

Evaluation of the Effect of Non-Current Assets on Return on Assets of Cement Manufacturing Industry in Nigeria

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Abstract: The study is on evaluation of the effect of investment on non-current assets on return on asset of cement manufacturing industry in Nigeria. The major aim of the study is to ascertain the effects of non-current assets on the return on assets of cement manufacturing industry in Nigeria. The period covered 2004-2013. The independent variables are Land and Buildings, Plant and Machinery, Motor Vehicles, Furniture and Fittings, while the dependent variable is Return on Asset. Annual accounts and reports were used for analysis and multiple regressions were used to validate the hypotheses. The findings show that there is effect of non-current assets on return on asset but is not significant in Nigeria. It also showed that the independent variable Plant and Machinery contributed more to Return on Asset but not significant. The recommendations include that there should be more investment in non-current asset especially plant and machinery in order to increase the return on asset of cement manufacturing industry in Nigeria. It is also recommended that firms in Nigeria should invest keenly in motor vehicles to ease the problem inherent in distribution of cement product in Nigeria.

Key words: Mon-current Assets • Lands • Buildings • Cement manufacturing Industry and Nigeria

INTRODUCTION

Return on Assets is one of the measures of financial performance. And financial performance measure is one of the important performance measures for economic units [1]. Financial performance measures are used as the indicators to evaluate the success of economic units in achieving stated strategies, objectives and critical success factors [2].

When cash flow is tight, most owners focus on managing their current asset by cutting inventory and collecting money owed them by customers; however, the average business has as much capital tied up in noncurrent asset-the property, plant and equipment used to create the goods and services to sell [3]. How well the capital intensive utilizes their asset determines the difference between profit and loss. If the property, plant and equipment assets are idle or not generating enough cash flow, this may impact on the value and financial health of the business [4].

Return on Assets (ROA) ratio illustrates how well management is employing the company's noncurrent assets to make profit. The higher the return, the

more efficient management is in utilizing its asset base. The need for investment in current and noncurrent assets varies greatly among companies. Capital intensive businesses (with a large investment in noncurrent assets) are going to be more asset heavy than technology or service businesses. The capital intensive businesses with a large investment in noncurrent asset will have smaller ROA than non-capital intensive businesses (with a small investment in noncurrent assets) because of a low denominator number [5]. It is precisely because businesses require different sized asset bases that investors need to think how they use the ROA ratio [6]. It is in the light of the above that the effect of noncurrent asset on ROA of cement manufacturing company is important.

The manufacturing companies dependence on the structure of assets consist of two types of assets, non-current and current assets. The manufacturing companies use noncurrent assets to transfer the raw materials into finished goods [7]. These assets are called property; plant and equipment, land, building, equipments, automobiles and furniture [8].

It is the primary concern of business organization to give significant attention to return on assets because of its implications to business survival. High Performance reflects management effectiveness and efficiency in making use of company's resources and thus in turn contributes to the country's economy at large [9].

Poor utilization of noncurrent assets causes low return on investment. And low return on investment is an attribute of ineffectiveness and inefficiency of utilization of assets. Inadequate noncurrent assets results to low productive activities because noncurrent assets are like the structure while current assets are like flesh [10]. And without the structure the flesh cannot stand. The productive engine is the noncurrent assets in manufacturing organization.

The problem of appropriate level of investment on noncurrent assets to current assets in cement manufacturing firms in Nigeria is vital because more current assets can create high liquidity, surplus cash and high liquidity impairs profitability [11]. The problem of proper evaluation of investment on noncurrent assets is necessary because investment cannot be taken on the hunch, hence investment analysis is very necessary before assets are acquired for income yielding.

It can therefore be argued that despite the strategic importance of non-current assets in cement manufacturing firms in Nigeria. Comprehensive studies on non-current assets are lacking hence the necessity of this study.

