

NON-CURRENT ASSETS INVESTMENT AND FINANCIAL PERFORMANCE OF LISTED INSURANCE COMPANIES IN NIGERIA

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ABSTRACT

More often than not, insurance firms, like every other business organization are faced with decisions to investment more or less in non-current assets with attending challenges. It is contentions whether adequate or poor investment in non-current assets can give rise to adequate returns to such firms. To that end, this study investigated the relationship the relationship between non-current assets investment and financial performance of listed insurance companies in Nigeria between ce2015 and 2020. The study sought to ascertain relationship between plant & machinery investment and return on capital employed, investment properties and return on capital employed, the relationship between intangible assets investment and return on capital employed. Three hypotheses guided the study. The study was an ex post facto research design. The population of the study was 13 listed insurance companies in the Nigeria Exchange Group were sampled to 8 using purposive sampling technique. The data used in this study were sourced from annual reports and statement of accounts of the selected companies. Plant & machinery investment, investment properties and intangible assets investment were employed as the independent variables while return on capital employed was employed as the dependent variables. Descriptive statistics, unit root test and ordinary least Square multiple regression were employed in analyzing the data with the aid of E-View 10. The study found that plant and machinery investment has positive and statistically significant relationship with return on capital employed of listed insurance companies in Nigeria. The study further found that investment properties has negative and significant relationship with return on capital employed of listed insurance companies in Nigeria. Finally, the study further found that intangible assets investment has negative and insignificant relationship with return on capital employed of listed insurance companies in Nigeria. Based on the foregoing, the study concluded that non-current assets investment has negative and significant relationship with financial performance of listed insurance companies in Nigeria. The study recommended amongst others that insurance companies in Nigeria should sustain their investment in plant and machinery to enhance profitability.

Keyword: Non-current Assets Investment, Plant and Machinery Investment, investment properties, intangible assets investment and return on capital employed.

INTRODUCTION

Non-current assets investment play vital role in carrying out operational activities and also enhances the capacity of an organization in providing goods and services. These investment items include; plant and machinery (office equipment, information and communication technology, buildings) motor vehicle, furniture and fittings (Akparhuere et al, 2019; Ullah & Ahmad, 2019; Jan-Horas & Denny, 2019; Osirim & Moses, 2019; Thankgod, 2021; Anuar et al, 2021). There are many reasons why non-current assets are considered as one of most investment element in an organization. Okoro and Charles (2019) opined that effective investment of non-current assets is one of the most important elements of firm in creating value for shareholders. High non-current assets turnover ratio indicates efficient utilization of non-current assets in generating sales while

a low ratio indicates inefficient investment and utilization of non-current assets. If non-current assets are not invested properly, then there is the likely chance that organizations will not perform as expected (Anuar et al, 2021). Successful organizations know how to invest in non-current assets for efficient accomplishment of organizational goals and adopt to changes in external environment as well as change in technology (Mwaniki & Omagwa, 2017).

Order hand, financial performance has received important consideration from scholars particularly in accounting, finance and management (Imeokparia et al, 2021). Financial performance is the strength in which profit making organisations use to evaluate business environment. The term is use to describe a general proportion of an organization's overall monetary wellbeing over a specific period, and can be used to investigate competitive firms throughout a comparative industry (Stevenson, 2011). Financial performance refers to the act of performing financial activity. It is the process of measuring the results of a firm's policies and operations in monetary terms (Kenton, 2020). Financial performance is a subjective measure that showed how properly firm utilized resources. Mwangi and Murigu (2015) defined financial performance as a measure of an entity's incomes, returns and increase in corporate value which is mirrored by the increase in price of the company's shares and can be equated with other companies across the sector or to relate the performance of businesses as a whole. Financial performance of firm depends upon various factors which directly or indirectly adhere to profitability. These factors often showed their effects on profitability such as cost of goods sold, interest rate, tax rate and inventory volume. According to Lawyer and Efeeloo (2017), financial performance of companies can be measured by use of accounting information or stock market values in a financial accounting practices context. When accounting information is used, accounting ratios are employed.

Statement of the Problem

Firms' non-current assets is characterized by intensive usage of capital in purchasing such as plant and machinery (office equipment, information and communication technology, buildings) motor vehicle, furniture and fittings. Such intense usage leads to high maintenance costs evidenced by high repairs and maintenance costs. The high repair and maintenance cost is often due to charges for maintenance agreements, purchase of consumables, sudden machine breakdowns, minor (uncapitalized) replacements, staff inefficiency in the use of equipment and so on (Gospel & Celestine, 2017). Machine choice becomes a critical issue when contribution to financial performance is considered. Raji et al. (2017) concluded that firms faced huge cost overruns in projects due to the ineffective management, including poor material control, poor site management and poor cash management which have caused a bad image to firms. He further mentioned that the problem of noncurrent assets investment by firms was due to the effect of globalisation and advancements in technology in the changing economic environment.

