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ASSETS MANAGEMENT AND VALUE OF LISTED INDUSTRIAL FIRMS IN NIGERIA IN NIGERIA

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Abstract: The study examined the effect of asset management on the firm value of listed industrial firms in Nigeria. The specific objectives are to: examine the extent to which current asset turnover ratio affects the Tobin's Q of listed industrial firms in Nigeria; and determine the extent to which fixed asset turnover ratio affects the Tobin's Q of listed industrial firms in Nigeria. The ex-post facto design was adopted in examining the effect of asset management on the firm value of listed industrial firms in Nigeria. A sample of nine industrial goods was used for the study. Data were extracted from the annual reports and accounts of the sampled firms from 2013 to 2023. Data were gathered and input into E-View 9.0 software for the computation of both independent and dependent variables. The analysis was conducted using descriptive statistics and ordinary least squares (OLS) regression. The findings revealed that: the Fixed Asset Turnover Ratio (FITR) presents a coefficient of 0.005509 and a p-value of 0.831, revealing a positive but again statistically insignificant effect on Tobin's Q; Current Asset Turnover Ratio (CUTR), the coefficient is -0.002266 with a p-value of 0.001. Based on the findings, the study recommended among others that management teams of listed industrial firms enhance their current asset management practices to improve efficiency by adopting more sophisticated inventory management systems and optimizing working capital, thereby driving higher revenue generation from current assets.

Keywords: Assets management, Current asset turnover ratio, Fixed asset turnover ratio and Firm value,

Introduction

Asset management encompasses the strategic deployment, maintenance, and utilization of both bodily and intangible belongings on the way to optimize operational overall performance and attain long-time period business desires (Joseph, Isah & Abe, 2023). as the industry faces increasing stress from stakeholders, (together with governments, investors, and environmental companies), the need for study asset management practices has come to be extra said. corporations that may efficaciously manipulate their property appear higher positioned to navigate the complexities of the enterprise, mitigate dangers, and capitalize on possibilities, thereby improving their fee and making sure their competitiveness within the worldwide marketplace (Achori, Dada & Ogundajo, 2023)

Furthermore, effective asset management enables firms to minimize operational costs, reduce downtime, and improve overall productivity (Lima, McMahon & Costa, 2021). In an industry where margins can be tight and

operational disruptions can be costly, the ability to manage assets effectively can be a significant competitive advantage. Additionally, with the growing focus on sustainability and environmental responsibility, firms are increasingly being held accountable for how they manage their assets, particularly those that have a direct impact on the environment.

Asset management involves a comprehensive approach to managing an organization's assets throughout their lifecycle—from acquisition and operation to maintenance and eventual disposal (Achori, Dada & Ogundajo, 2023). Ensuring asset integrity is crucial in the oil and gas industry, where the failure of critical assets can have catastrophic consequences, including environmental disasters, financial losses, and damage to a company's reputation. One of the primary ways in which asset management influences firm value is through the optimization of operational performance. By ensuring that assets are operating at peak efficiency, firms can increase production output, reduce waste, and lower operating costs. This, in turn, leads to higher profit margins and improved financial results, which are key drivers of firm value. Moreover, by maintaining assets in good condition and ensuring their reliability, firms can avoid costly breakdowns and production delays that could negatively impact their financial performance and reputation.

Asset control involves a complete technique to handling firm's property throughout their lifecycle—from acquisition and operation to renovation and eventual disposal (Achori, Dada & Ogundajo, 2023). Making sure asset integrity is vital within the oil and fuel enterprise, in which the failure of important property will have catastrophic outcomes, along with environmental screw ups, monetary losses, and damage to a business enterprise's popularity. One of the major methods wherein asset management affects firm fee is thru the optimization of operational performance. Ensuring that assets are operating at height performance, corporations can increase manufacturing output, reduce waste, and lower running expenses. This, in flip, results in better profit margins and advanced financial outcomes that are key drivers of firm value. Furthermore, via preserving belongings in desirable situation and ensuring their reliability, firms can keep away from luxurious breakdowns and manufacturing delays that could negatively impact their monetary performance and recognition.

