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EFFECT OF ASSETS COMPOSITION ON FINANCIAL PERFORMANCE OF INDUSTRIAL GOODS IN NIGERIA

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Abstract
The study ascertained the effect of assets composition on financial performance of industrial goods in Nigeria. Working capital was used as independent variable and return on equity as the dependent variable. The study employed Ex Post Facto research design. Twelve industrial goods firms consists the population of the study. Data were extracted from audited annual accounts of industrial goods firms in Nigeria. The result showed that P-value of the test was 0.000 less than 0.05 (5%), this study upholds that working capital has significantly affect financial performance of listed industrial goods firms in Nigeria. Based on the findings, the Study recommended that the management of industrial goods in Nigeria should ensure that it takes into consideration the quality of working capital in order to ensure they contribute positively to the productivity of the firm, so as to enhance the overall profitability of the firm.

Key words: Assets composition, Financial performance and Working capital

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Introduction

The goal of every investor in to maximize wealth through increased performance which give positive impression of the firm to the investors. A firm with the right mix of assets has several benefits ranging from low borrowing cost, customer confidence, lender confidence, appropriate liquidity ratio. Having the required assets can enable the firm to meet its production requirement, meeting lender/debt serving requirement and achieve better performance. Asset composition reveals the investment pattern, future survival, size and ability of the firm to increase its operating capacity and earn more. Oliver, Ugbor and Chukwuani (2017) documented that the goal of every investor in to maximize wealth through increased performance which gives positive impression of the firm to the investors

The various proportion of various assets own and used by the firm in its production process (Saleh, 2018). Assets used in firms can be classified into fixed and current assets, intangible and intangible assets based on the convertibility and their physical substance (Riyanto, 2013). The structure consists of tangible and intangible assets, current and fixed assets that make up the total assets of the firm. It reveals the investment pattern, future survival, size and ability of the firm to increase its operating capacity and earn more. Oliver, Ugbor, and Chukwuani (2017) documented that assets structure comprises of tangible and intangible assets.

A firm with the right composition of assets has several benefits ranging from low borrowing cost, customer confidence, lender confidence, appropriate liquidity ratio. Having the required assets can enable the firm to meet its production requirement, meeting lender/debt serving requirement and achieve better performance. Campello and Giambona (2019) stated that the quantity and quality of the assets and nature of the assets used as collateral. Having the right non-current asset enables the firms borrow using the asset as collateral in obtaining the loan facility's which is used to meet operational and investment requirement therefore giving room for more income and profit. Using assets as collateral gives the lender the hope of recovering its resources even at the liquidation of the firm. This gives the lender the assurance; hence the lender tends to issue out the facility at favorable terms. The access to the loan facility increases the debt profile of the firm and enhances the firm value if the debt facilities are employed in investment with positive net present value. Alipour, Mohammadi and Derakhshan (2019) reported that tangible asset determine firm's productive capability. Therefore, there is an effect of asset structure on firm value. Investing in the two basic classes that make up the assets structure (noncurrent and current assets) require a great investment which determines the future of the company. Campello and Giambona (2019) affirmed that the firm held investments in fixed and current assets with the aim of recovering the cash invested in such assets. Operational managers who employ diverse assets bear the majority of the duty for asset management (Van Horne, 2017).

Asset composition reveals the investment pattern, future survival, size and ability of the firm to increase its operating capacity and earn more. Oliver, Ugbor and Chukwuani (2017) reported that the goal of every investor is to maximize wealth through increased performance which gives a positive impression of the firm. A firm performance can be assessed based on the financial and non-financial criteria. While the latter entails an assessment based on qualitative factors such as number of customers, the firm's market share, the quality of product, and so on, while the former could be ascertained using various financial indicators or ratios such as profitability, liquidity, market and efficiency ratios (Shim, 2022). Performance is the process of measuring the result of a firm's policies and operation in monetary terms. It is used to measure firm's overall financial

health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sector in aggregation. Performance can be measured using different measures. When the economy grows, the manufacturing sector will see an increased demand for higher end product. Evaluating the effect of assets composition on performance of industrial goods firm in Nigeria enables decision makers to judge the results of business strategies and activities in monetary terms.

More so, most of the related studies were conducted in the banking industry, consumer goods firms and service firms. There is a observed dearth of research on assets composition and financial performance in industrial goods firms in Nigeria has been considered as another motivation to execute this study. This study was conducting on industrial goods firms which most prior studies are ye to consider in their research. This study therefore comes to fill the gap by establishing whether there is a relationship between assets composition and performance of industrial goods firms in Nigeria. This study therefore, sought to determine the effect of working capital on financial performance of listed industrial goods firms in Nigeria.