Statement of Problem: The optimization of investment on non-current assets in order to achieve satisfactory return on asset is a major problem being suspected by the researcher in the cement manufacturing industry in Nigeria. Given the huge investment on noncurrent asset, the return on Asset seems not to be satisfactory as perceived by the researcher. This inadequate production of cement in the country with regard to demand causes high prices of cement and sometimes scarcity in the market. The problem of scarcity often leads to importation of cement in the country causing capital flight and foreign exchange. The inadequate plant and machinery creates low production activities. While surplus investment on land and building does not affect directly the production of cement in the country, the investment on furniture and fittings do not create productive activities in the cement manufacturing industry in Nigeria. The problem of how the assets are performing or to identify specific assets or groups of assets that are idle or not performing in order to match the income to specific assets (or groups of assets)

that produce the income. To determine which assets are under-performing in the business. The older machines and equipment look attractive and profitable because they have very low depreciation expenses. However the outdated or run down equipment may be costing more than their worth; if the necessary overhead to support those assets are considered like repair, maintenance, utilities, taxes and lost productivity. It may be that the older depreciated assets are using up too much energy, wasting resources or causing bottlenecks in the production. This undesirable situation attracted the attention and interest of the researcher in evaluating the optimization of investment in non-current asset of cement manufacturing industry in Nigeria in order to assist the investors and management of the cement manufacturing industry.

Objectives of the Study: The main objective is to ascertain the effects of noncurrent assets on the return on assets of cement industry in Nigeria.

The specific objectives are as follows:

- To assess the effect of investment in plant and machinery on the return on Assets of cement manufacturing industry in Nigeria.
- To ascertain the effect of investment in land and buildings on the return on Assets of cement manufacturing industry in Nigeria.
- To evaluate the effect of investment in motor vehicles on the return on Assets of cement manufacturing industry in Nigeria.
- To investigate the effects of investment in furniture and fittings on Return on Assets of cement manufacturing industry in Nigeria.

Research Questions:

- To what extent does the investment in plant and machinery affect the Return on Assets of cement manufacturing firms in Nigeria?
- What is the effect of investment in land and buildings on Return on Assets of cement manufacturing firms in Nigeria?
- To what level does investment on motor vehicles affect the return on Assets of cement manufacturing firms in Nigeria?
- What is the effect of investment on furniture and fittings on Return on Assets of cement manufacturing firms in Nigeria?

Hypotheses:

Ho₁: The amount of investment in plant and machinery does not significantly impact on the return on Assets of cement manufacturing industry in Nigeria.

Ho₂: The amount of investment on land and buildings does not significantly affect the Return on Assets of cement manufacturing industry in Nigeria.

Ho₃: The amount of investment in motor vehicles does not significantly impact on the Return on Assets of cement manufacturing industry in Nigeria.

Ho₄: Investment in furniture and fittings does not significantly affect the Return on Assets of cement manufacturing industry in Nigeria.

Significance of the Study: The study was undertaken to evaluate the effect of noncurrent assets on return on assets of cement manufacturing industry in Nigeria.

The study will be of primary importance and benefit to the cement manufacturing companies in Nigeria.

Other importance of the study is its contribution to knowledge. It would be useful to other researchers and anyone who is interested on the evaluation of effect of investment on noncurrent asset on return on assets of cement manufacturing industry in Nigeria.

Scope of the Study: The research work was restricted to evaluation of effect of noncurrent assets on return on assets of cement manufacturing industry in Nigeria for the period of 2004-2013. The dependent variable is Return on Assets (ROA) and return on Assets (ROA) was used as the variable for financial performance, while independent variables are noncurrent assets (Plant and machinery, land and buildings, motor vehicles, furniture and fittings).

Limitations of the Study: The researcher encountered a lot of problems that limited this study. First and foremost is time. The researcher is a full time worker and has a very limited time for herself to carry out this extensive research. Another factor which limited the study is finance. Research is cost intensive. Money for transportation to collect data, procure materials and logistics are enormous and therefore, the researcher did not find it funny at all. Unavailability of data was also a great challenge to this study. The researcher encountered problem of accessing and collecting data due to extreme gaps and paucity. This compelled the researcher to limit the study to Lafarge Nig. Plc. and Dangote Nig. Plc instead of studying all the cement manufacturing industry in Nigeria.

MATERIALS AND METHODS

Research Design: This study which is an ex-post facto research made use of data, from annual reports and accounts of cement manufacturing industry quoted on the Nigerian Stock Exchange for the period 2004 – 2013.

Population: Out of the six companies quoted on the Nigerian Stock Exchange, only two (Dangote Cement Plc and Lafarge Cement Nig. Plc) were selected and used due to availability of complete required data.

