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Effect of Non-Current Asset on Shareholder's Fund of Oil and Gas Firms in Nigeria

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Abstract

Objective: This study examined the effect of non-current assets on shareholders' funds in Nigerian oil and gas firms. Specifically, it evaluated the impact of land and buildings, as well as plant and machinery, on shareholders' equity.

Methodology: Data were collected from the annual reports of sampled firms and analyzed using multiple regression analysis to determine the relationship between non-current assets and shareholders' funds.

Findings: The results revealed that both land and buildings (LB) and plant and machinery (PM) have positive and significant effects on shareholders' funds (SHF) in Nigerian oil and gas firms. This indicates that investments in these non-current assets contribute meaningfully to shareholder value.

Conclusion: Investments in land, buildings, and machinery are crucial for enhancing shareholders' wealth in the oil and gas sector. These long-term assets increase future returns, thereby strengthening shareholders' equity.

Recommendation: Nigerian oil and gas firms should prioritize substantial investments in land and buildings to boost shareholders' funds. Such long-term assets not only improve future profitability but also enhance overall shareholder wealth.

Keywords: *Shareholders Fund, Plant and Machinery, Land and Building.*

1.0 INTRODUCTION

1.1 Background of the Study

As Nigeria adopted IFRSs, firms listed on its Nigeria exchange group are to prepare their IFRSs based financial reports by December, 2012. IFRS 1, first time adoption provides exemptions and options for firms with respect to non- current assets measurement. Managers have the flexibility of using either cost model or fair value model for measuring property, plant

and equipment (IAS 16) and intangible assets (IAS 38) during the first time IFRS adoption. The objective of IFRS 1 is to ensure that a firm's initial IFRS based financial statements contain high quality financial information that is transparent and comparable across periods and/or firms generated at a cost not exceeding the benefits, and provides a fitting starting of IFRS reporting. According to Adika, (2015) under the information perspective of discretional accounting choice, managers make accounting choices based on the flexibility allowed within the accounting standards to improve the relevance, reliability and predictability of the information.

Nwabuisi, (2015) opined that the oil and gas industry plays a critical role in the Nigerian economy, significantly contributing to the country's Gross Domestic Product (GDP), foreign exchange earnings, and government revenue. Non-current assets, which include property, plant, equipment, and other long-term investments, form a substantial part of the total assets of oil and gas firms. These assets (Land & building, Plant & machinery, Motor vehicle and Intangible assets) are essential for the exploration, development, and production activities that drive the industry. Understanding the relationship between non-current assets and shareholders' funds, which represent the equity stake of the owners in a company, is crucial for investors, policymakers, and other stakeholders. This research aims to explore the impact of non-current assets on shareholders' funds in Nigerian oil and gas firms, providing insights into how these long-term investments influence equity value and financial health.

Nigeria is one of the largest oil-producing countries in the world, with its oil and gas sector being a cornerstone of the national economy. The sector's infrastructure is heavily reliant on substantial non-current assets due to the capital-intensive nature of oil exploration and production. Investments in drilling rigs, refineries, pipelines, and storage facilities are vital for the operational efficiency and profitability of oil and gas firms. These assets, although non-liquid and subject to depreciation, are expected to generate future economic benefits and enhance the value of the firms (Adika, 2015).

Non-current assets are recorded on the statement of financial position at their historical cost minus accumulated depreciation, reflecting their book value. Shareholders' funds, on the other hand, consist of share capital, reserves, and retained earnings (Hassan, Imran, Amjad and Hussain, 2014). The interaction between these two elements can provide insights into the financial stability and growth potential of oil and gas companies. High levels of non-current assets might indicate substantial future returns but also suggest significant capital tied up in long-term investments, affecting liquidity and risk profiles. This study delves into how these factors interplay to affect shareholders' equity in Nigerian oil and gas firms.

Non-current assets are recorded on a company's statement of financial position and are usually presented separately from current assets, which are assets expected to be converted into cash or consumed within one year. The value of non-current assets is reported net of accumulated

depreciation (for tangible assets) or amortization (for intangible assets) to reflect their estimated remaining useful life and any impairment losses that may have occurred.

1.2 Statement of Problem

Despite the critical importance of non-current assets such as Land & building, Plant & machinery, Motor vehicle and Intangible assets in the oil and gas industry, there is a paucity of empirical studies examining their direct impact on shareholders' funds in Nigerian firms. This gap in research leaves a crucial question unanswered: How do investments in non-current assets influence the equity value and financial health of oil and gas companies in Nigeria? Several issues arise from this question:

1. **Valuation Challenges**: Determining the precise impact of non-current assets on shareholders' funds is complicated due to valuation challenges. The fluctuating nature of oil prices, technological changes, and regulatory shifts can all affect asset values and, consequently, shareholders' equity.
2. **Depreciation and Asset Management**: Non-current assets depreciate over time, affecting the book value recorded on financial statements. Understanding how depreciation policies and asset management practices impact shareholders' funds is essential for accurate financial analysis.
3. **Capital Intensity vs. Returns**: Oil and gas firms require significant capital investments in non-current assets, which may not immediately translate into increased shareholders' funds. The long gestation period for returns on these investments necessitates an investigation into their long-term impact on equity value.
4. **Regulatory and Economic Factors**: The Nigerian oil and gas sector is subject to stringent regulatory frameworks and economic volatility. Assessing how these external factors influence the relationship between non-current assets and shareholders' funds is critical for a comprehensive understanding.

