

Asset Structure and Financial Performance of Listed Companies in Nigeria

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ABSTRACT

This study provided empirical evidence of the effect of asset structure on financial performance of listed companies in Nigeria. Data were collected from eight listed companies over the period 2015 to 2024. Descriptive statistics was used to summarize the collected data while hypotheses were analyzed and tested with panel regression. The findings of this study revealed that non-current asset has positive and insignificant impact on return on asset of listed company in Nigeria, current asset has negative and insignificant impact on return on asset, while intangible asset has positive but insignificant impact on return on asset of listed company in Nigeria. In conclusion, companies with a greater focus on current assets, particularly cash and receivables, might enjoy higher liquidity but could potentially miss out on long-term value creation from investments in fixed or intangible assets. It was recommended that management of listed companies should adopt efficient working capital management practices to avoid excessive investment in current assets such as cash, inventory, and accounts receivable

Keywords: Asset Structure, Financial Performance, Intangible asset, Current Asset, Non-current asset, Return on asset.

INTRODUCTION

Effective asset management and capital allocation decisions lie at the heart of firm resilience and competitive performance, especially in emerging markets where resource constraints, market frictions, and institutional volatility amplify managerial stakes. In Sub-Saharan Africa, rapid but uneven economic development, frequent macroeconomic shocks, and constrained access to long-term finance render firms' choices about asset composition very difficult. How much to invest in tangible versus intangible resources, and in fixed versus current assets are critical determinants of operational flexibility and value creation (Levine, 2005; Aghion et al., 2010). The mix of assets within companies is essential for enhancing financial performance, hence, representing a key element of governance (Nangih & Emeka-Nwokeji, 2021). In Nigeria, one of Africa's largest economy by GDP and home to a sizeable cohort of publicly listed firms, these decisions are further shaped by sectoral concentration, regulatory shifts, and recurrent currency and liquidity pressures that influence both the returns on asset investment and the costs of financing those assets [Iyoha & Oriakhi, 2010; Ajakaiye & Adeyeye, 2016].

Asset structure of a company refers to the composition and distribution of its total assets across various categories. It is a reflection of the company's resource allocation strategy and provides a snapshot of its investments in items that will generate future economic benefits. The assets of any company are considered crucial elements since they serve as indicators of the firm's survival capacity and allow them to maintain a competitive advantage over other firms (Nangih & Emeka-Nwokeji, 2021). Nangih and Onuora (2020) characterized asset structure as a mixture of different asset elements including non-current asset, tangible assets, current assets, and cash available both on hand and in the bank. Financial performance on the other

hand, refers to a company ability to generate new resources from day to day operations over a given period of time (Bora, 2008). Financial performance in this study was proxy by return on asset.

Although theory predicts that firms' asset structures influence important financial outcomes profitability via productive capacity and intangible assets, liquidity via working-capital composition, and risk via asset substitutability and depreciation patterns empirical evidence from Nigeria is scarce and yields mixed results. The relative presence of non-current assets (e.g., property, plant, equipment), current assets (e.g., inventories, receivables, cash), and intangible assets (e.g., goodwill, patents, brand capital) can alter return on assets (ROA), return on equity (ROE), and liquidity ratios in divergent ways depending on industry dynamics and financing constraints (Humeniuk, *et al.*, 2022). For example, high fixed asset intensity may raise operating leverage and long-term returns in capital-intensive sectors, but may also reduce short-term liquidity and increase vulnerability to demand shocks. Conversely, larger holdings of current assets may preserve solvency during downturns while compressing profitability through lower asset turnover. The empirical contours of these trade-offs among Nigerian quoted companies have not been comprehensively mapped.