Due to these problems, several studies have been done to show the relationship between non-current assets component and financial performance (Alexandra et al, 2016; Eniola & Florence, 2016; Marian & Ikor, 2017; Gladys & Job, 2017; Oliver et al, 2017; Lydia & Patrick, 2018; Akparhuere et al, 2019; Ullah & Ahmad, 2019; Jan-Horas & Denny, 2019; Badingatus et al, 2020; Osirim & Moses, 2019; Thankgod, 2021; Anuar et al, 2021). Results from prior studies are mixes, some founded positive and significant relationship between non-current assets and financial performance while others founded negative results. Based on the local and international studies, the extent to which these non-current assets variables impact on financial performance of insurance companies in Nigeria is not known, hence this study is hereby to fill the gap by investigating the relationship between non-current asset investments and financial performance of listed insurance companies in Nigeria (2015-2020).

Aim and Objectives of the study

The aim of this study was to investigate the relationship between non-current assets investment and financial performance of listed insurance companies in Nigeria. The specific objectives of this study were to:

1. Determine the relationship between plant & equipment investment and return on capital employed of listed insurance companies in Nigeria.
2. Investigate the relationship between investment properties and return on capital employed of listed insurance companies in Nigeria.
3. Evaluate the relationship between intangible assets investment and return on capital employed of listed insurance companies in Nigeria.

Hypotheses

The following were the null research hypotheses formulated for the purpose of achieving the stated objectives of this study:

- H₀₁** There is no relationship between plant & equipment investment and return on capital employed of listed insurance companies in Nigeria,
- H₀₂** There is no relationship between investment properties and return on capital employed of listed insurance companies in Nigeria,
- H₀₃** There is no relationship between intangible assets investment and return on capital employed of listed insurance companies in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Non-current Assets Investment

Non-current assets otherwise known as fixed assets are those assets that cannot be converted into cash during a short period that is less than a year (Scott, 2003). It includes; plant and machinery (office equipment, information and communication technology, buildings) motor vehicle, furniture and fittings and other assets which can last for longer periods of time. Fixed assets or non-current assets are more revenue generators than the current assets but the risk involvement is more than in the current assets as it is difficult to convert them into cash and also its involve capital intensive to invest (Oliver et al, 2017). Non-current assets are more revenue generators than the current assets but the risk involvement is more than in the current assets as it is difficult to convert them into cash. Olatunji and Adegbite (2014) observed that investment in non-current asset enhances firm profit generation. According to Badingatus et al (2020), revaluation of non-current assets is classifies into two method (a) non-current are owned to be used in the production or supply of goods or services to be repurchased to other parties, or for administrative purposes and b) are estimated to be used for more than one period. Accounting standards explicitly allow management to choose one method of measuring no-current assets after initial recognition, namely the cost model or revaluation model. Under the cost model, non-current assets are reported at cost less accumulated depreciation and accumulated impairment losses.

Plant and Machinery Investment

Globally, plant and equipment is important to every company annual financial reporting. It is represented under non-current assets and is reported based on two methods namely historical cost and revaluation basis. Plant and machinery are term used to refer to installations and support facilities for service provider which enable them to perform a specific prèt ermined function, whether used single or in combination with other items to enhance the productivity or operating facility, and includes all devices in fixed or movable form (Stevenson, 2011).

Investment in Property

Land or, more generally, natural resources represents the gift of nature to our productive processes. It consists of the land used for building by individual as houses, firms as factories. The concept of building performance that is applied on building problems and solutions arose during the period of industrial evolution where buildings were designed to reflect people's everyday life, changing society, use of environment and increase technology. On the other hand, Building owners wanted to ensure their building remain competitive in the market by ensuring that building facilities are cost effective and support organizations to achieve business objectives. These reasons led to adoption of different approaches and techniques for measuring building performances depending on the building being evaluated. The working environment is related to building facilities that contribute to achieving the intended use of the business future functions. Land and building addresses the tangible asset aspects of real property that ensure a sustainable asset base throughout its life cycle in support of program delivery. Lavy et al (2010) highlighted the physical aspect of the building to include; availability of building space to supports the desired function, quality of space (spatial, environmental and amenities), accessibility (site, location, and building design), and resource consumption (energy efficient, water, and material). The condition of mentioned building elements is affected by on the extent of continuous operation, maintenance and repairs that will help managers estimate the remaining physical life of facilities at which they will able to support organizational function.