Previous studies has shown that the disparity in the presentation of non-current assets in the statement of financial position by Nigerian firms is a source of concern to the researcher which motivated the researcher to examine the effect of property plant and equipment, loan receivable, investment in property and intangible assets on shareholders' fund of oil and gas firms.

Lack of adequate local empirical literature on property plant and equipment, loan receivable, investment in property, intangible assets and Shareholders' fund of firms has limited ascertaining the extent of effect existing non-current asset and Shareholders' fund of oil and gas firms operating in Nigeria. This study intends to bridge this gap by providing reliable empirical evidence on the effect of non-current assets on Shareholders' funds of oil and gas firms in Nigeria.

1.3 Objectives of the Study

The main objective of the study is to examine the effect of non-current assets on Shareholders' funds of oil and gas firms in Nigeria. The specific objectives are to:

i. Ascertain the effect of land and building on shareholders' funds of oil and gas firms in Nigeria.
ii. Evaluate the effect of plant and machinery on shareholders' funds of oil and gas firms in Nigeria.
iii. Examine the effect of motor vehicles on shareholders' funds of oil and gas firms in Nigeria.
iv. Appraise the effect of intangible assets on shareholders' funds of oil and gas firms in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Non-Current Asset

Non-current assets are assets whose benefits will be realized over more than one year and cannot easily be converted into cash. The assets are recorded on the statement of financial position of the firm at acquisition cost, and they include property, plant and equipment, intellectual property, intangible assets, and other long-term assets (Adika, 2015).

Non-current assets are a company's long-term investments for which the full value will not be realized within the accounting year. They are typically highly illiquid, meaning these assets cannot easily be converted into cash. Examples of noncurrent assets include investments, intellectual property, real estate, and equipment. Noncurrent assets appear on a company's statement of financial position (Aggelopoulos, Eriotis, Georgopoulos, and Tsamis, 2016).

Non-current assets are a company's long-term investments that are not easily converted to cash or are not expected to become cash within an accounting year. Also known as long-term assets, their costs are allocated over the number of years the asset is used and appear on a company's statement of financial position. Noncurrent assets fall under three major categories: tangible assets, intangible assets, and natural resources. Examples of noncurrent assets include investments, intellectual property, real estate, and equipment (Mwaniki and Omagwa, 2017).

2.1.2 Land and Building

Land and buildings are tangible, long-term assets companies use and benefit from over time. They are tangible because they have a physical form—unlike intangible assets (such as patents, trademarks and copyrights) that do not.

Land and Buildings means any and all land or interest in land (including easements) acquired by Transpower for the purposes of establishing a connection location or substation, or for

supporting grid assets, together with all buildings, oil containment facilities and the capitalised cost of establishing a connection location or substation or other grid asset (as the case may be);

When a company purchases land and buildings, the full cost is added to the balance sheet. Because the value of a building decreases as it is used, its cost is amortized (spread across several years) rather than treated as a one-time expense. This amortization appears on the income statement and is done only for buildings. Land is not usually amortized because it is assumed to hold its value.

2.1.3 Plants and Machinery

Plants, by and large called non-current assets or long haul assets are those unmistakable assets of a business that have the accompanying qualities: are not purchased essentially to be exchanged, are to be utilized in the business and are relied upon to be utilized for quite a while. (Over one year). Precedents are land and buildings, plant and machinery, equipment and furniture. property, plant and equipment more often than not establish a noteworthy extent of most organization's monetary record; however , the genuine extent differs from organization to organization contingent upon their tendency of business (Simeon, 2015).

2.1.4 Motor Vehicle

A motor vehicle, also known as a motorized vehicle, automotive vehicle or road vehicle, is a self-propelled land vehicle, commonly wheeled, that does not operate on rails (such as trains or trams) and is used for the transportation of people or cargo.

The vehicle propulsion is provided by an engine or motor, usually an internal combustion engine or an electric motor, or some combination of the two, such as hybrid electric vehicles and plug-in hybrids. For legal purposes, motor vehicles are often identified within a number of vehicle classes including cars, buses, motorcycles, off-road vehicles, light trucks and regular trucks. These classifications vary according to the legal codes of each country. ISO 3833:1977 is the standard for road vehicle types, terms and definitions. Generally, to avoid requiring people with disabilities from having to possess an operator's license to use one, or requiring tags and insurance, powered wheelchairs will be specifically excluded by law from being considered motor vehicles.

2.1.5 Intangible Assets

An intangible asset is an asset that is not physical in nature. Goodwill, brand recognition and intellectual property, such as patents, trademarks, and copyrights, are all intangible assets. Intangible assets exist in opposition to tangible assets, which include land, vehicles, equipment, and inventory. Additionally, financial assets such as stocks and bonds, which derive their value from contractual claims, are considered tangible assets (Garanina and Pavlova, 2011).

(Garger, (2010) opined that an intangible asset can be classified as either indefinite or definite. A company's brand name is considered an indefinite intangible asset because it stays with the

company for as long as it continues operations. An example of a definite intangible asset would be a legal agreement to operate under another company's patent, with no plans of extending the agreement. The agreement thus has a limited life and is classified as a definite asset.

2.1.6 Shareholders' Value

Shareholders' fund is the value delivered to the equity owners of a corporation due to management's ability to increase sales, earnings, and free cash flow, which leads to an increase in dividends and capital gains for the shareholders. Shareholder value is a business term, sometimes phrased as shareholder value maximization or as the shareholder value model, which implies that the ultimate measure of a company's success is the extent to which it enriches shareholders. It became prominent during the 1980s and 1990s along with the management principle value-based management or "managing for value" (Hecking, 2012).

