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Assets Management and Performance of Selected Quoted Firms in Nigeria

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ABSTRACT:- The study examined asset management and performance of selected quoted firms in Nigeria. Specifically, the study analyzed effect of current asset on the profit after tax, effect of non-current asset on the profit after tax, and effect of debt-equity ratio on the profit after tax of ten (10) quoted firms in Nigeria for ten years spanning from 2007 to 2016. Panel data were collected across the selected quoted firms over the time period covered in the study. Data for the study were sourced from the annual reports of the sampled firms. Data were analyzed using panel techniques of estimation including Pooled OLS, fixed effect and random effect estimation, alongside post estimation test such as restricted F-test, Hausman test, Wald test of heterogeneity, Wooldridge autocorrelation test and Pesaran test of cross-sectional dependence. Results revealed that current assets exert insignificant positive impact on profit after tax to the tune of .0404019 ($p=0.250 > 0.05$), non-current assets exert significant positive impact on profit after tax, with coefficient estimate of .0685197 ($p=0.000 < 0.05$), Debt-equity ratio on the other hand exerts insignificant negative impact on profit after tax, with reported coefficient estimate of -719.1976($p=0.307 > 0.05$). The study found out that assets management contributed meaningfully towards improved performance of quoted firms in Nigeria, especially when measured in terms of profit after tax, on the other hand, the study established that increase in the leverage ratio of quoted firms in Nigeria has the capacity to affect improved performance especially when measured in terms of profit after taxQuoted firms in Nigeria should ensure to maintain a non-current asset positive that is substantial for sustaining their performance and help to attain market stability that can culminate into higher market share, expansion and growth. firms should look into management of leverage ratio, so as to reduce the likelihood of reduce performance due to rising debt-equity ratio and also designed an internal monitoring system that could help to maintain a balance between current assets and non-current assets in order to guide against loss of operational efficiency that can ensue when the importance of non-current assets were overemphasized at the expense of current assets.

Keywords:- Assets Management. Current Assets, Non-current Assets, Leverage Ratio, Performance, Profit After Tax, Quoted Firms

I. INTRODUCTION

Universally, the ultimate aim of every profit-making organization, irrespective of size, type or nature of business, is profit maximization. Shareholders are always profit-driven hence, the primary objective of every manager is to ensure that resources are judiciously managed with a singular aim of profit maximation. Profitability evaluates the efficiency with which plant, equipment; and current assets are transformed into profit. The composition of a firm's assets and decisions made concerning them are major determinants of profitability for any business (Egbide, 2009). Basically, profitability of manufacturing firms could be measured using Return on Assets (ROA) which centered on the ability to generate income through the utilization of a firm's assets, Return on Equity (ROE) that revolves how much profit is earned relatively to shareholders' equity, Earning per Share (EPS) represents the portion of a company's earnings, net of taxes and preferred stock dividends, that is allocated to each share of common stock, and Profit After Tax (PAT) which means the amount earned by a firm after all taxation related expenses have been deducted (Gul, Faiza & Khalid, 2011; Falope & Ajilore, 2009).

In Nigeria, it appeared that the unfriendly operating environment, in which many manufacturing firms have found themselves, is really hindering their profit-making efforts; inclusive is the unprofessional acts of managers to enrich their pockets at the expense of the shareholders wealth. As noted by Ojo (2017), many firms in Nigeria are not performing as expected thus, they subscribe to creative accounting that present figures and all necessary facts in a misleading favourable light. It appeared that all these shortcomings that engulfed firms in the manufacturing sector stem from poor assets management by the management team whose personal aims somewhat override the goal congruence. The importance of assets management in an organization cannot be underplayed. This underpins that management of assets management is central to the survival and growth of any organization. Assets management is as inevitable in business as blood is in human body (Umara, Sabeen & Qaisar, 2009). The need for proper management of a firm's assets is imperative just as circulation of blood is very necessary in the human body to maintain life, the flow of funds is very necessary to maintain business. If it

becomes weak, the business can hardly prosper or survive (ALShubiri, 2011). This informed that assets management is what makes a business to run effectively and efficiently.

Asset management refers to systematic approach to the governance and realization of value from the things that a group or entity is responsible for, over their whole life cycles. It may apply both to non-current assets and current assets (Vanier, 2001). Put differently, asset management is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets in the most cost-effective manner (including all costs, risks and performance attributes (Ani, Okwo &, Ugwunta, 2012). Going by these descriptions, assets management is indispensable to the growth and profitability of firms, especially those in the manufacturing sectors. The going concern ability of an organization is greatly anchored on the continued solvency of that organization (Enyi, 2011); and to be solvent, assets management must be accorded a great importance at all levels, at all time. Basically, assets are divided into two namely non-current assets and current assets. By description, non-current assets are tangible assets used by firms to create more wealth and they are not limited to plant, machineries, land, and motor vehicles. The management of these short terms assets falls in the area of current asset management (CAM). Current assets could represent a significant component of firm's total assets. For a number of organizations, current assets management can make or mar the organization's financial performance.