Intangible Assets Investment

Intangible assets are non-monetary assets besides physical traits that can be identified. They include the following categories of assets: research and development, patents, concession rights, trademarks, software, permissions for fishing, franchisees, and other rights, goodwill, boost repayments for the buy of intangible asset and different intangible assets. In the rapidly changing and competitive modern business environments, firms strive to acquire strategic assets that can be the foundation for generating and preserving the competitive advantage of companies. Añón et al (2017) suggest that intangible assets are progressively regarded as crucial drivers for innovation and knowledge creation. Saunila and Ukko (2014) opined that firms operation dependent on the ability to generate innovation, which intangible assets can create. Intangible investment is considered a crucial resource that enables a firm to sustain its competitive advantage. In fact, intangible asset investment is increasing globally. In some cases, this investment equals or surpasses investment in traditional tangible assets such as buildings, equipment and machinery. A firm's intangible investments are forms of their capital expenditures on marketing, innovation, employee training and job skills (Webster, 2000). Intangible investment includes expenditure for human capital, in the form of training and education, expenditure for research and development, and expenditure for market development (Añón et al, 2017). Wang and Sengupta (2016) explained that intangible investments are classified into three broad groups: computerized information (computer databases and programmes), innovation property (scientific and non-scientific R&D), and economic competencies (knowledge embedded in a firm's specific human capital and branding).

Financial Performance

Financial performance is defined as a subjective measure of how well a firm can use it assets from its primary mode of business and generate revenues (Mills, 2008). This term is also used as a general measure of a firm's overall financial health over a given period of time. Mwangi and Murigu (2015) defined financial performance as a measure of an entity's incomes, returns and increase in corporate value which is mirrored by the increase in price of the company's shares and can be equated with other companies across the sector or to relate the performance of businesses as a whole. Akparhuere et al (2019) stated that financial performance refers to the standard measurement of how a particular issue is handled or doing something successfully using

knowledge, treated different from just possessing it. Badingatus et al (2020) argued that use of financial performance could still be justified on the grounds that it reflects what managers actually consider to be financial performance and, even if this is a mixture of various indicators like accounting profits, productivity, and cash flow. Financial performance is determined by the following indicators; profit or value added; sales, fees, budget; costs or expenditure and stock market indicators (e.g. share price) and autonomy. There are several measures of firm financial performance such as profitability ratios, liquidity ratio etc. The common accounting ratios used to measure profitability are: return on assets (ROA), return on equity (ROE), net profit margin (NPM) and return on capital employed (ROCE). Return on assets is an indicator of how profitable a company is relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings (Lawyer & Efeeloo, 2017). Umar (2019) and Newstyle (2022) measure profitability ratios as Return on Assets (ROA) show the profit due to the use of assets, Return on Equity (ROE) for the profit which occurs due to equity and Net Profitability Margin (NPM) ratio for the profit earned due to the sale of one unit of final product.

Return on Capital Employed

Return on Capital Employed (ROCE) is measured as Earnings before Interest and Tax (EBIT) divided by Capital Employed of financial statements of the year ended. ROCE is a metric for analyzing profitability, and potentially comparing profitability levels across companies in terms of capital. There are two components required to calculate return on capital employed: earnings before interest and tax and capital employed. EBIT, also known as operating income, shows how much a company earns from its operations alone without regard to interest or taxes. EBIT is calculated by subtracting the cost of goods sold and operating expenses from revenues (Akparhuere et al. 2019). Capital employed is found by subtracting current liabilities from total assets, which ultimately gives you shareholders' equity plus long-term debts. Instead of using capital employed at an arbitrary point in time, some analysts and investors may choose to calculate ROCE based on the average capital employed, which takes the average of opening and closing capital employed for the time period under analysis (Ruigi et al, 2017).