Mäenpää, (2016) opined that a company's shareholder value depends on strategic decisions made by its board of directors and senior management, including the ability to make wise investments and generate a healthy return on invested capital. If this value is created, particularly over the long term, the share price increases and the company can pay larger cash dividends to shareholders. Mergers, in particular, tend to cause a heavy increase in shareholder value.

2.2 Theoretical Framework

Two theories were used to support this study. The theories are, agency theory put forward by Adolf Augustus Berle and Gardiner Coit Means in 1932 and financial constraint theory by Eliyahu Moshe Goldratt in 1990.

2.2.1 The Agency Theory

Agency theory was initially put forward by Adolf Augustus Berle and Gardiner Coit Means in 1932. Later, other notable authors like Adam Smith (1972), Stephen Ross & Marr Mitmick (1972) and Michael Cole Jensen and William H. Meckling in 1976 etc, contributed to the development of the study. Ross and Mitmick (1972) argued that firm growth most of the time benefits managers rather than stockholders. The study investigates what happens when managers, as opposed to owners, run large corporations. Adam Smith (1776) pointed out that hired managers do not take as much care of their firms as do owners. Managers pursue growth because growth benefits them personally, growth guarantees employment and salary increases for managers due to the greater responsibilities of managing a larger firm.

Michael Cole Jensen and William H. Meckling in 1976 argued that agency conflicts arise from the possible divergence of interests between shareholders (principals) and managers (agents) of firms. The primary duty of managers is to manage the firm in such a way that it generates returns to Shareholders thereby increasing the profit figures and cash flow. Due to a non-rational and opportunistic behavior of agents (the interests and decisions of managers are not always aligned to the shareholders' interests, resulting in agency costs or agency problems.

2.2.2 Financial Constraint Theory

This theory was propounded by Eliyahu Moshe Goldratt in 1990. In the theory, Eliyahu Moshe Goldratt in 1990 contends that organizations which don't make profit, do not have a support to contribute and won't have the capacity to back their development or possibly their supportability, will at long last vanish. Here, the cradle is the held income, which will be little if the organization does not make a profit or chooses to allot the majority of its benefit to the shareholders. The financing constraints theory (FCT) is the study of the impact of financial frictions on the firm's investment. It constitutes one of the most important cornerstones of corporate finance. The relaxation of Modigliani and Miller's (1958) conjectural framework leads to the interdependence of financing and investment decisions. Indeed, three main failures link between them, i.e., information, bankruptcy, and taxation. The FCT theory hinges on the theoretical underpinnings that encompass the information driven problems of studying the firm's investment under the incentive restriction(s). This cradle is equivalent to the inside capital, or, in other words outer capital as indicated by the pecking request theory. Put in another way, the theory expresses that the organizations which produce benefit and then hold it, benefit themselves from good development openings while the organizations having no or low benefits can't profit from great investment openings, so they don't develop quickly (Jang and Park, 2011).

Non-current assets administration is worried about how to oversee investment in non-current assets like intangible and physical assets to guarantee that values are put into reasonable activities that will ensure future returns to the firm thereby boosting shareholders' esteem. Agency theory then again features the contention between firms' proprietors and firm administrators trying to choose whether to expand the measure of the firm through investment in non-current assets that will convey future advantages to the firm or whether to put resources into fluid assets that will create a prompt return to the shareholders. Firm supervisors want to expand the extent of the firm since they benefit from it though shareholders lean toward prompt profit for their investment. This examination is, therefore, secured on the agency theory.

This investigation is worried about the impact of non-current assets on shareholders' estimation of recorded Oil and gas firms in Nigeria. Then again the Agency Theory set forward by Adolf Augustus Berle and Gardiner Coit Means in 1932 and later creator like, Adam Smith (1972), Stephen Ross and Marr Mitmick (1972) and Michael Cole Jensen and William H. Meckling in 1976 added to the advancement of the examination. The theory called attention to the fact that enlisted directors don't take as much consideration of their organizations as do proprietors. Supervisors seek after firm development since development ensures their business and pay increments because of the more noteworthy duties of dealing with a bigger firm. Because of the significance of this theory to asset administration, the examination is tied down to the Agency Theory.

2.3 Empirical Review

Previous studies relating to the topic were reviewed and the result presented below to assist the current study during discussion of findings.

2.3.1 Land & Building and Shareholders' Fund

Onyekwelu, Okoh and Iyidiobi (2017) examined the impact of intellectual capital on financial performance of Banks in Nigeria. The exploration utilized the value added intellectual coefficient (VAIC) to learn the degree that intellectual capital lists influence financial performance of three Nigeria. Information was gathered from the distributed yearly financial proclamations of the three (3) banks chose and broke down utilizing relapse instruments. The investigation demonstrates that IC has a positive and critical impact on banks' financial performances of the banks however some are not huge. The outcomes further demonstrated that the banks are measurably extraordinary in both the intellectual capital and its financial performance pointers. It likewise demonstrates that the savings money with high IC additionally indicates high financial performance. The investigation prescribes banks in Nigeria overwhelmingly developing their human capital as a key driver of association's performance. They ought to likewise give the foundations expected to accomplish a virile human capital in the framework.