A notable gap exists in the literature. The bulk of rigorous studies addressing asset structure and firm performance have focused on developed markets with deep capital markets and stable institutions, or on cross-country samples that obscure country-specific institutional effects. Another gap has been the mix and inconsistent outcomes of various works. Ekpeh (2025), and Adekule (2025), found that asset structure has positive and significant effect on financial performance of firms in Nigeria while Idham *et al.*, (2021), and Intan and Adil (2025) supported that asset structure has negative and significant effect on financial performance of firms in Nigeria. These review shows mixed results and lack consensus by scholars on the topic. Hence the current investigation on the effect of asset structure on financial performance of listed company in Nigeria to understand how Nigeria's environment interacts with corporate asset allocation to shaped financial performance. The study will examine the impact of asset structure on financial performance of listed company in Nigeria by:

1. Ascertaining the impact of non-current asset on return on asset of listed company in Nigeria
2. Determining the impact of current asset on return on asset of listed company in Nigeria
3. Evaluating the impact of intangible asset on return on asset of listed company in Nigeria

LITERATURE REVIEW

Asset Structure

As stated by Kalusová and Badura (2022), asset structure refers to the resources or wealth that a company possesses, either at a specific moment or over a particular timeframe. Asset structure represents a balance or comparison, both in absolute and relative terms, between current assets and fixed assets. Absolute refers to a comparison expressed in nominal terms, while relative indicates a comparison presented as a percentage (Okwo *et al.*, 2022). Asset structure compares fixed assets to the total assets owned by a company, helping to ascertain the allocation of funds for each asset component. The asset structure can depict a portion of the total assets available for use as collateral value of assets (Olonite, *et al.*, 2021).

Non-current asset

Non-current assets are described as assets that have a lifespan exceeding one year and are utilized in the creation of goods and services. It then means that non-current assets are resources which extend beyond one accounting period (Akinlo & Egbetunde, 2025). Non-current assets include tangible assets such as land, buildings, plant, machinery, and equipment, as well as intangible assets like patents, trademarks, copyrights, goodwill, and software. They may also include long-term financial assets such as investments in subsidiaries or long-term securities. Unlike current assets, non-current assets are relatively illiquid and require substantial capital investment. Non-current assets play a crucial role in determining the long-term operational capacity and financial performance of a firm. These assets such as property, plant and equipment, machinery, long-term

investments, and intangible assets are acquired to support production, service delivery, and strategic growth over multiple accounting periods. Unlike current assets, non-current assets are not easily convertible into cash and typically require substantial capital investment, making their efficient utilization vital to firm profitability (Athar & Madhul, 2024).

Current asset

Current assets are organizational short-term benefits which usually fall within an accounting period, usually one year; while non-current assets are resources which extend beyond one accounting period (Athar & Madhul 2024). Current assets are those resources that are used up within one accounting period. Current assets are short-term assets that a firm expects to convert into cash, sell, or consume within one accounting period, usually one year or within the normal operating cycle of the business. They are essential for the day-to-day operations of a firm and play a key role in maintaining liquidity and operational efficiency. The effective management of current assets is crucial for a firm's financial health. Adequate levels of current assets ensure that a firm can meet its short-term liabilities as they fall due, thereby reducing liquidity risk. However, excessive investment in current assets may lead to idle resources and lower profitability, while insufficient current assets can disrupt operations and harm the firm's ability to meet obligations (Freeman, 2022).

Intangible asset

Intangible assets are identifiable non-physical resources that are controlled by an entity as a result of past events and from which future economic benefits are expected to flow. Unlike tangible assets, such as buildings, machinery, or equipment, intangible assets lack physical substance but possess economic value because they contribute to organization's ability to generate revenue, enhance operational efficiency, strengthen competitive advantage or support long-term growth. These assets are typically acquired through purchase, developed internally or obtained through contractual or legal rights. International Accounting Standard (IAS 38) recognizes an intangible asset only when it is identifiable, the entity has control over it, there is probable future economic benefits and the cost of the asset can be measured reliably. It includes a broad range of resources such as software, patents, licenses, trademarks, franchises, copyrights, goodwill acquired through business combinations (Mawih, 2024). Both company performance and agility are affected by intangible assets, says Hanran & Wenshu (2024) intangible assets are pervasive around the world and affect many aspects of a company. In today's business world, intangible assets are key strategic resources that help create value for companies and boost their financial performance. According to Muhammad (2020), firms now realize intangible assets are important for financial success, money creation, and ability to stay competitive.

