratio is significant only in the ROA model, and the Defensive Interval Ratio is significant only in the ROI model. The findings support the Pecking Order, Liquidity Preference and Trade-Off theories, and they reinforce the view that effective cash management is the principal strategic lever for value creation in Nigerian consumer goods firms.

Five recommendations follow from these findings. First, firms should treat cash management as the central pillar of liquidity policy, given its consistent and significant positive effect on shareholder returns across all profitability measures examined. Even modest improvements in cash positions can translate into outsized gains in ROE. Second, while inventory- and receivables-driven liquidity (captured by the Quick Ratio) is not a significant standalone driver of ROE, it remains relevant to asset productivity (ROA) and should not be neglected; firms should accelerate receivables, rationalise inventories and manage payables strategically. Third, firms should set defensive interval targets capable of covering operational expenses through reasonably long revenue disruptions, recognising that operational buffers contribute most directly to returns on invested capital. Fourth, liquidity planning should be integrated into strategic decision-making processes and complemented by regular liquidity stress testing. Fifth, firms should institutionalise liquidity performance monitoring systems that track the relationship between cash position and shareholder returns in order to support data-driven decisions.

The study has two main limitations that suggest directions for future research. The sample is restricted to five leading firms; future studies could expand the sample to include smaller listed firms or unlisted players in the consumer goods sector. The study also relies exclusively on secondary financial data; subsequent research could combine financial data with qualitative insights from finance managers to deepen understanding of the managerial discretion underlying observed liquidity choices.

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