

## EFFECT OF MARKET TIMING ON FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

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### Abstract

*This study empirically investigates how strategic market timing decisions dictate the financial performance of listed consumer goods firms in Nigeria over the period 2016 to 2024. Utilizing a purposive sample of ten firms, the study employed panel data regression specifically a Random Effects model with cluster-robust standard errors, to analyze Return on Equity (ROE) against Current Market-to-Book Ratio (MTB), Historical Market-to-Book Ratio (HMTB), Equity Issuance (EQ\_ISSUE), and Firm Size. The results indicate that HMTB exerts a positive and statistically significant effect on ROE, confirming the path-dependency of capital structure and the lasting value of historical capital buffers. Conversely, current MTB proved statistically insignificant, exposing a Valuation Illusion artificially inflated by severe macroeconomic shocks and foreign exchange losses. Furthermore, EQ\_ISSUE demonstrated a massive, albeit statistically insignificant, negative trajectory on ROE. This highlights a critical Distress Timing phenomenon, where firms issue defensive equity to survive crises, inadvertently destroying short-term shareholder wealth. Ultimately, the study validates Market Timing Theory within a distressed emerging market context, recommending that managers proactively secure equity during genuine overvaluation and avoid defensive dilution.*

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**Keywords:** Market Timing, Financial Performance, Capital Structure, Return on Equity (ROE), Distress Timing

### 1. Introduction

The consumer goods sector plays a critical role in the economic development of Nigeria through its contribution to Gross Domestic Product (GDP), employment generation, industrial growth, and overall economic stability. As one of the major components of the manufacturing sector, consumer goods firms produce essential products that satisfy household needs while stimulating economic

activities across supply chains. The sector contributes significantly to Nigeria's GDP through value addition, tax revenues, and increased domestic production, thereby supporting national economic growth. Furthermore, consumer goods firms provide direct and indirect employment opportunities for millions of Nigerians, ranging from manufacturing and distribution to marketing and retailing activities.

Consequently, the performance of firms within this sector has important implications for economic development, poverty reduction, and national productivity (National Bureau of Statistics, 2024). Financial performance is particularly important because strong firm performance can enhance competitiveness, generate higher returns for shareholders, support employment creation, and contribute to GDP, whereas poor performance may adversely affect competitiveness, economic stability, and stakeholder returns (Hameed et al., 2020). According to the National Bureau of Statistics, the manufacturing sector continues to contribute significantly to Nigeria's GDP and plays a crucial role in employment creation and economic diversification efforts. Similarly, the World Bank emphasizes that a vibrant manufacturing sector is essential for sustainable economic growth, job creation, and poverty reduction in developing economies (Modibbo et al., 2024; National Bureau of Statistics [NBS], 2024). Moreover, the financial performance of firms is influenced by the interaction between internal and external operating environments, underscoring the importance of examining firm performance within the broader economic and institutional context (Bello & Umar, 2019). The significance of corporate financial performance is also heightened by evolving fiscal policies, which can impose changing financial obligations on firms and create important considerations for corporate managers, investors, policymakers, and tax administrators (Bello, 2025).

Financial performance is a critical indicator of a firm's ability to create value for shareholders, sustain operations, and contribute to economic development. Its importance extends beyond the interests of individual firms because financial performance has implications for shareholders, investors, employees, policymakers, and other stakeholders, as well as for competitiveness and broader economic development (Hameed et al., 2020). In Nigeria, the consumer goods sector occupies a strategic position in the economy due to its substantial contribution to Gross Domestic Product (GDP), employment generation, industrialization, and the provision of essential products to the population. The sector comprises firms engaged in the production and distribution of food, beverages, household products, and personal care items, which collectively support economic growth and improve living standards. As one of the largest manufacturing subsectors, consumer goods firms play a significant role in fostering economic diversification and reducing the country's dependence on crude oil revenue (Aghaebie & Oranefo, 2024). The interaction between firms' internal characteristics and their external operating environments further suggests that financial performance should be assessed within the broader conditions under which firms operate (Bello & Umar, 2019). For listed firms in particular, corporate events and other firm-specific information may also have implications for market valuation and investor reactions, given the role of information in stock-market price formation (Bello, 2018).

Furthermore, the need for firms to sustain performance becomes especially important during periods of economic recession, when Nigerian businesses, particularly those operating in consumer-facing sectors, have been required to adapt their strategies to survive changing economic conditions (Bello, 2025b).

Financing decisions influence firm performance by affecting the cost and composition of capital available to support business operations (Jaiswal & Elmarzouky, 2025). Traditional capital structure theories posit that firms seek to maintain an optimal mix of debt and equity to minimize their cost of capital and maximize firm value (Modibbo et al., 2024). However, the Market Timing Theory offers an alternative perspective, suggesting that firms adjust financing decisions based on prevailing market conditions rather than strictly adhering to a predetermined target structure (Baker & Wurgler, 2002). According to this theory, managers may issue equity when stock prices are relatively high and rely more on debt or internal funds when market valuations are unfavorable, thereby exploiting temporary mispricing to reduce financing costs and enhance shareholder returns (Ju, 2024). Strategic market timing may therefore play a significant role in shaping firm financial performance, particularly in volatile environments.

To improve financial performance, managers often employ various corporate finance strategies, including market timing. Market timing enables firms to raise capital

when market conditions are favorable and minimize financing costs by selecting appropriate sources of funds. Theoretically, firms that successfully time the market can achieve optimal capital structures, lower costs of capital, and enhanced financial performance. However, the extent to which market timing influences the financial performance of listed consumer goods firms in Nigeria remains unclear. (Jaiswal & Elmarzouky, 2025).

