

IMPACT OF ASSET MANAGEMENT RATIO ON FINANCIAL PERFORMANCE: EVIDENCE FROM NIGERIAN MANUFACTURING COMPANIES

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ABSTRACT: The study examined the impact of Asset management ratio on the financial performance of manufacturing companies in Nigeria. Specifically, the study examines the effect of the asset Utilization Ratio, Asset Productivity Ratio and Current Asset Turnover Ratio on the Return on Assets. The study adopted the Ex-post factor research design. The main sources of data for this study were secondary sources obtained from the online publication of the annual report of eighteen Nigerian manufacturing companies quoted on the Nigerian Stock Exchange in the year 2022. A sample size of eighteen (18) manufacturing companies whose financial statements were accessible online for the year 2022 was purposely taken. The approaches used to measure asset management are asset utilization ratio, asset productivity ratio, and current asset turnover ratio, while financial performance is measured by profitability using return on assets (ROA). A linear relationship was established between the Return on Asset (ROA), the dependent variable, and the independent variables, Asset Utilization Ratio (ASUR), Current Asset Ratio (CASR) and Asset Productivity Ratio (ASPR). The Ordinary Least Square Regression Model was used to express the model relationship between ROA and the explanatory variables, ASUR, CASR and ASPR. Descriptive statistics were also employed to analyse the descriptive properties of the variables. The regression t-statistics results were used to test the hypotheses at a 5% level of significance. Findings showed that the Asset Utilization Ratio has a significant effect on Return on Asset, while the Asset Productivity Ratio and Current Asset Turnover Ratio have an insignificant effect on Return on Assets. The study recommends that manufacturing companies should improve their asset management practices in the areas of Asset Productivity Ratio and Current Assets to enhance their financial performance.

Keywords: Asset Management, Manufacturing companies, Return on Assets, Asset Utilization, Current Asset Turnover Ratio, Profitability.

INTRODUCTION

In the modern world, companies need to use their resources effectively and efficiently, which will lead to achieving their goals. One of the main concerns of the company is the effort to achieve the desired level of profit. Businesses that own expensive machinery, like large manufacturing plants, must take care of their equipment on a daily basis to prevent misuse, which can lead to equipment breakdown or reduced productivity. As a result, it is important to maintain an asset management system that will improve the operational performance of the business (Gikongo, 2021). Asset management is a systematic approach to the process of planning, acquiring, operating, maintaining and disposing of assets to maximize their operational performance during their entire life cycle (Vanier, 2001). It is the methodical process of creating, using, upgrading, maintaining, and getting rid of assets in the most

economical way possible, considering all expenses, risks, and performance characteristics (Ani, Okwo & Ugwunta, 2012). Based on these descriptions, asset management is indispensable to the growth and profitability of firms, especially those in the manufacturing sectors. The going concern ability of an organization is greatly anchored on the continued solvency of that organization, and asset management needs to be given the top priority at all times and at all levels to be solvent (Enyi, 2011). Assets management is indispensable to the growth and profitability of firms, especially those in the manufacturing sectors (Olaoye & Ayodele, 2019).

Asset management is essential to the manufacturing sector. It entails taking a methodical approach to purchasing, using, maintaining, and disposing of physical assets at every stage of their lives. Effective asset management directly impacts operational performance in several ways: minimizing downtime, reducing cost, enhancing productivity, improving safety, and extending asset life. Efficient asset management allows manufacturers to identify and address bottlenecks, streamline workflows, and optimize production processes. Manufacturers may reduce unplanned downtime and increase productivity by using predictive analytics, scheduling maintenance, and monitoring asset performance. Manufacturers can reduce avoidable costs related to maintenance, repair, and replacement by improving asset use. Effective asset management makes Proactive maintenance techniques possible, which lowers the risk of expensive malfunctions and increases asset longevity (Olaoye & Ayodele, 2019).

As noted by Ojo (2017), many firms in Nigeria are not performing as expected. It seemed that the inadequacies that affected manufacturing companies were from inadequate asset management on the part of the management group, whose individual objectives partially superseded the congruence of goals. The basic goal of any shareholder is to maximize profits (Egbide, 2009). Therefore, asset management is complex since it must achieve the goal and the optimal liquidity required to support operational activities. Hence, asset management is essential to profit maximization, especially in manufacturing companies. It is central to the survival and growth of any organization.

Asset management aids in maintaining a safe working environment and adhering to regulatory requirements. Tracking assets, conducting regular inspections, and adhering to safety procedures minimize the risk of accidents and potential legal consequences. Asset management is essential in business (Umara, Sabeen & Qaisar, 2009). It offers companies vast opportunities to optimize production processes. Therefore, manufacturers need to prioritize this area in their daily operations. Effective asset management promotes greater profitability, permits the optimization of quality processes, and guarantees the continuous operation of the business. That goal can be achieved through sound asset management. Good asset management reflects that the company can control its financial performance efficiently and effectively (Jan & Bimantara, 2019).