Operational Conceptual Framework

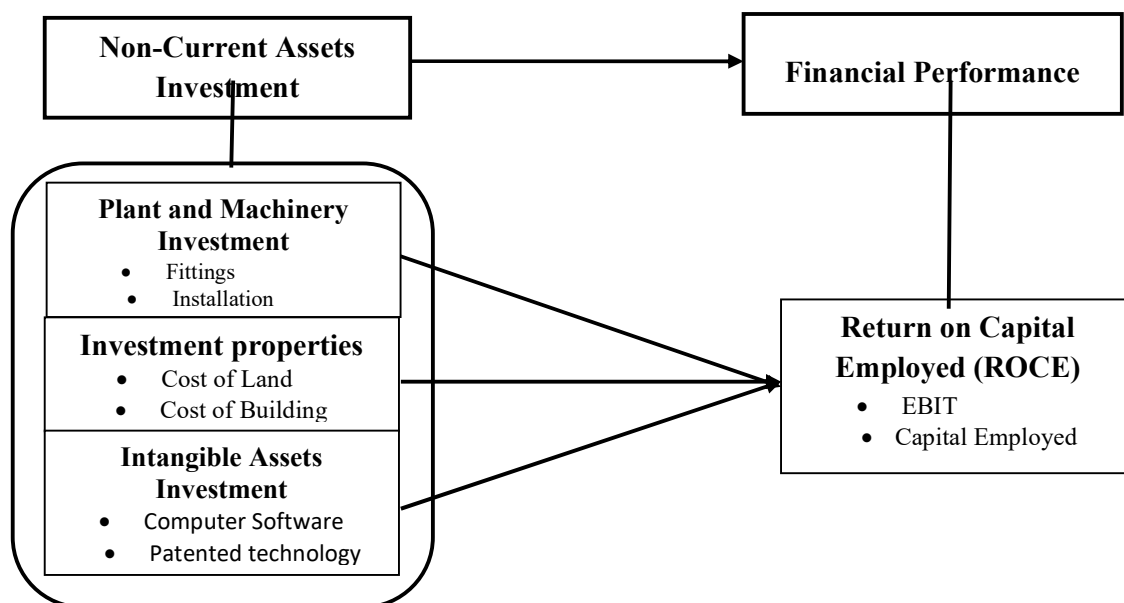


Figure 1.1: Operational framework showing the relationship between non-current assets investment and financial performance of listed insurance companies in Nigeria.

Source: Olatunji et al, (2014); Okoro and Charles (2019) and Anuar et al, 2021)

The relationship between non-current assets investment and financial performance

The relationships between non-current assets and financial performance have been identified and examined by previous studies. This relationship differs from one study to another. Some of the studies founded a positive relationship between non-current assets investment and financial performance. Olatunji (2014) found a negative relationship between noncurrent asset and bank performance. Okoye, et al (2019) revealed that goodwill has a significant effect on return on capital employed of quoted companies in Nigeria. Their findings were in line with the study of Ofurum et al (2018) who used human capital investment as proxy for intangibles. Mendoza (2017) showed that intangible assets impact significantly on total cash flow. Nnado and Ozouli (2016) revealed that intangible assets and financial performance was significant and negative. The above studies generally suggested that non-current assets investment may or not contribute significant impact to financial performance.

Theoretical Review

There are different theories that related to this study but the study was anchored to The Capital Asset Pricing Theory.

The Capital Asset Pricing Theory (CAPT)

The CAPT was developed by Treynor, Sharpe, Lintner and Mossin in the early 1960's and was refined further for a few years. The capital asset pricing theory (CAPT) is an extension of Markowitz mean-variance theory. CAPT was base on three major concepts. The first concept is of a risk-free investment, secondly a notion of market portfolio is used and thirdly an efficient Market is assumed to exist. The model predicts the relationship between the risk and equilibrium expected returns on assets. According to Bode et al (2003), CAPT required rate of return for a security to its risk as measured by beta. Beta measures the contribution of a single asset to the risk of a diversified portfolio. He further stated that beta is use for effective measure of systematic risk of a specific asset. The CAPM's expected return – beta relationship is as follows:

$$E(r_A) = r_f + \beta_A [E(r_m) - r_f]$$

Where: $E(r_A)$ = Expected return of Asset A
 r_f = risk-free rate of return
 β_A = Contribution of Asset A to the risk of a portfolio
 $E(r_m)$ = Expected return of the market

Source: Bode et al (2003)

The expected return – beta relationship also holds for any combinations of assets. The beta of a portfolio is simply the weighted average of the Betas of the Assets in the portfolio, using as weights the portfolio proportions (Bode, 2003). Assets are combined into portfolios based on possible equilibrium prices in different situations (Findlay et al, 1979).

The theory was relevant to this research because, the theory predicts the relationship between risk and equilibrium expected involves in investment of assets. The theory was helpful in explaining and understanding the impact of non-assets investment and financial performance variables.

Empirical Review

The review of empirical studies guides researchers for getting better understanding of objectives used, methodology used, limitations of various available estimation procedures and data base and lucid interpretation and reconciliation of the conflicting results. Besides this, the review of empirical studies explores the avenues for future and present research efforts related with the subject matter. In case of conflicting and unexpected results, the researcher can take the advantage of

knowledge of other researchers simply through the medium of their published works. According to Newstyle (2022), empirical review is classified into two namely non-tabular empirical review and tabular empirical review. He opined that both methods are significance when academic research based on project, dissertation and thesis is carryout. But it is advisable to employ one method when research based on article for publication.