The statistical tools for analysis in this study will be;

- The descriptive statistics analysis
- Multiple regression analysis

The research variables were structured into independent variables and dependent variable for the purpose of the analysis. The independent variables of the study are: Plant and machinery, Land and buildings, Motor vehicles and furniture and fittings while the dependent variable is Return on Asset representing financial performance.

Model Specification: For the evaluation of the effect of noncurrent assets on financial performance (ROA) a multiple regression model was formed and it is specified as follows:

$$ROA_t = \beta_0 + \beta_1 PPE_t + \beta_2 LB_t + \beta_3 MV_t + \beta_4 FF_t + e_t$$

where,

ROA_t = Return on Non Current Assets

PPE_t = Property, plant and equipment

LB_t = Land and buildings

MV_t = Motor vehicles

FF_t = Furniture and fittings

β₀ = Constant or intercept

β₁ – β₄ = Coefficient for Independent variables

t = Current period

e = the error term

The study also involved test of significance of parameter estimates by using t – statistics at 5% level. This enables us compare the probability of computed t – statistics at various situations of empirical analysis with the critical value at 5% to establish significance. When the computed t statistics probability associated with it is greater than the critical value at 5%, the parameter in question is significant but otherwise not significant.

Table 1: Data Presentation for Lafarge Nigeria Plc.

Years	ROA	L&B/TA	P&M/TA	MV/TA	FF/TA
2004	19.97097	1.642482	4.696894	0.597518	0.597514
2005	23.37067	1.980552	6.06009	0.476498	0.476494
2006	15.27045	1.672462	6.045662	0.282222	0.282222
2007	1.012884	1.252758	0.581304	1.328134	1.328131
2008	29.57043	1.873491	64.9153	0.209051	0.209051
2009	12.84139	1.693825	37.78969	0.375991	0.37599
2010	8.396191	1.401862	30.22306	0.20201	0.20201
2011	7.999213	1.283934	39.25987	0.177986	0.177986
2012	16.51621	2.792276	92.78854	0.372377	0.372377
2013	12.72081	1.63083	52.95786	0.196521	0.196521

Source: Lafarge Nig. Plc. Annual Reports

Data Presentation and Analysis: In this chapter of the work, the data used for the analysis are presented and interpreted using the trend analysis. In this chapter also, the analysis for the test of hypotheses are presented.

Data Presentation: The data used include non-current assets of the sampled firms (Lafarge and Dangote Nigeria plc) and include land and building, plant and machinery, motor vehicles and furniture and fittings. The return on asset for the firms are calculated using the conventional method for calculating the return on asset which is dividing the earning before tax with total assets while the non-current assets were averaged by total assets to have a linearly modeled equation using data of the sampled cement firms in Nigeria.

where:

ROA = Return on Asset

L&B/TA = Land and building divided by Total Asset.

P&M/TA = Plant and Machinery divided by Total Asset

MV/TA = Motor Vehicle divided by Total Asset

FF/TA = Furniture and Fittings divided by Total Asset.

The return on asset for Lafarge Nigeria Plc is as presented in 4.1 above. Table 4.1 indicates that the return on asset for Lafarge Nigeria Plc opened the period under study at 19.97% in 2004 increased to 23.37% but recorded declines in the preceding years and dropping to 1.01% in 2007. In 2008, the return on asset for Lafarge Nigeria Plc rose to 29.57% but declined afterwards to 12.84%, 8.39% and 7.99% in years 2009, 2010 and 2011. The return on asset for Lafarge Nigeria Plc stood at 16.51% in 2012 while closing the period at 12.72% in 2013.

The ratio of land and building to total asset as presented in table 4.1 shows that land and building as a percentage of total asset of Lafarge Nigeria Plc stood at 1.64% in 2004 and increased to 1.98% in 2005. In 2006 and

2007, the firm recorded 1.67% and 1.25% which increased to 1.87% in 2008 but declined to 1.69% in 2009 and to 1.28% in 2011. In 2012, the firm recorded 2.79% in land and building as a percentage of total assets while declining to 1.63% and closing the period in 2013.

