

Assets Composition and Financial Performance of Listed Consumer Goods Firms in Nigeria

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ABSTRACT

This study investigated the effect of asset composition on financial performance of listed consumer goods companies in Nigeria from (2012-2021). three research questions and corresponding three hypotheses were formulated for the study. Ex-post facto research design was employed in the study. The population of the study included all consumer goods manufacturing firms quoted on the Nigerian Exchange Group (NXG) (NSE) as at 31st December 2022 with a sample size of Twenty-nine (29) consumer goods manufacturing companies selected from the population sector. The study relied on secondary sources of dataset which was obtained from Annual reports of sampled companies as provided by individual companies, Nigerian Exchange Group (NXG) website and Machame Database (www.machameratios.company.site). Amongst other preliminary analysis and tests, the panel least square regression analysis was done in validating the hypotheses. The study found that property, plant and equipment have positive and significant effect on the performance of quoted manufacturing companies in Nigeria Exchange Group; Intangible assets have positive but insignificantly effect on the performance of quoted manufacturing companies in Nigeria Exchange Group; current assets has positive significant effect on the performance of manufacturing companies quoted in the Nigeria Exchange Group. Consequent on the findings of the study, it is recommended amongst others that management of manufacturing companies in the Nigeria should formulate policy that will enhance their investment in property plant and equipment as this will increase the performance of their companies and enable them achieve shareholders wealth maximization objective. The study also recommended that management of manufacturing companies in their effort to enhance the performance of manufacturing companies should increase the level of the of on intangible assets. Increasing the investment in intangible assets would positively enhance its effect on the performance of their firms.

Key words: Asset, PPE, Current asset, Performance, Panel regression, Interaction

INTRODUCTION

The level of competition in the business environment has placed a greater responsibility on managers which require the effective and efficient use of firm resources in meeting performance target (Robert, 2011). The performance of the firm is also used to assess the effectiveness of the policies and activities of the management. The information on the performance of the firm is used to make several economic decisions by the stakeholders in the circle of financial reporting (Fauzi, Svensson, & Rahman, 2018). Positive performance is the output of many factors which includes the effective use of the resources available to management. According to Chen and Wong (2014), corporate performance reveals the unique ability of a companies to gain and utilize its resources in several ways to improve on its competitive advantage. Corporate performance can be divided into two broad groups: financial performance and non-financial performance. The extent a firm achieves its performance target could depends on the composition of its assets and the utilization of the assets.

Asset is a resource controlled by the entity as a result of past event and from which future economic benefits are expected to flow to the entity. Those assets controlled by the firm were used to provide the goods and enhance service delivery that enables them achieve the wealth maximization goal of stakeholders (IFRS 2).

The proportion of the assets owned and used by the firm can be based on their requirement and capacity to manage the assets (Riyanto, 2013). The proportion of assets owned by a firm shows the amount of funds allocated to each components part of assets owned and controlled by the firm. A firm having most of its assets in form of current assets shows it allocate more to current assets than other class of assets. This enhance its liquidity but could not be of much help in reducing the cost of borrowing as lender would rely more on property, plant and equipment as collateral than current assets. According to Oliver, Ugbor, and Chukwuani (2017), firm assets can be classified into: non-current assets, intangible assets, financial assets and current assets. Among all, tangible resources are given much attention annually in the financial statement. This is due to the fact that their value and estimation can be easily ascertained and is less controversial.

The combination of various class of assets for production purpose could lead to better profit and firm value for the firms. The question that remained empirically unanswered is what extent does assets composition effect performance of firms, and what could constitute the appropriate mix of assets (tangible and intangible) and the extent it effects on the performance of consumer good firms, this has not been exhaustively answered.

The appropriate mix of assets (tangible and intangible) and its effect on the performance of manufacturing firms remains an issue over the years. Several studies (locally and internationally) had been conducted on this area and various methodologies, adopted; for instance, the study in Hong Kong, Li and Wang, (2014) adopted the descriptive method and used regression for data analysis, Olatuniji and Adegbite (2014); Okwo, Ugwunta and Nweze (2012) carried out a study and adopted the ex-post facto design and used multiple regression analysis for the pool data used in the study without considering the fixed and random effect, thereby making the result not robust enough for policy purpose. A similar study by Ngunya and Mwangi (2018); Mwaniki and Omagwa (2017) both in Kenya adopted the binary logit analysis while the study of Anas and Mohammad (2015) adopted the descriptive design and used multiple regression without controlling for cross section effect on the data.