The existing literature reveals a significant gap in understanding the effect of asset management on firm value, specifically within the context of listed industrial firms in Nigeria. Previous studies, such as those by Rachman, Karyatun, and Digdowiseiso (2023), and Basri (2023), focused on total asset turnover and asset structure but did not address the industry-specific dynamics of the industrial firms. While Abebe (2022) and Wokeh (2022) explored asset-liability management and non-current assets, their research did not examine the impact on Tobin's Q, a key measure of firm value. Further, Banamtuan, Zuhroh, and Sihwahjoeni (2020) and Charlie and Akpan (2020) assessed asset management's effect on performance metrics like ROI but overlooked Tobin's Q in the context of Nigerian industrial firms. Studies by Purba and Bimantara (2020) and Sarafa and Joshua (2020) investigated asset management effects on financial performance indicators, yet did not address its specific impact on Tobin's Q. Kadioglu and Ocal (2017) and Mwaniki and Omagwa (2017) also failed to explore this relationship within the industrial sector. Addressing this gap could provide crucial hints on how asset management strategies influence firm value in this critical industry.

The main objective of this study is to examine the effect of asset management on the firm value of listed industrial firms in Nigeria. The specific objectives are:

1. To examine the extent to which current asset turnover ratio affects the Tobin's Q of listed industrial firms in Nigeria.
2. To determine the extent to which fixed asset turnover ratio affects the Tobin's Q of listed industrial

firms in Nigeria.

Review of Related Literature

Asset Management

Asset management is a scientific method to overseeing a business enterprise's assets with the intention of improving their value and optimizing their use while mitigating related risks (Joseph, Isah & Abe, 2023). This manner includes the strategic employer, tracking, and management of both bodily and economic belongings to ensure they make contributions correctly to attaining the organization's desires and maximizing returns on funding. At its core, asset control seeks to balance the cost of owning and preserving assets against the blessings they deliver (Purba & Bimantara, 2020). Effective asset management encompasses a number sports together with inventory control, upkeep scheduling, and asset monitoring. It calls for the careful planning and execution of techniques for obtaining, utilising, and removing property in a manner that aligns with the firm's strategic objectives (Oghenekohwo, Anastesia & Moses, 2019). This exercise includes dealing with each tangible asset, which include machinery, real estate, and infrastructure, and intangible assets like financial investments and highbrow assets (Olaoye & Ayodele, 2019).

Current Asset Turnover Ratio

The current asset turnover ratio is a financial metric used to evaluate how effectively a company utilizes its current assets to generate sales. Current assets are those expected to be converted into cash within a year, including items like inventory, accounts receivable, and cash equivalents (Olaoye & Ayodele, 2019). This ratio is crucial for understanding a company's operational efficiency, as it indicates how well these assets are employed to produce revenue. To determine the current asset turnover ratio, one divides the net sales of a company over a specific period—usually a year—by the average amount of current assets held during that same period. This ratio reveals how much revenue is generated for each dollar of current assets. A higher ratio suggests that a company is effectively managing its current assets to produce substantial sales, reflecting strong operational efficiency and effective inventory and receivables management (Mawih, 2013). Conversely, a lower ratio may signal inefficiencies, such as poor inventory control or slow collection of receivables, indicating that the company is not fully capitalizing on its current assets to drive revenue.

Current assets represent the value of all assets that are reasonably expected to be converted into cash within one year in the normal course of business (Chan & Sougiannis, 2018). Current assets include inventory, accounts receivable, marketable securities, cash, prepaid expenses and other liquid assets that can be readily converted to cash. In personal finance, current assets are all assets that a person can readily convert to cash to pay accrued debts and cover liabilities without having to sell fixed assets. In other words, current assets are anything of value that is highly liquid.

Fixed Asset Turnover Ratio

The fixed asset turnover ratio is a key economic metric that assesses how effectively an agency utilizes its constant belongings to generate revenue. Fixed assets, which consist of lengthy-time period investments inclusive of assets, plant, and device, aren't predicted to be converted into cash within 12 months (Olaoye & Ayodele, 2019). This ratio enables compare how efficiently those assets are leveraged to produce income.

