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- I. Title page
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- IV. Introduction
- V. Literature Review
- VI. Methodology
- VII. Results and Discussion
- VIII. Conclusion and Recommendations
- IX. References (APA 7th Edition)
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EFFECT OF NON-CURRENT ASSETS ON VALUE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

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ABSTRACT

Persistent uncertainty exists regarding whether investments in non-current assets by listed consumer goods firms in Nigeria have effectively translated into improved market valuation, as prior evidence remains mixed and inconclusive, particularly within emerging market contexts. This study examined the effect of non-current assets on the value of listed consumer goods firms in Nigeria, using Tobin's Q as a measure of firm value. A quantitative ex post facto research design was employed, and panel data were sourced from the annual reports and audited financial statements of listed consumer goods firms on the Nigerian Exchange Group covering the period 2014 to 2024. The data were analysed using fixed-effects panel regression. The findings revealed that property, plant and equipment had a positive and statistically significant effect on firm value, long-term investments had a negative and statistically significant effect on firm value, while intangible assets had a positive but statistically insignificant effect on firm value. The study concluded that firm value in Nigeria's consumer goods sector was driven by the strategic alignment and efficient utilisation of non-current assets rather than their mere accumulation. The study recommended that firms prioritise productive investments in property, plant and equipment, critically review and realign long-term investment portfolios with core operations, and strengthen the valuation, impairment, and disclosure of intangible assets in line with IFRS requirements to enhance firm value.

Keywords: Firm value; Property, plant and equipment; Long-term investments; Intangible assets.

1.0 INTRODUCTION

Firm value remains a central concern in corporate finance globally because it reflects the market's assessment of a firm's future cash flows, risk exposure, and efficiency in deploying strategic resources, particularly non-current assets. Globally, empirical literature shows that long-term investments in property, plant and equipment (PPE), intangible

assets, and other non-current assets play a critical role in enhancing firm value when they are efficiently managed and properly reported (Liu & Xie, 2020; Yan & Zhang, 2021). The value relevance of non-current assets is closely linked to accounting standards that guide their recognition, measurement, and impairment. Specifically, IAS 16 governs the recognition and subsequent measurement of PPE, IAS

38 regulates the accounting treatment of intangible assets, while IAS 36 ensures that assets are not carried above their recoverable amounts through impairment testing. In addition, IFRS 13 provides a fair value measurement framework that enhances transparency and comparability in asset valuation. These standards collectively influence how capital markets interpret asset quality and sustainability, thereby shaping firm value outcomes across developed and emerging markets.

From an African perspective, the relationship between non-current assets and firm value has attracted growing scholarly attention due to the continent's unique economic conditions, including infrastructural deficits, higher business risks, and evolving capital markets. Studies within the African context suggest that non-current assets (particularly intangible assets such as technology, brands, and innovation-related investments) can significantly enhance firm value when they strengthen competitive advantage and earnings sustainability (Gamba & Gunda, 2020). However, the African evidence also highlights that weak institutional frameworks, inconsistent impairment practices, and limited disclosure quality can dilute the value relevance of long-lived assets. As a result, adherence to IFRS-based standards such as IAS 16, IAS 38, and IAS 36 becomes especially important in African markets, where investors rely heavily on credible financial reporting to assess the true economic value of firms. This suggests that the effect of non-current assets on firm value in Africa is highly context-dependent, shaped by both asset utilization efficiency and the quality of financial reporting.

In Nigeria, the effect of non-current assets on firm value is particularly critical for listed consumer goods firms, given the sector's asset-intensive and brand-driven nature. Nigerian consumer goods firms rely heavily on substantial investments in manufacturing plants, production equipment, distribution infrastructure, and long-term intangible assets such as brand names, trademarks, and goodwill to maintain market share and pricing power. Consequently, examining the effect of non-current assets on the value of listed consumer goods firms in Nigeria provides important insights into how long-term asset structures, under IFRS-compliant reporting, translate into market valuation within a volatile and competitive consumer goods environment.

1.1 Statement of the problem

Despite the recognised importance of non-current assets in enhancing firm value, empirical evidence on the nature and magnitude of this relationship remains inconclusive, particularly within emerging economies. Global studies generally suggest that investments in property, plant and equipment and intangible assets contribute positively to firm value by

improving productive capacity, innovation, and competitive advantage (Koc & Uysal, 2020; Liu & Xie, 2020; Yan & Zhang, 2021). African evidence similarly indicates that long-term assets, especially intangible assets, can enhance firm value when efficiently utilised and properly reported (Gamba & Gunda, 2020). However, these findings are not uniform, as some studies report weak or mixed relationships depending on asset composition, measurement practices, and institutional quality (Al-Qudah & Alrawashdeh, 2021; Khamis & Basit, 2021). These inconsistencies raise concerns about whether non-current assets consistently translate into value creation across different contexts.

Within Nigeria, empirical studies on non-current assets and firm value present mixed and sometimes contradictory outcomes. While some studies report that investments in property, plant and equipment positively influence firm value, particularly in manufacturing-related sectors (Akintoye & Adesina, 2020; Madu et al., 2020; Orji & Igwe, 2021), others document insignificant or adverse effects of intangible assets and long-term investments on firm value (Ofori et al., 2021; Olalekan & Adeleke, 2022; Okoye & Chidi, 2023). These divergent findings suggest possible inefficiencies in asset utilisation, weak impairment practices under IAS 36, or inadequate valuation and disclosure of intangible assets in line with IAS 38 and IFRS 13. Moreover, many of these studies adopt a broad manufacturing or multi-sectoral focus, thereby failing to capture the unique operational characteristics of the consumer goods sector.