Based on the reviewed works, no firm uses single assets in its production process, while most firms are constrained with the available resource, hence there is need to ascertain the best combination of assets that could enhance the possibility of higher performance. Empirical studies adopting an interactive approach to select the best combination of assets that contributes to the performance of firms is also lacking. Hence, this study is carried out to bridge the empirical gap of Nigeria.

Objectives of the Study

The main objective of this study is to evaluate the effect of assets composition on performance of consumer good firms listed in the Nigeria. Specifically, the study intends to:

- i. Ascertain the effect of property, plant and equipment on the financial performance of consumer good firms in Nigeria.
- ii. Investigate the effect of intangible assets on the financial performance of consumer good firms in Nigeria.
- iii. Ascertain the effect of current assets on financial performance of consumer good firms in Nigeria.

THEORETICAL CONSTRUCTS AND HYPOTHESIS DEVELOPMENT

Property Plant & Equipment and Performance

According to Chukwu and Egbuhuzor (2017) property, plant and equipment includes land, building, motor vehicle, plant and machinery as immovable assets which are expected to be used for more than one accounting year, they are most often capital intensive in nature and cannot be easily converted into cash without the loss of value. Property, plant and equipment are immovable assets which cannot be easily converted into cash (Mawih, 2014). They constitute major portion of total assets of firms especially firms in the manufacturing sector. The quality of it can help determine the quality of product and the long run survival plan of the firm. Investment in tangible noncurrent assets help build up a firm's statement of financial position and stripping them can be a veritable source of finance to firm when all other sources fail. In the study of Ibam (2008), every company's investment in property and equipment is heavily influenced by its area of business. This holds true as some businesses operates in capital intensive industry like oil and gas than other operating in industry with less capital concentration. Most firms operating in oil and gas or other natural resources sector need large and technology driven non-current assets than firms in service sector whose assets is in majorly intangible in nature.

The composition of assets as a resource available to management has been linked to better performance, as achieving a competitive edge and meeting obligations depends on the quality and effective usage of assets (Delcoure, 2006). It means that businesses with a lot of property plants and equipment will have a lot of flexibility in terms of expanding their operations. The current study therefore adopts the Saleh (2018) approach where the logarithm of the value of property, plant and equipment were used to reduce the value to base 10. Based on the foregoing positions and the mixed observations by prior studies, the current study therefore examines assets composition and performance while proposing that *Property, plant and equipment has no significant effect on the financial performance of consumer good firms in Nigeria (Hypotheses 1)*

Intangible Assets and Performance

The Standard (IAS 38) defines intangible assets as identifiable, non-monetary assets without physical substance kept by an organization for use in the production or supply of products or

services, rental, or other administrative function. IAS 38 requires that an asset be identified in such a way that it can be distinguished from goodwill in order for it to be recognized as an intangible asset. Zambon, (2003) classified intangible assets into two using their source of cash inflow to the firm: those that internally generated revenue for the firm (research and development, goodwill) and those that externally generated revenue for the firm (patent, brand name, copy right, trade mark, royalty). Ngunya and Mwangi (2018) further classified intangible assets as patent, trademark, copy right royalty etc as skill or competence; it includes expertise, distributors, suppliers corporate culture. Lev and Daum (2004) give two reasons for this. First, on a stand-alone basis, intangibles are inert, they can neither create value nor generate growth and need to be combined with other production factors to do so. Secondly, the components of intangibles are intertwined making them difficult to isolate and quantify. Murat and Derya (2019) found that the cumulative performance of intangible assets has positive effect on the growth rates of firms quoted Turkey firm. This is similar to the findings of Zaroug and Mawih (2020) who recently conducted a study on the effect of intangible assets on the firm performance of Omani industrial companies listed in the Muscat Securities Market between 2010 and 2014 and found a positive significance relationship between intangible assets, and firm performance. However, to examine the Nigerian situation, the current study is therefore focused on intangible assets and performance in consumer goods firms in Nigeria while proposing that *Intangible assets have no significant effect on the financial performance of consumer goods firms in Nigeria (Hypothesis 3)*.

Current Assets and Performance

Current assets are assets which can be converted into cash during the same financial year without suffering a major loss in value. Current assets commonly found in the financial report of manufacturing firms includes; Cash/bank balance, receivables, raw material inventory, work-in-process inventory, finished products inventory, and items held for resale This is especially true given that the primary function of the firm's finance management is to spend a significant amount of time managing current assets and current liabilities. According to Deloof, (2003), it is the duty of the financial manager to arrange for short term funds, negotiates for credit terms that was favorable to the firm, monitor the usage of fund top ensure is in line with the purpose for raising it, manage the accounts receivable and watch over the inventory movement.