To calculate the constant asset turnover ratio, the organization’s net sales over a selected period, normally a year, are divided via the common constant property held during that identical length (Sunjoko & Arilyn, 2016). The resulting figure suggests the quantity of revenue generated for every greenback of constant assets. A high fixed asset turnover ratio shows that the agency is efficaciously using its fixed belongings to force sales,

reflecting an effective production process and strong asset management practices (Purba & Bimantara, 2020). It frequently means that the organisation is making ideal use of its property, plant, and system, and has a stable strategy for generating revenue.

Conversely, a low fixed asset turnover ratio may signal that a company is not fully capitalizing on its fixed assets, potentially due to issues such as underutilized production capacity, inadequate maintenance, or other operational inefficiencies (Cheptoo, 2018). Such a ratio could indicate that the company's fixed assets are not being used as effectively as they could be, possibly impacting overall revenue generation and profitability.

Firm Value

Firm value refers to the total worth of a company, representing its overall economic and financial position (Igwe, 2024). It is a concept that encapsulates various financial metrics and indicators to provide a comprehensive view of a company's standing in the market. Firm value is crucial for investors, management, and other stakeholders as it reflects the company's performance, profitability, and growth potential. This value can be assessed through several methods, including market capitalization, enterprise value, and book value (Shuaibu, Ali & Amin, 2019).

Tobin's Q

Tobin's Q is a financial ratio used to evaluate the attractiveness of investment opportunities by comparing the market value of a company's assets to their replacement cost (El-Faitouri, 2014). Named after economist James Tobin, this ratio provides hints into how investors perceive the value of a company's assets relative to the cost of acquiring or replacing them. Tobin's Q is calculated by dividing the market value of a firm's assets by their replacement cost.

Empirical Review

Alkomsan (2024) investigated the impact of capital structure, total assets turnover, and liquidity on the financial performance of companies listed on the Egyptian Stock Exchange; food Sector, manufacturing sector, pharmaceutical sector, real estate sector, and services sector from 2019 to 2022. The found that significant negative impact on profitability measured by ROA and ROE across most sectors. Second, total assets turnover has a significant positive effect on ROA but mixed results for ROE and Tobin's Q across sectors. Nworie, Moedu and Onyali (2023) determined the effect of current asset management on the financial performance of listed consumer goods firms in Nigeria over a period of ten years which spanned from 2011 to 2020. The data were tested using Ordinary Least Square technique at 5% level of significance. The study shows that while debtor turnover ratio and inventory turnover ratio have a positive effect on earnings per share; cash ratio negatively affects the Earnings Per Share of listed consumer goods firms on the Nigerian Exchange Group. However, the effects were not significant at 5% level. Yanti, Brahmayanti and Ratnawati (2023) ascertained the effect of asset structure, Capital Structure, and structure ownership against performance finance and risk business on company mining which listed in exchange effect Indonesia in the years 2019–2021. Data processing techniques in research used PLS with Outer Model Analysis tests, Inner Model analysis tests, and Hypothesis Testing. The results of the study showed among others that Asset structure is not influential and significant to Risk business; Asset Structure has no significant effect on financial performance. Abebe (2022) analyzed the extent asset and liability management affects the financial performance of microfinance institutions in sub-Saharan Africa. Utilizing a statistical cost accounting method, the study examined a sample of 106 microfinance institutions from 2014 to 2018. The regression analysis indicated that the asset-liability mix has both positive and negative impacts on the financial returns of these institutions. Wokeh (2022) explored the effect of non-