The complexity of assets management is to accomplish the dual objectives of profit maximization which is the primary objective of every shareholders and optimal liquidity necessary for the running of operational activities. Thus, to resolve such dilemma and ensure profit maximation is attained at not the expense of optimal liquidity, there should be concession between the two goals of companies. Single goal will never be achieved at the expense of other as both goals have their individual significance to companies. If companies are not concerned regarding profitability, they could not last for a longer time. On the other hand, if companies do not worry about liquidity and spend much on both non-current and current assets, they might face the problem of bankruptcy or insolvency. Hence, assets management is a key to profit maximization of firms, especially in the manufacturing firm.

Despite the importance attached to the efficacy of assets management to the performance of organizations, there are only few studies on the effect of assets management on profitability of quoted firms in Nigeria. Much of the studies have been restricted to working capital management in relation to profitability of companies. Therefore, did assets management has nothing to do with the profitability of listed firm in Nigeria? The available studies have reported disaggregated findings resulting to either positive or negative effect on profitability. Studies like Mutungi (2010), Onodje (2014), Waithaka (2012), Yahaya, Kutigi, Solanke and Usman (2015) reported a positive relationship between assets management and the profitability of firms while studies like Samilogu and Demirgunes (2008), Osundina (2014) and Mohammad and Noriza (2010) reported a negative relationship.

Similarly, existing studies were reduced to the usage of descriptive statistics, linear regression and correlation to determine the nexus between assets management and firms' profitability. To close all these gaps and push forward the frontier of knowledge on how the profitability of firms could be enhanced through assets management, this study was developed to examine asset management and profitability of quoted firms in Nigeria with a special focus on current assets and non- current assets and financial leverage as the predictor variables and Profit after Tax (PAT) as the outcome variable.

II. CONCEPTUAL ISSUES

2.1.1 Concepts of Assets

Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity. Asset also refers to an items or properties owned by persons or company, which having value and available to meet debts and commitments. Assets are useful or valuable resources owned by a firm, these are normally split into current assets and non-current (Long term) assets. According Sullivan and Sheffrin (2003), anything tangible or intangible that can be owned or controlled to produce value and that is held by a company to produce positive economic value is an asset. Simply stated, assets represent value of ownership that can be converted into cash (although cash itself is also considered an asset. The balance sheet of a firm records the monetary value of the assets owned by that firm. It covers money and other valuables belonging to an individual or to a business. Basically, we have two types of assets namely current assets and non-current assets.

Current asset was described as the life blood of every firm, the primary task of every manager is to keep current assets flowing and use the cash flows to generate profits (Flanagan, 2005). Current asset management is the handling of the current assets of a firm. Any asset that a firm has that is the equivalent of cash or can be liquidated into cash in the period of a year is considered a current asset. Typically, current assets are the inventory a company has, as well as the accounts receivables and any current investments it has in place.

Non-current assets, also known as tangible assets or property, plant and equipment is a term used in accounting for assets and property that cannot easily be converted into cash. Similarly, Ojo (2017) define non-current assets as those assets whose future economic benefit is probable to flow into the entity, whose cost can be measured reliably. Non-current assets are of two types: freehold assets – assets which are purchased with legal right of ownership and used, and leasehold assets – assets used by owner without legal right for a particular period of time (Ojo, 2017). Moreover, non-current asset can also be defined as an asset not directly sold to a firm's consumers/end-users. As an example, its non-current assets would be the oven used to bake bread, motor vehicles used to transport deliveries, cash registers used to handle cash payments, etc.

2.1.2 Asset Management

Asset management refers to systematic approach to the governance and realization of value from the things that a group or entity is responsible for, over their whole life cycles. It may apply both to non-current assets and current assets (Vanier, 2001). Put differently, asset management is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets in the most cost-effective manner (including all costs, risks and performance attributes (Okwo, Ugwunta & Nwese, 2012). Going by these descriptions, it therefore enlightens that assets management is indispensable to the growth and profitability of firms, especially those in the manufacturing sectors. Asset management refers to applying performance management principles to the management of physical assets in firms and provides a strategic approach for the preservation, rehabilitation and maintenance of these assets (Mutungi, 2010).

Asset management is one of the most advanced examples of the application of performance management principles in firms. The analytic tools, data, and experience in applying performance management principles are more advanced in asset management than in many other aspects of firms. Because most of the firms' facilities have long service lives, asset management must have a long-term focus. Many asset management programs focus primarily on performance measures that reflect the key metrics related to the physical health of the facilities. However, there are other physical assets that support a range of performance goals that need to be incorporated into a comprehensive asset management program. These other performance goals include safety, operations as well as other support facilities and equipment. It must be noted that the core principles of performance management apply to all aspects of firm performance.