Ubesie and Ogbonna (2013) assessed the impact of investment in non-current assets on return on assets of the cement producing industry in Nigeria for a time of 2014-2013. The free factors are Land and Buildings, Plant and Machinery, Motor Vehicles, Furniture and Fittings, while the needy variable is return on resource. Optional information were from the tested firms and dissected utilizing various relapses investigation. Result demonstrates that there is an impact of non-current assets on return on assets however isn't critical. It likewise demonstrated that the autonomous variable Plant and Machinery contributed more to return on resources yet not noteworthy. It was suggested that there ought to be greater investment in non-current resources particularly plant and machinery with the end goal to expand the arrival of resources of the concrete assembling industry in Nigeria. It was additionally suggested that organizations in Nigeria ought to put definitely in motor vehicles to facilitate the issue inalienable in dissemination of cement item in Nigeria.

2.3.2 Plants & Machinery and Shareholders' Fund

Olusegun and Olowolaj (2017) sampled 10 Deposit Money Banks in Nigeria for the period of 2009 to 2014 and investigated the influence of asset management on financial performance of the firms. Secondary data were obtained from the Central Bank of Nigeria annual statistical bulletin and also from the financial statements of selected Banks. Time-series and cross sectional data were analyzed using the econometric view (E-view) software to compute a descriptive statistic of the study variables while panel data regression analysis was used to explore the relationship between assets and liability management and financial performance. Result reveals that loans and advances are positively related to return on equity especially when

profitability is measured as a proxy of financial performance, while the liability variables are negatively related to the measure of bank performance. It was concluded that asset management has a significant effect on the financial performance of Nigerian deposit money banks. Also that asset management positively and liability management negatively related to profitability of Deposits Money Bank in Nigeria. The study recommended that Nigeria banks should improve their management of loans and advances as much as possible as this will enable them to improve the profitability of Deposits Money Banks in the country and also give them a competitive edge. To avoid bank crises and bank failures in the country it was also recommended that high cost of operations which has significant effects on profitability of the Deposits Money Bank in Nigeria should be mitigated.

Lubyanayaa, Izmailova, Nikulinaaand Shaposhnikov (2016) led an examination to explore the impact of non-current assets on productivity and resource administration proficiency in Egypt. Substantial assets, intangible assets and financial assets are non-current assets measures while net revenue, working overall revenue, net revenue, return on assets and profit for value were utilized as proportions of benefit. Relapse investigation was utilized to examine the information gathered for the examination. The distinctions in the estimation of bookkeeping figures under IFRS and EAS may specifically influence the numerator of proportion counts, their denominator, or both. Non-current assets essentially influence the benefit of the organizations depending whether IFRS or EAS was utilized in introducing the financial articulations.

2.3.3 Motor Vehicle and Shareholders' Fund

Adika (2015) evaluated the impact of intangible assets power on unpredictability of stock prices for firms recorded at the Nairobi Securities Exchange from 2010 to 2014. The investigation checks if the power of intangible assets in an organizations' announcement of financial position influences the instability of their stock cost. An example of 13 firms was chosen and optional information gathered from the organizations. These organizations were randomly chosen from five distinctive industry groupings specifically: managing an account, vitality and oil, investments, data and media transmission and assembling. The information was broken down utilizing direct relapse models. Discovering demonstrates a positive relationship between power of intangible assets and unpredictability of stock prices. Be that as it may, results from the control factors, organization size and obligation had a negative relationship among them and stock prices unpredictability. A conceivable clarification for this finding is the way that intangible assets exercises tend to build the level of data asymmetry on ventures and future acquiring for a firm and this thus creates an expansion in stock value unpredictability.

Mawih (2014) inspected the impacts of asset structure (non-current assets and current assets) on the financial performance of some assembling organizations recorded on Muscat Securities Market (MSM), for the period 2018-2012. The assets structure was estimated by non-current assets turnover and current assets turnover while the financial performance was estimated by ROA and ROE. The general consequence of the examination was that the structure of assets

does not strongly affect benefit regarding ROE. Result shows that just the non-current assets had an effect on ROE not at all like ROA. Further, the outcome proposed that the impact of advantage structure affected ROE just in petro-synthetic part. It likewise inferred that there was no effect for current assets on ROE and ROA.

2.3.4 Intangible Assets and Shareholders' Fund

Aggelopoulos, Eriotis, Georgopoulos and Tsamis (2016) explored the effect of innovative work investment on operational performance of little and Medium sized Enterprises (SMEs) in Greece from 2012 to 2017. One Hundred and Eight 108 (9%) SME were tested from an aggregate populace of 1.234 assembling SMEs, with advancement action amid the examination time frame. Conventional minimum squares relapse (OLS) investigation was connected on the board information gathered for the example for the period. Results feature the positive job of R&D investment in the performance enhancement of SMEs, particularly in the expansion of working money streams and gross net revenues. Furthermore, the outcomes show that the performance effect of R&D action is directed by the existence cycle and firm size, however it doesn't rely upon the innovative force of the business. Generally speaking, the discoveries propose that R&D action might be a positive factor in the upgrade of SMEs operational performance.

Gamayuni (2015) observationally tried the connection between intangible assets, financial approaches, and financial performance on the firm value at opening up to the world organization in Indonesia. Way investigation was utilized to discover the connection between intangible assets, financial arrangements, financial performance, and firm value at opening up to the world organization in Indonesia in the year 2017 to 2009. This investigation likewise gives observational proof that Intangible assets, financial strategies, and financial performance have a huge impact on the firm's value all the while. Intangible assets have no noteworthy impact to financial approaches, however have positive and huge effects on financial performance (ROA) and firm value. Obligation strategies and financial performance (ROA) affected firm value positively and noteworthy. Financial explanations restriction in estimating and uncovering intangible assets is the reason for noteworthy contrast between book value and market value. Estimation and revelation of intangible assets (intellectual capital) exactly and precisely is essential, since intangible assets have a positive and huge impact on the firm value.