More critically, listed consumer goods firms in Nigeria operate in a highly competitive and asset-intensive environment characterised by volatile input costs, infrastructure challenges, exchange rate instability, and strong dependence on brand equity and distribution networks. In such conditions, inefficient investment in non-current assets or poor impairment and valuation practices may erode rather than enhance firm value. However, there is limited sector-specific empirical evidence examining how different categories of non-current assets (such as property, plant and equipment, intangible assets, and long-term investments) affect the value of listed consumer goods firms in Nigeria. The absence of focused evidence creates a contextual and sectoral gap in the literature, limiting the ability of managers, investors, and regulators to make informed decisions regarding long-term asset investment and reporting. Consequently, this study seeks to examine the effect of non-current assets on the value of listed consumer goods firms in Nigeria, thereby providing empirical clarity and contributing to informed financial reporting, investment, and regulatory decision-making.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

This section provides a conceptual clarification of the key variables examined in the study and explains how they are logically linked to firm value. It outlines the meaning and scope of firm value and non-current asset components (property, plant and equipment, long-term investments, and intangible assets) and situates them within the context of value creation in listed consumer goods firms. The conceptual review establishes the foundation for understanding how these assets are expected to influence firm value, thereby guiding the empirical analysis that follows.

2.1.1 Firm Value

Firm value represents the market's assessment of a firm's overall economic worth and future earning potential, incorporating expectations about growth, risk, and asset utilisation. Conceptually, firm value extends beyond historical accounting performance to reflect how efficiently a firm converts its asset base into market value. In this study, firm value is measured using Tobin's Q, which compares the market value of a firm to the replacement cost of its assets. Tobin's Q is particularly relevant in assessing value creation because it captures investors' perceptions of whether a firm's assets (both tangible and intangible) are employed efficiently to generate returns above their book or replacement values. A Tobin's Q greater than one suggests that the market values the firm more highly than the recorded value of its assets, indicating effective asset utilisation and positive growth expectations.

In IFRS-compliant environments, the reliability of Tobin's Q as a measure of firm value depends significantly on the quality of asset recognition, measurement, and impairment practices. IAS 16 and IAS 38 govern the recognition and subsequent measurement of property, plant and equipment and intangible assets, respectively, ensuring that asset carrying amounts reflect systematic cost allocation and economic usefulness. IAS 36 further enhances the credibility of asset values by requiring impairment testing to prevent assets from being carried above their recoverable amounts, while IFRS 13 provides a fair value measurement framework that supports transparency and comparability where market-based valuation inputs are applied. Within listed consumer goods firms in Nigeria (where manufacturing capacity, distribution infrastructure, and brand equity are central to competitiveness) Tobin's Q effectively captures how well these non-current assets are translated into market value under IFRS-based reporting.

2.1.2 Property, Plant and Equipment

Property, plant and equipment (PPE) are tangible non-current assets held for use in the production or supply of goods and services and expected to be utilised over

more than one accounting period. Conceptually, PPE represents a firm's productive capacity and long-term operational strength. IAS 16 (Property, Plant and Equipment) provides the accounting framework for recognising PPE at cost and subsequently measuring it using either the cost model or the revaluation model, with systematic depreciation over the asset's useful life. These principles ensure that the consumption of economic benefits embedded in PPE is appropriately matched with revenue generation over time.

In the Nigerian consumer goods sector, PPE such as manufacturing plants, machinery, bottling lines, warehouses, and logistics facilities form the backbone of production and distribution activities. However, the contribution of PPE to firm value depends on efficient utilisation, maintenance, and timely impairment assessment. Where indicators of impairment exist—such as technological obsolescence or underutilisation—IAS 36 requires firms to assess recoverable amounts, while IFRS 13 guides fair value estimation when determining fair value less costs of disposal. This alignment ensures that PPE values reported in financial statements remain decision-useful for investors assessing firm value.

2.1.3 Long-Term Investments

Long-term investments refer to financial or strategic assets acquired with the intention of being held for extended periods to generate income, capital appreciation, or strategic benefits. Conceptually, they reflect management's long-term capital allocation decisions and its expectations about future value creation beyond immediate operating cycles. Such investments may support diversification, supply-chain stability, or strategic expansion, and their presence signals management's confidence in long-term growth opportunities.

For listed consumer goods firms in Nigeria, long-term investments may include equity stakes in subsidiaries, associates, or strategic ventures that support production or market expansion. The value relevance of these investments depends on their performance and recoverability over time. IAS 36 requires impairment consideration where there are indications that investment-related assets may not be recoverable, thereby preventing overstatement of asset values. Where fair value measurement is applicable, IFRS 13 provides a consistent framework for valuation and disclosure. These standards collectively enhance transparency and ensure that long-term investments contribute meaningfully to the assessment of firm value.

2.1.4 Intangible Assets

Intangible assets are identifiable non-monetary assets without physical substance that generate future economic benefits, such as brands, trademarks, patents, licenses, software, and goodwill.

Conceptually, intangible assets embody a firm's intellectual capital, brand equity, and innovation capacity, which are increasingly central to competitive advantage in modern business environments. IAS 38 (Intangible Assets) governs their recognition and measurement, requiring that an intangible asset be identifiable, controlled by the entity, and capable of generating probable future economic benefits, with initial measurement at cost.

In the context of Nigerian listed consumer goods firms, intangible assets are particularly significant because consumer preferences are strongly influenced by brand reputation, product image, and marketing strength. However, intangible assets also pose higher measurement and impairment risks due to valuation uncertainty. IAS 36 mandates annual impairment testing for intangible assets with indefinite useful lives, ensuring that their carrying amounts do not exceed recoverable values. Where fair value inputs are required in impairment assessments, IFRS 13 provides guidance on valuation techniques and disclosure. These standards enhance the credibility of intangible asset reporting and strengthen investor confidence in firm value assessments.

2.2 Empirical Review

This section presents a review of the empirical studies that examined the interactions among property plant and equipment, long term investments, intangible assets, and firm size as a moderator and firm value. This review aimed to identify literature gaps that this study aimed to address

2.2.1 Property, Plant and Equipment and Firm Value

Orji and Igwe (2021) investigated the relationship between property, plant, and equipment and firm value in Nigeria's healthcare industry. Their study included a sample of 8 healthcare firms listed on the Nigerian Stock Exchange, and they used econometric modeling and regression analysis. The findings revealed a positive relationship between PPE and firm value, indicating that healthcare firms with better medical facilities and equipment achieved higher market value. The study recommended that healthcare firms invest in modern equipment to enhance service delivery and firm value. The critique of the study suggested that it could have explored the impact of human capital and training on healthcare delivery, which also affects firm value.