2.1.3 Financial Leverage

Financial leverage is a measure of how much firms use equity and debt to finance its assets. A company can finance its investments by debt and equity. According to Brigham and Houston (2009), financial leverage is the number of securities that use profits or returns as company's capital structure. Financial leverage reflects amount of debt used as company's capital structure (Guney, Ozkan & Ozkan, 2007). Relationship between leverage and cash holding can be positive or negative relationship. If a financial leverage is a cash substitution that is used to invest then relationship between financial leverage and cash holding is negative. However, along with large amount of leverage, company will accumulate large sums of cash to reduce risk of financial difficulties and bankruptcy thus relationship between leverage and cash holding can be positive. Based on the carried out by research of Wenyao (2007), managers who want to improve shareholder's welfare, must design cash holding of company appropriately. If high financial leverage is considered as a potential bankruptcy due to high agency problem, impact of financial leverage to cash holding is positive. Debt ratio, equity ratio and debt to equity ratio are used to measure leverage performance.

2.1.4 Profitability/Performance Firm

Firm profitability is the ability of a firm to generate revenue in excess of cost, in relation to the firm's capital base. A sound and profitable sector is better able to withstand negative shocks and contribute to the stability of the financial system. Ongore and Kusa (2013) defined profitability a relationship between the profits generated by the enterprise and investments that contributed to the achievement of these profits, and profitability ratios measure the efficiency with which a company turns business activity into profits. Profit margins assess the ability to turn revenue into profits. Return on assets measures the ability to use assets to produce net income. Return on equity compares the net income to shareholder equity. This is the most common measure of firm's performance. It examines how successful a firm utilizes its operating resources to earn income. It also provides reasonable clue to the effectiveness of firm's operation. Profit after Tax (PAT). This is the net profit earned by the company after deducting all expenses like interest, depreciation and tax. PAT can be fully retained by a company to be used in the business. Dividends, if declared, are paid to the shareholders from this residue (Gul, Faiza & Khalid, 2011; Falope & Ajilore, 2009).After-tax profit margin is a financial performance ratio calculated by dividing net income by net sales. A company's after-tax profit margin is significant because it shows how well a company controls its costs.

2.2 Theoretical Literature

Agency and pecking order theories were used to explain existing relationships between assets management and the profitability of firms

2.2.1 Agency Theory

Jensen and Meckling (1976) asserts that a firm can be seen as a nexus of a set of contracting relationships among individuals by means of which shareholders (principal) delegate every day decisions about the firm to managers (agent) who should use their specific knowledge and the firm's resources to maximize principal agent's return. However, the interest and decisions of mangers do not always align to the shareholders interest, resulting in agency costs or problem. Jensen and Meckling (1976) defined agency cost as the sum of the expenses in monitoring by the principal, the bonding expenditures by the agent and the inevitable residual loss derived from the separation of ownership and control. The cause of agency problems is the separation of ownership and control.

This theory is relevant to this study such that assets management are done by the managers saddled with the responsibility of ensuring that shareholders' fund is judiciously utilized to yield the desired returns. Shareholders must therefore encourage management to utilize internal funds to their benefit. It was suggested that when managers have a substantial part of their human capital allocated in company's share, they tend to take decisions to enhance the profitability of company's survival. These decisions can be reflected in a conservative management of assets, reducing the risk involved in the business operation, such as: to keep high level of inventories beyond the process cycle needs, to offer credit terms above the product turnover, to accept low payment terms not aligned to the market practices, and so on. These investment decisions would be translated in excess of working capital. The theory has been coitized to be one-sided because it only centered fund could be sourced to ensure proper management of assets and improved the profit level of the company.

2.2.2 The Pecking Order Theory

Developed by Myers and Majluf, (1984) The pecking order theory takes into consideration the information asymmetry which indicates that managers know more about the firm's value than potential investors (Myers & Majluf, 1984). It was pointed out that the order is based on the consideration that resources generated internally do not have transaction costs and the fact that issuing new bonds tend to send positive information about the company while issues of new stock signal negative information about the issuing company. This explains why more profitable companies usually prefer to hold less debts and why the less profitable companies issue bonds to finance investment decisions in fact, the less profitable companies also prefer issuing debts before the decision to issue new stocks (Myers & Majluf, 1984).

The theory posited that not only managers of less profitable companies but also managers of more profitable companies would choose a more aggressive working capital policy, pressuring for lower level of current assets and higher level of financing through suppliers, in order to source internally the needed funds to finance their companies and to avoid issuing debts and equity.

2.3 Empirical Review

Universally, literature is replete of studies devoted to the relationship between assets management and profitability of firms. In the developed countries, Samiloglu and Demirgunes (2008), Carried out studied on the impact analysis of current asset management on profitability of firms with reference to Turkey. The quarterly data was collected for a sample of firms listed at Istanbul Stock Exchange for the period 1998 to 2007. Correlation and regression analysis were used for the analysis. The results suggested that receivable and inventory period with liquidity has a negative impact on the profitability of the firm while growth was positively associated with profitability. However, CCC, size and financial assets did not have significant effect on the profitability of the firms.