The ratio of plant and machinery to total asset as presented in Table 4.1 shows that plant and machinery as a percentage of total asset of Lafarge Nigeria Plc stood at 4.69% in 2004 and averaging 6% in 2005 and 2006. In 2007, the firm recorded plant and machinery of 0.58% as a percentage of total asset and in 2008 Lafarge Nigeria plc as a percentage of total asset rose to 64.91% but dropped afterwards to 37.78% and 30.22% in 2009 and 2010 which increased to 39.25% in 2011. In 2009 and to 1.28% in 2011. In 2012, the firm recorded 92.78% in plant and machinery as a percentage of total assets which dropped to 52.95% and closing the period in 2013.

The ratio of motor vehicle as a percentage of total asset as presented in Table 4.1 shows that motor vehicle as a percentage of total asset of Lafarge Nigeria Plc stood at 0.59% in 2004 while declining to 0.28% in 2006. In 2007, the ratio of motor vehicle to total asset of the firm rose to 1.32% while dropping to 0.20% in 2008 and to 0.177% in 2011. The firm recorded motor vehicle of 0.37% as a percentage of total asset and in 2012 which dropped which dropped to 0.19% and closing the period in 2013.

The ratio of furniture and fittings as a percentage of total asset as presented in table 4.1 shows that Lafarge Nigeria Plc recorded a ratio 0.59% but dropped to 0.28% in 2006. In 2007, the ratio stood at 1.32% while declining to 0.20% in 2008. In 2009, the ratio of furniture and fittings to total asset of the firm rose to 0.37% while dropping to 0.20% in 2010 and to 0.177% in 2011. The firm recorded furniture and fittings of 0.37% as a percentage of total asset in 2012 and dropping afterwards to 0.19% closing the period in 2013.

The data for Dangote Nigeria Plc as used in the study is as presented in Table 4.2 below.

where:

ROA = Return on Asset

L&B/TA = Land and building divided by Total Asset.

P&M/TA = Plant and Machinery divided by Total Asset

MV/TA = Motor Vehicle divided by Total Asset

FF/TA = Furniture and Fittings divided by Total Asset.

The return on asset for Dangote Nigeria Plc is as presented in 4.2 above. Table 4.2 indicates that the return on asset for Dangote Nigeria Plc opened the period under study at 1.09% in 2005, increased to 1.36% in 2006.

Table 2: Data Presentation for Dangote Nigeria Plc.

Years	ROA	L&B/TA	P&M/TA	MV/TA	FF/TA
2004	0	1.868607	0.538025	0.004189	0.021676
2005	1.095225	1.784825	0.520521	0.035261	0.021575
2006	1.363749	1.681334	0.401747	0.165169	0.027444
2007	9.034599	31.10106	62.11173	1.467649	0.311437
2008	16.74013	26.65847	53.74804	1.491448	0.416389
2009	17.34498	15.27996	29.85704	3.342647	0.172695
2010	33.14727	15.92335	3.784283	3.313479	0.126666
2011	24.08525	2.366482	29.99551	2.931513	0.07525
2012	27.07886	5.710187	54.71662	4.358893	0.130547
2013	30.03271	4.34222	40.00315	4.100242	0.101098

Source: Dangote Nig. Plc. Annual Reports

The return on asset for Dangote Nigeria Plc recorded steady increase afterwards to 16.74% and 33.14% in 2009 and 2010. The return on asset for Dangote Nigeria Plc recorded declines in 2011 to drop to 24.08% but increased afterwards to 27.07% in 2012 while closing the period in 2013 at 30%.

The ratio of land and building to total asset as presented in Table 4.2 for Dangote Nigeria Plc shows that land and building as a percentage of total asset of Dangote Nigeria Plc stood at 1.86% in 2004 and increased to 1.78% in 2005. In 2006, the firm recorded 1.68% which increased to 31.10% in 2007 but declined afterwards while averaging 15% in 2009 and 2010. In 2011, the ratio of land and building to total asset as presented in Table 4.2 for Dangote Nigeria Plc decreased to 2.38% but increasing to 5.71% in 2012, while declining to 4.34% and closing the period in 2013.

The ratio of plant and machinery to total asset as presented in Table 4.2 shows that the plant and machinery as a percentage of total asset of Dangote Nigeria Plc stood at 0.53% in 2004 but dropping afterwards to 0.40% in 2006 while increasing afterwards to 62% in 2007. In 2008, the firm recorded plant and machinery of 53.74% as a percentage of total asset and in 2009 Dangote Nigeria plc as a percentage of total asset to 29.85% and farther to 3.78% in 2010. In 2011, Dangote Nigeria Plc ratio of plant and machinery to total asset increased to 29.99% and to 54.71% but dropped afterwards to 40% and closing the period in 2013.