The relationship between intangible assets and financial performance, particularly in terms of Return on Assets (ROA), is a significant area of study in financial analysis. Intangible assets, such as intellectual property, brand value, and goodwill, are increasingly recognized as critical drivers of a firm's profitability and overall financial health. Literature suggests a positive correlation between intangible assets and ROA, indicating that firms with higher intangible asset ratios tend to exhibit better financial performance. This relationship is evident across various industries and geographical contexts, as demonstrated by empirical studies conducted in China, Nigeria, and Hong Kong. Research on Nigerian banks indicates that intangible assets have a significant positive impact on financial performance metrics, including ROA. The study emphasizes the importance of investing in intangible assets to enhance profitability (Aderibigbe et al., 2024). A study on Chinese telecommunication firms found that intangible assets positively and significantly affect ROA (Zhang, 2017). The study suggests that firms with higher intangible asset ratios tend to perform better financially, providing a benchmark for other firms in the sector. In Hong Kong, investments in research and development and sales training were found to positively influence ROA, while employee benefit expenses did not show a significant impact (Li & Wang, 2014). This highlights the varying effects of different types of intangible assets on financial performance. Despite the positive correlation between intangible assets and ROA, challenges remain in accurately measuring and reporting these assets. Differences between market and book values, as well as inconsistencies in reporting standards, can obscure the true impact of intangible assets on financial performance. This issue is particularly pronounced in contexts where internally generated intangible assets are not well understood or consistently reported (Cosmulese, 2023).

Financial Performance

Financial performance refers to the financial assessment of a company's activities (Hanran & Wenshu, 2024). It represents a gauge of the financial situation or results of management decisions of an entity. Kema and Batuhan (2000), opined that firm performance shows the objective achievement of organizations during a period of time. Financial performance of a firm is usually measured using financial ratios such as liquidity ratios, profitability ratios, solvency ratio among others. Profitability is the ability of the firms to generate returns using available resources, liquidity sustains financial obligations with available resources while solvency keeps the entity afloat with the available resources. Financial performance can also be defined as a company's overall health, or the availability and development of more funds over time (Athar & Madhul, 2024). Financial analysts typically use financial performance as a metric to assess and evaluate the performance of different companies, whether they are in the same industry or not. This is a crucial tool for making informed financial choices (Idham et al., 2021).

Return on Asset

The return on assets (ROA), commonly referred to as the return on total assets, is a profitability metric that assesses the net income generated from total assets over a specific timeframe by relating net income to the average total assets. In other terms, the ROA, assesses how effectively a company can utilize its assets to generate profits over a certain timeframe (Nangih, *et al.*, 2022). Return on Assets (ROA) is a financial metric that demonstrates the profitability of a corporation relative to its total assets. It is normally calculated as net income divided by total assets. Net income is calculated from the company's income statement or statement of comprehensive income and is the profit after taxes (Enekwe, 2012).

Theoretical Framework

Trade-off theory and pecking order theory formed the basis of this study. However, the study is anchored on trade-off theory

Trade-Off Theory

The study is anchored on Trade-off Theory. The Trade-off Theory of capital structure was originally propounded by Franco Modigliani and Merton Miller in their 1958 paper. The Trade-Off Theory of capital structure states that a firm's optimal level of debt is determined by balancing the benefits of debt, such as tax shields, against its costs, including bankruptcy costs and agency costs. Firms, especially those with safe, tangible assets, strategically use debt to reach a target capital structure that minimizes their overall cost of capital and maximizes firm value (Khalid, 2022). The strength of the Trade-Off Theory is that it provides a practical framework for firms to balance the tax benefits of debt against the financial distress costs of that debt, and its core principle that firms seek an optimal capital structure. Its weaknesses include its reliance on difficult-to-measure data, its inability to account for non-financial factors like corporate governance, and empirical evidence that contradicts its predictions about firm profitability and leverage (Lee, & Park, 2020).

The theory relates to the study on the ground that Trade-off theory explains that asset structure's impact on financial performance is determined by the balance between the benefits of debt financing, such as tax deductibility of interest payments, and the costs, including financial distress and bankruptcy costs. Firms with safe, tangible assets, and robust profits are more likely to leverage debt, as it offers greater tax advantages and a lower risk of financial distress, ultimately leading to better financial performance

Empirical Review

The relationship between asset structure and financial performance remains a subject of intense empirical debate, characterized by divergent findings across different sectors and economies. The relationship between asset structure and profitability in Nigerian non-financial firms was recently explored by Onaolapo et al., 2026. Through a panel regression analysis of ten institutions over a 15-year period (2007–2022), the study found that leverage, long-term debt, and stock significantly explain variations in performance. Based on these findings,

the researchers advised management to conduct regular evaluations of capital structures to adapt to shifting market conditions and ensure risk-adjusted shareholder value. Onoja et al., (2026), examined the relationship between asset structure and financial performance of listed industrial goods companies in Nigeria. The study found that, noncurrent assets, current assets, and tangible assets have significant relationships with economic value added while intangible assets have no significant relationship with economic value added of listed industrial goods companies in Nigeria. The study recommended that, there is need for industrial goods companies to focus on effective utilization of current assets to enhance economic value added (EVA).