Niresh (2012) investigates the relationship between working capital management and financial performances of listed firms in Sri Lanka. A sample of 30 firms listed on the Colombo Stock Exchange was used for this study. Data were collected from annual reports of sampled firms for the period of 2008 to 2011. Performance was measured in terms of return on assets and return on equity while cash conversion cycle, current assets to total assets and current liabilities to total assets were used as measures of working capital management. Correlation and regression analysis were used for the analysis. The findings reveal that, there is no significant relationship between cash conversion cycle and performance measures. The study also concludes that firms in Sri Lanka follow conservative working capital management policy

Kotšina and Hazak (2012) examines the impact of investment intensity measured by the percentage of fixed assets to total assets and the return on assets. The sample of the study is 8,074 companies in six European Union (EU) member states over a nine-year period from 2001 to 2009. The analysis carried via regression indicates that there is no any strong negative (or positive) impact of companies' investment intensity on future

rate of return on assets. Similarly, Reyhani (2012) measures the effect of assets structure on the performance of accepted companies of Tehran Stock Exchange (TSE) through some industries using Panel Data approach. He defined the assets structure by fixed assets and variable assets as independent variables and EBIT (Earnings before Interest and Taxes) as a dependent variable. The findings of the study revealed that the fixed assets have a significant positive effect on EBIT. Also, the effect of these variables on EBIT among various industries is not same.

In the developing countries, Ghosh and Maji (2003) examined current asset management efficiency in Indian Cement Industry for the period 1992-93 to 2001-2002 for measuring the efficiency of current asset management, the performance, utilization, and overall efficiency indices were calculated instead of using some common current asset management ratios. Setting industry norms as target-efficiency levels of the individual firms, they also tested the speed of achieving that target level of efficiency by an individual firm during the period of study. Findings of the study indicated that the Indian Cement Industry as a whole did not perform remarkably well during this period.

Lazaridis and Tryfonidis (2006) investigated the relationship between corporate profitability and current asset management for 131 firms listed in Athens Stock Exchange during period 2001 to 2004. Correlation analysis was used. They reported that there was statistically significant negative relationship between profitability measured through gross operating profit and the Cash Conversion Cycle. Furthermore, managers can create profit by properly handling the individual components of current asset which include accounts receivable, inventory and accounts payable to an optimal level.

Chowdhary and Amin (2007) investigated the impact of overall current asset policies on the profitability of Pharmaceutical firms listed at Dhaka Stock Exchange. Primary and secondary data were used for the period 2000 to 2004 to analyze the current asset management policies. The results indicated that for the overall performance of the Pharmaceutical industry, current asset management played a vital role and there existed a positive relationship between current assets management and performance of firms. On the other side, the questionnaire data used for the study highlighted that firms in this industry have been efficient in managing their cash, accounts receivables and accounts payable. Furthermore, the industry maintained large volume of inventories but maintaining large inventories did not reflect inefficient management for this industry.

Falope and Ajilore (2009) examines impact of current asset management on firm profitability, used data for 50 Nigerian non-financial listed firms on Nigerian Stock Exchange during period 1996 to 2005. They used combined time series and cross-sectional observations in a pooled regression to estimate the relationship between current asset measures and firm's profitability. They found significant negative relationship between profitability and current asset measures such as average collection period, inventory turnover in days, average payment period and cash conversion cycle. They also compared the impact between large and small firms but did not find significant variations among these firms.

Waithaka (2012) carried out research on effect of ASSET on performance of agricultural companies listed in the Nigeria stock of exchange using a correlation analysis she established that there was a positive relationship between ASSET and profitability of an agricultural firm, however the research was on agricultural firms listed in the NSE.

Ishmael and Kehinde (2013) examine the effects of components of current assets on the profitability in the Ajaokuta Iron Industry. The study concluded that there are different proportions of current assets in the industry (for example there are a huge amount of current assets in receivables, cash, and bank). The results raveled that the profitability analysis of Ajaokuta Iron Industry has shown an upward trend in the period 2001-2010.

Enekwe, Agu and Eziedo (2014) examined The Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria. The ex-post facto research design was used for this study. The secondary data were obtained from the financial statement (Comprehensive income statement and Statement of financial position) of the selected pharmaceutical companies quoted on the Nigerian Stock Exchange (NSE). Descriptive statistics, Pearson correlation and regressions were employed and used for this study. The results of the analysis showed that debt ratio (DR) and debt-equity ratio (DER) have negative relationship with Return on Assets (ROA) while interest coverage ratio (ICR) has a positive relationship with Return on Assets (ROA) in Nigeria pharmaceutical industry.

2.4 Gap in the Literature

While a lot of studies were carried out in other part of the world, only few studies have been carried out in Nigeria. surprisingly, the few studies carried out in Nigeria were particular only on current assets and liquidity ratio thereby leaving out fixed asset as if has no effect on the performance of firms. In the same vein, available studies in Nigeria were limited to 2014 and the findings reported were disaggregated. These gaps in literature paved way for this present study to push forward the frontier of knowledge on the relationship between assets management and profitability of firms in Nigeria.