The ratio of motor vehicle as a percentage of total asset as presented in Table 4.2 shows that motor vehicle as a percentage of total asset of Dangote Nigeria Plc stood at 0.004% in 2004 but increased afterwards steadily to 0.035%, to 0.16%, to 1.49% and to 3.34% in years 2005, 2006, 2008 and 2009 respectively while declining to 3.31% in 2010. In 2012, the ratio of motor vehicle to total asset of the firm rose to 4.35% while dropping to 4.1% to close the period in 2013.

The ratio of furniture and fittings as a percentage of total assets as presented in table 4.2 shows that Dangote Nigeria Plc recorded a ratio 0.0216% in 2004 but dropped to 0.0215% in 2005. In 2007, the ratio stood at 0.31% and increased to 0.41% in 2008. In 2009, the ratio of furniture and fittings to total asset of the firm dropped to 0.17% while dropping farther to 0.12% in 2010 and to 0.07% in 2011. The firm recorded furniture and fittings of 0.13% as a percentage of total asset and in 2012 the ratio dropped to 0.13% and closing the period in 2013 at a ratio of 0.10%.

Test of Hypotheses: The test of hypotheses in respect of the dependent and independent variables were conducted in this section of chapter four.

The hypotheses test was performed using the following steps:

Step One: Statement of the hypothesis in both null and alternate forms

Step Two: Statement of decision criteria

Step Three: Presentation of the Eviews results for the hypothesis testing.

Step Four: Decision.

Test of Hypothesis One: Hypothesis one seeks to ascertain if the investment in plant and machinery for cement industry in Nigeria impacts significantly on their return on asset. Data concerning investment in plant and machinery and return on asset from tables 4.1 and 4.2 were used in a pooled regression analysis to test the hypothesis.

Step One: Statement of Hypothesis

H₀: The investment in plant and machinery does not significantly impact on the return on asset of cement manufacturing industry in Nigeria.

H₁: The investment in plant and machinery significantly impacts on the return on asset of cement manufacturing industry in Nigeria.

Step Two: Statement of Decision Criteria.

Accept the null hypothesis if the t-statistics of the regression result is < 2 and the probability of the t-statistics > 0.05 otherwise reject the null hypothesis and accept the alternate hypothesis accordingly.

Step Three: Presentation of the Regression Analysis Result for Test of Hypothesis One.

Table 3: Regression Result for Test of Hypothesis One

Dependent Variable: ROA				
Method: Panel Least Squares				
Date: 10/21/15 Time: 23:29				
Sample: 2004 2013				
Periods included: 10				
Cross-sections included: 2				
Total panel (balanced) observations: 20				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ratioP&MTA	0.102103	0.075828	1.346503	0.1981
ratioL&BTA	-0.199196	0.246168	-0.809189	0.4311
ratioMVTA	4.449531	1.434945	3.100837	0.0073
ratioFFTA	-2.177601	6.803364	-0.320077	0.7533
C	8.449728	4.003051	2.110822	0.0520
R-squared	0.458720	Mean dependent var	15.37960	
Adjusted R-squared	0.314378	S.D. dependent var	10.35382	
S.E. of regression	8.573200	Akaike info criterion	7.347477	
Sum squared resid	1102.496	Schwarz criterion	7.596410	
Log likelihood	-68.47477	Hannan-Quinn criter.	7.396071	
F-statistic	3.178020	Durbin-Watson stat	1.780779	
Prob(F-statistic)	0.044472			

Author's Reviews Output, 2015

where:

ratioP&MTA = Ratio of Plant and Machinery to Total Asset

ratioL&BTA = Ratio of Land and Building to Total Asset

ratioMVTA = Ratio of Motor Vehicle to Total Asset

ratioFFTA = Ratio of Furniture and Fitting to Total Asset

Step Four: Decision

The estimation result F-statistics of 3.178020 been significant at $0.044472 < 0.05$ probability (F-statistic) indicates that estimated model fits and that 0.314378 been 331.43% variations of the changes in the return on asset of the Nigerian cement industry are caused by the chosen independent variable (investments in plant and machinery, land and building, motor vehicle and furniture and fittings). Also, the sign of the coefficient of 0.102103 is positive and suggests a positive relationship between investment in plant and machinery and the return on asset of the Nigerian cement industry.