Agu and Ike (2025), found that while asset structure is influential, both Current Assets to Total Assets and Fixed Assets to Total Assets ratios exhibited significant negative effects on Net Profit Margin (NPM). This suggests that excessive concentration in these assets may lead to inefficiencies or higher costs that erode profitability, a sentiment echoed by Victor, *et al.*, (2024) who warned that over-stretching tangible assets beyond an optimal level can negatively impact performance. Further refining the analysis Gboyega et al (2025) examining the effect of other non-current assets on the performance of the listed consumer goods firms in Nigeria, revealed that while investment in buildings and machinery yielded positive changes in ROA, furniture and equipment tended to reduce it, suggesting that strategic preference should be given to core productive assets. The discourse further extends to the role of intangible and market-driven metrics.

Adekule (2025), ascertained that both current and fixed assets exert a positive and significant influence on the Return on Assets (ROA) of Nigerian companies, suggesting that broad investment in these categories enhances profitability. This is supported by Simeon et al., (2024) whose study of non-financial firms in Kenya established that current asset structure significantly influences financial performance. However, recent evidence from the manufacturing sector introduces complexity. Specific components of asset structure also demonstrate varying degrees of impact. In the realm of current asset management (Ekpeh, 2025), and Dibua et al., (2024), found significant positive relationships between working capital components such as inventories and receivables and the performance of healthcare and industrial goods firms in Nigeria, respectively. Conversely, Umoh (2025) observed that in the cement industry, specific current assets like inventories and trade receivables did not significantly impact ROA, highlighting the need for more robust credit regulations and collection tactics rather than mere asset accumulation.

Goigo, and Osuji (2024), established that in the industrial sector, non-current, intangible, and investment assets significantly boost ROA, whereas general current asset ratios proved insignificant. This emphasis on intangibles is reinforced by Sorin et al., (2025), who utilized panel quantile regression to show that the impact of intangible assets on firm value in the European tourism industry is non-linear and more pronounced for firms with stronger market positions. Their findings suggest that traditional average-based models may underestimate the complexity of how intangibles contribute to corporate value.

Finally, sector-specific dynamics and internal constraints like leverage appear to moderate these relationships. Emeka et al., (2024), demonstrated that the relevance of fixed and current asset ratios diminishes in high-levered firms, suggesting that capital structure dictates how effectively assets can be utilized for performance. In the oil and gas sector, Etoko and Ignatius (2024) found that the ratio of current to non-current assets had a negligible effect on both ROE and ROCE, suggesting that performance in this sector may be driven by factors other than asset composition. However, Onwaeze and Osuji (2024), countered this by showing that specific management of current and fixed assets does indeed impact the ROE of oil and gas firms, emphasizing that reducing the cash conversion cycle is critical for enhancing performance. Collectively, these studies suggest that while asset structure is a fundamental determinant of profitability, its effectiveness is highly contingent upon optimal balancing, sector-specific requirements, and the prevailing level of financial leverage.

METHODOLOGY

This study adopted *ex-post facto* research design. The secondary study data was sourced from financial statement of the selected eight listed companies in Nigeria. Descriptive statistics was used to summarize the collected data clearly and understandably using a numerical approach. The stated hypotheses was analyzed with panel regression as a result of the cross sectional time series nature of the dataset.