current assets on financial performance among listed deposit money banks in Nigeria for 2022, employing a census approach. Data from the annual reports of these banks from 2017 to 2021 were analyzed using multiple regression and Stata12 software. The findings revealed a negative and insignificant relationship between property, plant, and equipment and return on assets, and a positive but insignificant relationship between these assets and return on equity. Agbomah and Ofor (2021) appraised the role of corporate board in moderating the relationship between corporate assets composition and value among manufacturing firms quoted in Nigeria Stock Exchanges from 2011 to 2020. Four hypotheses were formulated and tested using ordinary least square regression analysis. Some preliminary analysis such as descriptive statistics, normality test, correlation analysis, variance inflator factor, and check for the presence of multi-collinearity in the data collected and analyzed for the study. The study finds that the moderating role of corporate board on property, plant and equipment, current assets, financial assets have positive and significant effect of value of manufacturing companies in Nigeria. Olonite and Okoro (2021) investigated the link between asset structure and financial performance in Nigerian construction firms from 2012 to 2018, collected through document review guides from various firm websites. Financial performance was assessed using Return on Assets (ROA) and Earnings per Share (EPS), with asset structure measured through Fixed and Current Assets. Descriptive statistics, correlation tests, and the Augmented Dickey Fuller (ADF) unit root test validated the data. Simple regression models analyzed the data using E-views 11 software. Results showed that fixed assets positively and significantly impact return on assets, while current assets positively and significantly affect earnings per share. Olopade (2021) determined the effect of non-current asset on the organizational performance of listed fast moving consumer goods firm in Nigeria. 28 firms quoted on the Nigerian Stock Exchange were used, and seventeen (17) companies annual report for years 2011 – 2020 was audited. Data were sourced from the selected manufacturing firms, using panel unit drift term to prove that the variables were stationary. The study indicated that profit after tax have significant relationship with additions to non-current asset while turnover have no significant relationship with additions to non-current asset of the select's firms. Likewise, there is no significant relationship between return on asset and additions to non-current asset. Korankye and Adarquah (2020) studied the effect of working capital on profitability of firms and collected data from 2012 to 2018 of the listed companies in Ghana. They used the regression analysis and found that current assets have a positive and significant effect on profitability. Kajola, Alao, Sanyaolu and Ojurongbe (2020) ascertained effect of leverage and liquidity on financial performance of Nigerian firms using data of seventeen consumer goods firms listed on the Nigerian Stock Exchange during the financial years, 2012 to 2017. The study adopted multiple regression method, with pooled Ordinary Least Squares as estimation technique. The finding revealed that leverage proxies- degree of operating leverage and degree of combined leverage have significant effect on financial performance. Abdulrahman and Musa (2020) conducted a study to assess the determinants of financial performance of firms listed in the consumer goods sector of Nigerian economy. The study covered the period, 2013 to 2018 using a sample of nine firms. Panel data was used which consists of 54 firm year observations analyzed using multiple regression model. Ordinary Least square model was employed to test the effect of firm size, leverage, board size and audit committee size on firm performance proxy by Returns on Assets (ROA). The study revealed that firm size has a coefficient of -0.08 which is significant at 1% (p=0.008), liquidity is also significant at 1% (p=0.000) with 0.15 as coefficient and board size has a coefficient of 0.011 which is significant at 5% (p=0.031). However, the coefficient of audit committee size is not significant at all (p=0.131). These results show that firm size, leverage and board size are determinants of firms' performance; however, liquidity is the most determinant of firms' performance of listed

consumer goods firms in Nigeria. Banamtuan, Zuhroh and Sihwahjoeni (2020) analyzed the effect of Asset Management on stock prices through Return on Investments (ROI) in Indonesia. This research is an explanation using quantitative methods. The sampling technique used was purposive sampling with the results of 36 companies. The data used covered 2016-2018 financial statements. The results of the study proved that Management of asset significantly influences ROI; Management asset significantly influences stock prices. Charlie and Akpan (2020) ascertained the influence of tangible and intangible assets ratio on the performance of deposit money banks (DMBs) in Nigeria. Secondary data were collected from published financial statements of ten (10) sampled DMBs from 2000 to2017. The ex-post facto research design was adopted, and pooled multiple regression techniques was employed for the analysis and test of the hypotheses. Result revealed that the ratio of tangible to the intangible asset has a significant negative effect on ROA of DMBs in Nigeria. Alavinasab and Davoudi (2019) examined 147 companies listed in Tehran Stock Exchange over a period of 2015 to 2018with the aim of examining the relationship between current asset growth and profitability. Data was collected from published annual report of 147 companies listed in Tehran Stock Exchange from 2015 to 2018. Using regression analysis was found that there is a significant relationship between current asset growth and profitability. Cyril and Ogbonna (2019) studied the effect of noncurrent assets on the profitability of cement companies in Nigeria. Non-current asset was broken down into fixed asset and intangible asset while profitability was measured with earnings per share. They collected the data over a period of 2013 to 2018. Data for the period was analyzed using regression analysis. The result revealed that there is effect of noncurrent assets on return on assets but not significant. Akinleye and Adeshina, (2019) researched on the effect of asset utilization on selected manufacturing firms in Nigeria over the past five years' data were analyzed using descriptive statistics, correlation and regression analysis. The study concluded that asset utilization has positive and significant effect on the performance of manufacturing firms in Nigeria and therefore concluded that attention should be paid to optimum asset utilization in manufacturing firms in Nigeria. Mwanik and Job (2018) evaluated the effect of asset structure on value of firms quoted under the manufacturing sector of Nairobi securities exchange Kenya. Asset structure was proxied using Property, Plants and Equipment to total assets, current assets to total assets while firm value was measured using market to book value. Data collected from 11 manufacturing firms from 2012 to 2016 were analyzed using ordinary least square regression analysis. They found that asset structure has positive significant effect on value of firm. Property, Plants and Equipment, and long-term investments have significant effect on firm value, while current assets and intangible assets have insignificance effect on firm value.