The contribution of the consumer goods sector to Nigeria's economy extends beyond production activities to the creation of direct and indirect employment opportunities. The sector provides jobs across manufacturing, marketing, logistics, distribution, and retail networks, thereby contributing significantly to income generation and poverty reduction. Consequently, the financial health and sustainability of listed consumer goods firms are of considerable interest to investors, policymakers, regulators, and other stakeholders. Uremadu & Onuegbu, 2019). In today's dynamic business environment, firms continuously seek strategies to improve their financial performance and maximize shareholder wealth. One such strategy is market timing, which refers to the practice whereby corporate managers exploit favorable market conditions when making financing decisions. The Market Timing Theory, advanced by Malcolm Baker and Jeffrey Wurgler, suggests that firms issue equity when their shares are overvalued and rely on debt financing when shares are undervalued. Through such strategic financing decisions, firms may reduce their

cost of capital, optimize capital structure, and enhance overall financial performance.

The Nigerian capital market has experienced periods of volatility, fluctuations in stock prices, inflationary pressures, exchange rate instability, and changing investor sentiments. These market conditions create opportunities and challenges for managers seeking to time the market effectively. For listed consumer goods firms, the ability to identify and exploit favorable market conditions may influence profitability, return on assets, return on equity, earnings per share, and overall firm value. Despite the growing importance of market timing in corporate finance literature, evidence regarding its effect on the financial performance of listed consumer goods firms in Nigeria remains limited and inconclusive. (Central Bank of Nigeria [CBN], 2024; Oyadeyi, 2026).

The consumer goods sector remains a vital contributor to Nigeria's GDP growth, employment generation, and industrial development. Despite its strategic importance, many listed consumer goods firms have experienced fluctuating financial performance characterized by declining profitability, inconsistent returns to shareholders, rising financing costs, and operational challenges arising from economic uncertainties. These challenges have been exacerbated by inflation, exchange rate volatility, high interest rates, and instability in the Nigerian capital market, all of which affect firms' financing and investment decisions. (Ju, 2024).

Although several studies have examined the relationship between capital structure and financial performance, relatively few have specifically focused on market timing as a determinant of financial performance within the Nigerian consumer goods sector. Existing studies have produced mixed findings, with some reporting a positive relationship between market timing and firm performance, while others found insignificant or negative effects. Furthermore, most prior studies were conducted in developed economies where capital market conditions differ significantly from those of Nigeria. This inconsistency in empirical findings and the limited evidence from the Nigerian consumer goods sector create a knowledge gap that warrants further investigation. Therefore, the problem addressed by this study is the lack of sufficient empirical evidence on how market timing affects the financial performance of listed consumer goods firms in Nigeria. Addressing this gap will provide useful insights into whether market timing constitutes an effective financial strategy for improving firm performance and enhancing shareholder value in the Nigerian business environment.

This gap indicates the urgent need for empirical investigation into how market timing strategies affect the financial performance of listed consumer goods firms in Nigeria. Specifically, there is limited evidence on whether the historical accumulation of market timing decisions and current equity issuance behavior significantly influence Return on Equity

(ROE), particularly in highly volatile economic environments. Until this relationship is examined, the theoretical understanding of market timing and its practical implications for shareholder wealth will remain incomplete.

To address this gap, this study focuses on listed consumer goods firms in Nigeria over the period 2016 to 2024. This timeframe captures both relatively stable economic conditions and recent episodes of severe macroeconomic distress, thereby providing a highly suitable context for examining how dynamic market valuation signals and timing behavior influence a firm's financial performance. By investigating the relationship between the current market-to-book ratio, the historical market-to-book ratio, equity issuance, and Return on Equity (ROE), the study aims to provide comprehensive empirical evidence on the role of market timing as a determinant of financial performance in an emerging market.

Therefore, this study seeks to examine the effect of market timing on the financial performance of listed consumer goods firms in Nigeria. The study is expected to contribute to the growing body of knowledge on corporate finance and provide insights for managers, investors, regulators, and policymakers regarding the effectiveness of market timing strategies in enhancing firm performance.

## **2. Literature Review**

### **2.1 Conceptual Review**

#### **Financial Performance**

Akinlo and Lawal (2023) defined financial performance as a firm's overall financial health over a given period. Financial performance of a firm for a period can be ascertained through the process of financial performance analysis. Owolabi and Ogunmakin (2024) stated that financial performance analysis is the process of measuring the results of a firm's policies and operations in monetary terms. In the Nigerian consumer goods sector, this concept is commonly measured using accounting-based indicators. While prior studies heavily favored asset-based metrics, this study specifically adopts Return on Equity (ROE) to capture the direct wealth generated for investors. In this study, financial performance is seen as the objective measure of operational success, serving to verify whether the paper wealth of high market valuations is effectively converted into real wealth through improved shareholder returns.

#### **Market Timing**

Market timing is regarded as a proactive strategy for value creation, where managers rely on valuation signals rather than fixed target leverage ratios to reduce capital costs and enhance corporate profitability. Market timing behavior in empirical research is the market-to-book (MTB) ratio, which measures the relationship between a firm's market value and its book value and is commonly interpreted as an indicator of

growth opportunities (Ju, 2024). Firms with high market-to-book ratios are often perceived by investors as having strong future prospects, potentially encouraging managers to issue equity in order to take advantage of favorable market valuations (Loan & Tram, 2024). Previous studies in the Nigerian context, such as Modibbo et al. (2024), have utilized market valuation ratios in capital structure studies but typically treat them as static growth indicators rather than as dynamic signals for financing timing decisions. However, in volatile markets, high market-to-book ratios may not necessarily reflect genuine growth opportunities. When macroeconomic shocks, such as severe currency depreciation, significantly collapse book values, the result may be artificially inflated market-to-book ratios that do not correspond with operational performance (CBN, 2024; Yisau et al., 2024). Therefore, the interpretation of the MTB ratio in emerging market settings warrants caution, as it may not always signal true timing opportunities but rather a Valuation Illusion.

### **Market-to-Book Ratio (MTB)**

The Market-to-Book ratio (MTB) is a primary indicator of market timing opportunities, representing the ratio of a firm's market value to its book value. According to Baker and Wurgler (2002), a high MTB indicates overvaluation, incentivizing equity issuance, while a low MTB signals undervaluation. Operationally, it is defined as the ratio of the market value of equity to the book value of equity at the end of the financial year. In this study, the

market-to-book ratio is seen as the immediate signal for timing opportunities, serving as the trigger that prompts managers to issue equity when the firm is perceived to be overvalued.