Model Specification

In this study, the researcher adopted the model of Emeka, *et al.*, (2024), who carried out a study on the asset structure relevance for corporate performance of Levered Firms in Nigeria. The model is stated as follows;

$$ROA = F (FAR, CAR,)$$

The mathematical regression model for the equation above is transformed to the econometric model: thus:

$$ROA = \beta_0 + \beta_1 FAR + \beta_2 CAR + U_t$$

Hence, the researcher adopted the model by making some changes in the dependent and independent variables in the study. The model for this study is stated below;

$$ROA = (NCA, CA, IA)$$

$$ROA_{it} = \beta_0 + \beta_1 NCA_{it} + \beta_2 CA_{it} + \beta_3 IA_{it} + e_i$$

Where;

ROA = Return on asset

NCA = Non-current asset

CA = Current asset

IA = Intangible asset

i = index for individual companies (for the 6 sampled listed firms)

t = time effects.

et = Error Term

RESULTS AND DISCUSSION

The dataset used in this study comprises the independent variables, current asset (CA), non-current asset (NCA) and intangible asset (IA) while the dependent variables were return on asset (ROA). The data covered a period of 2015 to 2024 and the data were drawn from selected eight (8) listed companies in Nigeria.

Descriptive Analysis

The descriptive analysis result in table 4.1 below shows the basic features of the cross sectional data used in the study. The result of the descriptive analysis is presented in table 4.1.

Table 1: Descriptive analysis result

	ROA	NCA	CA	IA
Mean	3.733875	79710851	67146266	73147316
Median	2.65	1083683	250142.1	45902.5
Maximum	25	745884700	784983043	1,274,833,207
Minimum	-18.5	3.9	57	0.12

Std. Dev.	9.640484	1.771408	1.581408	2.041408
Skewness	0.039178	2.336744	2.661512	3.604426
Kurtosis	2.738789	7.544325	10.21744	17.98634
Jarque-Bera	0.247902	141.6413	268.087	921.8601
Probability	0.883423	0.000	0.000	0.000
Observations	80	80	80	80

Source: Researcher computation from E-View 12. (2026).

The descriptive analysis in table 1, shows that the mean value of ROA for the period is 3.73%. This implies that on the average, the listed companies generate a 3.73% return on their total assets. This shows moderate profitability in all. A positive value of mean indicates that most listed companies are, on average, generating profits rather than losses. The maximum value of ROA is 25%, which shows that at least one listed company achieved very strong asset profitability. This is significantly higher than the mean (3.7%), showing the presence of high-performing listed companies. The minimum value of ROA is -18.5%, meaning some listed companies experienced substantial losses relative to their assets. The large negative value shows that some listed companies performed poorly. The wide gap between the maximum (25) and minimum (18.5) suggests high variability in performance. The standard deviation of 9.64 is relatively high compared to the mean (3.09). Listed companies profitability varies from the average. The data is far from the mean. The skewness value of 0.03 is close to zero. This indicates the distribution is approximately symmetric, with a very slight positive skew. There is a small tendency toward higher positive ROA values, but it is minimal. A kurtosis of 2.738789 is very close to 3, which indicates a normal distribution. This suggests that the data has a normal peak and the values (outliers) are not excessively frequent.

The mean of current assets is ₦67,146, 266 billion, indicating that, on average, listed companies hold a very large amount of short-term assets (such as cash, receivables, and inventory). This suggests that listed companies in the sample are substantially liquid in size. The maximum value of current assets is ₦784,983,043 billion. This represents the largest listed companies in terms of short-term asset holdings. The minimum value of ₦57 billion indicates that at all listed company reported positive current assets. The standard deviation of 1.58 billion indicates dispersion is far from the mean. Given the large mean, this suggests considerable variation in listed companies size. The skewness value of 2.661512 indicates moderately positively skewed. A few firms have relatively higher current assets compared to the majority. The kurtosis value of 10.21744 is above 3. This suggests the distribution is leptokurtic and it suggests that the data deviate from normality.

The mean amount of non-current assets value is ₦79710851 billion, indicating that listed companies, on average, hold substantial long-term assets such as property, plant, equipment, and long-term investments. This suggests that the listed companies in the sample are capital intensive, with significant long-term investment structures. The maximum value of ₦745,884,700 billion represents the listed companies with the highest long-term asset base. The minimum value of ₦3.9 billion indicates that all observation show positive non-current assets. The standard deviation of 1.77 billion measures dispersion around the mean. Given the large mean, this relatively smaller standard deviation suggests limited variation relative to the reported average. The skewness value of 2.336744 indicates distribution is slightly positively skewed. The kurtosis value of 7.544325 is above 3. This indicates a leptokurtic distribution and it suggests that the data deviate from normality.