Prior studies found that investment in current assets can affect about 44.1% of the changes in performance of industrial companies, while the result of the relationship between current assets and firm performance shows that investment in current assets effect of about 39.6% on the firm performance of industrial firm (Anas & Mohammad, 2015). The finding shows that the investment in current assets can lead to better performance and positively effect on the performance of the firms hence suggesting that companies should adopt a moderate policy of investment in current assets. The current study however, investigates assets composition and performance while stating hypothetically that *Current assets have no significant effect on the financial performance of consumer goods firms in Nigeria (Hypotheses 2)*

Theoretical Framework

This study would be anchored on the Resource based theory. The justification for employing this theory is that the resource-based theory believed that a direct relationship exists between the asset's composition, utilization and advocates firm can gain a competitive edge and achieve the goal of wealth maximization if they have the appropriate mix of assets and

effectively utilize those assets. Also, the study is anchored on the resource-based theory due to its ability to explain the nexus between asset composition/ attributes and firm performance.

Resource Based Theory

The resource-based theory was propounded by Barney's (1991). The resource-based theory believed that a direct relationship exists between the asset's composition, utilization and advocates firm can gain a competitive edge and achieve the goal of wealth maximization if they have the appropriate mix of assets and effectively utilize those assets. The theory holds that the strategy adopted by an entity depends on the resource; hence entity with heterogeneous resources could operate similar strategies. The theory advocated for manager to focus on the identification of internal resources in order to identify those assets, capabilities and competencies that can give the firm competitive advantages. This provides managers with the framework needed to identify these strategic resources that have the potential to deliver comparative advantage to a firm.

The theory draws the attention of corporate entities to their internal resources as a means by which they can organise their processes in order to achieve competitive advantage (Gladys & Job 2017). Those internal resources that can give the entity competitive advantage must be unique, valuable, rare, imperfectly imitable (firm-specific) and not substitutable. In order to exploit the internal resource, corporate organizations adopt strategies that can ensure effective and efficient utilization of those unique, rare, firm specific and not substitutable internal resources to gain competitive advantage and maximize profit.

The resource-based theory argues that one of the ways which the firm can compete favorably and achieve competitive advantage is to deploy its unique assets. Those unique assets and peculiar to the firm and cannot be duplicated. It is believed that there are some unique attributes which give the firm a competitive edge (Murat & Derya 2019). The promoter of this view believes that when an entity is diversified, it will be in a better position to capture managerial economies of scale (reduction due to the spread of managerial human capital non-current cost over multiple production processes). The resource-based theory provides the theoretical framework which evaluates the nexus that exist between assets composition and corporate performance. The existence of economies of scale which give managers opportunity to utilize resources in different lines of business, thereby increasing their chances to make more profit. These provide the motivation for the firm to expand its scope through diversification strategies.

Empirical Review

Assets used in firms can be classified into non-current and current assets, intangible and intangible assets based on their convertibility and their physical substance (Riyanto, 2013). For the purpose of the study, the composition consists of tangible and intangible assets, and current assets of the firm. Empirical evidence from prior studies are as follows:

Nangih and Emeka-Nwokeji (2021) examined the causal effect relationship that existed between asset mix and financial performance of selected consumer goods firms listed on the floor of the Nigeria. The study adopted the ex-post facto design and used the regression analysis for the data collated from the annual report of the firms between 2013 and 2019. The finding shows that assets mix drives about 13.7% of the changes in the performance of consumer goods firms. The findings from the specific objectives shows that current and intangible assets have positive significant effect with performance, while noncurrent asset has positive but insignificant effect on performance.

Oluyemi and Chinyere (2021) studied the effect of asset structure on the financial performance of listed construction firms in Nigeria between 2012 and 2018. The study proxy financial performance using Earnings per Share, and Return on Asset (ROA) while fixed and current asset were used as proxy for assets structure. The study adopts ex-post facto and data collected were analysed using regression analysis. The study found that noncurrent asset has a positive significant effect on return on asset and positive insignificant effect on earnings per share. While current asset has positive significant effect on earnings per share and return on assets.

In Nigeria, Gospel and Egbuhuzor (2017), evaluated the causal effect relationship between tangible assets and corporate performance among quoted manufacturing firms in Nigeria. The study was based on ex-post facto design and used secondary data collected from the financial statement of 10 manufacturing companies. The data collected were analysed using the multiple regression analysis. The study finds that plant and machinery have positive significant effect on return on assets, and land and building have negative significant effect on return on assets. The result of the study indicates that tangible non-current assets significantly affect the performance of manufacturing firm quoted in the Nigeria inventory exchange.