III. METHODOLOGY

The study specifically focused on asset management and performance of selected quoted firms in Nigeria. To this end, the research concentrated on ten (10) selected quoted firms operating within Nigeria, the firms which are: Nestle Plc, PZ Cusson, Unilever, Nigerian Breweries, 7UP, Vitafoam, Guinness, Flour Mill, Dangote, and Nascon. It was covered the period of ten (10) years (that is, 2007-2016). The adapted model for this study was stated according to Onipe and umar (2015) which expressed return on total assets as functions of the cash and bank balance, Financial Asset held for trading and Derivate asset, Loans and advances to customers. This was given below:

ROTA = f (CBB, FAHT, DAS, LAC) .....(3.1)

$ROTA_{it} = a_0 + b_1 CBB_{it} + b_2 FAHT_{it} + b_3 DAS_{it} + b_4 LAC_{it} + \mu_{it}$ .... (3.2)

Symbol	Description	Variable
β0	Constant	-
***β*1-5**	Slope of independent variables	-
ε	Random error	-
ROTA	Return on total	Continuous variable
CBB	Cash and bank balance	Continuous variable
FAHT	Financial Asset held for trading	Continuous variable
DAS	Derivate asset	Continuous variable
LAC	Loans and advances to customers	Continuous variable

However, the above model would be modified as stated for this study as follows:

$PAT_{it} = f(CAS_{it}, NCAS_{it}, DER_{it})$……..…(3.3)

In an explicit form, this model (3.3) would be written in (3.4) as:

$PAT_{it} = a_0 + \beta_1 CAS_{it} + \beta_2 NCAS_{it} + \beta_3 DER_{it} + \mu_{it}$ ..... (3.4)

Where:

PAT = financial performance of the selected firms was measured by profit after tax

CAS =Current asset of the selected firms

NCAS = Non-Current asset of the selected firms

DER = Leverage of the selected firms which would be measured by Debt equity ratio

μ = Error Term

The expected effect of each of the explanatory variables presented in mathematical notation below:

$\frac{dPAT}{dCA} \geq 0$: connotes that current assets was expected to exert positive effect on profit after tax of quoted firms in Nigeria

$\frac{dPAT}{dNCA} \geq 0$: connotes that non-current assets was expected to exert positive effect on profit after tax of quoted firms in Nigeria

$\frac{dPAT}{dDER} \leq 0$: connotes that leverage ratio was expected to exert negative effect on profit after tax of quoted firms in Nigeria

The estimation technique adopted in this study includes panel data analysis technique which consists of pooled effect panel, fixed effect panel and random effect panel. The diagnostic tests that was carried out are: test for coefficient of determination, T-test, probability value test, F-test.

Pooled Effects Model

The general form of panel data model that permits the intercept and slope coefficients to vary over both individual and time will be as follow:

$Y_{it} = D_{it} + X'_{it} b_{it} + U_{it}$ $i = 1, \ldots, M, t = 1, \ldots, T$ ……. (3.4)

Where Y_{it} is a scalar dependent variable, X_{it} is a kx1 vector of independent variable, U_{it} is a scalar disturbance term, I indexes individual is the cross sections and t indexes is time.

Fixed Effects Model

The fixed effects model will be specified as:

$Y_{it} = D_i + b'X_{ijk} + U_{it}\, i = 1, \ldots, M, j = 1 \ldots, N, t = 1, \ldots, T \ldots$ (3.5)

Where the individual specific effects D_1, $D_2 \ldots\ldots$ D_M measure unobserved heterogeneity that is possibly correlated with the regressors, X_{it} and α are k x1 vectors and to start with the errors U_{it} are iid (0, σ^2)

Random Effects Model

This unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated (independence) with the predictor or independent variables included in the model. In the fixed effects model these variables are absorbed by the intercept. The random effects model is given as:

$Y_{it} = D + b_i X_{it} + U_{it} + V_{it}$ …… (3.6)

Y_{it} = the dependent variable which is PAT; X_{it} = this represents the explanatory variables which are CAS, NCAS, DER; b_i = the coefficient of the explanatory variables, D = the unknown intercept for each n specific entity, U_{it} = this represents between-entity error and that V_{it} = this represents the within-entity error

IV. RESULTS AND ANALYSIS

4.2 Descriptive Analysis

Table 4.1: Descriptive Statistics of Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
PAT	100	8554.211	10312.09	-2016	43080
CAS	100	31237.81	24871.46	29	141505.1
NCAS	100	41837.3	54639.55	216.7579	299227.1
DER	100	1.73326	1.002757	.4131999	5.269011

***Note**:PAT=Profit after tax (million naira), CAS= Current Asset (million naira), NCAS= Non-Current Asset (million naira), DER=Debt Equity Ratio (ratio)*

Source: *Author's Computation, (2018)*

Average profit after tax of firms sampled in the study stood at 8554.211 million, mean current asset stood at 31237.81 million, average non-current asset stood at 41837.3 million, while average debt-equity ratio stood at 1.73326 million. The minimum and maximum values for profit after tax, over the time period covered in the study, and across the selected firms stood at -2016 million and 43080 million respectively, for current asset the minimum value stood at 29 million while the maximum value stood at 141505.1 million. Minimum and maximum values for non-current asset stood at 216.7579 million and 299227.1 million respectively. Minimum debt-equity ratio stood at .4131999, while the maximum stood at 5.269011 million. Statistics presented above described each of the variables as pooled over 10 firms in Nigeria including Nestle Plc, PZ Cusson, Unilever, Nigerian Breweries, 7UP, Vitafoam, Guinness, Flour Mill, Dangote, and Nascon, over a period of 10 years (2007-2016).