Moreover, the literature reveals a gap in understanding the differentiated impact of current asset turnover, *fixed* asset turnover, and total asset turnover on Tobin's Q within this sector. Studies such as those by Purba and Bimantara (2020) and Sarafa and Joshua (2020) investigated the influence of asset management on financial performance indicators like return on assets, but their findings are not directly applicable to Tobin's Q in the industrial firms. The studies by Kadioglu and Ocal (2017) and Mwaniki and Omagwa (2017) also highlight asset management but fail to address the specific effect on firm value as measured by Tobin's Q. The examination of asset management in relation to firm value is therefore under-researched, especially in the context of Nigerian industrial firms. Filling this gap would provide more targeted hints into how asset management practices impact firm value in this crucial sector.

Methodology

The ex-post facto design was adopted in examining the effect of asset management on the firm value of listed industrial firms in Nigeria because it allows for the analysis of existing data to identify relationships between variables after events have occurred. Since asset management practices and firm value metrics are historical in nature, this design enables the investigation of past asset management strategies and their impact on firm value, as measured by Tobin's Q, without manipulating variables.

Population of the study

The study examined all publicly listed industrial firms on the Nigerian Exchange Group (NGX). As of December 31, 2023, there are twelve industrial companies on the NGX, which are listed as follows:

Table 3.1 Population of the Study

Austin Laz & Co
Berger Paints Plc
Beta Glass Company
Cap Plc
Cement Coy of Northern Nig
Cutix Plc
Dangote Cement
Greif Nig. Plc
Lafarge
Meyer Plc (Dn Meyer)
Portland Paints
Premier Paints

Nigerian Exchange Group (2024)

Sample size and Sampling Technique

The sample for this study was determined through purposive sampling, selected nine firms. The remaining three firms (Greif Nig. Plc, Portland paint and premier paints) were excluded as a result of unavailable of the recent data The annual reports and financial statements of these industrial companies, covering the period from 2013 to 2023, were used for variable computation and analysis.

Method of Data Collection

The data collection method for this study was involved the use of annual reports from the selected industrial firms. Specifically, data were sourced from the financial statements and annual reports of the sampled firms—spanning the financial years from 2013 to 2023. This approach ensured that the data were comprehensive and relevant for the analysis of asset management's impact on firm value. By relying solely on these reports, the study was able to obtain detailed and consistent financial information necessary for examining the relationships between asset management practices and firm value metrics.

Model Specifications

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

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

$Tobin_{it}=\beta_O+\beta_1 FITR_{it}+\beta_2 CUAT_{it}\beta_3 LEV_{it}+\ldots. \mu i_t$

Where:
Tobin Q= TOBIN's Q
FITR = Fixed Assets Turnover Ratio
CUAT = Current Asset Turnover
FLEV = Firm Leverage
β_O– β_3 = Slope Coefficients
ì=ìth Firm
t=Time Period
µ = Error Term

Method of Data Analysis

Data were gathered and input into E-View 9.0 software for the computation of both independent and dependent variables. The analysis was conducted using descriptive statistics and ordinary least squares (OLS) regression. The estimates obtained from the OLS regression served as the foundation and tool for hypothesis testing.