In similar study by Ubesie and Ogbonna (2013) on the effect of investment in non-current assets has on the performance of cement manufacturing companies in the Nigeria inventory exchange. The study adopted the panel approach and used data collected between 2004 and 2013. Ordinary least square was employed in analyzing the data collected. The finding shows that non-current assets have insignificant effect on the performance of cement manufacturing companies in Nigeria, while plant and machinery contributed more to the performance of cement manufacturing companies in Nigeria.

In Kenya by Irungu, Muturi, Nasieku and Ngumi (2018) on the relationship between asset tangibility and performance of quoted companies in the Nairobi Securities Exchange Kenya. The study adopted the panel research design and collated data from 64 companies quoted on the Nairobi Securities Exchange. The data collated were analysed using dynamic panel data regression model while analysis of variance. The finding shows that tangibles have positive and significant effect on performance, while intangible assets has negative but insignificant effect on the performance of quoted companies in the Nairobi Securities Exchange Kenya.

Murat and Derya (2019) on the effect of intangible assets, sustainable growth on performance of quoted Turkey firm. Adopting the Ordinary least square (OLS) and Heckman two-stage estimation in analysing the panel data collected from the sample of 1,353 for the period of 9 years from 2005 to 2013. The study finds that the cumulative performance of intangible assets has positive effect on the growth rates of firms quoted Turkey firm. The study further shows that computerized database, and economic competence effect on the growth rates and on firm performance.

Zaroug and Mawih (2020) on the effect of intangible assets on the firm performance of Omani industrial companies listed in the Muscat Securities Market between 2010 and 2014. The study was based on panel design and analyse the data collected from a sample of 46 industrial companies using ordinary least square regression. The finding reveals that a positive significance relationship exists between intangible assets, and firm performance.

Glova and Mrázková (2018), on the effect of intangibles assets on the performance of firm. The study adopted the descriptive design and adopted ordinary least square regression in analyzing the data collected from 1520 within 2011 and 2015 fiscal years. The finding shows

that research and development has positive significant effect on the performance of firms. The finding reveals that research and development is a driver of firm's market performance.

Anas and Mohammad (2015), evaluated the extent of relationship between current assets and profitability and performance of industrial companies quoted on the floor of Amman Inventory Exchange. Current assets (ratio of current assets to total assets), profitability (return on asset- ROA), and firm performance (Tobin q - book to market performance). The study was based on descriptive research design and multiple regression analysis was employed on the secondary data collected. The study found that investment in current assets can affect about 44.1% of the changes in performance of industrial companies, while the result of the relationship between current assets and firm performance shows that investment in current assets effect of about 39.6% on the firm performance of industrial firm. The finding shows that the investment in current assets can lead to better performance and positively effect on the performance of the firms. The finding from the study suggests that industrial companies should adopt a moderate policy of investment in current assets.

METHODOLOGY

Research Design

The study will adopt the ex post facto research design. The ex-post facto research design is a design best used when the researcher is trying to determine the casual effect relationship between variables using past data which is usually difficult to manipulate all or any of the variables or when laboratory control is impracticable, costly or ethically questionable (Onwumere 2013).

Population of the Study

The population of this study is the thirty -six quoted consumer good firms in Nigeria Exchanges Group. The Nigeria Exchange Group has a total of thirty-six (36) consumer goods companies quoted at different time and date.

Sample Size and Sampling Techniques

The sample size of the study is twenty-nine (29) consumer goods companies selected using the purposive sampling techniques. Purposive sampling is a non-random sampling technique that utilizes a specific criterion to select sample. Adopting the purposive sampling, the researcher deliberately chooses a sample of firms that has data for the variable for the period of ten years. Twenty nine out of thirty-six firms were selected for the study representing eighty one percent of the entire population of the consumer goods firms quoted on the Nigeria Exchange group.

Sources of Data Collection

The study employed secondary dataset. The data for the variables will be sourced from the annual financial reports of the consumer goods firms used for the study through the Talk data platform. The data from annual report covering the period of ten years between 2012 and 2021. For authenticity and standardization, the study relied on data from such authoritative sources.

Method of Data Analysis

The study considered the use of panel data as it considers the cross sectional and time series nature of the sample data to be used. To achieve a robust analysis, the study would consider the use of Hausman effect test to select between non-current and random estimation techniques. The estimation result would be evaluated based on individual statistical

significance test (t-test) and the overall statistical significance test R. squared adjusted) while the goodness of fit of the model will be tested using the F-statistics. Multiple regression analysis was used to assess the effect of the independent factors on the dependent variable. Other preliminary test would be carried out to ascertain the normality of the data, Variance inflator factor (VIF), test for multi-colinearity using variance inflator factor analysis and effect test.