Table 1: Summary of Empirical Review

S/N	Authors/Year	Research Topic	Methodology Used	Findings	Research GAP
1	Anuar et al (2021)	The impact of non-current assets on the performance of firms in Malaysian construction sector.	The methods employed in the research include descriptive analysis, correlation analysis, and fixed effects model to examine the research objectives	The results of the study revealed that the fixed asset turnover (FATO) in the construction sector has a significant positive impact on both ROA and ROE. On the other hand, the total assets turnover (TATO) has a significant positive impact only on ROE while asset tangibility (ASTA) has no impact at all on both ROA and ROE.	The study was carried out in firms in Malaysian construction sector, and they employed ROA and ROE as measure of financial performance while this current study is conducted in listed insurance companies in Nigeria, and the study employed ROCE as measure for financial performance.
2	Thankgod (2021)	The relationship between financial assets and performance of deposit money banks in Nigeria.	The study employed secondary data using expost facto research design, Linear regression was adopted for the analysis	The findings showed that there is positive and significant relationship between cash equivalents and return on investment of deposit money bank. It also indicated that there is positive and significant cash equivalents and return on equity of deposit money bank and those financial assets have significant relationship with performance of deposit money banks in Nigeria	The study was carried out in deposit money banks in Nigeria while this current study is conducted in listed insurance companies in Nigeria.
3	Badingatus et al (2020)	Fixed assets revaluation to increase value relevance of financial statements.	The study adopted the ex-post facto research design and secondary data were collected. The data analyzed using logistic regression methods	The results indicate that leverage significantly positive effect on the decision to revalue their fixed asset. Liquidity, size, fixed asset proportion, and the company's growth have not to influence to perform fixed asset revaluation	The study was carried out without a specific sector in Nigeria while this current study is conducted in a specific sector related listed insurance companies in Nigeria.

4	Ullah and Ahmad (2019)	The impact of current and non-current assets on the profitability of pharmaceutical companies of Pakistan	The study adopted ex post facto research design and regression analysis was used	The result showed that current assets have a significant positive impact with the return on assets while the fixed assets have a significant negative impact on profitability of pharmaceutical companies of Pakistan	The study was carried out in pharmaceutical companies of Pakistan while this current study is conducted in listed insurance companies in Nigeria.
5	Okoro and Charles (2019)	The effect of fixed assets revaluation on the profitability of commercial banks in Nigeria.	The study employed cross sectional panel data. Ordinary least square methods were used as data analysis methods	The findings revealed that revaluation of land and buildings have negative but insignificant effect on return on assets of the commercial banks while revaluation of equipment have positive and insignificant effect on return on assets. Unit root test found that the variables are stationary at first difference while the granger causality found no causal relationship among the variables	The study was carried out in commercial banks in Nigeria while this current study is conducted in listed insurance companies in Nigeria.
6	Osirim and Moses (2019)	The impact of current assets investment & management on corporate financial returns of listed commercial banks in Nigeria.	The longitudinal research design was adopted and secondary data was used. Ordinary least square (OLS) regression analysis was employed	The results of the study indicate that there exist a significant positive relationship between loans and advances granted to customers and return on assets. The relationship between loans and advances granted to other banks and return on assets is negative and significant at 5% confidence level. The other predictor variables (financial assets held for trading & cash, and cash balances) have an insignificant positive relationships with return on assets.	The study was carried out in listed commercial banks in Nigeria, and the study focused on current assets investment while this current study is conducted in listed insurance companies in Nigeria, and it focused non-current assets investment
7	Jan-Horas and Denny (2019)	The effect of asset management on financial performance.	The study uses panel data analysis which consists of six companies in the period 2013-2017 panel Data regression analysis	It is found that the independent variable FATO has a positive and significant effect on ROA	The study focused both current assets and non-current assets while this current study focused non-current assets investment

8	Lydia and Patrick (2018)	Effect of asset performance management on profitability of deposit taking Saccos in Nakuru County	Explanatory research design, stratified proportional sampling and random sampling technique Primary data, structured questionnaires descriptive statistics including, frequencies, mean and standard deviations and inferential statistics methods including correlation coefficient	The research findings indicate there exist a significant positive relationship between loan performance, fixed assets management, financial investments management, accounts receivables management and profitability of deposits taking Saccos in Nakuru Town	The study was carried out in deposit taking Saccos in Nakuru County, and the study focused both current assets and non-current assets while this current study is conducted in listed insurance companies in Nigeria, and it focused non-current assets investment.
9	Marian and Ikpor (2017)	Fixed assets investments on financial performance of selected banks in Nigeria	Ex-post-facto research design, secondary data multiple regression method of data analysis	Findings of the study show that cost of maintenance and repairs have a negative and significant impact on return on assets of banks. Furthermore, the study shows a negative and significant relationship between impairments of fixed assets and return on asset (ROA)	The study was carried out in selected banks in Nigeria while this current study is conducted in listed insurance companies in Nigeria.
10	Alexandra et al (2016)	The effect of non-current fixed assets on profitability and asset management efficiency	Quantitative analysis approach deductive approach Correlation, Regression	The differences in the measurement of accounting figures under IFRS and EAS may directly affect the numerator of ratio calculations, their denominator, or both	The study was carried out without a specific sector in Nigeria while this current study is conducted in a specific sector related listed insurance companies in Nigeria.