Kamath (2015) assessed the effect of intellectual capital on financial performance and market valuation of firms in India from 2012 to 2013. Thirty firms from S&P BSE SENSEX record which comprises 30 firms from crosswise over different assembling and administration segments were chosen for the investigation. Various straight Regression examinations were utilized to think about the effect of IC on financial performance and market value of these select firms. The paper utilizes the VAICTM system to assess the information and finds that the financial performance and market value is for sure impacted by the IC of the organizations. This outcome is significant for the company's administration and approach creators to make IC

exposure and announcing mandatory in firms bookkeeping proclamations as the partner can get the genuine image of the genuine value of the firm.

2.4 Gap in Literature

The review of literature indicates that many related studies have been conducted in this area. However, most of the existing studies were done outside Nigeria. For instance, out of the fifteen empirical studies reviewed, only few of them were conducted in Nigeria while the remaining were done outside the country. Most of the studies were done in Asia, Europe and other parts of the World. This signifies that more studies are required in Nigeria to close the research gap. Most of the reviewed studies did not consider variables such Land & building, Plant & machinery, Motor vehicle, Intangible assets and shareholders' fund.

3.0 METHODOLOGY

The study adopted *ex post facto* research design which provides an empirical solution to research problems by using data which are already in existence. The study was therefore based on published financial statements of the selected Oil and gas firms in Nigeria.

The study was conducted in Nigeria and focused on the Nigeria Oil and gas firms listed on the Nigeria Exchange Group (NEG) for a period of eleven years (2014 to 2023).

The data source for the study was secondary data. The data were collected from published annual reports and accounts of the five selected oil and gas firms listed on the Nigeria Exchange Group. The independent variables of the study includes: land and building; plant and machinery; motor vehicle and intangible assets while the dependent variable is shareholders fund of the selected firms. The population of the study comprised all the (9) oil and gas firms which include; Capital Oil Plc, Conoil Plc, Eterna Plc, Japaul Gold & Ventures Plc, MRS Oil Nigeria Plc, Oando Plc, Rak Unity Pet. Comp. Plc, Seplat Energy Plc and Total energies Marketing Nigeria plc. The study made use of purposive sampling techniques in selecting the samples in this study, a sample of five (5) firms was used out of nine (9) oil and gas firms listed on the Nigeria Exchange Group. The sample firms include: Capital Oil Plc, Conoil Plc, Eterna Plc, MRS Oil Nigeria Plc and Oando Plc.

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

Data used for the study is presented in Appendix I.

4.2 Data Analysis

The secondary data collected from the firms were analyzed using Descriptive Statistics, Pearson's Product Moment Correlation and Panel Least Square Regression analysis and the results displayed in tables 4.2.1. However, the panel least square regression was the main statistical tool of analysis which was used in testing the four null hypotheses formulated for the study while the other tools were used as supporting tools of analysis.

TABLE 4.2.1: DESCRIPTIVE STATISTICS RESULTS

	LB	PM	INTA	MV	SHF
Mean	90667515	95393577	1423.466	59850532	0.303030
Median	73180023	76378091	1222.000	53150053	0.228595
Maximum	3.88E+08	3.66E+08	3777.000	2.13E+08	0.927887
Minimum	1242049.	1510019.	260.0000	1050309.	-0.048388
Std. Dev.	91084845	84608659	879.3562	49173072	0.249850
Skewness	1.660331	1.265032	0.836799	0.975034	0.964599
Kurtosis	5.509323	4.295381	2.894478	3.595596	3.085658
Jarque-Bera	67.34650	29.69813	10.31090	15.24415	13.67351
Probability	0.000000	0.000000	0.005768	0.000490	0.001074
Sum	7.98E+09	8.39E+09	125265.0	5.27E+09	26.66665
Sum Sq. Dev.	7.22E+17	6.23E+17	67274250	2.10E+17	5.430967
Observations	50	50	50	50	50

Source: Eviews 7.2 Output, 2024.

The descriptive statistics in the table 4.2.1 presents the statistical characteristics of all the 55 observations. These include measures of central tendency, the mean and median. Dispersions in the series are also indicated using the standard deviation. As could be observed from the table results show the means are: 90667515, 95393577, 1423.466, 59850532 and 0.303030 with standard deviations of: 91084845, 84608659, 879.3562, 49173072 and 0.249850 for land and building (LB), plant and machinery (PM), intangible assets (INTA), motor vehicle (MV) and shareholder's fund (SHF) respectively. The table reveals that variables intangible assets, motor vehicle and shareholder's fund have skewness value less than one while land and building and plant and machinery are in excess of one. This connotes that the data for all the variables are fairly distributed.

4.3 Test of Hypothesis

The study set out to examine the effect of non-current assets on Shareholders' funds of Oil and gas firms in Nigeria as evidence. Land and building (LB), plant and machinery (PM), motor vehicle (MV) intangible assets (INTA) are the independent variables as well as proxies for firm size while shareholder's fund (SHF) is the dependent variable and a proxy for firm portability. In order to test the four null hypotheses formulated for the study, panel regression analysis of the five (5) firms selected for the study was conducted and presented in table 4.3.1.