Model Specification

The model for the study was anchored on the sub-objective of the study. The study adopts the model of Mwaniki and Omagwa (2017) and Saleh (2018) who conducted research on the effect of asset structure on financial performance using listed consumer good and associated firms in Kenya. A casual research design was used in the study. In Kenya, the study used the following response variables: tangible non-current assets, intangible non-current assets, current assets, and business performance. Model establishes the relationship between the dependent firm value and independent variables: tangible non-current assets, intangible non-current assets.

This study would modify the model to suit the variables used in the study. Mwaniki and Omagwa (2017) model $ROA = PPE, INTANG, LTINV, CA$.

The model was modified to suit the variables selected for this study, as follows (general model):

$$ROA = f(INTA, CA, PPE, BEFF) \dots\dots\dots 1$$

This was econometrically expressed as follows:

$$ROA_{it} = C_0 + C_1INTA_{it} + C_2CA_{it} + C_3PPE_{it} + C_4BEFF_{it} + \epsilon_{it} \dots\dots\dots 2$$

Equation 2 is the linear regression model that will be used in testing the null hypotheses formulated.

Where:

- ROA = Return on assets (Performance)
- CA = Current Assets
- INTA = Intangible Assets
- PPE = Noncurrent assets
- BEFF = Board Effectiveness
- C₀ = Constant;
- C₁ C₆, = Coefficient of the regression equation.
- ε = Error term;
- i = is the cross section of firms used;
- t = is years.

Interaction model:

$$PERF_{it} = C_0 + C_1PPE*INTA_{it} + C_2PPE*LTIN_{it} + C_3PPE*CURA_{it} + C_4PPE*RDEV_{it} + \epsilon_{it} \dots 3$$

No firm in the consumer goods sector can operation successfully without having one form or the other of property, plant and equipment, and current assets. This study used property, plant and equipment as the interactor variable of its economic and long terms value to the firms and sector.

Operationalization of Variables

The variables used were measured and operationalized as follows:

<i>Dependent Variable</i>	<i>Variable type</i>	<i>Proxy/measurement</i>	<i>Source</i>
Performance	Dependent	Proxy by return on assets. ROA= net profit divided by total assets	(Ibrahim & AbdulSamad, 2011)
Property, plant and equipment	Independent	Log of Property, Plant and Equipment/ Sales.	Mwaniki and Job (2017).
Intangible assets	Independent	Intangible Asset (patent right+ copy right+ goodwill+ trade mark) / Total Assets.	Saleh (2018).
Current assets	Independent	Current Assets (inventory + account receivables) \ Total Assets.	Anas and Mohammad (2015) and Saleh (2018).
Board effectiveness	Control	Number of board meeting held within the periods.	Richard (2014) and Allam Adel and Sameh (2013).

Source: Authors' compilation, 2023.

DATA ANALYSIS AND INTERPRETATION

Descriptive Statistics

The descriptive statistics result shows the mean value for each of the variables, their maximum value, minimum values, and standard deviation. Table 4.1 below, is the descriptive statistics result.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	290	1.679556	17.73338	-17.92	10.89
CA	290	34.26e+7	8.99e+07	19.273	65.73e+8
NCA	290	38.36e+0	2.17e+08	21.434	61.52e+0
INTA	290	8.615574	1.55e+07	1.5320	9.95e+07
BEFF	290	4.630189	1.353669	1	11

Source: Descriptive Statistics Result Stata 14.0

The descriptive statistics result shows that on the average, manufacturing companies used in the study has positive performance (ROA) of 1.67, maximum value of 10.89 and minimum value of -17.92. The positive average value has revealed that manufacturing companies used in the study on the average have positive performance within the period under review. The

difference between the average performance, maximum performance and minimum performance shows that most of the companies made positive performance (ROA). Few of the firm's experience loses within the period under review.

Property, plant and equipment (Property, plant and equipment) which shows the extent of capital assets possessed and used in the production process by a company. The result shows a mean value of 38.36, maximum value of 61.52 and minimum value of 2.43. This reveals that manufacturing companies in Nigeria on the average, holds about 42 percent of their total assets in the form of property, plant and equipment (property, plant and equipment). Though some manufacturing companies hold as high as 61 percent of their assets in the form of property, plant and equipment. Holding high proportion of assets in form of property, plant and equipment would result to high level of depreciation and maintenance cost however, it can be useful tool in leverage financing. Also, if effectively and efficiently used can enhance production process stability.