Source: Compiled by Researcher, (2022)

METHODOLOGY

Research Design: This study adopted ex-post facto research design. This design seeks to identify antecedents of a present situation. In ex-post facto research design, the variable is not controlled or manipulated by the researcher, because it has already occurred in the past. The data involved are from the published annual reports of listed insurance companies founded in the Nigerian Stock Exchange.

Population and Sample of the Study: The targeted population of this study consists of all the listed 13 insurance companies in the Nigerian Exchange Group (NGX) but the accessible population consists of eight (8) listed insurance companies in Nigeria and the time frame considered for this study was 2015-2020 for the purpose of secondary data collection. Therefore, the sample size of

this study is made up of (8) listed insurance companies in Nigeria which were purposively selected on the availability of data during the years 2015 to 2020.

Source of Data Collection and Analysis Technique: The study employed secondary sources of data collection mainly from the published audited financial statements of insurance companies in Nigeria obtained from their website for the study period to analyse the relationship of the independent variables on the dependent variables. The data collected were analyzed using descriptive statistics, Unit root test and multiple linear regression analysis of panel data for the years 2015 to 2021 with aid of E-View 10.

Model Specification: Model specification is the determination of the endogenous and exogenous variables to be included in the model as well as the a priori expectation about the sign and the size of the parameters of the function (Appah, 2020). The following model was developed based on the study variables:

Return on Capital Employed (ROCE) Model

$$\text{ROCE} = f(\text{EMI}, \text{IP}, \text{IAI}) \dots\dots\dots 1$$

This can be written in Ordinary Least Square (OLS) form as:

$$\text{ROCE}_t = a_0 + a_1\text{EMI}_t + a_2\text{IP}_t + a_3\text{IAI}_t + U_t \dots\dots\dots 2$$

$$a_1 > 0; a_2 > 0; a_3 > 0$$

Where: ROCE = return on capital employed, as proxy for financial performance
 EMI = plant and machinery investment as proxy for non-current assets investment
 IP = investment property as proxy for non-current assets investment
 IAI = intangible assets investment as proxy for non-current assets investment
 t = time period under study
 a₀ = constant
 a₁ parameter or coefficient of explanatory variable
 u = error term

Decision Rule:

Accept Ho₁ to Ho₃ for If P (Greater than) > 0.05. Otherwise reject.

Other tests of significance which was used in the study were:

R² – coefficient of determination was use to test the explanatory power of the independent variable;

T-test was use to test for the significance of the coefficient of the variables;

F-Ratio was use to test for the significance of the overall models;

Durbin-Watson (DW) test was use to test whether auto-correlation exist or not in error term (u);

RESULTS AND DISCUSSIONS

This section of the study presents the results and discussion from the data obtained from the annual reports of the sampled insurance companies in Nigeria.

Descriptive Statistic (Univariate Analysis)

Univariate analysis is a basic kind of analysis technique for statistical data. However, the data contains just one variable and does not have to deal with the relationship of a cause and effect. The main objective of the univariate analysis is to describe the data in order to find out the patterns in the data. This is done by looking at the mean, median, standard deviation, Skewness, Kurtosis. Jargue- Bera and Probability etc.

Table 2 Descriptive Statistics of the Variables

	ROCE	PMI	IP	IAI
Mean	0.099164	6.598047	6.000261	4.886277
Median	0.076175	6.400535	5.617610	4.459320
Maximum	0.315960	8.983890	8.977190	7.484020
Minimum	0.003500	5.559680	4.748190	3.078820
Std. Dev.	0.085133	0.938006	1.225135	1.190528
Skewness	1.272511	1.947758	1.514298	0.776737
Kurtosis	3.698263	5.440267	4.372567	2.656975
Jarque-Bera Probability	13.92941 0.000945	42.25988 0.000000	22.11268 0.000016	5.061890 0.079584
Sum	4.759860	316.7063	288.0125	234.5413
Sum Sq. Dev.	0.340635	41.35319	70.54491	66.61576
Observations	48	48	48	48

Source: Author computation using E-views 10

Table 1 presents the descriptive analysis of the time series properties of the variables included in the model. The descriptive statistics was carried out for the variables involved in our model from the cross panel data 2015 to 2020. The result showed that, mean value of ROCE, PMI, IP and IAI as 0.099, 6.598, 6.000 and 4.886 respectively. The standard deviation of ROCE, PMI, IP and IAI from their respective long-term mean values for every points at 0.085, 0.938, 1.225 and 1.190 respectively. The overall Jarque-Bera values for ROCE, PMI and IP variables are higher and their respective corresponding probability values is less than 0.05 level of significance indicating that they are normally distributed and the variables are suitable for conducting analysis. However, IAI is also higher but his respective corresponding probability value is greater than 0.05 level of significance shows that the distribution level at mean zero and constant variance. All the variables are positively Kurtosis. Also ROCE, PMI, IP and IAI are all positive skewness implies that they have a long right tail. But this assumption will be reaffirms with unit root test of stationarity.