Decision Rules:

In arriving at a decision, the following steps were taken:

- The hypotheses were restated in null and alternate forms,
- The decision criterion or criteria were stated,
- The presentation of the Eview result
- The null hypothesis is rejected or accepted based on the decision criterion or criteria.

Table 4.3.1: Pearson Product Moment Correlations

		SHF	LB	PM	MV	INTA
SHF	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	50				
LB	Pearson Correlation	.727**	1			
	Sig. (2-tailed)	.000				
	N	50	50			
PM	Pearson Correlation	.665**	.529**	1		
	Sig. (2-tailed)	.021	.048			
	N	50	50	50		
MV	Pearson Correlation	-.126**	-.105**	.228**	1	
	Sig. (2-tailed)	.556	.344	.762		
	N	50	50	50	50	
INTA	Pearson Correlation	.548**	.499**	.687**	.771**	1
	Sig. (2-tailed)	.043	.012	.035	.000	
	N	50	50	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2024

Table 4.3.1 depicted that the relationships between the predictors (LB, PM, MV and INTA) and the regress and (SHF) are statistically very significant (i.e. their P-values are less than one).

However, perfect relationships exist between predictors: I LB, PM, MV and INTA. The latter connotes the existence of collinearity. It is corrected using robust standard errors.

TABLE 4.3.2: COMBINED REGRESSION RESULT OF THE FIVE FIRMS

Dependent Variable: SHF

Method: Panel Least Squares

Date: 03/18/24 Time: 13:35

Sample: 2010 2020

Periods included: 10

Cross-sections included: 5

Total panel (unbalanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.025353	0.900621	4.469529	0.0000
LB	0.610714	0.108141	5.647414	0.0000
PM	0.551896	0.213259	2.650089	0.0033
MV	-0.435780	0.104035	-2.266365	0.0265
INTA	0.004765	0.075983	0.062507	0.9502

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.811134	Mean dependent var	0.303030
Adjusted R-squared	0.768573	S.D. dependent var	0.249850
S.E. of regression	0.120195	Akaike info criterion	-1.227697

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Sum squared resid	1.025725	Schwarz criterion	-0.749120
Log likelihood	71.01865	Hannan-Quinn criter.	-1.034890
F-statistic	19.05800	Durbin-Watson stat	1.889788
Prob(F-statistic)	0.000000		

Source: Views 7.2 Output, 2024

Table 4.3.1, shows that the combined coefficient of determination (R2) of the five selected firms is 0.811134. This suggests that 81% of the variations in the shareholders fund of oil and gas firms in Nigeria is explained by the independent variables of the study (land and building, plant and machinery, motor vehicle and intangible assets) while the remaining 19% is explained by other factors not included in the model of the study. The table also reveals that the value of Durbin Watson statistics (DW) is 1.889788. This value is closer to 2 than 0, thus, suggesting that there is no trace of autocorrelation in the combined model of the study.

TABLE 4.3.2: REDUNDANT FIXED EFFECT TESTS

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	11.803025	(12,71)	0.0000
Cross-section Chi-square	96.527491	12	0.0000

Source: Views 7.2 Output, 2024

In order to apply an appropriate estimator the research work performed the Hausman specification test (test that examines if the individual effects are uncorrelated with the other repressor in the model) whose results (sig p-value) indicated that the fixed effect model is more

appropriate than the random effect model. Therefore, the research work applied a fixed effect estimator.

Test of Hypothesis One

Step One: Restatement of hypothesis in null and alternate form

Ho: Land and building do not significantly affect shareholder's funds in oil and gas firms in Nigeria.

H_1: Land and building significantly affect shareholder's funds in oil and gas firms in Nigeria.

Step Two: Decision Rule/Criteria*:* Reject H_0 if Prob-Value is less than 0.05, otherwise accept H_0.

Table 4.3.1 presents the result of panel regression analysis used to test the hypothesis formulated for the study. Results from the table reveals that the coefficient of land and building (LB) in the regression model is positive at 0.610714 while the probability value is 0.000. Thus, LB of the firms is significant at 0.05 level of significance (that is, 0.0000 < 0.05). Thus, we reject the null hypothesis that land and building of oil and gas firms in Nigeria does not significantly affect the shareholder's fund of the firms in Nigeria during the period.

Test of Hypothesis Two

Step One: Restatement of hypothesis in null and alternate form

Ho: Plant and machinery do not significantly affect the shareholder's fund of oil and gas firms in Nigeria.

H_1: Plant and machinery significantly affect the shareholder's fund of oil and gas firms in Nigeria.

Step Two: Decision Rule/Criteria*:* Reject H_0 if Prob-Value is less than 0.05, otherwise accept H_0.

Table 4.3.1 also discloses that the coefficient of plant and machinery (PM) in the regression model is positive at 0.551896 while the probability value is 0.0033. Therefore, plant and machinery of the firms is significant at 0.05 level of significance (that is, 0.0033 < 0.05). Therefore, we reject the null hypothesis that plant and machinery of oil and gas firms in Nigeria does not significantly affect the shareholder's fund of the firms in Nigeria during the period.

Test of Hypothesis Three

Step One: Restatement of hypothesis in null and alternate form

Ho: Motor vehicles do not significantly affect shareholder's funds in oil and gas firms in Nigeria.

H_1: Motor vehicles significantly affect shareholder's funds in oil and gas firms in Nigeria.

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Step Two: Decision Rule/Criteria*:* Reject H_0 if Prob-Value is less than 0.05, otherwise accept H_0.