The mean of intangible asset is ₦73147316 billion, indicating that listed companies hold significant long-term intangible resources such as patents, trademarks, goodwill, and software. This suggests that the listed companies in the sample place considerable importance on intellectual property and non-physical assets. The maximum value of ₦1,274,833,207 billion represents the listed companies with the largest recorded intangible asset. The minimum value of ₦0.2 billion shows that all the listed companies reported positive value of intangible asset value. The standard deviation of 2.04 indicates the dispersion of intangible assets far from the

mean. The skewness of 3.604426 indicates, the distribution is positively skewed, meaning that there are more high-value intangible assets pulling the tail to the right. The kurtosis of 17.98634 is far from 3, indicating the distribution is a leptokurtic distribution and it suggests that the data deviate from normality.

Correlation

This section presents the correlation analysis of the study variables. The analysis examines the relationships between the independent variables (LOGCA, LOGNCA, and LOGIA) and the dependent variable (LOGROA).

Table 2: Correlation coefficient analysis

		LOGROA	LOGNCA	LOGCA	LOGIA
LOGROA	Pearson Correlation	1			
	Sig. (1-tailed)				
	N	80			
LOGNCA	Pearson Correlation	.154	1		
	Sig. (1-tailed)	.086			
	N	80	80		
LOGCA	Pearson Correlation	.168	.640**	1	
	Sig. (1-tailed)	.275	.000		
	N	80	80	80	
LOGIA	Pearson Correlation	.176	.638**	.541**	1
	Sig. (1-tailed)	.252	.000	.000	
	N	80	80	80	80
**. Correlation is significant at the 0.01 level (1-tailed).					

Source: Researcher computation from SPSS 16.

The result in table 2 shows the correlation coefficient between return on asset and non-current asset, current asset and intangible asset. The result shows that there is weak positive relationship between return on asset (LOGROA) and non-current asset (LOGNCA) with r of 0.154. The positive sign shows that the variables move in the same direction, meaning that an increase in non-current assets is associated with a slight increase in return on assets. However, the low coefficient value suggests that the relationship between LOGROA and LOGNCA is weak and not substantial. This implies that non-current assets have only a limited association with the firm's ability to generate returns from its total assets.

The result also shows that there is weak positive relationship between return on asset (LOGROA) and current asset (LOGCA) with correlation coefficient of 0.168. This implies that the positive sign implies that both variables move in the same direction; therefore, an increase in current assets is associated with a slight increase in return on assets. However, the low value of the coefficient shows that the relationship is weak and not strongly significant. This means that current assets have only a limited influence on the firm's ability to generate profits from its total assets. In practical terms, firms with higher current assets do not necessarily achieve substantially higher returns on assets. The weak relationship may be due to the fact that holding

excessive current assets such as cash, inventory, and receivables may not always lead to efficient asset utilization or improved profitability. It may also indicate that other factors, such as operational efficiency, capital structure, sales growth, and management effectiveness, play a greater role in determining return on assets.

Finally, the result also shows that there is weak positive relationship between return on asset (LOGROA) and intangible asset (LOGIA) with correlation coefficient of 0.176. The positive coefficient means that both variables tend to move in the same direction; thus, an increase in intangible assets is associated with a slight increase in return on assets. However, the small magnitude of the coefficient suggests that the relationship between LOGROA and LOGIA is weak and not highly substantial. This implies that intangible assets contribute only minimally to the firm's ability to generate returns from its total assets. In practical terms, firms with higher intangible assets do not necessarily achieve significantly higher returns on assets

Hausman test

The Hausman test result is presented in table 3. The test is conducted to determine the most appropriate panel regression model between the Fixed Effects and Random Effects models for reliable estimation.

Table 3 . Hausman test analysis of model one

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	prob.
Cross-section random	2.171525	3	0.5376

Source: Researcher computation from E-View 12. 2026.

For the Hausman test, the null hypothesis is that the preferred model is random effect model, while the alternative hypothesis is that the fixed effect model is preferred (Green, 2008). Based on this premise, the random effect model was selected since the p-value of Hausman's test is greater than 0.05. This implies that the study accepts the null hypothesis while the alternative hypotheses was rejected, hence, the random effect model is preferred.