The decision criteria for the acceptance and /or rejection of stated hypothesis is to accept the null hypothesis if the t-statistics of the regression result is < 2 and the probability of the t-statistics > 0.05 otherwise the null hypothesis is to be rejected and alternate hypothesis accepted accordingly. Thus, given the t-statistics of $1.346503 < 2$ and the probability of the t-statistics of $0.1981 > 0.05$ not been significant, thus, we accept the null hypothesis but concludes however that investment in

plant and machinery has a positive but insignificant impact on the return on asset of cement manufacturing industry in Nigeria.

Test of Hypothesis Two: Hypothesis two seeks to ascertain if the investment in land and building for cement industry in Nigeria impacts significantly on their return on asset. Data concerning investment in land and building and return on asset from tables 4.1 and 4.2 were used in a pooled regression analysis to test the hypothesis.

Step One: Statement of Hypothesis

H₀: The investment in land and buildings does not significantly impact on the return on asset of cement manufacturing industry in Nigeria.

H₁: The investment in land and buildings significantly impacts on the return on asset of cement manufacturing industry in Nigeria.

Step Two: Statement of Decision Criteria

Accept the null hypothesis if the t-statistics of the regression result is < 2 and the probability of the t-statistics > 0.05 otherwise reject the null hypothesis and accept the alternate hypothesis accordingly.

Step Three: Presentation of the Regression Analysis Result for Test of Hypothesis Two.

Table 4: Regression Result for Test of Hypothesis Two

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ratioP&MTA	0.102103	0.075828	1.346503	0.1981
ratioL&BTA	-0.199196	0.246168	-0.809189	0.4311
ratioMVTA	4.449531	1.434945	3.100837	0.0073
ratioFFTA	-2.177601	6.803364	-0.320077	0.7533
C	8.449728	4.003051	2.110822	0.0520
R-squared	0.458720	Mean dependent var	15.37960	
Adjusted R-squared	0.314378	S.D. dependent var	10.35382	
S.E. of regression	8.573200	Akaike info criterion	7.347477	
Sum squared resid	1102.496	Schwarz criterion	7.596410	
Log likelihood	-68.47477	Hannan-Quinn criter.	7.396071	
F-statistic	3.178020	Durbin-Watson stat	1.780779	
Prob(F-statistic)	0.044472			

Author's Reviews Output, 2015.

where:

ratioP&MTA = Ratio of Plant and Machinery to Total Asset

ratioL&BTA = Ratio of Land and Building to Total Asset

ratioMVTA = Ratio of Motor Vehicle to Total Asset

ratioFFTA = Ratio of Furniture and Fitting to Total Asset

Step Four: Decision

The estimation result F-statistics of 3.178020 been significant at $0.044472 < 0.05$ probability (F-statistic) indicates that estimated model fits and that 0.314378 been 331.43% variations of the changes in the return on asset of the Nigerian cement industry are caused by the chosen independent variable (investments in plant and machinery, land and building, motor vehicle and furniture and fittings). Also, the sign of the coefficient of -0.199196 is negative thus suggesting a negative relationship between investment in land and building and the return on asset of firms in the Nigerian cement industry.

The decision criteria for the acceptance and /or rejection of stated hypothesis is to accept the null hypothesis if the t-statistics of the regression result is < 2 and the probability of the t-statistics > 0.05 otherwise the null hypothesis is to be rejected and alternate hypothesis accepted accordingly. Thus, given the t-statistics of $-0.809189 < 2$ and the probability of the t-statistics of $0.4311 > 0.05$ not been significant, thus, we accept the null hypothesis but however concludes that investment in land and building has a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria.

Summary of Findings, Conclusion and Recommendations

Summary of Findings: Findings from our study impact of non-current assets on the return on asset of the Nigerian cement manufacturing industry could be summarized as follows:

- That investment in plant and machinery has a positive but insignificant impact on the return on asset of cement manufacturing industry in Nigeria.
- That investment in land and building has a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria.
- That investment in motor vehicle has a positive and significant impact on the return on asset of firms in the cement manufacturing industry in Nigeria.
- That investment in furniture and fittings has a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria.