Table 3: Output of Stationarity Test for Unit Root

Variables	Method 1	Level	1 ST diff	Method 2	Level	1 ST diff
		5% Prob.	5% Prob.		5% Prob.	5% Prob.
PMI	ADF	0.3899	0.0000	PP	0.3395	0.0000
IP	ADF	0.0118	0.0001	PP	0.0025	0.0000
IAI	ADF	0.0636	0.0002	PP	0.0001	0.0001
ROCE	ADF	0.5817	0.0001	PP	0.6726	0.0001

Source: E-view Output for Stationarity of Data

The table above showed the unit root test for variables conducted under the condition of an included intercept but no trend, the result revealed that the values of the Augmented DickeyFuller (ADF) of 0.3899, 0.0118, 0.0636 and 0.5817 respectively, the result implied that at level only one variables IP passed the stationarity test while PMI, IAI and ROCE values was greater than 0.05 means that there is no stationary amongst this variables. Hence, the researcher apply 1st difference method of unit root test to normalize the variables. The result also revealed Phillips-Perron unit root test of at level (0.3395, 0.0025, 0.0001 and 0.6726 which implied that IP and IAI passed the stationarity test while PMI and ROCE values was greater than 0.05 means that there is no stationary amongst this variables. Hence, the researcher apply 1st difference method of unit root test to normalize the variables.

However, at 1st difference, all variables for both ADF and PP unit root test was less than 0.05 which confirmed that, there is no reason to doubt the stationarity of the variables in question which implied that the null hypotheses of non-stationarity of the variables in the model is rejected after 1st differencing at 5 percent level of significance. Hence, the variables are set for Multivariate (Regression) Analysis.

Multivariate (Regression) Analysis

The objective of this analysis is to determine the joint significant relationship of non-current assets investment variables on financial performance presented by Return on Capital Employed (ROCE). Specifically, we want to estimate the ROCE response coefficients of plant and machinery investment (PMI), investment properties (IP) and intangible assets investment (IAI). Accordingly, a two-prong action plan is implemented. The first plan is testing for the significance of the estimated coefficient; secondly, establishing the direction of estimated coefficient. The parameter for gauging the significance of the estimated coefficients is the p-value. If the p-value of the estimated coefficient is less than 0.05, then the coefficient is significant otherwise it is not significant. On the other hand, the basis of establishing the direction of the response is the sign of the coefficient. If the coefficient is negative (-ve) then it means ROCE decreases for every unit increase of the variable associated with the coefficient. If the coefficient is positive, then it means ROCE increases for every unit increase in the variable associated with the coefficient.

Table 4: Regression Analysis of ROCE Model

Dependent Variable: ROCE

Method: Panel Least Squares

Date: 04/10/22 Time: 18:53

Sample: 2015 2020

Periods included: 6

Cross-sections included: 8

Total panel (balanced) observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.028724	0.085432	0.336217	0.7383
PMI	0.060230	0.025806	2.333971	0.0242
IP	-0.017836	0.017937	-0.994384	0.3255
IAI	-0.045011	0.013828	-3.255128	0.0022
R-squared	0.217301	Mean dependent var		0.099164
Adjusted R-squared	0.163935	S.D. dependent var		0.085133
S.E. of regression	0.077842	Akaike info criterion		-2.188609
Sum squared resid	0.266614	Schwarz criterion		-2.032676
Log likelihood	56.52662	Hannan-Quinn criter.		-2.129682
F-statistic	4.071906	Durbin-Watson stat		1.401346
Prob(F-statistic)	0.012284			

Source: Authors own computation Using E-View 10

The result in table 4 discovered a correlation coefficient of ($R^2 = 0.217$, Adjusted $R^2 = 0.1163$) which illustrated that relationship exist jointly between independent variables (PMI IP, IAI) and dependent variable (ROCE). The coefficient of determination R-Square represented the proportion of variance of dependent variable (ROCE) that has been explained by the independent variables (PMI IP, IAI) in the model. This implied that 21.7% of the increase in Return on Capital Employed (ROCE) is due to increase in PMI, IP and IAI while 78.3% was explained by unknown variables that were not included in the model. The F-statistic, 4.071 with a Prob (F-statistic) value of 0.0122 showed that the model satisfies the overall goodness-of-fit statistical test. It implies that ROCE

measures, inclusive of the moderator variable are able to predict PMI, IP and IAI of the sampled listed insurance companies in Nigeria. The Durbin-Watson Statistic of 1.401 suggests that the model does not contain serial correlation.