### **Historical Market-to-Book Ratio (HMTB)**

The historical market-to-book ratio captures the persistence effect of timing, reflecting the weighted average of past market valuations during periods of external financing (Baker & Wurgler, 2002). Operationally, this is measured as the external-finance-weighted average of historical MTB ratios. In this study, the historical market-to-book ratio is seen as a proxy for the sticky effect of past financing decisions, measuring the extent to which successful historical timing translates into sustained financial performance and shareholder wealth.

### **Equity Issuance (EQ\_ISSUE)**

Equity issuance represents the actionable mechanism of market timing, where firms raise external capital to capitalize on favorable market conditions. Operationally, it is defined as the net change in book equity minus retained earnings, divided by total assets (Baker & Wurgler, 2002; Effiong et al., 2017). In this study, equity issuance is seen as the explicit measure of managerial responsiveness to market signals, quantifying the actual volume of capital raised to exploit perceived overvaluation or defend against financial distress.

## **2.2 Empirical Review**

A substantial body of research has examined the relationship between capital structure

and financial performance in Nigerian firms, with a particular focus on the consumer goods sector. Financial performance in prior literature is often measured using accounting-based indicators such as Return on Assets (ROA) or market-based proxies such as Tobin's Q (Aghaebe & Oranefo, 2024; Ju, 2024). Recent studies highlight that firm profitability is influenced not only by internal managerial decisions but also by external economic conditions such as inflation, exchange rate fluctuations, and macroeconomic shocks (Oyadeyi, 2026; Modibbo et al., 2024).

Aghaebe and Oranefo (2024) investigated the effect of capital structure on the financial performance of 12 listed Nigerian consumer goods firms from 2013 to 2022, using an ex-post facto design and panel regression. They found that total debt negatively influenced ROA, suggesting that excessive leverage erodes firm value. While methodologically robust, the study assumes a static capital structure and does not consider the timing of financing decisions, limiting its applicability to dynamic market environments.

Similarly, Modibbo et al. (2024) analyzed 10 listed consumer goods firms from 2015 to 2022 using Pearson correlation and multiple regression. Their findings also revealed a negative relationship between total debt and financial performance. However, the study does not differentiate between equity raised for expansion versus defensive equity issuance to cover liabilities, overlooking the concept of distress timing

that is particularly relevant in volatile emerging markets.

Ekokotu (2025) explored the impact of equity financing alongside debt on Net Assets Per Share (NAPS) of listed manufacturing firms using panel regression (2014–2023). Findings indicated that equity financing had a significant positive effect on firm performance. Gara et al. (2025), examining three major cement firms over 2014–2023, similarly concluded that higher equity ratios enhanced performance. Conversely, Udobi-Owoloja et al. (2020) found that the debt-to-asset ratio positively influenced ROA among 10 consumer goods firms (2011–2018), contradicting prior evidence of debt's detrimental effect. These inconsistencies illustrate a conceptual limitation: existing studies often assume equity raises automatically improve performance, without distinguishing between opportunistic and distress-driven financing.

Beyond traditional leverage and equity measures, some studies have incorporated macroeconomic variables. Yisau et al. (2024) examined determinants of capital structure in Nigerian consumer goods firms using Generalized Method of Moments (GMM) across ten years. They found macroeconomic factors significantly influenced leverage decisions. Similarly, Yusuf (2025) investigated the effect of debt-to-equity ratios on firm value for 56 manufacturing firms, revealing a negative impact on the market-to-book value of equity. While these studies broaden the

analytical scope, they largely focus on determinants of capital structure rather than linking market timing behavior to operational performance.

Market timing theory offers an alternative lens for understanding capital structure and performance. Baker and Wurgler (2002) demonstrated that firms issuing equity during periods of high market valuation maintain persistently lower leverage, captured through the historical market-to-book (HMTB) ratio. Loan and Tram (2024) validated this framework in Vietnam (2015–2022), showing that past valuations strongly influence current financing decisions. Although globally significant, these findings cannot be fully extrapolated to Nigeria, where currency-devaluation-driven valuation distortions create a valuation illusion that traditional market timing models do not capture.

Umar (2025), examining 21 consumer goods firms from 2014–2023, found that while there is an overall significant relationship between capital structure and financial performance, specific static leverage metrics were often insufficient, highlighting the limitations of static measurement approaches. Similarly, Modibbo et al. (2024) confirmed the capital structure–performance link but did not include market timing indicators such as MTB or equity issuance sequences. This omission highlights a critical gap: Nigerian research has yet to empirically test how historical and current financing decisions, in combination with market valuation signals, influence

shareholder wealth and Return on Equity (ROE) under volatile economic conditions.

Yunita (2023) demonstrated that the market-to-book ratio significantly affects changes in leverage and equity issuance, confirming that timing decisions directly influence capital structure. While these findings inform theory, they require contextual adaptation to the Nigerian macroeconomic environment, where firms frequently issue equity defensively to address FX losses and avoid insolvency, illustrating the distress timing phenomenon absent in developed and other emerging markets.

### **2.3 Research Framework/Model and Underpinning Theory**

This study is anchored on the Market Timing Theory.

The Market Timing Theory was developed by Malcolm Baker and Jeffrey Wurgler in their seminal study on capital structure. The theory posits that firms make financing decisions based on prevailing market conditions, particularly the valuation of their securities. According to the theory, managers issue equity when they perceive that the firm's shares are overvalued by the market and repurchase shares or rely more on debt financing when shares are undervalued. Consequently, capital structure is viewed as the cumulative outcome of past attempts to time the market rather than the result of a target debt-equity ratio. The theory challenges the traditional assumptions of the Trade-Off Theory and Pecking Order Theory by arguing that managers can exploit temporary market



inefficiencies to minimize financing costs and maximize firm value. Since managers are assumed to possess superior information about the firm's intrinsic value, they can identify favorable periods for raising capital and adjust financing strategies accordingly. (Baker, & Wurgler, 2002). In contrast, poor market timing may lead firms to raise funds under unfavorable conditions, increasing financing costs and negatively affecting profitability and shareholder returns.