Decision Rule

The decision rule in this study provides the criteria for accepting or rejecting the null hypothesis. The criterion is based on a 5% level of significance, which means that if the p-value in the result is greater than 0.05, the null hypothesis will be accepted. In opposition, if the p-value is less than 0.05, the null hypothesis will be rejected and the alternative hypothesis will be accepted.

Data Analysis

Descriptive Analysis of Data

Table 1: Descriptive Analysis

	TOBIN_Q	FITR	CUAR	LEV
Mean	-0.034358	0.175244	16.56634	0.093565
Median	-0.034955	0.158516	17.54586	0.067489
Maximum	0.017832	0.398449	31.20886	0.230298
Minimum	-0.096750	0.000000	3.246650	0.032253
Std. Dev.	0.034948	0.118791	11.41479	0.064751
Skewness	-0.272570	0.628592	-0.005270	0.740462
Kurtosis	2.122865	2.565521	1.241423	2.303342
Jarque-Bera	4.799446	7.961776	13.91717	12.05310
Probability	0.090743	0.018669	0.000950	0.002414
Sum	-3.710670	18.92633	1789.165	10.10497
Sum Sq. Dev.	0.130689	1.509912	13941.81	0.448620
Observations	108	108	108	108

Source: E-views 9.0 Analytical Result (2025)

The analysis of Tobin's Q indicates a mean value of 0.034, suggesting that, on average, the market values of listed industrial firms in Nigeria exceed their asset values, reflecting positive investor sentiment. The maximum value of 0.018 highlights instances where the market capitalization significantly outstrips the firm's asset base, potentially indicating high growth expectations or market confidence. Conversely, the minimum value of -0.097 indicates some firms are valued below their asset values, possibly due to negative perceptions or performance issues. The standard deviation of 0.035 indicates moderate variability around the mean, suggesting differences

in firm valuations across the industry. The skewness of -0.273, indicated that some firms have a very low market valuation. Lastly, the kurtosis of 2.123 indicates a leptokurtic distribution, suggesting a low likelihood of extreme values in the dataset, and the probability of the Jarque-Bera statistic at 0.091 confirms that the TOBIN Q data is not significantly non-normally distributed.

For the Fixed Asset Turnover Ratio (FITR), the mean of 0.175 indicates a strong capacity of the firms to generate revenue from their fixed assets, averaging about 17.5 units of revenue per unit of fixed assets. The maximum value of 0.398 suggests that certain firms exhibit exceptional efficiency in utilizing their fixed assets to generate revenue, while the minimum of 0.000 points to severe inefficiencies in some firms. The standard deviation of 0.119 reflects considerable variability in how effectively different firms manage their fixed assets, indicating diverse operational practices across the sector. The skewness of 0.629 indicates a significant rightward skew, suggesting that a few firms significantly outperform their peers in terms of fixed asset turnover. The kurtosis of 2.566 indicates a distribution with fairly tails, suggesting a low likelihood of extreme values than in a normal distribution. The Jarque-Bera test shows a probability of 0.019, confirming that the FITR data is significantly non-normally distributed.

Examining the Current Asset Turnover Ratio (CUTR), the mean of 16.566 suggests that, on average, the listed industrial firms are able to generate approximately 16.6 units of revenue for every unit of current assets, indicating efficient utilization of current assets. The maximum value of 31.209 suggests exceptional asset management practices in some firms, while the minimum value of 3.247 reflects extreme inefficiencies in at least one firm. The standard deviation of 11.415 indicates a high degree of variability in the ratio, pointing to significant differences in how firms manage their current assets. The skewness of -0.005 signifies a pronounced rightward tilt, suggesting that a few firms achieve very high turnover ratios, while most have more moderate performance. The kurtosis of 1.241 indicates a high peak in the distribution, pointing to a concentration of values around the mean and a higher likelihood of extreme values. The Jarque-Bera probability of 0.001 confirms that the distribution of CUTR is significantly non-normal.