4.3 Correlation Analysis

Table 4.2: Correlation Statistics

	PAT	CAS	NCAS	DER
PAT	1.0000			
CAS	0.3593	1.0000		
NCAS	0.7933	0.5292	1.0000	
DER	-0.0699	-0.1957	-0.0431	1.0000

***Source:** Author's Computation, (2018)*

Correlation result presented in table 4.2 revealed that there is positive correlation between Profit after tax, current assets and non-current assets, which implies that predominantly over the period covered in the study across sampled firms profit after tax move in the same direction with current asset and non-current asset. On the other hand the result showed that there is negative correlation between profit after tax and firms leverage measured in terms of debt-equity ratio, which implies that profit after tax tends to move predominantly in opposite direction with debt-equity ratio. Specifically, correlation coefficient reported in Table 4.2 stood at 0.3593, 0.7933, -0.0699, 0.5292, -0.1957 and -0.0431 for PAT and CAS, PAT and NCAS, PAT and DER, CAS and NCAS, NCAS and DER respectively.

4.4 Analysis of the Effect of Current Assets, Non-Current Assets and Leverage ratio on Profit after Tax

This section presents analysis of the effect of asset management measured in terms of current assets, non-current assets and leverage ratio on performance of firms in Nigeria as measured in terms of profit after tax.

In this section, results of analyses done using Pooled OLS estimator, fixed effect estimator and random effect estimation were presented after which evaluation for consistency and efficiency was done using post estimation test including restricted F-test and Hausman test. Emphasis is being place on the most consistent and efficient estimator for discussion and inference.

4.4.1 Pooled OLS Analysis

Table 4.3 Pooled OLS Estimation Result

Series: *PAT CAS NCAS DER*

Variable	*Coefficient*	*Std Error*	*T-Test*	*Probability*
C	4093.984	1631.566	2.51	0.014
CAS	-.0400978	.0306917	-1.31	0.195
NCAS	.1589519	.0137131	11.59	0.000
DER	-540.7867	646.495	-0.84	0.405

R-square=0.6371, Adjusted R-square=0.6257, F-statistics=56.17, Prob(F-stat)=0.0000

(*) connotes significance at 5% level of significance.

Source: Author's Computation, (2018)

Pooled estimation result presented in Table 4.3 revealed that when heterogeneity effect across firms sampled in the study is not given consideration, current assets exert insignificant negative impact on profit after tax, with coefficient estimate of -.0400978 (p=0.195> 0.05). Non-current assets on the other hand exerts positive significant impact on profit after tax, with coefficient estimate of 0.1589519 (p=0.000< 0.05). Result revealed also that debt-equity ratio exerts insignificant negative impact of profit after tax to the tune of -540.7867(p=0.405> 0.05). R-square statistics reported in Table 4.3 showed that about 64% of the systematic variation in profit after tax could be jointly explained by current assets, non-current assets, and debt-equity

4.4.2. Fixed Effect Estimation

This estimation systematically incorporated the heterogeneity effect across sampled firms into the model to account for the firm's uniqueness. This study separately incorporated firm's heterogeneity effect and period effect into the model using dummy approach in which each firms and year was assigned an intercept term. Results of the least square dummy variable fixed effect estimations for (cross sectional and period specific) are presented in table 4.4

Table 4.4: Fixed Effects Estimates (Cross-sectional and Period specific)

Series: PAT CAS NCAS DER

CROSS-SECTIONAL SPECIFIC EFFECT			**TIME SPECIFIC EFFECT**		
Variables	**Coefficients**	**Prob**	**Variables**	**Coefficients**	**Prob**
C	15597.16	0.000	C	3493.41	0.132
CAS	.0652248	0.066	CAS	-.0296037	0.334
NCAS	.0378182	0.007	NCAS	.1678964	0.000
DER	-1004.77	0.147	DER	-433.2971	0.500
Effects			**Effects**		
PZ CUSSON	-12566.44	0.000	2008	1118.007	0.687
UNILEVER	-10785.55	0.000	2009	1291.681	0.643
NIG BREW	10144.62	0.000	2010	771.6699	0.783
7UP	-11396.64	0.000	2011	2009.858	0.472
VITAFOAM	-13731.32	0.000	2012	1759.755	0.530
GUINNESS	-7728.97	0.000	2013	691.0393	0.806
FLOUR MILL	-14318.16	0.000	2014	-1290.767	0.649
DANGOTE	-15547.52	0.000	2015	-4644.796	0.107
NASCON	-13281.15	0.000	2016	-4584.058	0.114
R-square=0.8825 **Adjusted R-square=0.8663** **F-statistics=54.46** **Prob(F-stat)=0.0000**			R-square=0.6848 Adjusted R-square= 0.6413 F-statistics=15.75 Prob(F-stat)=0.0000		

Sources: *Author's Computation, (2018)*

Fixed effect cross-sectional specific estimation result presented in Table 4.4 showed that when heterogeneity effect across firms sampled in the study is incorporated into the model, both current asset and non-current asset exert positive impact on profit after tax, though the positive impact of current asset unlike that of non-current asset is not significant. Reported coefficient estimate for current asset and non-current asset stood at 0.0652248 (p=0.066> 0.05) and .0378182(p=0.007< 0.05) respectively. R-square value reported for cross-sectional specific estimation presented in table 4.4 stood at 0.8825, which reflect that about 88% of the systematic variation in profit after tax can be explained jointly by the explanatory variables.