**Favorable Market Conditions → Effective Market Timing → Lower Cost of Capital → Improved Investment Capacity → Enhanced Financial Performance**

Market timing directly influences financial performance through its effect on financing costs, capital structure, investment opportunities, and shareholder wealth. When managers successfully issue equity during periods of high market valuation, firms can obtain substantial funds at relatively lower costs. The funds raised can then be invested in profitable projects, expansion activities, technological improvements, and operational efficiencies that enhance profitability and overall firm performance. Similarly, effective market timing can reduce dependence on expensive debt financing, thereby lowering interest expenses and financial risk. A reduction in financing costs contributes positively to key financial performance indicators such as

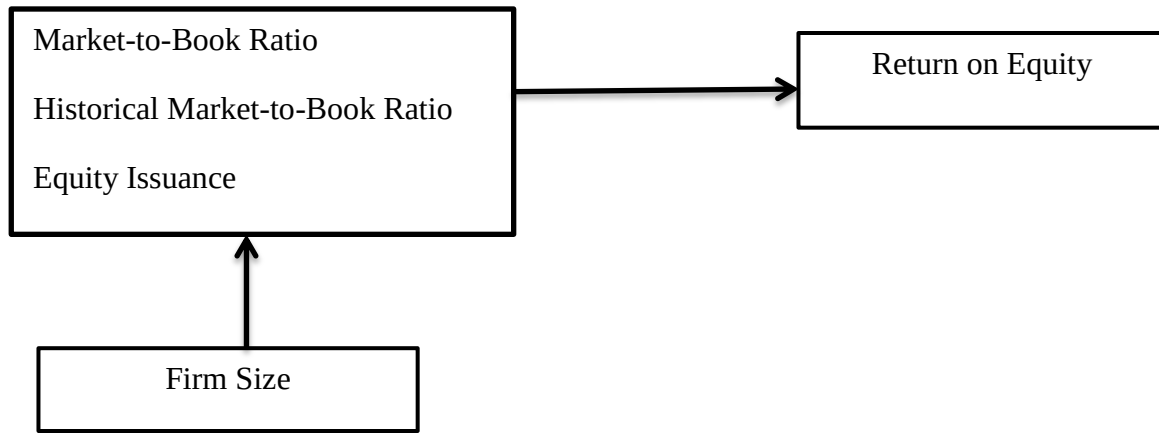
Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Net Profit Margin (NPM) (Brigham, & Ehrhardt, 2022).

The Market Timing Theory is particularly relevant to listed consumer goods firms in Nigeria because the Nigerian capital market is characterized by fluctuations in stock prices, economic uncertainties, inflationary pressures, and varying investor sentiments. These market dynamics create opportunities for managers to strategically determine the most appropriate periods for issuing equity or obtaining debt financing.

For instance, when stock prices of consumer goods firms are relatively high, managers may issue additional shares to raise capital at favorable valuations. Such capital can be used to expand production capacity, improve distribution networks, invest in innovation, and strengthen competitiveness. These investments are expected to improve financial performance by increasing sales revenue, profitability, and shareholder value. Furthermore, consumer goods firms operating in Nigeria often face high borrowing costs due to elevated interest rates. Effective market timing can help such firms minimize financing costs by choosing the most advantageous source of capital, thereby enhancing operational efficiency and financial outcomes.

### Independent Variable

### Dependent Variable



### Control Variable

Figure 1.0 Conceptual Framework: Author, 2026

### Conceptual Framework

The conceptual framework visually illustrates the hypothesized relationship between market timing strategies and financial performance. On the left, the independent variables; Market-to-Book Ratio (MTB), Historical Market-to-Book Ratio (HMTB), and Equity Issuance (EQ\_ISSUE), represent the key dimensions of market timing behavior. These variables are hypothesized to exert a direct influence on the dependent variable, Financial Performance, proxied by Return on Equity (ROE), which appears on the right. Additionally, Firm Size (SIZE) is included as a control variable to account for the effect of scale and resources on profitability, ensuring that the observed impact of market timing is isolated from the influence of the firm's operational magnitude. The arrows flowing from the independent and control variables toward the dependent variable

depict the causal direction of the study's investigation.

### 3. Method

#### Research Design

This study adopted an ex post facto research design, which is appropriate for analyzing historical financial data that cannot be manipulated by the researcher. This design allows for the assessment of cause-and-effect relationships between market timing variables and financial performance using firm-level panel data.

#### Population and Sample of the Study

The population of this study comprised all twenty (20) consumer goods companies listed on the Nigerian Exchange Group (NGX) as of 31st December 2024. To arrive at the final sample, a purposive sampling technique was employed based on strict, predetermined inclusion and exclusion

criteria. This approach was necessary to maintain the integrity of the econometric modeling and to ensure a perfectly balanced panel data structure.

Firms that failed to consistently publish their annual financial reports or market capitalization figures for any single year within the nine-year study period (2016–2024) were excluded to prevent calculation errors. Firms that were newly listed on the NGX after the base year of 2016, or those undergoing delisting proceedings, were excluded. Including such firms would create an unbalanced panel and introduce severe survivorship bias into the regression model. Applying these restrictions eliminated 10 firms, yielding a final, highly robust sample of 10 consumer goods firms. These selected firms possess continuous, reliable observations across the entire study period, providing 90 firm-year observations.