The result of the intangible assets reveals that on the average, manufacturing companies maintain about 8.6 percent of their assets in intangible form, while some companies maintain intangible assets of 9.95 percent other maintain minimum intangible assets of 1.55 percent. The difference in the average intangible assets, maximum and minimum value reveals the premium attached to intangible assets by management of manufacturing companies in Nigeria. As the level of technological advancement in the business environment increases the rate most assets become obsolete due to rapid change in technology. Most firms hold their assets in the intangible form. The result shows that while some firms maintain high level of intangible assets when compared with other class of assets, some maintain minimum level.

The result of the current assets reveals that on the average, manufacturing companies maintain about 34.26 percent of their assets as current assets, while some companies maintain maximum current assets of 65.7 percent others maintain minimum current assets of about 19.27 percent of total assets. The difference in the current assets the maximum value, mean value and minimum value reveals the investment preference of management of manufacturing firms in Nigeria. This indicates the level of liquidity of manufacturing firms in Nigeria.

Normality Test

Table 4.2: Normality test:

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
ROA	290	0.65881	66.221	9.792	0.00000
BEFF	285	0.96056	7.529	4.710	0.00000
NCA	290	0.40922	114.664	11.074	0.00000
INTA	290	0.29331	137.161	11.493	0.00000
CA	290	0.49439	98.134	10.711	0.00000

Source: Shapiro wilk normality test using STATA 14.0

The Shapiro wilk normality test shows that firm performance, property, plant and equipment, intangible assets and current assets, are normally distributed at one percent significance. While research and development, is normally distributed at 5 percent level. The normality test result reveals that all the variables used are normally distributed at 1%. This indicates that

the result of the analysis can be relied upon in making generalization and in policy formulation. The result of the Shapiro normality test.

Correlation Analysis.

In examining the relationship that exist among the variables and check for multi-colinearity, the study employed the spearman rank correlation, and the results are presented in table 4.3

Table 4.3 Pearson Correlation coefficient analysis

. spearman ROA BEFF NCA INTA CA

	ROA	BEFF	NCA	INTA	CA
ROA	1.0000				
EFF	0.2256	1.0000			
NCA	0.2584	0.1887	1.0000		
INTA	0.1937	0.3069	0.6457	1.0000	
CA	0.3735	0.3048	0.7418	0.6550	1.0000

Source: Correlation analysis result using Stata 14.0

The result shows that company performance (ROA) is positively associated with property, plant and equipment (0.258), the result reveals that an increase in property, plant and equipment would lead to increase in the performance of manufacturing firms. However, the increase can occur if the property, plant and equipment is effectively utilized in the production process. Company performance is positively associated with intangible assets (0.194). An increase in the intangible assets will lead to increase in the performance of manufacturing companies in Nigeria. This result may hold true under a short run and long run. On the long run, the assets will lead to better performance if effectively utilize in the production process.

Company performance has a positive association with current assets (0.374). This reveals that the current assets can lead to increase in performance of manufacturing firms as more company invests in current assets the better their performance tend to be. Thus, increase in the performances of current assets will lead to increase in the performance of manufacturing companies in Nigeria. Current assets reveal the level of liquidity, over trading or under trading and ability of firms to meet its obligation as at when due has positive association with the performance of firms.

Property, plant and equipment have strong positive association with intangible assets (0.646) and current assets (0.742). The result shows that increase in Property, plant and equipment can lead to increase in the performance of intangible assets and current assets.

Intangible assets, have strong positive association with current assets (0.655). The result shows that increase in the intangible assets is associated with the current assets.

The study observed that no two variables were perfectly correlated using the 75% association benchmark. This shows the absent of multi-colinearity among the variables used in the study.

Variance Inflation Factor test

In checking for multi-colinearity among the variables used, the study carried out the variance inflation factor (VIF) test. The VIF result is presented below:

Table 4.4: Variance Inflation Factor test:

Variable	VIF	1/VIF

CA	12.28	0.081449
NCA	5.12	0.195343
LINTA	1.24	0.806281
BEFF	1.06	0.942116

-----+-----
 Mean VIF | 5.09

The variance inflation factor test result table above shows the mean performance of 5.09. The mean performance (5.09) is less than 10 rejection benchmarks. The mean value indicates the absence of multi-colinearity in our model. This result (Variance inflation factor test result) confirms the finding from the correlation analysis which shows the absence of multi-colinearity among the variables used.

Hypothesis testing

Regression analysis result

Below is the analysis of return on assets model.