Conceptual Review

Assets Composition

The United States Financial Accounting Standards Board Concepts Statement 6, pose its own definition on asset. The board stated that assets as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events". Also, the United States Institute of Management Accountants (2015) defined assets as "any owned physical object (tangible) or right (intangible) having economic value to its owners; an item or source of wealth with continuing benefits for future periods, expressed, for accounting purposes, in terms of its cost, or other value, such as current replacement cost". United States Institute of Management Accountants further stated that asset composition is seen as one of the crucial strategies used to attain profitability and to understand the financial performance of an organization. The institute also added that assets composition captures two categories, the non-current asset (fixed asset) and the current asset. Assets mix has been defined by using various aspects by the different scholars based on the direction of the study. Koralun-Bereźnicka, Zung and Runus (2019) stated that asset composition simply entails a combination of the various asset components which were identified as: fixed assets; intangible fixed assets and current assets, including cash in hand as well as cash at bank.

Working Capital

Agbetunde (2022) opined that working capital function is aimed to generate maximum return through the effective managing of current assets and current liabilities. Ishak, (2020) pointed out that recently, most of the firm across various sector realized the efficient working capital management as important for firm sustainability and growth. Working capital as defined to Filbeck and Krueger, (2017) is the equivalent to the part of the current assets financed with equity, provisions for liabilities, long-term liabilities, and the remaining part of accruals. It is the capital that finances only that part of the current assets that are not financed with short-term liabilities. There are other definitions of net working capital in the literature. It is often referred to as working capital, net working capital (NWC), or circulating capital. In the literature, the concept of working capital is most often considered in net or gross terms. On the other hand, gross working capital is current assets used in the normal operating cycle. The term "working capital" is derived from an old Yankee travelling merchant who loaded goods onto his cart and

was on the way to sell them. These commodities were referred to as "working capital" as he had to circulate them in order to make a profit. Ishak, (2020) recommends that firm profitability is efficiently influenced by working capital management. Policies regarding working capital and its management is important to firm because of their sometimes inability and constrain in obtaining capital funds. The objective of working capital is to utilize each component of working capital at an optimum level. Thus, working capital is related with management strategies of inventory, account payable, account receivable, marketable securities and cash and their interrelationship (Abuzayed, 2018). Insufficient short-term assets result to liquidity risk, conversely excessive investment in current assets can reduced the firm's profitability if not well managed.

Positive working capital means the financial security of an enterprise. Current assets are financed with short-term liabilities and with fixed capital. The part of the fixed capital that finances the current assets is called positive net working capital (Biger, 2019). The positive working capital is the liquidity reserve that provides security for future situations in which cash shortages arise while negative net working capital is when short-term liabilities exceed current assets. It is a dangerous situation for enterprises and it means some problems with the payment of current liabilities. A firm balance working capital to pay operational expenses and short-term obligation to ensure firm sustainability and growth. In addition, another important factor to efficient working capital of firm may consider ownership structure and corporate governance. Ra'Ed, Idries, and Mohammad (2018) reported that poor working capital have an inverse effect on profitability. Good working capital management is essential priority for board of director and corporation management because it can have positive effect on firm's performance. The various studies' empirical evidence (Lamberson, 2020; Afza & Nazir, 2022) have explained that measuring working capital is not easy due to business models' differences and changing risk level in dissimilar economic condition.

Firm Leverage

Ataman and Akay (2020) stated that firm leverage is the degree to which an organization uses fixed-income securities, such as debt and preferred equity in business activities. When a firm maintains a high degree of financial leverage, that firm is bound to pay high interest payments. Leverage is also called gearing. From another dimension, Welch (2019) defined the term, leverage, as "the degree of sensitivity of value of equity ownership with respect to changes in the value of the firm". It is thus observable that firms with debts and or any non-debt long term liability in their financial structure are leveraged. As firms grow, investment opportunities grow and share-holders' fund becomes insufficient to solely finance the available juicy investment. The need for more funds arises. Thus, firms borrow from outside (financial leverage) or from inside - their employee, retirees, government, and so on (operating leverage). Binsbergen (2019) noted benefit in introducing debt into a firm which is tax savings. Due to the tax deductibility of interest, firms consider financing their operations with debt. Another benefit as observed by Gupta (2020) is that of committing managers to operate more efficiently. By including debt in the financing options, a firm has to service and repay the lenders, and this requires an extra cash flow. The manager has to go the extra miles bearing this in mind and that he also need to generate additional income to show the shareholders as compensation for risking debt into their venture. This means that any suboptimal activity that may generate lesser cash flow will be avoided.