### Model Specification

To examine the effect of market timing on financial performance, the study adopts a model inspired by Baker and Wurgler (2002) and Loan and Tram (2024). The econometric specification is expressed as follows:

$$ROE_{it} = \beta_0 + \beta_1 MTB_{it} + \beta_2 HMTB_{it} + \beta_3 EQISSUE_{it} + \beta_4 SIZE_{it} + \mu_i + \epsilon_{it}$$

Where:

ROE<sub>it</sub> (Return on equity), MTB<sub>it</sub> (Market-to-book ratio), HMTB<sub>it</sub> (Historical market-to-book ratio), EQISSUE<sub>it</sub> (Equity issuance), SIZE<sub>it</sub> (Firm size),  $\beta_0$  (Constant Term),  $\beta_1$ – $\beta_4$  (Coefficients of Independent Variables),  $\mu_i$  (Unobserved firm-specific effect),  $\epsilon_{it}$  (Error term),  $i$  (Firms),  $t$  (Period). This panel regression model allows the study to isolate the effects of market timing proxies on financial performance while controlling for firm size and leverage.

## Variable Measurement

**Table 3:** Variables, Measurements, and Sources

| Variables                       | Acronyms     | Measurement                                                                                                                       | Source                                        |
|---------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Dependent Variable</b>       |              |                                                                                                                                   |                                               |
| Financial Performance           | ROE          | Profit After Tax ÷ Total Equity                                                                                                   | Kakanda et al. (2016); Ozoh & Okoye (2019)    |
| <b>Independent Variables</b>    |              |                                                                                                                                   |                                               |
| Market-to-Book Ratio            | MTB          | (Market Value of Equity + Book Value of Debt) ÷ Total Assets<br>Weighted Average of Past External Financing Market-to-Book Ratios | Baker & Wurgler (2002); Loan & Tram (2024)    |
| Historical Market-to-Book Ratio | HMTB         | $HMTB_t = \sum_{s=1}^t \left( \frac{Es + Ds}{\sum_{r=1}^t (Er + Dr)} \times MTB \right)$                                          | Loan & Tram (2024)                            |
| Equity Issuance                 | EQ_ISS<br>UE | (Change in Total Equity – Change in Retained Earnings) ÷ Total Assets                                                             | Effiong et al. (2017); Baker & Wurgler (2002) |
| <b>Control Variables</b>        |              |                                                                                                                                   |                                               |
| Firm Size                       | SIZE         | Natural logarithm of Total Assets, ln(TA)                                                                                         | Yisau et al. (2024); Modibbo et al. (2024)    |

**Source:** Researcher's Compilation, 2026

In the Baker and Wurgler (2002) formula, (Es + Ds) represents the total debt and equity raised in a specific historical year, while the denominator,  $\sum_{r=1}^t (Er + Dr)$ , represents the cumulative total of all capital raised by the firm up to the current year  $t$ . Dividing the specific year by the cumulative total creates a percentage weight for that year. This ensures that the firm's historical market-to-book ratio is heavily influenced by the valuations present during years of active financing, while years with zero

financing are mathematically weighted at zero.

## 4. Result and Discussion

This section presents the data obtained from the annual reports of the sampled consumer goods companies in Nigeria. It covers the descriptive analysis of the variables, diagnostic tests to ensure data validity, and the testing of hypotheses using Panel Data Regression analysis.

### Descriptive Statistics

The summary statistics for the variables examined in this study, covering the ten sampled consumer goods firms over the nine-year period from 2016 to 2024. The

dataset comprises 90 observations, providing a balanced panel for analysis. To ensure a robust understanding of the data distribution, skewness and kurtosis metrics have been included.

**Table 4.1: Descriptive Statistics**

| Variable | Obs | Mean   | Std. Dev. | Min     | Max    | Skewness | Kurtosis |
|----------|-----|--------|-----------|---------|--------|----------|----------|
| ROE      | 90  | -0.263 | 2.780     | -25.338 | 1.873  | -8.344   | 75.353   |
| MTB      | 90  | 2.807  | 4.341     | 0.429   | 22.847 | 2.740    | 10.171   |
| HMTB     | 90  | 2.725  | 1.974     | 0.598   | 5.948  | 0.523    | 1.705    |
| EQ_ISSUE | 90  | 0.022  | 0.185     | -0.850  | 0.797  | 0.045    | 14.236   |
| SIZE     | 90  | 17.770 | 1.958     | 13.071  | 20.842 | -0.776   | 2.943    |

**Source:** Output generated using STATA 17 (2026)

The dependent variable, Return on Equity (ROE), recorded a mean value of -0.263, implying that, on average, the sampled firms suffered an erosion of equity during the study period. However, this average makes an extreme degree of volatility within the sector, as evidenced by a massive standard deviation of 2.780. The wide disparity between the minimum value of -25.338 (reflecting severe financial distress and negative equity scenarios, such as Guinness in 2024) and the maximum of 1.873 reveals a sharp divergence in performance. The skewness of -8.344 indicates that ROE is highly negatively skewed (left-tailed), meaning while some firms maintained marginal profitability, others suffered extreme, disproportionate losses that wiped out shareholder wealth. A massive kurtosis of 75.353 confirms a highly leptokurtic

distribution, emphasizing the presence of severe financial distress events in the sector.

It is important to address the extreme negative skewness and leptokurtic distribution (kurtosis = 75.353) observed in the ROE data. In standard econometric modeling, such extreme outliers are often treated using winsorization or data trimming. However, this study deliberately retained these extreme values unaltered. The severe negative returns (such as Guinness's ROE in 2024) are not measurement errors or statistical anomalies; they are accurate, audited reflections of the catastrophic foreign exchange losses that decimated shareholder equity in the Nigerian consumer goods sector. Winsorizing this data would artificially smooth the macroeconomic reality and obscure the severe financial distress that triggered recent corporate

equity issuances. Instead of altering the raw data, this study employed cluster-robust standard errors, clustered at the firm level, in the panel regression model to mathematically correct for the heteroscedasticity caused by these heavy tails, thereby preserving both the economic truth of the crisis and the statistical validity of the inferences.