Table 4.5: Regress ROA BEFF LNCA LINTA LCA

Source	SS	df	MS	Number of obs =	263
-----+-----				F(6, 256) =	3.06
Model	5625.53824	6	937.589707	Prob > F =	0.0066
Residual	78471.6394	256	306.529842	R-squared =	0.6669
-----+-----				Adj R-squared =	0.6450
Total	84097.1777	262	320.981594	Root MSE =	64.508

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
BEFF	1.103101	.8177018	1.35	0.179	-.5071776	2.71338
LNCA	-4.463553	1.421732	-3.14	0.002	-7.263333	-1.663773
LINTA	-.7258462	.4835857	-1.50	0.135	-1.678159	.2264666
LCA	7.924597	2.645292	3.00	0.003	2.715292	13.1339
_cons	-40.77218	9.881868	-4.13	0.000	-60.23228	-21.31208

The analysis result of the firm performance model shows an R-sq of 0.667 and R-sq (adj) 0.645 respectively. The R-squared adjusted performance of 0.645 (64.5%) indicates that assets composition can explain about 64.5 percent of changes in the level of firm performance among manufacturing companies in Nigeria. That is, about 64.5% changes in firm performance among manufacturing companies in Nigeria can be attributable to their asset's composition. The F-statistics performance of 3.06, and its probability performance of 0.007, shows that the regression model used is well specified and the specification is statistically significant at 1% levels.

H01: Property, plant and equipment has no significant effect on the financial performance of consumer good firms in Nigeria.

The analysis result of the effect of Property, plant and equipment on company performance (ROA) shows coefficient performance of 4.46. This indicates that Property, plant and

equipment positively affect the level of performance of manufacturing companies quoted in Nigeria Exchange Group. The probability value of 0.002 shows that the positive effect of property, plant and equipment on performance of manufacturing companies in Nigeria is statistically significant at 1 percent level. The result reveals that increasing the level of Property, plant and equipment can positively impact on performance of companies in Nigeria. Based on the result, the study rejects the null hypothesis and conclude that property, plant and equipment have significant effect on the financial performance of consumer good firms in Nigeria.

H0₂: Intangible assets have no significant effect on the financial performance of consumer goods firms in Nigeria.

The analysis result of the effect of Intangible assets on performance of manufacturing firms in Nigerian shows coefficient performance of -0.726 and probability performance of 0.135. The coefficient value indicates that intangible assets negatively affect performance of quoted manufacturing companies in Nigeria Exchange Group. The probability value of 0.135 shows that the negative effect of intangible assets is insignificant on the performance of manufacturing companies quoted in Nigeria. The result shows that increasing the level of intangible asset would negatively affect the performance of manufacturing companies, but the negative effect is not significant to drive the companies' performance in Nigeria. Based on the result, the study rejects the alternate hypothesis and concludes that the effect of intangible assets on firm performance is insignificant.

H0₃: Current assets have no significant effect on the financial performance of consumer goods firms in Nigeria.

The analysis result shows positive coefficient performance of 7.925 and probability performance of 0.003. The coefficient performance indicates that current assets positively affect the performance of quoted manufacturing companies in Nigeria Exchange Group. The probability value of 0.003 showed that the positive of the effect of current assets on the performance of manufacturing companies in Nigeria is significant. This shows that increasing the current assets of manufacturing companies can significantly drive performance of manufacturing companies in Nigeria. Based on the result, the study accepts the alternate hypothesis and concludes that current assets positively and significantly affect the performance of manufacturing companies in Nigeria.

Interaction analysis

Table 4.6: Regression analysis result

Source	SS	df	MS	Number of obs = 263
				F(6, 256) = 4.11
Model	5625.53824	6	937.589707	Prob > F = 0.0000
Residual	78471.6394	256	306.529842	R-squared = 0.6870
				Adj R-squared = 0.6333
Total	84097.1777	262	320.981594	Root MSE = 66.238