Result of fixed effect period-specific estimation presented in Table 4.4 showed that when heterogeneity effect over time is incorporated into the model as intercept term, current asset exert negative insignificant impact on profit after tax, with coefficient estimate of -.0296037(p=0.334> 0.05), while the impact of non-current asset on profit after tax is positive and significant with reported coefficient estimate of .1678964 (p=0.000< 0.05). Result also showed that debt-equity ratio exert insignificant negative impact on profit after tax, with reported coefficient estimate of -433.2971(p=0.500< 0.05). Reported R-square statistics showed that about 68% of the systematic variation in profit after tax can be explained jointly by current asset, non-current asset and debt-equity ratio.

Deviation from the intercept term (15597.16) corresponding to the reference firms (Nestle Plc) stood at-12566.44, -10785.55, 10144.62, -11396.64, -13731.32, -7728.97, -14318.16, -15547.52, -13281.15 for PZ Cusson, Unilever, Nigerian Breweries, 7up, Vitafoam, Guinness, Flour Mills, Dangote Sugar , and Nascon respectively. Deviation from the intercept term (3493.41) of the reference period (2007) stood at 1118.007 for 2008, 1291.681 for 2009, -771.6699 for 2010, 2009.858 for 2011, 1759.755 for 2012, 691.0393 for 2013, -1290.767 for 2014, -4644.796 for 2015, and -4584.058 for 2016

4.4.3 Random effect estimation

Table 4.5 Random Effect Estimation

Series: *PAT CAS NCAS DER*

Variable	Coefficient	Standard Error	Z-Test Values	Probability
C	5672.022	2139.918	2.65	0.008
CAS	.0404019	.0351488	1.15	0.250
NCAS	.0685197	.0142572	4.81	0.000
DER	-719.1976	704.1565	-1.02	0.307

R-square=0.5705
Wald chi2(5)=43.17
Prob> chi2 =0.0000

Random effect estimation result presented in Table 4.5 revealed that when heterogeneity effect across firms and over time is incorporated into the model via the error term, both current asset and non-current asset exert positive impact on profit after tax, though the impact is only significant for non-current asset,, given the reported estimates for non-current asset that stood at .0685197(p=0.000< 0.05), as against estimate for current asset that stood at .0404019 (p=0.250< 0.05). Reported R-square for random effect estimation presented in table 4.5 stood at 0.5705 which implies that about 57% of the systematic variation in profit after tax can be explained by current assets, non-current assets and debt-equity ratio of the sampled firms.

4.4.4: Post estimation Test

Table 4.6: Restricted F Test of Heterogeneity (Cross-Sectional and Time Specific)

	F-statistics	Probability
Cross sectional	20.20	0.0000
Time specific	1.46	0.1747

Source: *Author's Computation, (2018)*

F-statistics reported in Table 4.6 stood at 20.20 and 1.46 with probability values of 0.0000, and 0.1747 for cross sectional and period specific effect respectively. Result showed that there is enough evidence to reject the null hypothesis that all differential intercept corresponding to each cross sectional specific units (firms) are equal to zero, but otherwise for the period specific intercepts. This implies that there is significant cross sectional heterogeneity effect amidst the sampled manufacturing firms thus invalidating the restriction of pooled OLS estimation, in favour of cross-sectional fixed effect estimation.

Table 4.7.Hausman Test

Null hypothesis	Chi-square stat	Probability
Difference in coefficient not systematic	3.41	0.0649

Source: *Author's Computation, (2018)*

Table 4.7 reported chi-square statistic of 3.41and probability value of 0.0649. The result revealed that there is no enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimation and random effect estimation is not significant. Therefore the most consistent and efficient estimation is given by the random effect estimation as presented in Table 4.5. It thus became evident that the estimation that best explained the effect of assets management on performance of firms as measured in terms of profit after tax is the random effect estimation presented in Table 4.5, which revealed that current assets exert insignificant positive effect on profit after tax to the tune of .0404019 (p=0.250> 0.05), while the impact of non-current asset on profit after tax is positive and significant, with coefficient estimate of .0685197(p=0.000< 0.05). Debt-equity ratio on the other hand exert insignificant negative effect on profit after tax, with reported coefficient estimate of -719.1976(p=0.307> 0.05)