The Firm Leverage (LEV) presents a mean of 0.094, indicating that, on average, the firms generate about 0.9 units of revenue for every unit of leverage, reflecting a relatively efficient use of total debt. The maximum value of 0.230 highlights instances of particularly effective generalization; while the minimum value of 0.032 showing that some firms struggle significantly to generate revenue from their debt. The standard deviation of 0.065 indicates moderate variability in asset turnover performance across the firms. The skewness of 0.740 suggests a wrong ward skew in the distribution, indicating that some firms achieve better leverage ratios. The kurtosis of 2.303 showing a distribution that is peaked, suggesting a concentration of values around the mean with potential outliers. The Jarque-Bera probability of 0.002 confirms that the LEV data is significantly non-normally distributed showed that traditional parametric analyses may need to be approached with caution.

Test of Hypotheses

The analysis was conducted using descriptive statistics in addition to ordinary least squares (OLS) regression. The estimates obtained from the OLS regression served as the foundation and tool for hypothesis testing.

Table 3: Regression Result from OLS Model

Dependent Variable: TOBIN_Q
Method: Panel Least Squares
Date: 01/25/25 Time: 08:46
Sample: 2012 2023

Periods included: 12
Cross-sections included: 9
Total panel (balanced) observations: 108

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.560979	0.058472	-9.594005	0.0000
FITR	0.005509	0.025760	0.213879	0.8311
CUAR	-0.002266	0.000662	-3.420995	0.0009
LEV	0.800465	0.100350	7.976736	0.0000

R-squared	0.647641	Mean dependent var	-0.034358
Adjusted R-squared	0.626709	S.D. dependent var	0.034948
S.E. of regression	0.021353	Akaike info criterion	-4.792661
Sum squared resid	0.046050	Schwarz criterion	-4.618819
Log likelihood	265.8037	Hannan-Quinn criter.	-4.722174
F-statistic	30.93988	Durbin-Watson stat	2.153788
Prob(F-statistic)	0.000000		

Source: E-views 9.0 Analytical Result (2025)

The regression analysis presented in Table 4.3 examines the effect of asset management on the firm value of listed industrial firms in Nigeria, as measured by Tobin's Q (TOQ). The adjusted R-squared value of 0.627 suggests that only about 63% of the variability in TOQ is explained by the independent variables in the model, indicating that the model is adequately capture the factors influencing firm value. Additionally, the F-statistical probability of 30.940 implies that the overall model is statistically significant, suggesting that the included predictors collectively have a meaningful effect on the firm value measured by Tobin's Q.

Test of Hypothesis I

$H0_1$: Fixed asset turnover ratio does not significantly affect the Tobin's Q of listed industrial firms in Nigeria.

The Fixed Asset Turnover Ratio (FITR) presents a coefficient of 0.005509 and a p-value of 0.831, revealing a positive and again statistically insignificant effect on Tobin's Q. This result implies that an increase in the fixed asset turnover ratio contributes a marginal increase of 0.005509 to Tobin's Q, but with a p-value far exceeding 0.05, the effect is not statistically significant. Consequently, we also accept the null hypothesis for FITR, indicating that the efficiency in utilizing fixed assets does not significantly influence the firm value in the industrial firms. Thus, Fixed Asset Turnover Ratio has a positive but non-significant effect on Tobin's Q of listed industrial firms in Nigeria (Beta: 0.005509, p = 0.831).

Test of Hypothesis 11

$H0_2$: Current asset turnover ratio does not significantly affect the Tobin's Q of listed industrial firms in Nigeria.

In analyzing the Current Asset Turnover Ratio (CUTR), the coefficient is -0.002266 with a p-value of 0.001. This indicates a negative but statistically significant relationship between current asset turnover and Tobin's Q. In practical terms, this suggests that a one-unit increase in the current asset turnover ratio is associated with an increase in Tobin's Q of approximately -0.0023, but since the p-value exceeds the threshold of 0.05, we accept

the null hypothesis. This outcome indicates that current Asset Turnover Ratio has a negative but significant effect on Tobin's Q of listed industrial firms in Nigeria (Beta: -0.0023, p = 0.001).

Hausman Specification Test

The Hausman test helps to choose between fixed effects model or a random effects model. The null hypothesis is that the preferred model is random effects. The alternate hypothesis is that the model is fixed effects. Essentially, the test is intended to see if there is a correlation between the unique errors and the regressors in the model. The null hypothesis is that there is no correlation between the two.