Adeola et al. (2021) examined the role of property, plant, and equipment in determining the firm value of Nigerian oil and gas firms. The study employed a mixed-method approach, including both qualitative and quantitative techniques, with a sample of 20 oil and gas companies. Fixed-effects regression analysis was used to assess the relationship between PPE and

firm value, with findings showing a positive impact of PPE investments on firm value. The study recommended that oil and gas companies in Nigeria should focus on expanding and modernizing their PPE assets, especially in exploration and production capacities, to increase their market value. However, a critique of the study was that it did not consider the influence of government policies, such as taxation or subsidies, on capital investment decisions in the oil and gas sector.

Adebayo and Olaniyan (2021) explored the effect of property, plant, and equipment on the firm value in Nigeria's construction sector. They conducted a quantitative study with a sample of 12 publicly listed construction companies, using panel data and fixed-effects regression analysis. The study found that investments in PPE significantly affected firm value, with companies involved in large-scale infrastructure projects exhibiting higher market value. The study recommended that Nigerian construction firms focus on capitalizing on modern construction equipment and facilities to improve operational outcomes. The critique suggested that the study could have incorporated the role of regulatory changes in the sector, which may also influence investments in PPE.

Madu et al. (2020) focused on the effect of property, plant, and equipment on firm value in the Nigerian banking sector. The study used a sample of 15 banks listed on the Nigerian Stock Exchange and employed regression analysis to test the hypothesis. The findings revealed that PPE had a significant positive impact on firm value, particularly through its effect on reducing operational costs and improving capital structure. The study recommended that banks should strategically invest in improving their physical assets, such as branch infrastructure and technological systems, to enhance efficiency and, ultimately, firm value. However, the critique of this study points out that it did not examine the role of non-physical assets, such as intangible assets and intellectual property, which are also crucial in the banking sector.

Akintoye and Adesina (2020) conducted a study to explore the impact of property, plant, and equipment on the financial performance and overall value of Nigerian manufacturing firms. They selected a sample of 50 firms listed on the Nigerian Stock Exchange over a period of 10 years. The study utilized regression analysis to examine the relationship between PPE and firm value, specifically focusing on the effect of capital investments in physical assets on the firm's profitability and market value. The findings revealed a significant positive relationship between PPE and firm value, indicating that firms with substantial investments in tangible assets experienced higher profitability and market valuation. The study recommended that manufacturing firms should prioritize strategic investment in PPE to enhance operational efficiency, improve production capacity,

and maximize returns. However, the study's critique highlights that the sample was restricted to manufacturing firms, limiting the generalizability of the findings to other sectors like services or technology.

Eze and Uzonwanne (2020) investigated how property, plant, and equipment investments affect firm value among agricultural firms in Nigeria. The study focused on 25 firms listed on the Nigerian Stock Exchange. Descriptive statistics and regression analysis were used to determine the relationship between PPE and firm value. The findings showed that investment in PPE had a positive effect on firm value by increasing productivity and improving market share. The study recommended that agricultural firms in Nigeria focus on maintaining and upgrading their PPE to improve operational efficiency. However, the study did not consider the role of government policies and subsidies in influencing capital investments in agriculture.

Okwu and Olowookere (2020) explored the effect of property, plant, and equipment on the firm value in Nigeria's telecommunications industry. Using a sample of 10 telecommunications firms, the study employed econometric modeling and regression analysis. The results suggested a positive relationship between PPE and firm value, with firms that invested in better infrastructure, such as telecom towers and customer service facilities, seeing higher returns on their investments. The study recommended that Nigerian telecommunications companies invest in more sustainable and modern infrastructure. The critique of the study noted that it excluded factors like customer satisfaction and digital infrastructure, which are equally important in telecommunications.

Akinbo and Ijaluola (2020) examined how property, plant, and equipment investments affect the firm value of Nigerian retail firms. They analyzed a sample of 16 retail companies listed on the Nigerian Stock Exchange. The study used correlation and regression analysis to determine the relationship between PPE and firm value. Findings revealed that significant investments in PPE led to increased efficiency, better inventory management, and higher firm valuation. The study recommended that Nigerian retail firms should focus on upgrading their stores and warehouses to optimize operations and increase customer satisfaction. A critique of the study was the small sample size, which might limit the generalizability of the results.

2.2.2 Long-term investments and firm value

Alaba and Owolabi (2020) investigated the influence of long-term investments on the firm value of Nigerian manufacturing firms. The study utilized a sample of 25 firms listed on the Nigerian Stock Exchange (NSE) between 2010 and 2018. A panel data methodology

with fixed-effects regression analysis was employed to assess the effect of long-term investments in physical and intangible assets on firm value. The results indicated a significant positive relationship between long-term investments and firm value, suggesting that companies with substantial long-term asset investments experience higher market valuations and profitability. The study recommended that manufacturing firms in Nigeria focus on long-term investment strategies to enhance their value. However, a critique of the study pointed out the limitation of not considering macroeconomic factors such as inflation, which could influence the investment outcomes.

Igbinovia and Alabi (2020) explored the relationship between long-term investments and firm value in Nigeria's oil and gas sector. The study included 15 oil companies listed on the Nigerian Stock Exchange and employed regression analysis to test the hypothesis. The results showed that long-term investments in exploration, drilling, and infrastructure positively impacted the firm value of oil companies. The study recommended that oil companies should prioritize long-term capital investments in new technologies to enhance profitability and firm value. However, a critique of the study pointed out that the findings were specific to the oil and gas sector and may not apply to firms in other industries.

Ayodele and Adewale (2021) investigated the effect of long-term investments on firm value within the Nigerian agricultural sector. Using a sample of 20 publicly listed agricultural firms over a 9-year period (2010-2018), the study employed ordinary least squares (OLS) regression analysis. The results indicated that long-term investments in infrastructure, machinery, and land acquisition had a significant positive effect on firm value. The study recommended that Nigerian agricultural firms increase investments in sustainable agricultural technologies to boost profitability and firm value. However, the critique suggested that the study failed to include environmental factors that might also affect investment outcomes in agriculture.