Table 4.8: Other Post Estimation Test

Wald test		
Null hypothesis	**Statistics**	**Probability**
Panel homoscedasticity	2.1717	0.0647
Pesaran test		
Null hypothesis	**Statistics**	**Probability**
No cross sectional dependence	1.346	0.5668
Wooldridge test		
Null hypothesis	**Statistics**	**Probability**
NoAR(1)panel autocorrelation	0.3369	0.5759

Source: *Author's Computation, (2018)*

Result presented in Table 4.8 showed that there was no evidence to reject null hypothesis on panel homoscedasticity, null hypothesis of no cross-sectional dependence and null hypothesis of no AR (1) panel autocorrelation, given the reported probability statistics of 0.0647> 0.05 for Wald test, 0.5668> 0.05 for Pesaran test, and 0.5759> 0.05 for Wooldridge test. Hence it can be established in the study that assumptions of equal variance of residual terms, cross sectional independence and absence of serial autocorrelation for the estimated panel-based model is valid.

4.5 Discussion of Findings

This study in an attempt to delineate the connection between asset management and performance of selected firms conducted panel estimations using both restricted and non-restricted estimator. From the result of evaluation test which compared fixed effect and random effect, it was established that the most consistent and efficient estimator for the investigation conducted in this study is the random effect estimation presented in Table 4.5. The estimated result showed that both current assets and non-current assets of firm in Nigeria exert positive effect on the level of performance as measured in terms of profit after tax. While current assets exert insignificant positive effect on profit after tax, the effect of non-current assets were significant. In specific terms the estimated result revealed coefficient estimate of 0.0404019 (p=0.250< 0.05)for current assets and 0.0685197(p=0.000< 0.05) for non-current assets, which reflect that profit after tax of firms in Nigeria on the average would increase by about 40.4019 million for every one billion increase in the value of current assets, other things held constant, while for every one billion increase in non-current assets, profit after tax would increase by 68.5197 million, holding other things constant. The result established that increase in profit after tax for every one billion increase in non-current assets were statistically significant at 5% level of significance, but otherwise for the increase in profit after tax, for every one billion increase in current assets, On the other hand result revealed that debt-equity ratio exerts negative insignificant effect on profit after tax of firms in Nigeria, with reported coefficient estimate of -719.1976(p=0.307> 0.05), which implies that for every unit increase in the debt-equity ratio, profit after tax would decrease by 719.1 million naira. The result implies that as the leverage ratio of a firms increase, performance measured in terms of profit after tax tends to fall. Adjusted R-square of 57% gave the predictive capacity of the model and that about 57% of systematic variation in profit after tax of the sampled firms can be explained by current asset, non-current assets and debt-equity ratio. Hence this study pin-point the fact that assets management played a substantial role in the discourse of performance of firms in Nigeria.

Evaluating the result based on the a-priori expectation reflected agreement of the findings made in the study with expectation of positive effect, meaning that the result of this study align closely with the expectation. This was so because while both current assets and non-current assets exert positive effect on profit after tax, the effect of debt-equity ratio was negative as expected. Empirical with previous researches established that the findings made in the study agreed with findings of Onodje (2014),Ishmael and Kehinde (2013), Waithaka (2012) and Onodje (2014) established debt management and current assets management among other things

were critical for sustaining improved performance of quoted firms. Ishmael and Kehinde (2013) established that differences in the components of an organization reflected fundamentally in the operational performance position. Also, findings made by Waithaka (2012) reflected in alignment with the findings of this study that assets regardless of its composition has positive interrelationship with firm's performance. However there was a divergence between the findings made in this study and the findings of Falope and Ajilore (2009) in their investigations of the effect of current assets on firms profitability, where they established that there was negative relationship between the profitability of firms and their current assets measured in terms of average collection period, inventory turnover in days, average payment period and cash conversion cycle. Further studies on the discourse of assets management and performance of quoted firms in Nigeria should extend the scope of research to cover more quoted firms listed on the Nigerian stock exchange in the bit to increase the generalization accuracy about how assets management influences the performance of quoted firms in the Nigeria.

V. CONCLUSION AND RECOMMENDATIONS

This study established that both current assets and non-current assets influenced performance of firms in Nigeria positively, and that the positive effects of non-current assets were significant, thus the study reflected that assets management contributed meaningfully toward improved performance of quoted firms in Nigeria, especially when measured in terms of profit after tax. On the other hand, the study established that increase in the leverage ratio of quoted firms in Nigeria has the capacity to impede improved performance especially when measured in terms of profit after tax. Fundamentally therefore this study submitted that the role of management of assets among Nigeria quoted firms should not be undermined, if improved performance was desired. It was recommended that quoted firms in Nigeria should maintain non-current assets that is substantial for sustaining their performance and help to attain market stability that can culminate into higher market share, expansion and growth; quoted firms in Nigeria should look into management of leverage ratio, so as to reduce the likelihood of reducing performance due to rising debt-equity ratio and that quoted firms should design an internal monitoring system that can help to maintain balance between current assets and non-current assets in order to guide against loss of operational efficiency that can ensue when the importance of non-current assets are overemphasized at the expense of current assets.

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