Test of Hypotheses

Statement of Hypotheses

- H₀₁** There is no relationship between plant & equipment investment and return on capital employed of listed insurance companies in Nigeria,
- H₀₂** There is no relationship between investment properties and return on capital employed of listed insurance companies in Nigeria,
- H₀₃** There is no relationship between intangible assets investment and return on capital employed of listed insurance companies in Nigeria.

Decision Rule: Accept H_0 if $P > 0.05$. Otherwise reject

Decision: The result in table 4 discovered a significant relationship between plant and machinery investment (PMI) and return on capital employed (ROCE). The probability value $P = 0.0242 < 0.05$ revealed that the significant relationship between plant and machinery investment (PMI) and return on capital employed (ROCE) is statistically significant at 0.05 alpha level. Thus the null hypothesis one is rejected which implied that there is a significant relationship between plant and machinery investment and return on capital employed of listed insurance companies in Nigeria.

The result in table 4 discovered an insignificant relationship between investment properties (IP) and return on capital employed (ROCE). The probability value $P = 0.3255 > 0.05$ revealed that the significant relationship between investment properties (IP) and return on capital employed (ROCE) is statistically insignificant at 0.05 alpha level. Thus the null hypothesis two is accepted which implied that there is no significant relationship between investment properties and return on capital employed of listed insurance companies in Nigeria.

Finally, the result in table 4 discovered a significant relationship between intangible assets investment (IAI) and return on capital employed (ROCE). The probability value $P = 0.0022 < 0.05$ revealed that the significant relationship between intangible assets investment (IAI) and return on capital employed (ROCE) is statistically significant at 0.05 alpha level. Thus the null hypothesis three is rejected which implied that there is a significant relationship between intangible assets investment and return on capital employed of listed insurance companies in Nigeria.

Discussion of Findings

Results from the regression coefficient presented in the above table revealed that, plant and machinery investment (PMI) and intangible assets investment (IAI) variables of non-current investment had positive and negative relationship and statically significant with return on capital employed (ROCE) in financial performance as indicated in the table t -value = 2.333; -3.255 and P -value = 0.0242; 0.0022. The finding concurred with Ullah and Ahmad (2019) whose result indicated fixed assets have a significant negative impact on profitability of pharmaceutical companies of Pakistan. Jan-Horas and Denny (2019) study found that the independent variable FATO has a positive and significant effect on financial performance. Marian and Ikpor (2017) study shows a negative and significant relationship between impairments of fixed assets and financial performance. Nevertheless, some prior empirical findings disagreed with this study, for instance Okoro and Charles (2019) whose findings revealed that revaluation of land and buildings have negative and insignificant effect on financial performance of the commercial banks while revaluation of equipment have positive and insignificant effect on return on assets.

Furthermore, the above table also revealed that, investment properties (IP) variable of non-current investment had negative relationship and statically insignificant with return on capital employed (ROCE) in financial performance as indicated in the table t -value = -0.994 and P -value = 0.3255. The finding concurred with Okoro and Charles (2019) whose result revealed that revaluation of

land and buildings have negative and insignificant effect on financial performance of the commercial banks while revaluation of equipment have positive and insignificant effect on return on assets.

CONCLUSIONS AND RECOMMENDATIONS

The study investigated the relationship between non-current assets investment and financial performance of listed insurance companies in Nigeria. The study adopted an ex-post-facto research design and secondary sourced of data collection was used. Plant and machinery investment (PMI), investment properties (IP) and intangible assets investment (IAI) was used as measures for non-current assets investment while return on capital employed (ROCE) was used as proxy for financial performance. Descriptive statistics, unit root test and multiple linear regression method of data analysis was employed. The results obtained indicated that plant and machinery investment (PMI) had positive influence and statically significant with return on capital employed of listed insurance companies in Nigeria; investment properties had negative influence and statically insignificant with return on capital employed of listed insurance companies in Nigeria; intangible assets investment had negative influence and statically insignificant with return on capital employed of listed insurance companies in Nigeria. Therefore, the study generally concluded that, there is a negative and significant relationship between non-current assets investment and financial performance of listed insurance companies in Nigeria. Based on the conclusion, the study suggested as follows;

1. Since plant and machinery investment of the listed insurance companies is positively and significantly related with return on capital employed, this study therefore recommends that insurance companies in Nigeria should sustain their investment in plant and machinery to enhance profitability.
2. Insurance companies in Nigeria should again sustain investment in properties because the study affirmed that it has negative but significant related with return on capital employed.
3. Investment in properties by companies in Nigeria should be guided by other considerations since it is negatively and insignificant relationship with return on capital employed.

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