Table 4: Random Effects Panel Regression Results on model 1

Dependent Variable: LOGROA				
Method: Panel EGLS (Cross-section random effects)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGCA	-0.054624	0.033414	-1.634737	0.1062
LOGNCA	0.016749	0.034843	0.480692	0.6321
LOGIA	0.011532	0.033539	0.343835	0.7319
C	0.843540	0.196179	4.299840	0.0001
Effects Specification				
			S.D.	Rho

Cross-section random		0.365743	0.5458
Idiosyncratic random		0.333652	0.4542
Weighted Statistics			
R-squared	0.475945	Mean dependent var	0.193828
Adjusted R-squared	0.458285	S.D. dependent var	0.333212
S.E. of regression	0.331829	Sum squared resid	8.368372
F-statistic	1.220006	Durbin-Watson stat	2.229724
Prob(F-statistic)	0.308283		

Source: Author's computations 2026 using E-views 12.0

The panel regression result revealed that current assets had a negative coefficient (-0.054624), indicating an inverse relationship between current assets and return on assets. However, the probability value (0.1062) exceeded the 5% significance threshold, suggesting that the effect of current assets on return on assets was statistically insignificant. Also, non-current assets had a positive coefficient (0.016749), implying a positive relationship between the variables. This indicates that an increase in non-current assets leads to a slight increase in return on assets. However, the probability value (0.6321) exceeded the 5% significance level, revealing that the effect was statistically insignificant. Intangible assets had a positive coefficient (0.011532), indicating a positive relationship between the Intangible assets and return on asset. This implies that an increase in intangible assets leads to a slight increase in return on asset. However, the probability value (0.7319) exceeded the 5% significance threshold, showing that the effect was statistically insignificant.

The adjusted R^2 value of 0.458285 implies that about 45.83% of the variation in return on assets (LOGROA) is explained by current assets (LOGCA), non-current assets (LOGNCA), and intangible assets (LOGIA) included in the model. This suggests that the explanatory variables possess moderate predictive power, while the remaining 54.17% of the variation in LOGROA is attributable to other variables outside the model and stochastic disturbances.

The F-statistical probability value of 0.308283 exceeds the 5% significance level, implying that jointly the regressors are not statistically significant at conventional levels hence we cannot reject the null that coefficients on the included regressors equal zero. This suggests that current assets (LOGCA), non-current assets (LOGNCA), and intangible assets (LOGIA) do not jointly exert a significant effect on return on assets (LOGROA) during the study period. Durbin-Watson ≈ 2.23 suggests no serious first-order autocorrelation in the residuals.

DISCUSSION OF RESULTS

The result revealed that non-current asset has positive and insignificant impact on return on asset of listed company in Nigeria. This result is in sync with a priori expectation, which anticipates that non-current asset should have a positive impact on ROA among listed companies in Nigeria. This may be due to efficient asset utilization, low operating and maintenance costs, favorable economic conditions, and high managerial efficiency. Empirically, this finding is not consistent with studies such as Onaolapo et al., (2026), Agu and Ike (2025), Enekwe et al., (2023) who found that non-current assets had negative and insignificant effect on ROA in Nigerian manufacturing firms. . Conversely, it aligns with Olufemi (2026) and Okobo et al. (2021), who concluded that effective use of non-current assets significantly increases ROA in Nigerian firms. From a policy perspective, this finding underscores the need for management of listed companies to ensure the efficient utilization of non-current assets such as property, plant, and equipment.

The result further revealed that intangible asset has positive but insignificant impact on return on asset of listed company in Nigeria. The result is in line with priori expectation. A priori expectation suggests that intangible assets are expected to positively influence return on asset of particular form because they enhance competitive advantage, innovation, brand reputation, customer loyalty, and operational efficiency. Empirically, Enekwe et al; (2022) and Ramat et al., (2024), supported the result stating that intangible assets had a positive but insignificant effect on ROA of listed oil and gas firms in Nigeria while Ibrahim et al., (2022) contradicted the result and stated that intangible assets had a positive and significant relationship with ROA among listed Nigerian oil marketing companies.