Regarding the independent variables, the Market-to-Book Ratio (MTB) exhibits significant variation. The ratio has a mean of 2.807, suggesting that the market generally values these firms at nearly three times their book value, but the standard deviation of 4.341 indicates extreme heterogeneity in investor sentiment. The high positive skewness (2.740) and kurtosis (10.171) highlight the presence of severe positive outliers. This mathematically captures the Valuation Illusion within the Nigerian market, where a handful of firms trade at massive artificial premiums due to collapsed book values rather than genuine operational growth. Closely tracking this trend, the Historical Market-to-Book Ratio (HMTB) recorded a mean of 2.725. However, HMTB is far more stable, with a skewness of 0.523 and kurtosis of 1.705, indicating a relatively normal distribution. This stability proves

that while current valuations (MTB) are highly erratic, the external-finance-weighted historical valuation (HMTB) remains a grounded, persistent reflection of the firm's long-term market perception.

Finally, Equity Issuance (EQ\_ISSUE) shows a very low mean of 0.022, combined with a relatively high standard deviation of 0.185. The high kurtosis of 14.236 implies that equity financing in Nigeria is episodic rather than continuous; the data has fat tails because firms do not issue shares regularly but rather engage in infrequent, heavy capital-raising events. The control variable, Firm Size (SIZE), averaged 17.770 with a slight negative skew (-0.776) and near-normal kurtosis (2.943). Overall, the non-normal distributions observed across the variables justify the subsequent use of cluster-robust standard errors in the panel regression model to ensure valid statistical inferences.

### **Correlation Matrix**

The pairwise correlation coefficients to determine the nature of the relationship between the variables, test the preliminary associations, and check for the presence of multi-collinearity among the predictors.

**Table 4.2: Correlation Matrix**

| Variables | ROE     | MTB     | HMTB    | EQ_ISSUE | SIZE   |
|-----------|---------|---------|---------|----------|--------|
| ROE       | 1.0000  |         |         |          |        |
| MTB       | 0.0697  | 1.0000  |         |          |        |
| HMTB      | 0.1716  | 0.3068* | 1.0000  |          |        |
| EQ_ISSUE  | -0.0684 | 0.0607  | 0.0607  | 1.0000   |        |
| SIZE      | -0.0947 | -0.1955 | 0.2973* | 0.1751   | 1.0000 |

**Source:** Stata Output (2026) \* significance at 0.05 level

### Relationships with Financial Performance

The correlation results reveal critical preliminary insights into how market timing proxies relate to shareholder wealth prior to controlling for unobserved firm-specific effects. Historical Market Timing (HMTB) exhibits a positive preliminary relationship with ROE ( $r = 0.1716$ ). While this simple pairwise association is not statistically significant at the 5% level in isolation ( $p = 0.1058$ ), the positive trajectory theoretically supports the path-dependency argument of the market timing theory, suggesting that past capital accumulation positively influences current returns.

Conversely, Equity Issuance (EQ\_ISSUE) exhibits a negative correlation with ROE ( $r = -0.0684$ ). From a theoretical standpoint, this inverse relationship hints at the Distress Timing phenomenon. It suggests that recent episodes of raising equity within the Nigerian consumer goods sector are associated with declining profitability, likely because these issuances are defensive measures used to offset toxic liabilities rather than to fund growth. Meanwhile,

Current Market Timing (MTB) shows a very weak positive correlation ( $r = 0.0697$ ) with ROE, which is not statistically significant. This decoupling between current market valuation and actual operational returns reinforces the notion of a distorted valuation environment. Lastly, Firm Size (SIZE) shows a weak, insignificant negative correlation with ROE ( $r = -0.0947$ ). Because these preliminary correlations are naive and do not account for cross-sectional heterogeneity among the firms, they strongly justify the subsequent use of panel data regression analysis to isolate the true causal relationships.

### Inter-Variable Relationships and Multicollinearity Check

There is a positive and significant relationship between HMTB and MTB ( $r = 0.3068$ ,  $p < 0.05$ ), which is theoretically expected, as a firm's historical valuation footprint naturally exerts some influence on its current market pricing. Additionally, Firm Size significantly correlates with HMTB ( $r = 0.2973$ ,  $p < 0.05$ ). Importantly, none of the correlation coefficients between

the independent predictors exceed the critical threshold of 0.80, as recommended by econometric scholars (Gujarati & Porter, 2009). Furthermore, the Variance Inflation Factor (VIF) averaged 1.21, with a maximum VIF of 1.29. Since these values fall well below the conventional ceiling of 10.0 recommended by Hair et al. (2010), it is conclusively established that multicollinearity does not pose a threat to the

structural integrity of the panel regression model

### Diagnostic Tests

To ensure the robustness of the regression estimates, the selection of the appropriate model, and the validity of the statistical inferences, a series of post-estimation diagnostic tests were conducted.

**Table 4.3: Diagnostic Test Results**

| Test                          | Statistic           | P-value | Decision                       |
|-------------------------------|---------------------|---------|--------------------------------|
| <b>Hausman Test</b>           | Chi2 = 2.26         | 0.6879  | Select Random Effects          |
| <b>Heteroscedasticity</b>     | Chi2 = 107204.04    | 0.0000  | Presence of Heteroscedasticity |
| <b>Serial Autocorrelation</b> | F-statistic = 3.150 | 0.1096  | No Autocorrelation             |
| <b>Multicollinearity</b>      | Mean VIF = 1.21     | N/A     | No Multicollinearity           |

**Source: Stata Output (2026)**

**Model Selection:** The Hausman specification test yielded a Chi-square statistic of 2.26 with an insignificant p-value of 0.6879. This fails to reject the null hypothesis that the unobserved firm-specific effects are uncorrelated with the explanatory variables. Consequently, this dictates that the Random Effects (RE) model is the most appropriate, consistent, and efficient estimator for this panel data, superseding the Fixed Effects model.

**Multicollinearity:** The Variance Inflation Factor (VIF) averaged 1.21, with a maximum VIF of 1.29. Since these values fall well below the conventional ceiling of 10.0 recommended by Hair et al. (2010), it

is conclusively established that multicollinearity does not pose a threat to the structural integrity of the panel regression model.