CONCLUSION

From the data analyzed and the tested hypothesis, the following conclusion can be drawn:

The test of hypothesis in respect of the dependent and independent variables were done on presentation of the Eviews results.

The investment in plant and machinery has a positive but insignificant effect on the return on asset of cement manufacturing industry in Nigeria.

The investment in motor vehicle has a positive and significant effect on the return on asset of cement manufacturing industry in Nigeria.

The amount of investment in land and building has a negative but insignificant impact on the return on assets of firms in the cement manufacturing industry in Nigeria.

The investment in furniture and fittings has a negative but insignificant effect on the return on asset of cement manufacturing industry in Nigeria.

Recommendations: Given the findings of the study, the following recommendations become imperative:

Investment in plant and machinery has a positive but insignificant impact on the return on asset of cement manufacturing industry in Nigeria. This implies a direct relationship between investment in plant and machinery and return on asset resulting that an increase in investment in plant and machinery could bring about an increase in firm profitability and hence on return on asset of the firms. Thus firms in the Nigerian cement industry should encourage investment in modern plants and machinery to enhance speedy production and packaging that could bring about a reduction in production cost and an enhancement in profitability and to a large extent on the return on asset of the firms. Also, adequate provision for depreciation should be made to enhance the ease of replacement as well as modernization of worn out plants and machinery to sustain steady production of cement products to avoid loss of sale and profitability.

Investment in land and building has a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria. This implies that unnecessary investment in acquiring more land and erecting more buildings could bring about a reduction in profitability and hence on return on asset. Thus firms in the Nigerian cement industry should reduce unwanted accumulation of land and building for an enhanced profitability as well as return on asset.

Findings also reveal that investment in motor vehicle has a positive and significant impact on the return on asset of firms in the cement manufacturing industry in Nigeria. This finding indicates that investment in motor vehicle has both positive and significant impact on the return on asset of firms in the Nigerian cement industry. This implies that distribution of cement products across Nigeria is a key that impacts positively on cement firms. Therefore, firms in the Nigerian cement industry should invest keenly in motor vehicle to ease the problem inherent in distribution of cement products to the length and breadth of Nigeria. Adequate provision for depreciation should be made to enhance the ease of

replacement of worn out motor vehicles so as to maintain adequate fleet of motor vehicles at any point in time. Also, Government of Nigeria should provide the needed road infrastructure required for the ease of distribution of cement products across the Country. Finally, taking of comprehensive motor vehicle insurance will definitely help the firms in mitigating the loss of motor vehicles involved in accidents.

Findings also reveal that investment in furniture and fittings has a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria. Thus cement manufacturing firms in Nigeria should not be keen in maintaining expensive offices all around Nigeria to avoid the erosion of profitability as well as return on assets of the firm. This is because the quest to maintain so many offices will have a corresponding need to equip such offices with furniture and fittings and hence much investment in furniture and fittings which is inimical to profitability.

Implication of the Study: Findings from our study impact of non-current assets on the return on asset of the Nigerian cement manufacturing industry suggest that while investment in plant and machinery has a positive but insignificant impact on the return on asset of cement manufacturing firms in Nigeria, investment in motor vehicle had a positive and significant impact on the return on asset of firms in the cement manufacturing industry in Nigeria. Also our findings revealed that investment in land and building as well as furniture and fittings had a negative but insignificant impact on the return on asset of firms in the cement manufacturing industry in Nigeria. This implies that firms in the Nigerian cement industry should encourage investment in modern plants and machinery as well as investment in motor vehicles to enhance speedy production, packaging and distribution of cement products to enhance profitability as well as overall performance of the firms.

Area for Further Study: No study is conclusive and hence there are usually gaps to be filled by future studies. This work studied the impact of investment in non-current assets of manufacturing firms in Nigeria using only firms in the Nigerian cement manufacturing industry while using data from two firms only with data that stopped at year 2013. Thus future studies can extend this topic by:

- Enlarging the sample by utilizing data from all the publicly listed firms in the Nigerian cement industry so as to increase the number of observations.

- Enlarging the scope to include data for 2014 as well as 2015 to update and validate the findings of the study.
- Enlarging the sample by including other manufacturing firms in other industries such as agriculture, oil and gas, brewery etc.

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