Table 4: Hausman Specification Test between between FITR, CUAT, and LEV

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.002093	3	1.0000

Source: Researcher's computation using E-Views 9.0, 2025

Interpretation

Hausman test rule:

Ho: If the *p value* > α = 0.05 then the variable does not have a significant effect (Accept Random Effects Model).

H_1: If the *p value* < α = 0.05 then the variable has a significant effect (Accept Fixed Effects Model)

Consequent upon the results in table 4.6, Random Effects Model is preferred to Fixed Effect Model at a p-value of 1.0000 which is higher than 0.05, implying that asset management has no significant effect on firm value at 5% level of significance.

Discussion of Findings

The fixed asset turnover ratio showed a coefficient of 0.005509, indicating a minimal positive but non-significant effect on firm value. This suggests that while firms might be utilizing their fixed assets to generate revenues, the impact on market valuation is marginal. In the industrial firms, where substantial investments in fixed assets such as drilling rigs and refineries are common, the benefits of efficient asset utilization might not be immediately reflected in firm value. The long-term nature of these investments often means that returns may take time to materialize, which can create disconnect between operational efficiency and market perception. The finding regarding the Fixed Asset Turnover Ratio's positive but non-significant effect on Tobin's Q is supported by various studies like Wokeh (2022) that found a positive but insignificant relationship between property, plant, and equipment and return on assets in Nigerian banks, suggesting limited impact on performance metrics. Similarly, Mawih (2013) noted that fixed assets had no significant impact on profitability for manufacturing companies, indicating that fixed asset efficiency might not always translate to performance improvements.

The analysis revealed a negative coefficient of -0.002266 for the current asset turnover ratio even though the effect was significant. This suggests that efficient management of current assets has the potential to enhance firm value. A low current asset turnover ratio indicates that a company is effectively utilizing its current assets

to generate sales, which can lead to improved liquidity and operational efficiency. In the context of industrial firms, where cash flow management is crucial due to fluctuating market conditions, effective management of current assets may help firms navigate financial challenges and maintain stability. However, the observed relationship may also be influenced by external factors such as regulatory environments and market volatility, which can overshadow the impacts of asset turnover on firm valuation. The finding that the Current Asset Turnover Ratio has a positive but non-significant effect on Tobin's Q aligns with several studies such as opposed by Olaoye and Ayodele (2019) which discovered an insignificant positive impact of current assets on profit after tax among quoted firms in Nigeria, indicating a similar trend in the lack of strong correlation with financial performance. Wokeh (2022) also found a positive but non-significant relationship between current assets and return on assets for Nigerian banks, suggesting that while current asset management is important, it may not lead to substantial impacts in some contexts.

Conclusion and Recommendations

Conclusion

The study examined the effect of asset management on the firm value of listed industrial firms in Nigeria, using current asset turnover ratio, fixed asset turnover ratio and Tobin's Q of listed industrial firms in Nigeria. Using regression analysis, the study found that Fixed Asset Turnover Ratio has a positive but non-significant effect on Tobin's Q of listed industrial firms in Nigeria. This study indicates that current Asset Turnover Ratio has a negative but significant effect on Tobin's Q of listed industrial firms in Nigeria.

Firms that manage their assets in a manner that maximizes efficiency are able to minimize costs, and optimize production, thereby enhancing overall firm value. Asset management practices when strategically aligned with the firm's long-term goals ensures that assets are well-maintained, reliable, and capable of delivering consistent performance over time. Additionally, firms would proactively manage risks associated with asset failures, regulatory compliance, and environmental impacts, thereby protecting their investments and maintaining a strong reputation among stakeholders. The findings of the study suggest that an increase in the current asset turnover ratio is associated with a higher Tobin's Q, indicating that firms are able to generate more revenue from their current assets. This could be reflective of efficient management practices and operational agility in utilizing short-term assets to drive sales. Also, firms generating revenue effectively from their fixed assets can contribute to their overall market value.

Recommendations

Based on the findings, the study draws the following recommendations;

1. Management teams of the companies needs to enhance their current asset management practices to enhance efficiency by adopting greater sophisticated stock control structures and optimizing operating capital, thereby using better sales technology from present day assets.
2. The forums of directors of the companies should prioritize investments in training and development for operational group of workers to make certain foremost utilization of constant assets. This training can enhance asset productivity and support sustainable growth in firm value.

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