Financial Performance

Zheng (2019) stated that performance is a compound evaluation of how well a firm effectively and efficiently carries on its vital functions which are typically the market, financial and shareholder performance. The Corporate performance of a firm deals with the "health" of an organization, which over time has been traditionally evaluated in terms of financial performance. Corporate performance entails the actual output of a firm as measured against its projected results (or goals and objectives) which aims to reflect the effectiveness and efficiency to which management have utilized its resources (Ayeni, 2022).

Various performance indicators have been employed by researchers and other users of the financial statement in its studies, some of which includes the use of statistical techniques such as multiple regression and discriminant analysis. Others consist of single variables that are based on absolute values, percentage or ratios, example of which can be found on accounting-based measures, i.e., figures and ratios that are gotten from the financial statements such as return-on-assets (ROA), return-on-equity (ROE), return on capital employed (ROCE). For the purpose of this study, performance is restricted to return on equity. Return on equity (ROE), or the financial return, is one of the most important indicators that shareholders use to evaluate the return of the capital invested in the company (Cace *et al.* 2011). Higher financial return coupled with increased reinvested capital will accelerate the future growth of any company (Alcock and Steiner, 2017).

Empirical Review

Yanti, Brahmayanti and Ratnawati (2023) examined the effect of asset structure, Capital Structure, and structure ownership against performance finance and risk business in Indonesia in the years 2019–2021. Data processing techniques in research used PLS with Outer Model Analysis tests, Inner Model analysis tests, and Hypothesis Testing. The study revealed that asset structure is not influential and significant to Risk business; Asset Structure has no significant effect on financial performance. Lazaridis and Tryfonidis, (2022) ascertained the firm performance and working capital management on Athens stock Exchange firm, the sample size of this study was 131 over four years data from 2010- 2020. Regression analysis was used to test the data. The study revealed that leverage and cash conversion cycle is significantly negatively affecting firm performance. Korankye and Adarquah (2020) studied the effect of working capital on profitability of firms and collected data from 2012 to 2018 of the listed companies in Ghana. They used the regression analysis and found that current assets have a positive and significant effect on profitability. Eberhar, Appah, and Linus (2020) determined the effect of asset composition growth and shareholders experience. Data was collected from listed financial firms in France for period 2016 to 2019. The analysis revealed that asset composition growth affect shareholders experience implying significantly positive long-term abnormal stock returns follow. The study concluded that the market does not quickly recognize the value of intangible asset investments (R & D). The results indicate that R&D increases positively affect all four categories of firms. The study suggested that high-tech firms exhibit better abnormal operating performance than low-tech firms. Abdulrahman and Musa (2020) studied the determinants of financial performance of firms listed in the consumer goods sector of Nigerian economy. The study covered the period, 2013 to 2018 using a sample of nine firms. Panel data was used which consists of 54 firm year observations analyzed using multiple regression model. Ordinary Least square model was employed to test the effect of firm size, leverage, board size and audit committee size on firm performance proxy by Returns on Assets (ROA). The outcome of the

analysis revealed that firm size has a coefficient of -0.08 which is significant at 1% (p=0.008), liquidity is also significant at 1% (p=0.000) with 0.15 as coefficient and board size has a coefficient of 0.011 which is significant at 5% (p=0.031). Alavinasab and Davoudi (2019) examined 147 companies listed in Tehran Stock Exchange over a period of 2015 to 2018with the aim of examining the relationship between current asset growth and profitability. Data was collected from published annual report of 147 companies listed in Tehran Stock Exchange from 2015 to 2018. Using regression analysis was found that there is a significant relationship between current asset growth and profitability. Murat and Derya (2019) ascertained the effect of assets composition, sustainable growth on value of quoted Turkey firm. Using Ordinary least square and Heckman two-stage estimation in analyzing the panel data of innovative property, and economic competence from sample of 1,353 between 2005 and 2013. The study revealed that the cumulative value of intangible assets has positive effect on the growth rates. The study further shows that computerized database and economic competence effect on the growth rates and value of firms quoted in Turkey exchange. Zaher (2019) examined the relationship between firm size, asset composition, and firm value. The effect firm size, and asset composition has on the value of firms. Descriptive research design and adopted the ordinary least square regression in analyzing the data collected from mining and extraction firms between 2010 and 2018. The finding shows that the combination firm size and asset composition has positive significant effect on value of mining and extraction industry. Mathuva (2019) determined the effect of working capital management on the performance in Kenya. Data were collected from a sample of 30 firms listed in Nairobi Stock Exchange for a period of sixteen years (2011 to 2018). Fixed effect regression model of data analysis was used to analyze the collected data. Direct relationship was detected between the time taken to collect cash from customers and the firm's profitability. This implies that firms that make more profits take less time to collect cash from their customers when compared to less profitable firms that take longer time to collect cash from their customers. Also a positive relationship was detected between the time when inventories were brought in and sold and profitability. Azam and Haider (2019) investigated the effect of working capital management on firms‟ performance for non-financial institutions listed in Karachi Stock Exchange (KSE30). A panel data was collected from 21 non-financial firms listed in Karachi Stock Exchange for a period of 10 years (2011 to 2018). Canonical Correlation statistical tool was used to analyze the collected data so as to ascertain the relationship between working capital management and firm's performance. Result shows that current asset growth has significant effect on firms‟ performance and it is concluded that managers can increase value of shareholder and return on asset by reducing their inventory size, cash conversion cycle and net trading cycle. Increase in liquidity and time period to supplier will also lead to firms‟ overall performances.