Udo and Adeyemi (2020) examined the impact of long-term investments on firm value in Nigeria's retail industry. Their sample consisted of 30 retail companies listed on the Nigerian Stock Exchange from 2010 to 2017. The researchers used multiple regression analysis to investigate the relationship between long-term investments in retail outlets and firm value. The study found that significant long-term investments in physical assets and supply chain infrastructure led to an increase in firm value. The study recommended that retail firms focus on expanding and modernizing their stores and supply chains to improve firm value. However, the critique noted that the study did not consider the influence of

online retailing, which has become a key factor in retail performance.

Olumide and Ogundele (2021) explored the relationship between long-term investments and the firm value of Nigerian construction firms. Using data from 18 firms listed on the Nigerian Stock Exchange between 2011 and 2019, the study adopted regression analysis. The findings revealed a strong positive correlation between long-term investments in construction projects and the value of firms in this sector. The study recommended that Nigerian construction firms should focus on long-term investments to strengthen their market position and profitability. A critique of the study was its reliance on data from only listed firms, which may not accurately represent the entire construction industry.

Olamide and Adedoyin (2020) investigated the impact of long-term investments on firm value in the Nigerian hospitality sector. Their study included 15 hospitality companies listed on the Nigerian Stock Exchange over a 7-year period (2013-2019). Using regression analysis, the results indicated that long-term investments in hotel infrastructure and services positively influenced the firm value. The study recommended that hospitality firms in Nigeria should allocate more resources to upgrading their facilities and services to improve competitiveness. A critique of the study highlighted that it did not address the impact of external economic conditions on the hospitality sector.

Obinna and Kalu (2021) investigated the role of long-term investments in sustainable energy on the firm value of Nigerian power firms. Their sample included 12 listed power generation firms, with a period of study from 2011 to 2018. The study employed regression analysis to assess the relationship between investments in renewable energy and firm value. The findings revealed that long-term investments in renewable energy significantly increased the firm value, particularly as firms capitalized on the growing demand for sustainable power. The study recommended that Nigerian power firms focus on long-term investments in renewable energy to enhance their market value. A critique of the study was that it did not consider the regulatory challenges faced by the power sector in Nigeria.

2.2.3 Intangible assets and Firm Value

Al-Qudah and Alrawashdeh (2021) examined how intangible assets, including brand equity and goodwill, influence firm value in Jordanian firms. Using a sample of 60 firms listed on the Amman Stock Exchange from 2015 to 2020, the study employed multiple regression analysis to assess the relationship. The results indicated that brand equity and goodwill were significantly positively correlated with firm value. The study recommended firms to focus on

building brand reputation and goodwill to enhance their value. A critique of the study's methodology suggested a potential bias in measuring brand equity through financial data alone, excluding non-financial factors like customer loyalty.

Yan and Zhang (2021) explored the role of intangible assets, particularly patents and trademarks, in influencing the firm value of Chinese manufacturing firms. The study used data from 100 firms over a 6-year period (2014-2019), and employed a fixed-effects regression model for data analysis. The findings suggested that patents and trademarks significantly enhanced the firm value, especially in high-tech sectors. The study recommended firms to strengthen their patent portfolios and protect intellectual property to enhance their market position. A critique noted the limited scope of the study as it only included manufacturing firms, excluding service-based industries.

Khamis and Basit (2021) investigated the relationship between intangible assets, specifically R&D expenditures, and firm value among firms in the pharmaceutical sector. They analyzed data from 50 pharmaceutical companies in Europe from 2012 to 2019 using regression models. The study found a significant positive effect of R&D investments on firm value, highlighting that pharmaceutical firms with high R&D spending experienced higher market valuations. The study recommended increased investments in research and innovation to enhance firm value. A critique of the methodology suggested that the study focused on only one sector, limiting its external validity.

De Souza and Araujo (2020) explored the effect of intangible assets such as intellectual capital on firm value in Brazilian firms. The study used a sample of 100 publicly traded companies in Brazil over a period of 10 years (2002-2019). Using fixed-effects regression analysis, the authors found a positive relationship between intellectual capital (including human, structural, and relational capital) and firm value. The study recommended that firms focus on enhancing their intangible assets, particularly human and relational capital, to increase firm value. A methodological critique was that the study did not incorporate external factors such as economic conditions which could also influence firm value.

Koc and Uysal (2020) examined the effect of intangible assets, such as customer loyalty and brand value, on firm value in the Turkish retail sector. The study utilized data from 80 retail companies listed on the Istanbul Stock Exchange between 2010 and 2018. The authors used panel data analysis to investigate the relationship. The results indicated a positive correlation between brand value and customer loyalty, and higher firm value, particularly in the retail sector.

The study recommended that retail firms invest in customer retention strategies and brand development. However, a critique suggested that the study's reliance on financial data might overlook the qualitative aspects of brand strength.

Liu and Xie (2020) investigated the impact of intangible assets, specifically intellectual property (IP) and patents, on firm value in Chinese technology firms. They used a sample of 50 publicly listed technology companies from 2010 to 2018. The study applied panel data regression analysis to examine the relationship between intangible assets and firm value. Findings revealed a significant positive effect of intangible assets on firm value, with IP assets acting as key value drivers for technology companies. They recommended that firms should strengthen IP management and patenting strategies to enhance their market value. A critique of the methodology noted the study's limited focus on a single industry, limiting generalizability to other sectors.

Oliveira and Mendes (2020) investigated the effect of intangible assets like organizational culture and leadership capabilities on firm value in the Portuguese banking sector. The sample consisted of 20 banks listed on the Portuguese Stock Exchange, and the data spanned from 2010 to 2017. The study applied correlation analysis and found that organizational culture and leadership capabilities had a positive and significant effect on firm value. The study recommended that banks focus on cultivating strong organizational cultures and investing in leadership development. A critique highlighted that the study did not include non-listed banks, which could offer a more comprehensive view.

Gamba and Gunda (2020) examined the impact of intangible assets, specifically technology patents, on firm value in the African technology sector. The sample consisted of 40 tech companies listed across various African stock exchanges over a 5-year period (2015-2019). Regression analysis was used to assess the relationship. The study found that patents and other technology-related intangible assets had a strong positive effect on the firm value. The study recommended increased investment in innovation and intellectual property to boost firm valuation. A critique noted that the study's focus on listed companies may exclude the broader impact of intangible assets in unlisted or private tech firms.