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
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BEFF | 2.140281 .8319221 2.57 0.011 .5019981 3.778563
NCA*INTA | -1.04e-08 7.68e-08 -0.14 0.892 -1.62e-07 1.41e-07
NCA*CA | 4.19e-08 1.21e-08 3.46 0.020 1.09e-08 1.25e-07
_cons | -10.5464 3.973825 -2.65 0.008 -18.37195 -2.720852
```

Source: Interaction analysis result. Stata 14.0

The interaction result above shows that:

1. Property, plant, equipment combined with Intangible assets has a coefficient value of -1.04, and probability value of 0.892. The coefficient and probability value indicates that the combination of property, plant, equipment and intangible assets negatively and insignificantly effect the performance of manufacturing firms in Nigeria.
2. Property, plant, equipment combined with current assets has a coefficient value of 4.19, and probability value of 0.020. The coefficient value indicates that the combination of property, plant, equipment and current assets positively and significantly affect the performance of manufacturing firms in Nigeria.

Discussion of findings

The study finds that on assets composition positively affect about 64.5 percent of changes in corporate performance among the manufacturing companies used in the study. This reveals that the structure of assets can increase the level of performance among manufacturing companies in Nigeria Exchange Group. This finding is in line with the finding from the study of Zaher (2019), Mwanik and Job (2018), and Irungu, Muturi, Nasieku and Ngumi (2018) who examined assets composition/structure and performance of firms quoted in Kenya Stock Exchange. The finding of the various hypothesis is shown below:

This study finds that property, plant and equipment positively affect the level of performance of manufacturing companies quoted in Nigeria. This indicates that, increasing the investment in property, plant and equipment can significantly impact on performance of companies in Nigeria. The result is in line with the finding from the study of Mwanik and Job (2018) in Kenya who evaluates the effect of asset structure on performance of firms quoted under the manufacturing sector of Nairobi securities exchange but contrary to the finding from the study of Ocak, and Fındık (2019) whose finding shows a negative but insignificant relationship between tangible property, plant and equipment and firm performance.

The study also found a positive impact of intangible assets on the performance of manufacturing firms in Nigeria however, the effect is insignificant. This means that intangible assets though positively affect performance of quoted manufacturing companies in Nigeria, the effect is insignificant to drive/cause a major change. The finding from the study is in line with the finding from similar study carried out in Egypt by Mehdi, Pajoohi, and Mohammad (2012) and Mwanik and Job (2018) in Kenya, on the nexus between intangible assets and performance of firms under the metals industry of Egyptian stock exchange. But contrary to the finding from the study of Ocak, and Fındık (2019), Glova and Mrázková (2018) on the impact the components of intangible assets have on the performance of firms quoted in Turkey stock exchange who found significant impact of intangible assets on performance of firms.

Finally, the study found that current assets have positive and significant effect on the performance of manufacturing companies quoted selected of Nigeria. This finding indicates that increasing the investment level in current assets can positively increase the performance

of manufacturing companies in Nigeria. Thus, increasing the investment in current assets can significantly improve the performance of manufacturing companies in Nigeria. The finding from the study is in line with the findings from similar study carried out in Kenya by Nyamasege, Okibo, Nyang'au, Sang'ania, Omosa, and Momanyi, (2014) on the nexus capital structure, asset's structure and firm performance among manufacturing quoted in Nairobi Stock exchange. But the finding was contrary to that from the study of Mwanik and Job (2018) Mwaniki and Omagwa (2017) in Kenya, on the effect of asset structure on the firm performance of firms quoted under the manufacturing sector of Nairobi securities exchange Kenya.

CONCLUSION AND RECOMMENDATION

The recent economic instability couple with the desire for wealth maximization has led management of most company to explore better ways to invest scarce resource in other to achieve the organizational goals. Property, plant and equipment reveals the physical production capability of manufacturing companies. They are product of company-specific decision which determines the ability of manufacturing company to produce and guarantee production stability. This study evaluates how those assets composition impact on their performance. Company performance used in this study was proxy by return on assets of manufacturing companies quoted in Nigeria Exchange Group. The study covers a period of ten years and analyzed the data using regression analysis. No manufacturing company can operate successfully with only one class of assets. All manufacturing companies uses classes of assets in its operation. This study has established the appropriate mix of the various classes of assets that would lead to the achievement of wealth maximization objective of the firms. The findings of this study have shown that the composition of assets can affect the level of performance and some assets have more influence on the level of performance of manufacturing companies than others. The composition of assets positively drives about 64.5% of performance of manufacturing companies in Nigeria. Property, plant and equipment, and current assets are the classes of assets that significantly affect the performance of manufacturing companies in Nigeria than other classes of assets. While the combination of property, plant, equipment with current assets, financial assets, and research and development positively and significantly affects the performance of quoted manufacturing companies in Nigeria. Consequent on the findings of the study, the following recommendations are hereby given:

1. Management of manufacturing companies in the Nigeria should formulate policy that will enhance their investment in property plant and equipment as this will increase the performance of their companies and enable them achieve shareholders wealth maximization objective.
2. It was also recommended that management of manufacturing companies in their effort to enhance the performance of manufacturing companies should increase the level of the of on intangible assets. Increasing the investment in intangible assets would positively enhance its effect on the performance of their firms.
3. The study recommends that management of manufacturing companies should increase their investment in current assets as this will enhance their corporate performance.
4. Finally, it is recommended that further empirical studies be carried out adopting cross sectional approach. Also, more work should be conducted to examine the moderating role of controlling interest in assets composition and how it impacts on performance of firms.

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