Intangible assets such as patents, trademarks, goodwill, software, research and development, and intellectual property are generally believed to contribute to profitability and long-term value creation. However, the near-zero and non-significant coefficients on LOGNCA and LOGIA indicate that, within this sample and specification, investments in long-term tangible and intangible assets do not show a robust association with contemporaneous ROA. This contrasts with theoretical expectations that productive fixed assets and intangible capital (R&D, brands, patents) enhance operational efficiency and returns over time. The discrepancy may arise if the profitability effects of non-current and intangible investments are delayed (dynamic returns), if their benefits accrue through other performance metrics (market value, productivity), or if measurement problems (amortization policies, capitalization thresholds) mute observed associations in accounting-based ROA.

The negative coefficient on LOGCA although not statistically significant suggests that a greater share of current assets may be associated with marginally lower profitability, a finding broadly consistent with the liquidity-profitability trade-off posited in firm finance literature. Excessive holdings of current assets can tie up resources in low-yield forms (cash, receivables, inventories), reducing asset turnover and compressing ROA. Yet, the lack of statistical significance prevents firm conclusions. The observed negative elasticity may reflect sampling variability, measurement error in asset classification, or omitted variables that mediate the relationship between liquidity and profitability. The negative and insignificant relationship between current assets and return on assets conforms to a priori expectation and which implies that excessive investment in current assets reduces companies return on asset. This may be due to inefficient working capital management, idle funds, high inventory holding, and increased receivables, all of which lower the productive utilization of corporate assets among listed firms in Nigeria.

Empirically, this result is in line with the work of Okphiabhele et al., (2022), Olaoye et al., (2019) who found that current asset (CA) had a negative and insignificant relationship with ROA among listed industrial goods firms in Nigeria. Conversely, it contradicts the finding of Abdullahi (2020) who reported that working capital management variables had mostly significant effects on ROA of listed consumer goods companies in Nigeria.

The model's weighted R-squared (≈ 0.48) suggests modest explanatory power, but the joint insignificance of regressors (F p = 0.308) indicates that much of the explained variation may derive from unobserved cross-section heterogeneity captured by the intercepts rather than from the included asset variables. The estimated $\rho \approx 0.55$ confirms substantive between-firm variance in profitability, reinforcing the importance of controlling for entity-level heterogeneity. If unobserved firm characteristics correlate with asset composition, the random-effects estimates could be biased; therefore the choice of a random-effects framework should be validated (e.g., Hausman test) or supplemented with correlated random-effects or fixed-effects specifications.

Several econometric and data considerations likely explain the imprecise estimates. First, limited sample size or low time-series variation in the regressors reduces statistical power. Second, multicollinearity between asset components could inflate standard errors and obscure individual effects. Third, contemporaneous estimation may fail to capture the lagged impact of investment decisions on profitability; capital expenditures and intangible investments often realize returns over multiple periods. Fourth, measurement error in accounting aggregates especially for intangibles can bias coefficients toward zero. Finally, omitted variables (firm size, leverage, industry effects, and macroeconomic shocks) may confound estimated relationships.

Given the absence of statistically robust associations, this analysis does not provide definitive grounds for recommending policy or managerial changes that target asset composition to improve ROA. The negative point estimate for LOGCA aligns with managerial concerns that excessive working capital can depress

profitability; firms may benefit from prudent working-capital management, pending confirmatory evidence from richer models. Policymakers aiming to incentivize firm investment should note that accounting-based profitability metrics may not immediately reflect returns on long-term or intangible investment, and policy evaluation should consider broader performance indicators and longer horizons.

CONCLUSION

This study examined the relationship between firm asset composition and profitability, using panel EGLS with cross-section random effects to estimate the elasticities of return on assets (LOGROA) with respect to current assets (LOGCA), non-current assets (LOGNCA), and intangible assets (LOGIA). The model yields a negative point estimate for LOGCA (−0.0546) and small positive estimates for LOGNCA (0.0167) and LOGIA (0.0115); however, none of the three asset-structure variables are statistically significant at conventional levels. The constant term is positive and highly significant, and the variance decomposition indicates that approximately 55% of the residual variance is attributable to cross-section (entity) effects. Asset structure of listed companies in Nigeria plays a pivotal role in determining their financial performance. The composition and management of assets ranging from current to fixed assets have significant implications for a company's profitability, liquidity, and overall operational efficiency. Companies with a well-balanced asset structure, particularly those with an optimal mix of short-term and long-term assets, tend to experience greater financial stability and a more efficient use of resources, which, in turn, enhances their financial performance.

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