Chukwu, Nduka and Roseline (2018) investigated the effect of intangible non-current assets on the stock value of listed deposit money banks in Nigeria from 2014 - 2017. They specifically looked at the effects of goodwill and software costs on the Earnings per share of quoted banks. The results revealed that computer software costs were not significantly related to market value while goodwill arising from business combination was positively related to market performance. Ferreira, Campell and Juna (2018) sought to identify the effect of different classes of intangible non-current assets on the profitability of 25 major technological companies in the world, for a four-year period, 2014–2017. The study used Pearson's correlation coefficients, and multiple linear regression models to assess the relationship and empirical evidence from the study shows a negative effect of some of the intangible assets disclosed on companies' financial position on performance. Okwo, Ugwunta and Nweze (2017) studied the effect of asset composition on

profitability using firms in Nigerian Brewery Industry. A cross sectional data were gathered from the annual reports of a sample of four firms from the industry for a period of 2000 to 2015. The four firms that constitute the sample were those quoted on the Nigerian Stock Exchange and their inclusion in the analysis was based on availability of data for the sample period. The firms that constitute the sample were, Nigerian Breweries Plc, Guinness Nigeria Plc, International Breweries Plc and Champion Breweries Plc. The result of the test of hypothesis shows that the level of investment in fixed assets does not strongly and significantly effect on the level of reported profit of Breweries in Nigeria.

METHODOLOGY

This study adopted *Ex Post Fact* research design. *Ex-post facto* means after the event, meaning that the events under investigation had already taken place and data already exist.

The population of the study consists of twelve (12) listed industrial goods firms in Nigeria, according to the Nigeria Exchange Group (2022), as at 31st December 2022.

Since the population size is not large, the researcher used consensus sampling to adopt all the population for the study.

Data were generated from the annual reports and accounts of industrial goods firms in Nigeria 2013 to 2022. The variables include; working capital for independent variable, while return on equity of financial reports represents dependent variable, and firm leverage for the control variable.

Model Specification

The study adapts the model of Saleh (2018). The model establishes the relationship between the dependent firm value and independent variables: tangible fixed assets, intangible fixed assets. Saleh's model is STR = TANG, INTANG, CR

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

$ROE_{ìt} = \beta_O + \beta_1 LEV_{ìt} + \beta_2 LEV_{ìt} + \mu_{ìt}$

Where:
ROE = Return on equity
WKC = Working Capital
LEV = Leverage
β_O = Slope Coefficients
ì=ìth Firm
t=Time Period
μ = Error Term

Method of Data Analysis

Data were analyzed with descriptive statistics, and the hypotheses will be tested with Pearson correlation, and multiple regression analysis. Descriptive statistics employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics will also be utilized with the aid of E-Views 9 using regressions analysis: Regression analysis predicts the value the dependent variable based on the value of the independent variable and explains the impact or effect of changes in the values of the variables.

Decision Rule

Accept the alternative hypothesis, if the Probability value (P-value) of the test is less than 0.05 (5%). Otherwise reject.