**Heteroscedasticity and Serial Autocorrelation:** The Modified Wald Test for group-wise heteroscedasticity yielded a highly significant p-value ( $p = 0.0000$ ), indicating the presence of non-constant variance in the error terms. However, the Wooldridge test for autocorrelation in panel data yielded an F-statistic of 3.150 ( $p = 0.1096$ ), leading to the acceptance of the null hypothesis of no first-order autocorrelation. Because the data suffers from severe heteroscedasticity but is free from serial autocorrelation, the study



employs the Random Effects model with cluster-robust standard errors, clustered at the firm level, to ensure the standard errors are correctly adjusted and the final statistical inferences are valid.

### Regression Analysis

The result of the Random Effects regression analysis with cluster-robust standard errors, utilizing Return on Equity (ROE) as the dependent variable. Based on the Hausman test results, the Random Effects model was utilized to ensure the most consistent and efficient estimates. The overall model diagnostic yielded a Wald Chi-Square of

7.62 (Prob > Chi2 = 0.1066), indicating that while the joint explanatory power of the model approaches but does not reach conventional significance at the 5% level, the Between R-squared of 0.3786 confirms that approximately 37.8% of the cross-sectional variation in ROE between firms is adequately explained by the market timing variables. In panel data econometrics, the Between R-squared is the more appropriate goodness-of-fit measure for Random Effects models, as it captures the core cross-sectional dimension of the analysis (Gujarati & Porter, 2009).

**Table 4.4: Random Effects Panel Regression Results**

| Variables               | Coefficient | Robust Std. Err. | z-Statistic | Prob (P >  z ) |
|-------------------------|-------------|------------------|-------------|----------------|
| <b>MTB</b>              | -0.0200     | 0.0285           | -0.70       | 0.482          |
| <b>HMTB</b>             | 0.3287      | 0.1794           | 1.83        | 0.067*         |
| <b>EQ_ISSUE</b>         | -0.7621     | 1.0145           | -0.75       | 0.453          |
| <b>SIZE</b>             | -0.2355     | 0.1687           | -1.40       | 0.163          |
| <b>Constant (_cons)</b> | 3.0991      | 2.3999           | 1.29        | 0.197          |

### Model Diagnostics:

**R-squared (Between):** 0.3786

**R-squared (Overall):** 0.0564

**Wald Chi-Square (4):** 7.62

**Prob > Chi2:** 0.1066

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**Source:** Stata Output (2026) | \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

### Discussion of Findings

The regression analysis provides critical empirical insight into the applicability of the Market Timing Theory within the Nigerian consumer goods sector, particularly under conditions of severe macroeconomic stress.

The between-firm coefficient of determination ( $R^2 = 0.3786$ ) indicates that approximately 37.8% of the cross-sectional variation in Return on Equity (ROE) between different firms can be explained by their market timing behavior and firm size.

### **Current Market Valuation and the Valuation Illusion**

The study found that the Current Market-to-Book Ratio (MTB) has a negative and statistically insignificant effect on ROE ( $\beta = -0.0200$ ,  $p = 0.482$ ). This finding contradicts traditional, western-centric market timing theories which suggest that high current market valuations reliably signal strong operational growth opportunities and impending profitability. Instead, this result provides empirical validation for the existence of a Valuation Illusion within the highly volatile Nigerian market. Due to severe macroeconomic shocks, particularly the massive foreign exchange (FX) losses that decimated the retained earnings and book values of several multinational consumer goods firms, the MTB ratio has become artificially distorted. Because the denominator (book value) collapsed faster than the numerator (market capitalization), firms appear highly valued on paper. Consequently, current market premiums in this distressed sector are largely mathematical anomalies rather than genuine reflections of operational efficiency or actual wealth-generation potential for shareholders. This finding refines the conclusions of earlier local studies by demonstrating that current valuation metrics, when isolated from historical context, are unreliable predictors of firm performance in crisis economies. Akinyomi and Olagunju (2013) and Salawu and Agboola (2008) reported that capital market indicators often fail to fully capture the financial realities of firms due to structural inefficiencies and macroeconomic instability. Therefore, the

present finding extends existing literature by demonstrating that current valuation metrics may be poor predictors of financial performance in crisis-prone emerging economies such as Nigeria.

### **Historical Market Timing and Persistent Financial Performance**

The most compelling finding of the study is the positive and statistically significant relationship between the Historical Market-to-Book Ratio (HMTB) and ROE at the 10% level of significance ( $\beta = 0.3287$ ,  $p = 0.067$ ). This indicates that firms which historically raised external finance during periods of high, genuine market valuation exhibit superior current financial performance. This finding provides direct empirical support for the path-dependency argument of the Market Timing Theory advanced by Baker and Wurgler (2002). It proves that a firm's current ability to generate returns for its equity holders is heavily influenced by its historical memory of capital raising. Firms in the Nigerian consumer goods sector that successfully timed the market during past economic booms locking in cheap equity capital when their true valuations were high, have fundamentally stronger, more resilient capital structures today. This historical advantage acts as a permanent buffer, insulating their profitability against current macroeconomic headwinds and severe borrowing costs. This result aligns closely with international evidence provided by Loan and Tram (2024), who documented similar persistent market timing effects in emerging Asian markets, thereby bridging a critical empirical gap in the Nigerian

corporate finance literature. Mahajan and Tartaroglu (2008) found that market timing effects persist for several years after equity issuance, influencing both capital structure and profitability.