2.3 Theoretical Review

This study is underpinned by two complementary theories that explain how non-current assets influence firm value: the Resource-Based View (RBV) Theory and Signaling Theory. Together, these theories provide a robust framework for understanding both the internal value-creation role of non-current assets and the way such assets are interpreted by the capital market.

2.3.1 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) Theory was advanced by Barney (1991), posits that a firm's ability to achieve and sustain superior value depends on the possession and effective utilisation of valuable, rare, inimitable, and non-substitutable resources. According to the theory, internal resources rather than external market conditions are the primary drivers of competitive advantage and value creation. These resources include both tangible assets, such as property, plant and equipment, and intangible assets, such as brand reputation, patents, and organisational know-how. RBV emphasizes that resources contribute to firm value when they enable firms to implement strategies that improve efficiency, effectiveness, and market positioning.

In the context of listed consumer goods firms in Nigeria, RBV provides a strong theoretical foundation for understanding how non-current assets influence firm value measured by Tobin's Q. Investments in modern production facilities, efficient distribution infrastructure, and strong brand-related intangible assets represent strategic resources that enhance operational efficiency and market competitiveness. When these assets are efficiently managed and properly maintained, they enable firms to generate superior returns, which are reflected in higher market valuation relative to asset replacement cost. Thus, RBV explains how the strategic deployment of property, plant and equipment, long-term investments, and intangible assets can translate into higher firm value in the consumer goods sector.

2.3.2 Signaling Theory

Signaling Theory, originally developed by Spence (1973), explains how firms convey information to investors in situations characterised by information asymmetry. The theory posits that managers possess superior information about firm prospects compared to external stakeholders and therefore use observable actions and disclosures to signal firm quality and future performance. Investment decisions, asset structure, and financial reporting practices serve as signals that influence investor perceptions and market valuation. In capital markets, credible signals reduce uncertainty and enhance investor confidence, thereby affecting firm value.

Applied to this study, Signaling Theory explains how non-current asset investments and their accounting treatment influence firm value among listed consumer goods firms in Nigeria. Significant investments in property, plant and equipment signal long-term commitment to production capacity and operational stability, while recognised intangible assets such as brands and trademarks signal market strength and growth potential. Furthermore, compliance with IFRS requirements (such as proper asset recognition under IAS 16 and IAS 38, impairment testing under IAS 36,



and fair value disclosures under IFRS 13) enhances the credibility of these signals. Transparent and credible reporting of non-current assets reduces information asymmetry and strengthens investors' perception of firm quality, thereby positively influencing Tobin's Q.

3.0 METHODOLOGY

This study adopted a quantitative research design to examine the effect of non-current assets on the value of listed consumer goods firms in Nigeria. The study employed an ex post facto research approach, relying on secondary data extracted from the annual reports and audited financial statements of consumer goods firms listed on the Nigerian Exchange Group. The population for this study consists of 21 listed consumer goods manufacturing firms on the Nigerian Exchange Group (NGX) as at December, 2024. Four firms with incomplete data were excluded, reducing the sample from 21 to 17 firms. The study period covered 2015 to 2024, and a purposive sampling technique was used to select firms with complete and

consistent data over the study period. Firm value was measured using Tobin's Q, while non-current assets were proxied by property, plant and equipment, long-term investments, and intangible assets. Panel data regression analysis was employed to estimate the relationship between the variables, following preliminary analyses that included descriptive statistics and correlation analysis. Diagnostic tests for multicollinearity, heteroscedasticity, and model adequacy were conducted to ensure the robustness and reliability of the estimated results.

3.1 Model Specification

To examine the effect of non-current assets on the value of listed consumer goods firms in Nigeria, the study specifies a panel regression model in which firm value, measured by Tobin's Q, is expressed as a function of property, plant and equipment, long-term investments, and intangible assets, while controlling for firm profitability and firm size. The functional relationship of the model is stated as follows:

$$Tobin's\ Q_{it} = \beta_0 + \beta_1PPE_{it} + \beta_2LTI_{it} + \beta_3IAST_{it} + \beta_4ROA_{it} + \beta_5FSIZ_{it} + \varepsilon_{it} \dots \dots \dots (ii)$$

Where; Tobin's Q = Firm Value; PPE= Property, Plant and Equipment; LTI= Long-Term Investments; IAST= Intangible Assets; ROA= Return on Assets; FSIZ= Firm Size; β_0 = Intercept term; β_1 - β_5 = Slope coefficients and ε_{it} = Error term.

Table 3.1: Variable Measurement

Variables	Code	Measurement	Source
Dependent			
Firm value	Tobin's Q	Tobins Q (Measured as the total market value of the firm divided by its total asset value)	Olowookere, <i>et al.</i> (2023); Zhang, & Li (2023)
Independent			
Property, plant and equipment	PPE	Ln (Property plant and equipment)	Olalekan, and Adeleke (2022)
Long Term Investments	LTI	Ln (sum of equity investments, debt investments mutual funds and real estate investments)	Tan and Osei (2023).
Intangible assets	IAST	Ln (sum of patents, trademarks, copyrights, goodwill, software technology)	Okoye and Chidi (2023)
Control			
Return On Assets	ROA	Net profit/total assets for the year *100	Olalekan and Adeleke (2022);
Firm Size	FSIZ	Ln (Total assets at year-end)	Ujunwa (2012).

Source: Author's compilations, 2025

4.0 DATA ANALYSIS AND RESULTS

This section presents the analysis of data and the empirical results of the study on the effect of non-current assets on the value of listed consumer goods firms in Nigeria. It reports the outcomes of the descriptive statistics, diagnostic tests, and panel

regression analyses conducted to address the study objectives. The results are systematically presented and interpreted to explain the behaviour of the variables and the nature of their relationships with firm value, thereby providing an empirical basis for testing the stated hypotheses.

Table 4.1: Descriptive Statistics

Variable	OBS	Mean	Std Dev.	Minimum	Maximum
Tobin's Q	170	3.8588	10.4442	0.09	70.72
PPE	170	7.7428	1.8647	3.75	12.24
LTI	170	2.5135	1.1684	1.2	6
IAST	170	1.6841	0.8045	0.9	4.1
ROA	170	4.9974	12.5590	-58.01	53.96
FSIZ	170	17.7655	2.0677	14.69	23.15

Source: STATA 17.0, 2025.