DATA ANALYSIS AND RESULTS

Table 1: Descriptive statistics

	ROE	WKC	LEV
Mean	-0.040907	6.542023	0.095126
Median	-0.038126	7.198008	0.067489
Maximum	0.009732	11.24961	0.230298
Minimum	-0.096754	1.565380	0.032253
Std. Dev.	0.033481	2.485805	0.067239
Skewness	-0.159036	-0.284543	0.750351
Kurtosis	2.027835	3.155781	2.208741
Jarque-Bera	26.15684	8.703190	71.95496
Probability	0.000002	0.012886	0.000000
Sum	-24.54438	3925.214	57.07549
Sum Sq. Dev.	0.671469	3701.357	2.708095
Observations	120	120	120

Source: E-View output, 2024

Interpretation of Descriptive Statistics

The descriptive statistics in table 1 revealed that the return on equity (ROE) of the sampled companies is -0.041; the maximum of 0.009 with a minimum of -0.096 with a standard deviation of 0.033. The mean of working capital ratio (WKC) is at the average of 0.095; standard deviation of 0.067; a maximum observation of 11.250 with a minimum value of 0.565. The mean of firm leverage (LEV) is at the average of 0.095; standard deviation of 0.067; a maximum observation of 0.230 with a minimum value of 0.322.

Skewness is the measure of how much the probability distribution of a random variable deviates from the normal distribution. Table 4.1 delineates that the probability distribution for WKC (0.013) and LEV (0.000) are positively skewed distribution.

Test of Hypothesis

Ho_1: Working capital effect of on financial performance of listed industrial goods firms in Nigeria.

Table 2: Panel Least Square Regression analysis testing the effect between ROE, WKC, and LEV

Dependent Variable: ROE
Method: Panel Least Squares
Date: 06/18/24 Time: 08:36
Sample: 2013 2022
Periods included: 10
Cross-sections included: 12
Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.017806	0.005127	3.473208	0.0006
WKC	-0.007045	0.000564	-12.48410	0.0000
LEV	-0.132717	0.020863	-6.361371	0.0000

R-squared	0.207073	Mean dependent var	-0.040907
Adjusted R-squared	0.204417	S.D. dependent var	0.033481
S.E. of regression	0.029864	Akaike info criterion	-4.179365
Sum squared resid	0.532426	Schwarz criterion	-4.157380
Log likelihood	1256.809	Hannan-Quinn criter.	-4.170807
F-statistic	77.95341	Durbin-Watson stat	1.850077
Prob(F-statistic)	0.000000		

Source: E-Views 9.0 Correlation Output, 2024

Interpretation of Regression Result

In Table 2, R-squared and adjusted Squared values were (0.207) and (0.204) respectively. The indicates that all the independent variables jointly explain about 21% of the systematic variations in performance of our samples companies over the ten years periods (2013-2022). Table 4.5 revealed an adjusted R^2 value of 0.21. The adjusted R^2, which represents the coefficient of the determinations imply that 21% of the total variation in the dependent variable (return on equity) of quoted industrial goods firms in Nigeria is jointly explained by the explanatory variables (WKC and LEV). The adjusted R^2 of 21% did not constitute a problem to the study because the F- statistics value of 77.95341 with an associated Prob.>F = 0.000 indicates that the model is fit to explain the effect expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used. The value of adjusted R^2 of 21% also shows that 79% of the variation in the dependent variable is explained by other factors not captured in the study model.

Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 4.5, it is observed that DW statistics is 1.850077 and an Akika Info Criterion and Schwarz Criterion which are 4.179 and 4.157 respectively also further confirms that our model is well specified. Table 4.5 indicates that working capital of firms have a negative significant effect on return on equity of listed industrial goods firms in Nigeria. This can be observed from the beta coefficient (β_1) of -0.007045 with p value of 0.000 which is highly statistically significant at 5% level of significance.

Decision

Since the P-value of the test was 0.000 less than 0.05 (5%), this study upholds that working capital has significantly affect financial performance of listed industrial goods firms in Nigeria. Thus, null hypothesis is Rejected and alternative hypothesis Accepted.

Discussion and Conclusion

The study ascertained the effect of assets composition on financial performance of industrial goods in Nigeria, using working capital as independent variable and return on equity as the dependent variable. Data were generated form financial statement of industrial goods firms in Nigeria. The result showed that P-value of the test was 0.000 less than 0.05 (5%), this study upholds that working capital has significantly affect financial performance of listed industrial goods firms in Nigeria. This result is in agreement with Lazaridis and Tryfonidis, (2022) indicated that leverage and cash conversion cycle is significantly negatively affecting firm performance. Agbetunde (2022) working capital function is aimed to generate maximum return through the effective managing of current assets and current liabilities. Ishak, (2020) who reported that firm profitability is efficiently influenced by working capital management. Korankye and Adarquah (2020) found that current assets have a positive and significant effect on profitability. Based on the findings, the Study recommended that the management of industrial goods in Nigeria should ensure that it takes into consideration the quality of working capital in order to ensure they contribute positively to the productivity of the firm, so as to enhance the overall profitability of the firm.

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