### **Equity Issuance and the Distress Timing Phenomenon**

Finally, the study reveals a massive negative coefficient for Equity Issuance (EQ\_ISSUE) in relation to Return on Equity ( $\beta = -0.7621$ ), though it is not statistically significant across the panel ( $p = 0.453$ ). While traditional finance literature assumes equity issuance universally improves performance by funding productive, revenue-generating asset expansion, this large negative coefficient highlights the practical, grim reality of Distress Timing in Nigeria. Recent episodes of heavy equity issuance within the consumer goods sector have largely been defensive, survival-based mechanisms utilized to refinance toxic, dollar-denominated debt and stave off technical insolvency. Because these newly raised shareholder funds are immediately absorbed by sunk-cost FX liabilities rather than being invested in yield-bearing operational assets, the immediate effect is severe equity dilution. However, the lack of statistical significance indicates that the market's penalization of this distress behavior is highly erratic and extremely volatile across different firms. This mathematically confirms that in a highly distressed macroeconomic environment, the outcome of issuing defensive equity is highly unpredictable, though the trajectory leans heavily toward the destruction of short-term shareholder returns. DeAngelo,

DeAngelo, and Stulz (2010) found that firms frequently issue equity during periods of financial distress rather than to finance profitable growth opportunities.

### **5. Conclusion**

This study empirically examined the effect of market timing on the financial performance of listed consumer goods firms in Nigeria over the period 2016–2024. Using panel data regression analysis on ten selected firms, the study assessed whether strategic financing decisions guided by dynamic market valuation signals significantly influence corporate profitability, measured by Return on Equity (ROE). The findings provide robust, context-specific evidence on capital structure dynamics in a volatile emerging market, offering profound empirical support for the Market Timing Theory while exposing the severe realities of macroeconomic distress.

With respect to the first objective, which examined the effect of the Market-to-Book Ratio (MTB) on financial performance, the study fails to reject  $H01$ , concluding that current market valuation has no significant effect on Return on Equity ( $\beta = -0.0200$ ,  $p = 0.482$ ). The statistically insignificant relationship confirms that a high stock market valuation at a given point in time does not translate into wealth creation for shareholders. Rather, it exposes a Valuation Illusion within the Nigerian Exchange Group (NGX). Due to severe macroeconomic shocks and foreign exchange losses that have heavily eroded the book values of these firms, their current

market premiums are largely mathematical distortions. The study concludes that prevailing market sentiment is largely disconnected from the underlying operational returns of consumer goods firms.

Regarding the second objective, which assessed the effect of the Historical Market-to-Book Ratio (HMTB) on financial performance, the study rejects H02, concluding that historical market timing is a positive and statistically significant determinant of shareholder wealth at the 10% level of significance ( $\beta = 0.3287$ ,  $p = 0.067$ ). The results confirm the core path-dependency proposition of the Market Timing Theory: capital structure is the cumulative outcome of past financing behavior. Firms that successfully raised equity during historical periods of genuine, high market valuation locked in cheap capital, creating a permanent financial buffer. The study concludes that this historical advantage continues to insulate these firms today, resulting in sustained, superior Returns on Equity despite the current hostile economic environment.

Finally, in relation to the third objective, which evaluated the effect of Equity Issuance (EQ\_ISSUE) on financial performance, the study fails to reject H03, as equity issuance does not exert a statistically significant effect on Return on Equity ( $\beta = -0.7621$ ,  $p = 0.453$ ). However, the large magnitude of the negative coefficient warrants careful interpretation. This marks a critical departure from traditional corporate finance assumptions, which treat equity

issuance as uniformly growth-enhancing. The study concludes that equity issuance in the Nigerian consumer goods sector is currently driven by Distress Timing rather than opportunistic expansion. Firms are issuing equity defensively to refinance toxic, dollar-denominated liabilities and stave off insolvency. Because these funds are absorbed by sunk costs rather than revenue-generating assets, the trajectory leans heavily toward equity dilution and the destruction of short-term shareholder wealth, even though the high cross-sectional volatility in this behavior across firms prevents the effect from reaching statistical significance at conventional levels.

In summary, the empirical findings lead to the following hypothesis decisions: H01, which states that the market-to-book ratio has no significant effect on financial performance, is not rejected ( $\beta = -0.0200$ ,  $p = 0.482$ ). H02, which states that the historical market-to-book ratio has no significant influence on financial performance, is rejected at the 10% level of significance ( $\beta = 0.3287$ ,  $p = 0.067$ ), confirming the path-dependency of capital structure. H03, which states that equity issuance has no significant effect on financial performance, is not rejected ( $\beta = -0.7621$ ,  $p = 0.453$ ), although the large negative coefficient empirically documents the Distress Timing trajectory observed in the Nigerian consumer goods sector.

## **6. Implications/Recommendations**

In line with the study's objectives, the new empirical findings, and the conclusions

drawn, the following recommendations are proffered to guide corporate boards, investors, and regulators in the Nigerian consumer goods sector:

- i. Based on the finding that the current Market-to-Book Ratio (MTB) has no significant effect on financial performance, it is highly recommended that investors and financial analysts exercise extreme caution and look beyond the Valuation Illusion. Stakeholders must not assume that high share prices or market capitalization reflect a healthy firm. Investment decisions should be grounded in core operational metrics, cash flow sustainability, and FX exposure, rather than relying on distorted current market-to-book premiums.
- ii. Consistent with the finding that the Historical Market-to-Book Ratio (HMTB) positively and significantly influences current performance, it is recommended that corporate financial managers adopt a proactive, valuation-buffering strategy. During rare periods of economic stability and genuine market exuberance, management must aggressively issue equity to lock in low-cost capital, even if immediate funding is not required. Building this historical capital buffer is essential to insulating the firm's ROE against future, inevitable macroeconomic shocks and high borrowing costs.
- iii. Given the critical finding that recent Equity Issuance exerts a massive negative toll on shareholder wealth (the Distress Timing effect), it is strongly recommended that corporate boards view equity issuance as an absolute last resort during economic crises. Before diluting existing shareholders to pay off FX losses, management must exhaust all other avenues, including aggressive asset optimization, operational downsizing, or negotiating debt restructuring. Furthermore, regulatory bodies such as the Securities and Exchange Commission (SEC) must rigorously scrutinize rights issues and public offerings in distressed sectors to ensure retail investors are fully informed that their capital is being used for corporate survival rather than strategic growth.

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