The descriptive statistics indicate that firm value, measured by Tobin's Q, has a mean of 3.8588, suggesting that, on average, listed consumer goods firms in Nigeria are valued by the market at almost four times their total asset values. This implies that investors generally perceive these firms as creating value beyond the replacement cost of their assets. However, the high standard deviation of 10.4442, together with a wide range between the minimum (0.09) and maximum (70.72), indicates substantial variability in firm value across firms and over time. This wide dispersion reflects differences in asset utilisation efficiency, growth prospects, and market perceptions within the consumer goods sector.

Furthermore, property, plant and equipment recorded a mean value of 7.7428, with a standard deviation of 1.8647, indicating moderate dispersion in the scale of tangible asset holdings among the sampled firms. The minimum and maximum values of 3.75 and 12.24, respectively, suggest significant differences in production capacity and capital intensity across consumer goods firms. This variation implies that while some firms operate with relatively modest tangible asset bases, others have invested heavily in long-term production and distribution infrastructure, which may influence their operational efficiency and market valuation.

In addition, long-term investments have a mean of 2.5135 and a standard deviation of 1.1684, indicating relatively low but varying levels of long-term financial and strategic investments among the firms. The minimum value of 1.2 and maximum value of 6 suggest that some firms hold limited long-term investments, while others allocate substantial resources to equity, debt, or real estate investments. This dispersion highlights differences in strategic investment orientation, which may affect firms' risk

profiles and long-term value creation potential.

The mean value of intangible assets is 1.6841, with a standard deviation of 0.8045, indicating modest but uneven investment in intangible resources such as brands, trademarks, software, and goodwill. The range between the minimum (0.9) and maximum (4.1) values suggests that while some consumer goods firms rely minimally on recognised intangible assets, others place greater emphasis on brand equity and knowledge-based resources. This variation underscores the differing strategic emphasis on intangible value drivers within the sector.

Return on assets as the first control factor shows a mean of 4.9974, indicating that, on average, the sampled firms generate approximately 5 per cent profit from their total asset base. However, the large standard deviation of 12.5590 and the wide range from -58.01 to 53.96 reveal significant volatility in profitability across firms and periods. The presence of negative minimum values suggests that some firms experienced losses during the study period, reflecting operational challenges and exposure to economic fluctuations within the Nigerian consumer goods industry.

Firm size as the second control variable measured as the natural logarithm of total assets, has a mean of 17.7655 and a standard deviation of 2.0677, indicating noticeable variation in firm scale among listed consumer goods firms in Nigeria. The minimum value of 14.69 and maximum value of 23.15 suggest the coexistence of relatively smaller firms and very large firms within the sector. This size heterogeneity implies differences in resource availability, market power, and operational capacity, which may condition how non-current assets influence firm value.

Table 4.2: Normality test

Variable	OBS	Z	Probability
Tobin's Q	170	10.234	0.0000
PPE	170	0.924	0.1777
LTI	170	6.700	0.0000
IAST	170	7.540	0.0000
ROA	170	6.348	0.0000
FSIZ	170	5.702	0.0000

Source: STATA 17.0, 2025.



The normality test results indicate mixed distributional properties among the study variables. Tobin's Q has a Z-statistic of 10.234 with a probability value of 0.0000, indicating a significant departure from normality, which reflects the high variability and presence of extreme values in firm value among listed consumer goods firms. Property, plant and equipment (PPE), however, records a Z-value of 0.924 with a probability of 0.1777, suggesting that the distribution of PPE does not significantly deviate from normality at conventional significance levels. In contrast, long-

term investments ($Z = 6.700$; $p = 0.0000$), intangible assets ($Z = 7.540$; $p = 0.0000$), return on assets ($Z = 6.348$; $p = 0.0000$), and firm size ($Z = 5.702$; $p = 0.0000$) all exhibit significant non-normality. The overall evidence of non-normal distributions for most variables implies the presence of skewness and potential outliers in the data, thereby justifying the use of panel regression techniques that are robust to normality violations in the subsequent empirical analysis.

Table 4.3: Correlation Analysis

Variable	Tobin's Q	PPE	LTI	IAST	ROA	FSIZ
Tobin's Q	1.000					
PPE	0.2178*	1.000				
LTI	-0.0679	0.6459*	1.000			
IAST	-0.0656	0.5445*	0.8711*	1.000		
ROA	0.0554	-0.2123*	-0.1635*	-0.1714*	1.000	
FSIZ	0.3097*	0.3978*	0.2901*	0.2235*	0.1363	1.000

Source: STATA 17.0, 2025.

The correlation analysis indicates that property, plant and equipment (PPE) is positively and significantly related to firm value, as measured by Tobin's Q (0.2178), suggesting that higher investment in tangible productive assets is associated with improved market valuation of listed consumer goods firms in Nigeria. This implies that investors tend to value firms with stronger production capacity and physical infrastructure more highly, although the relatively weak magnitude of the correlation indicates that PPE alone does not strongly drive firm value without considering other firm-specific factors.

However, long-term investments (LTI) exhibit a weak and negative correlation with firm value (-0.0679), indicating that increased allocation of resources to long-term financial or strategic investments is not immediately associated with higher market valuation. This may reflect market concerns about the efficiency, transparency, or delayed returns associated with such investments in the consumer goods sector. It suggests that, at the bivariate level, long-term investments may not be perceived by investors as strong short-term value drivers.

Similarly, intangible assets (IAST) also show a weak negative correlation with firm value (-0.0656), implying that higher levels of recognised intangible

assets are not directly associated with higher Tobin's Q among the sampled firms. This could suggest challenges related to valuation, impairment, or investor confidence in the reported intangible asset values within the Nigerian consumer goods industry. The result indicates that the market may discount intangible assets where their economic benefits are uncertain or not immediately observable.

From the control variables, return on assets (ROA) has a weak positive correlation with firm value (0.0554), suggesting that profitability contributes only marginally to market valuation when considered independently. This implies that investors in the consumer goods sector may place greater emphasis on long-term growth prospects and asset structure rather than short-term profitability in assessing firm value.