Table 4.3.1 also indicates that the coefficient of motor vehicle (MV) in the regression model is negative at 0.435780 while the probability value is 0.0.0265. Thus, the total motor vehicle of the firms is significant at 0.05 level of significance (that is, 0.0265 < 0.05). Thus, we reject the null hypothesis that motor vehicles of oil and gas firms in Nigeria do not significantly affect the shareholder's fund of the firms in Nigeria during the period.

Test of Hypothesis Four

Step One: Restatement of hypothesis in null and alternate form

Ho: Intangible assets do not significantly affect shareholder's funds in oil and gas firms in Nigeria.

H_1: Intangible assets significantly affect shareholder's funds in oil and gas firms in Nigeria.

Step Two: Decision Rule/Criteria*:* Reject H_0 if Prob-Value is less than 0.05, otherwise accept H_0.

Table 4.3.1 equally shows that the coefficient of intangible assets (INTA) in the regression model is positive at 0.0.004765 while the probability value is 0.9502. Thus, intangible assets of the firms are not significant at 0.05 level of significance (that is, 0.9502 > 0.05). Therefore, we accept the null hypothesis that intangible assets of oil and gas firms in Nigeria do not significantly affect the shareholder's fund of the firms in Nigeria during the period.

4.4 Discussion of Finding

Discussion of Hypothesis One

Result of hypothesis one reveals that the coefficient of land and building (LB) in the regression model is positive at 0.610714 while the probability value is 0.000. Thus, LB of the firms is significant at 0.05 level of significance (that is, 0.0000 < 0.05). Thus, we concluded that land and building of oil and gas firms in Nigeria does not significantly affect shareholder's fund of the firms in Nigeria during the period This result is also consistent with the findings of Chen, Yao and Zhang (2008) who explored the effect of corporate asset growth on stock returns of 9 equity markets in the Pacific-Basin region (PACAP) from 1981 to 2004 and found that, there is a significantly negative relation between firms' asset growth and stock returns, suggesting potential inefficiencies of the region's financial systems in allocating capitals and valuing investment opportunities.

Discussion of Hypothesis Two

Result of hypothesis two discloses that the coefficient of plant and machinery (PM) in the regression model is positive at 0.551896 while the probability value is 0.0033. Therefore, plant

and machinery of the firms is significant at 0.05 level of significance (that is, 0.0033 < 0.05). This result is in agreement with the findings of Gaur and Kesavan (2007) who examined the effects of firm size and sales growth rate on inventory turnover in the USA from 1985 to 2003 and the result reveals that with respect to sales growth rate, inventory turnover increases with sales growth rate.

Discussion of Hypothesis Three

Result of hypothesis three indicates that the coefficient of motor vehicle (MV) in the regression model is negative at 0.435780 while the probability value is 0.0.0265. Thus, the total motor vehicle of the firms is significant at 0.05 level of significance (that is, 0.0265 < 0.05). This result is in agreement with the findings of Fattah and Makarani (2005) who investigated the relationship between measures of firm size and common stocks return of firms listed in the Tehran Stock Exchange and found that there is no significant relationship between production growth and stock returns.

Discussion of Hypothesis Four

Result of hypothesis four shows that the coefficient of intangible assets (INTA) in the regression model is positive at 0.0.004765 while the probability value is 0.9502. Thus, intangible assets of the firms are not significant at 0.05 level of significance (that is, 0.9502 > 0.05). This result is consistent with the findings of Banchuenvijit (2012) who investigated the factors affecting performances of the firms' operating in Vietnam and the result shows that a statistically non-significant relationship was established between intangible assets and profitability.

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

Based on the secondary data which were collected and analyzed, the findings therefor and the discussions that ensued, we hereby summarize the findings of the study as follows that:

i. Land and building (LB) positively and significantly affected the shareholder's fund (SHF) of the oil and gas firms in Nigeria during the period. The implication of this finding is that as LB increases, SHF of the firms also increases and vice versa. Put differently, a 1% increase in LB will cause SHF to increase by 61% and vice versa.

ii. Plant and machinery (PM) positively and significantly affect shareholder's fund (SHF) of the oil and gas firms in Nigeria during the period. The implication of this finding is that as the sales revenue of the firms increase, SHF of the firms equally increase and vice versa. In order wards, a 1% increase in PM will result in 55% increase in SHF of the oil and gas firms.

iii. Motor vehicle (MV) negatively and significantly affected the shareholder's fund (SHF) of the oil and gas firms in Nigeria during the period. The implication of this finding is

that as motor vehicles of the firms increase, SHF will decrease and vice versa. This finding suggests that a 1% increase in MV will cause SHF to decrease by 44% and vice versa.

iv. Intangible assets (INTA) positively, but insignificantly affect shareholder's fund (SHF) of the oil and gas firms in Nigeria during the period. The implication of this finding is that as intangible assets of the firms increase, SHF also increases and vice versa. This finding equally demonstrates that a 1% increase in INTA will cause SHF to increase by 0.48% (which is insignificant) and vice versa.

5.2 Conclusion

This study was conducted to ascertain the effect of non-current assets on shareholders' funds in oil and gas firms in Nigeria. To carry out the study, secondary data were collected from the sampled oil and gas firms listed in the Nigeria Exchange Group during the period of 2014 to 2023. The data were analyzed using multiple regression models during which the hypotheses formulated for the study were tested. Based on the result of test of hypotheses and the findings thereof, we hereby concluded that land and building, plant and machinery, motor vehicle and intangible assets of the selected oil and gas firms positively and significantly affect the shareholders' fund of the firms.