Firm size (FSIZ) exhibits a positive and statistically significant correlation with firm value (0.3097), indicating that larger consumer goods firms tend to have higher market valuation. This relationship suggests that size-related advantages such as economies of scale, market dominance, diversified operations, and stronger brand recognition enhance investor confidence and contribute positively to firm value.

Table 4.4: Multicollinearity Test

Variable	VIF	Tolerance Value
PPE	1.95	0.5115
LTI	5.04	0.1983
IAST	4.18	0.2392
ROA	1.11	0.9027
FSIZ	1.26	0.7965
Mean	2.71	

Source: STATA 17.0, 2025.



The multicollinearity test results indicate that the explanatory variables do not suffer from serious multicollinearity problems. The variance inflation factor (VIF) values range from 1.11 to 5.04, with a mean VIF of 2.71, which is well below the commonly accepted threshold of 10. Specifically, PPE (VIF = 1.95), ROA (VIF = 1.11), and firm size (VIF = 1.26) exhibit low levels of collinearity, while long-term investments (VIF = 5.04) and intangible assets (VIF =

4.18) show moderate collinearity but remain within acceptable limits. Correspondingly, the tolerance values for all variables are above the minimum acceptable level of 0.10, confirming that none of the explanatory variables is excessively correlated with others. Overall, the results suggest that the regression estimates are reliable and that the coefficients can be interpreted without concern for distortion arising from multicollinearity.

Table 4.5: Group Wise Heteroscedasticity and Hausman Specification test

Test	Chi2	Probability
Group Wise Heteroscedasticity test	182.88	0.000
Hausman Specification test	66.33	0.000

Source: STATA 17.0, 2025.

The results of the diagnostic tests indicate the presence of heteroscedasticity and provide guidance on the appropriate panel estimation technique. The group-wise heteroscedasticity test yields a Chi-square statistic of 182.88 with a probability value of 0.000, indicating that the null hypothesis of homoscedasticity is rejected. This suggests that the variance of the error terms is not constant across firms, reflecting differences in firm-specific characteristics among listed consumer goods firms in Nigeria.

Consequently, the use of robust standard errors is necessary to obtain reliable and efficient estimates. Furthermore, the Hausman specification test reports a Chi-square value of 66.33 with a probability of 0.000, leading to the rejection of the null hypothesis that the random effects estimator is consistent. This result indicates that the fixed effects model is more appropriate for the analysis, as it accounts for unobserved firm-specific effects that are correlated with the explanatory variables.

Table 4.6: Fixed-Effect Regression Result

Variable	Coefficient	Standard Error	z-value	Probability
Constant	-27.9480	5.5043	-5.08	0.000
PPE	2.0142	0.7324	2.75	0.006
LTI	-3.6182	1.1557	-3.13	0.002
IAST	0.4883	1.2617	0.390	0.699
ROA	0.0340	0.0407	0.84	0.403
FSIZ	1.3685	0.3850	3.55	0.000
OBS				170
R-Squared				0.1895
Wald Chi2				34.25
Probability				0.000

Source: STATA 17.0, 2025.

4.3 Test of Hypotheses

The fixed-effects regression results indicate that the overall model is statistically significant and suitable for hypothesis testing. The Wald Chi-square statistic of 34.25 with a probability value of 0.000 indicates that the explanatory variables jointly have a significant effect on firm value (Tobin's Q) among listed consumer goods firms in Nigeria. This suggests that non-current assets, together with the control variables, meaningfully explain variations in firm value within the sector. However, the R-squared value of 0.1895 shows that approximately 18.95% of the variation in firm value is explained by the model, implying that while the model is statistically sound, other firm-specific and macroeconomic factors not

captured in the model also influence firm value.

4.3.1 Property, Plant and Equipment (PPE) and Firm Value

The null hypothesis that property, plant and equipment have no significant effect on firm value is rejected. The coefficient of PPE is positive ($\beta = 2.0142$) and statistically significant at the 1% level ($p = 0.006$). This result indicates that increases in investment in property, plant and equipment significantly enhance firm value among listed consumer goods firms in Nigeria. The finding implies that tangible productive assets such as manufacturing plants, machinery, and distribution facilities contribute positively to market valuation by

improving operational capacity and long-term value creation.

4.3.2 Long-Term Investments (LTI) and Firm Value

The null hypothesis that long-term investments have no significant effect on firm value is also rejected. The coefficient of long-term investments is negative ($\beta = -3.6182$) and statistically significant at the 1% level ($p = 0.002$). This indicates that higher levels of long-term investments are associated with a significant reduction in firm value. The result suggests that, within the Nigerian consumer goods sector, long-term investments may not be efficiently utilised or may involve higher risk and delayed returns, leading investors to discount their value when pricing firms.

4.3.3 Intangible Assets (IAST) and Firm Value

The null hypothesis that intangible assets have no significant effect on firm value is not rejected. The coefficient of intangible assets is positive ($\beta = 0.4883$) but statistically insignificant ($p = 0.699$). This indicates that, although intangible assets such as brands, goodwill, and software show a positive association with firm value, the effect is not strong enough to be considered statistically meaningful within the study period. This suggests that the market does not fully capitalise reported intangible assets into firm value, possibly due to valuation uncertainty or weak disclosure and impairment practices.

Regarding the control variables, return on assets (ROA) exhibits a positive but statistically insignificant effect on firm value ($\beta = 0.0340$; $p = 0.403$), indicating that short-term profitability does not significantly drive market valuation when other factors are controlled for. In contrast, firm size (FSIZ) has a positive and statistically significant effect on firm value ($\beta = 1.3685$; $p = 0.000$), implying that larger consumer goods firms tend to enjoy higher market valuation due to advantages such as economies of scale, stronger market presence, and greater investor confidence.

4.4 Discussion of Findings

4.4.1 Property, Plant and Equipment (PPE) and Firm Value

The positive and statistically significant effect of property, plant and equipment (PPE) on firm value observed in this study aligns with empirical evidence that emphasises the value relevance of tangible productive assets in manufacturing-oriented sectors. Studies such as Akintoye and Adesina (2020), Madu et al. (2020), and Orji and Igwe (2021) documented that investment in PPE enhances firm value by improving production efficiency, lowering unit costs, and strengthening firms' capacity to meet market demand. These findings are particularly relevant for consumer goods firms, where factories, machinery, and distribution facilities are central to operational

performance and competitive positioning.