5.3 Recommendations

In view of the findings, discussions and conclusion of this study, we hereby recommend as follows:

i. That oil and gas firms in Nigeria should make significant investments in lands and buildings so as to increase the value of their shareholders' funds. LB is a long term asset that will increase the future returns to the oil and gas firms and this will go a long way in improving shareholders wealth.

ii. It is the recommendation of this study that oil and gas firms in Nigeria should invest more funds in land and building. Since LB positively and significantly affects shareholders' funds of oil and gas firms, the firms can improve shareholders' funds and maximize Shareholders' funds by investing in plants and machinery that will be used in oil and gas prospecting, exploration, mining and production.

iii. Oil and gas firms in Nigeria can improve their shareholders' funds by acquiring vehicles that will assist in the production of oil and gas.

iv. Lastly, it is the recommendation of this study that firm managers in Nigeria should increase investment in intangible assets, especially research and development. This is because investment in intangible assets will assist the oil and gas firms in successful exploration, mining and production of oil and gas wells. These will enhance shareholders' wealth of the oil and gas firms.

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APPENDIX I

PANEL DATA OF THE FIVE SELECTED FIRMS

OBSERVATION	SHF	LB	PM	MV	INTA
CAPITAL OIL PLC – 14	388262869	350226472	2983	187262836	0.116515
CAPITAL OIL PLC – 15	104412640	145461762	2360	79146618	0.797432
CAPITAL OIL PLC – 16	105979883	154206848	2240	88501356	0.888742
CAPITAL OIL PLC – 17	114399432	165862785	2287	95761110	0.893927
CAPITAL OIL PLC – 18	235501196	211071804	3316	102188896	0.494145
CAPITAL OIL PLC – 19	253633629	252674213	3214	129764587	0.407101
CAPITAL OIL PLC – 20	252759633	268613518	3195	128126906	0.383416
CAPITAL OIL PLC – 21	349229163	266372475	3048	138623602	0.247262
CAPITAL OIL PLC – 22	356218676	293905792	3777	149667316	0.220911
CAPITAL OIL PLC – 23	367146468	313743147	3646	181053528	0.171363
CONOIL PLC – 14	131840373	92899969	1174	67125182	0.125095
CONOIL PLC – 15	14436466	37377497	1314	23909250	0.388612
CONOIL PLC – 16	13506482	44481277	1091	27387518	0.499080
CONOIL PLC – 17	25906063	46807860	1080	30721145	0.525555
CONOIL PLC – 18	32249928	54724749	1050	36142727	0.569930
CONOIL PLC – 19	36497624	55547798	1240	33425916	0.569197
CONOIL PLC – 20	43754114	60004119	1206	37312363	0.505399
CONOIL PLC – 21	45736255	55754309	1292	37210234	0.322557
CONOIL PLC – 22	50172484	59221748	1248	35732764	0.148985
CONOIL PLC – 23	72491309	69775061	1207	53186406	0.262780
ETERNA PLC – 14	162334442	266274621	2184	151568162	0.856384
ETERNA PLC – 15	29159552	51742302	1778	32489845	0.922531
ETERNA PLC – 16	44250372	68317303	2038	44239174	0.927887
ETERNA PLC – 17	80345062	80109738	2133	43746477	0.840962
ETERNA PLC – 18	79945793	87961280	2188	58776391	0.724204

ETERNA PLC – 19	88963218	116507394	1240	65421433	0.618310
ETERNA PLC – 20	108207480	133084076	1206	77367131	0.548304
ETERNA PLC – 21	106062067	143328982	2245	83201168	0.618689
ETERNA PLC – 22	119215053	151271526	2356	83783519	0.624536
ETERNA PLC – 23	169585932	181910977	2325	116407175	0.256654
MRS OIL NIGERIA PLC – 14	4627969	8172005	509	6277507	0.368468
MRS OIL NIGERIA PLC – 15	5435971	9758542	499	5045086	0.237260
MRS OIL NIGERIA PLC – 16	6109452	10624462	613	7362816	0.208314
MRS OIL NIGERIA PLC – 17	9292771	14520780	613	12325298	0.202008
MRS OIL NIGERIA PLC – 18	10686148	14479781	613	12566279	0.239582
MRS OIL NIGERIA PLC – 19	10139408	16808851	672	11068326	0.154449
MRS OIL NIGERIA PLC – 20	11980949	16509946	753	11755173	0.202161
MRS OIL NIGERIA PLC – 21	12849555	16853042	766	11445832	-0.009722
MRS OIL NIGERIA PLC – 22	13345546	13569873	742	8935355	-0.010969
MRS OIL NIGERIA PLC – 23	13410672	17695820	668	13247319	-0.037850
OANDO PLC – 14	58173389	80671383	745	5480512	0.650332
OANDO PLC – 15	60717447	82395712	746	66471828	0.316864
OANDO PLC – 16	46551443	89980499	632	73748508	0.288625
OANDO PLC – 17	107218642	72814721	652	105607612	0.189187
OANDO PLC – 18	106868054	83051450	659	71840101	0.233339
OANDO PLC – 19	83159877	103153735	1302	100950027	0.230873
OANDO PLC – 20	92801301	94855203	1363	79499498	0.226317
OANDO PLC – 21	102624834	101057905	722	81032100	0.192925
OANDO PLC – 22	178381640	169724936	1419	178597379	0.217619
OANDO PLC – 23	195080449	204422379	2024	153680804	0.429000

Source: Eviews 7.2 Output, 2024

The above is a panel result output using the raw data extracted from the sampled firms.