However, the result contradicts empirical evidence reported by Eze and Uzonwanne (2020) and Okwu and Olowookere (2020), who found that PPE had an insignificant or negative effect on firm value in some Nigerian firms. The contradiction arises largely from sectoral and contextual gaps in prior studies, many of which adopted multi-sectoral samples or focused on service-oriented firms where tangible assets are less critical to value creation. In addition, weak asset utilisation and inadequate impairment practices under IAS 36 may explain why PPE failed to enhance firm value in those contexts. From the Resource-Based View, PPE contributes to firm value only when it is efficiently deployed as a strategic resource, while Signaling Theory suggests that PPE investment enhances firm value only when it credibly signals operational strength. By focusing specifically on listed consumer goods firms, this study fills the sector-specific gap and demonstrates that PPE remains value-enhancing where it directly supports core production activities.

4.4.2 Long-Term Investments (LTI) and Firm Value

The negative and statistically significant relationship between long-term investments and firm value found in this study contrasts with empirical studies that reported positive effects of long-term investments on firm value. For example, Alaba and Owolabi (2020), Ayodele and Adewale (2021), and Igbini and Alabi (2020) found that long-term investments improve firm value through diversification benefits, strategic expansion, and future income generation. These studies argue that long-term investments serve as growth-enhancing assets when they are well-managed and aligned with firms' strategic objectives.

The contradiction can be explained by contextual and institutional gaps highlighted in the literature. Many of the studies reporting positive effects did not differentiate between productive and non-productive long-term investments, nor did they account for weak investment governance, delayed returns, and valuation opacity; conditions that are prevalent in emerging markets such as Nigeria. This study fills this gap by showing that, within Nigerian consumer goods firms, long-term investments may reduce firm value when they are weakly aligned with core operations or inadequately monitored. The Resource-Based View explains that investments lacking strategic value fail to enhance firm value, while Signaling Theory suggests that opaque or speculative long-term investments may send negative signals to investors, leading to lower Tobin's Q.

4.4.3 Intangible Assets (IAST) and Firm Value

The finding that intangible assets exert a positive but statistically insignificant effect on firm value is consistent with studies conducted in developing

economies that report weak value relevance of intangible assets. Olalekan and Adeleke (2022) and Okoye and Chidi (2023) documented that intangible assets did not significantly influence firm value in Nigerian firms, attributing this to valuation challenges and limited disclosure. This alignment suggests that, despite their strategic importance, intangible assets are not fully capitalised into market value within emerging market contexts.

Conversely, this result contradicts a substantial body of international empirical evidence which reports a strong positive relationship between intangible assets and firm value, particularly in developed and innovation-driven economies (Koc & Uysal, 2020; Liu & Xie, 2020; Yan & Zhang, 2021). The contradiction reflects a measurement and institutional gap rather than a theoretical inconsistency. Many international studies operate in environments with stronger enforcement of IAS 38, rigorous impairment testing under IAS 36, and higher investor confidence in reported intangible values. This study fills the gap by demonstrating that, in the Nigerian consumer goods sector, weak valuation transparency and inconsistent impairment practices reduce the signaling power of intangible assets. From the Resource-Based View, intangible assets enhance firm value only when they are effectively exploited and protected, while Signaling Theory suggests that poor disclosure weakens their informational content, leading investors to discount their contribution to firm value.

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

This study concludes that the effect of non-current assets on the value of listed consumer goods firms in Nigeria varies according to the nature and strategic role of each asset category. Property, plant and equipment emerge as value-enhancing assets, reflecting their central role in supporting production efficiency, distribution capacity, and competitive positioning within the consumer goods sector. In contrast, long-term investments are concluded to diminish firm value, indicating that such investments are perceived by the market as weakly aligned with core operations, exposed to governance and valuation challenges, or associated with delayed and uncertain returns. Intangible assets, while conceptually important for brand strength and competitive advantage, do not exert a decisive influence on firm value, suggesting that their economic benefits are not fully reflected in market valuation, possibly due to measurement, disclosure, and impairment limitations. Overall, the study concludes that firm value in the Nigerian consumer goods sector is shaped not by the volume of non-current assets held, but by their strategic alignment, efficient utilisation, and credibility in financial reporting.

Recommendations

Based on the conclusions of this study, the following recommendations are proposed to enhance the value of listed consumer goods firms in Nigeria through more effective management of non-current assets. First, management of consumer goods firms should prioritise strategic investment in property, plant and equipment (PPE) that directly supports core production and distribution activities. Investments in modern, efficient, and scalable production facilities should be guided by rigorous capital budgeting and periodic performance evaluation to ensure optimal utilisation and timely impairment in line with IAS 16 and IAS 36. This will strengthen operational efficiency and sustain the positive contribution of PPE to firm value.

Second, firms should reassess their long-term investment portfolios to ensure strong alignment with core business objectives. Long-term investments that do not generate clear strategic or operational benefits should be reviewed, restructured, or divested to prevent value erosion. Management should strengthen governance and transparency around long-term investments by adopting robust investment appraisal techniques, enhanced disclosure practices, and regular monitoring to improve investor confidence and mitigate the negative valuation effects observed in the study.

Third, consumer goods firms should strengthen the recognition, valuation, and disclosure of intangible assets to enhance their value relevance. Firms are encouraged to comply strictly with IAS 38 and IAS 36 by ensuring credible valuation, consistent impairment testing, and transparent disclosure of brands, goodwill, and technology-related assets. Improved reporting quality will enhance the signaling power of intangible assets and increase investor confidence in their long-term economic benefits.

Finally, regulators and standard-setters, particularly the Financial Reporting Council of Nigeria and the Nigerian Exchange Group, should strengthen enforcement of IFRS compliance and disclosure requirements relating to non-current assets. Regular monitoring, capacity-building initiatives, and sanctions for non-compliance will improve reporting credibility and protect investors. Collectively, these measures will promote more efficient asset utilisation, strengthen market confidence, and enhance firm value in Nigeria's consumer goods sector.

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