Despite the importance attached to the efficacy of asset management in the financial performance of organizations, it appears that not many studies have been done in this area. Much of the studies have been restricted to working capital management in relation to the profitability of companies. Studies like Mutungi (2010), Onodje (2014), Falope and Ajilore (2009), Waithaka (2012), Yahaya, Kutigi, Solanke and Usman (2015) focused on working capital and financial performance of firms, reporting a positive relationship between the two variables while scholars like Samiloglu and Demirgunes (2008), Osundina (2014) and Mohammad and Noriza (2010) focused on working capital and profitability of a firm reported a negative relationship between the two variables. Also, the few existing studies in related areas

were limited to correlation, linear regression, and descriptive statistics to determine asset management and firms' performance. To close these gaps and advance the frontier of knowledge on how asset management and financial performance could be enhanced to ensure efficient utilization of assets, this study explores the extent to which asset management variables like asset utilization ratio, current asset turnover ratio and productivity ratio drives financial performance in Nigerian manufacturing firms. Asset utilization ratio, current asset turnover ratio, and asset productivity ratio are the predictor variables, and return on assets is the outcome variable. Hence, the study examines the impact of asset management ratio on the financial performance of manufacturing companies in Nigeria. The findings will address theoretical and practical gaps in understanding asset management in developing economies. Findings will extend the resource-based view theory by highlighting the importance of resource utilization. Findings will address how efficient asset utilization contributes to firm performance. On practical gaps, the findings will inform investment decisions by guiding investors in evaluating firm performance and providing metrics for evaluating asset management. It will highlight the importance of identifying and addressing underutilized assets and help managers/business owners optimize asset allocation for maximum return on investment, especially in developing economies. By addressing theoretical and practical gaps, this study contributes to a greater understanding of asset management, informing both the academic and business landscape.

Statement of the Problem

The manufacturing industry in Nigeria is a pivotal contributor to employment, government revenue, and economic growth. In this competitive landscape, manufacturing firms struggle with optimizing their financial performance for market sustainability and growth. Effective management of assets has emerged as a critical influencer of operational performance (Eze, Inyama & Ezugwu, 2024). However, the connection between assets management and financial performance in Nigerian firms remains unexplored. Nigerian firms are characterized by inefficient asset management, representation of assets that cannot be remuneratively employed, and the consequential effect of low financial performance. Despite the recognized importance of asset management and its impact on financial performance, more comprehensive research needs to be conducted in the context of Nigerian manufacturing companies. Existing studies primarily focus on working capital management and financial metrics, neglecting the intricate link between asset management and financial performance in manufacturing. This study fills this gap in the literature. With empirical evidence on how asset management affects financial performance, there is an existing gap in research covering the nexus between asset productivity, asset utilization, current asset turnover, and manufacturing firms' return on assets in Nigeria, which hinder industry growth potential. Addressing this gap is essential for manufacturing companies to enhance efficient asset management and overall financial performance.

Objectives of the study

The study's main objective is to examine the impact of asset management on the financial performance of manufacturing companies in Nigeria. The specific objectives were to:

- i. To determine the extent to which asset utilization ratio affects return on asset.
- ii. To determine the extent to which asset productivity ratio affects return on assets.
- iii. To determine the extent to which the current asset turnover ratio affects return on assets.

Research Questions

- i. To what extent does asset utilization ratio affect the return on asset?
- ii. To what extent does asset productivity ratio affect the return on assets?
- iii. To what extent does current asset turnover ratio affect the return on assets?

Hypotheses

- i. Asset utilization ratio has no significant effect on return on asset.
- ii. Asset productivity ratio has no significant effect on return on asset
- iii. Current asset ratio has no significant effect on the return on assets

Literature Review

Conceptual Framework

Asset Management: An asset is an item, thing or entity that has potential or actual value to an organization, where the value can be tangible or intangible, financial or non-financial, and includes consideration of risks (Adalia & Marolle, 2017). Because of this, assets are therefore very crucial for both individuals and organizations as they cannot live without them. Asset management is the broad strategic method of documenting and organizing assets and using collected information to assist the company in making cost-effective investment decisions. Asset management involves the systematic process of operating, maintaining, upgrading, and cost-effectively disposing of assets. In manufacturing companies, this typically refers to the management of physical assets such as machinery, equipment, buildings, and other infrastructure that are essential for production. It is a business process as it applies a decision-making framework that covers an extended time. Its approach is based on the best practices borrowed from the areas of economics, engineering, and business. Assets are divided into two parts, namely non-current assets and current assets. Non-current assets are tangible assets used by firms to create more wealth, and they are not limited to plants, machinery, land, and motor vehicles. The management of these short-term assets falls under the current asset management (CAM). Current assets are cash or assets that are expected to be converted into cash within the company's normal operating cycle. For example, cash or cash equivalent, accounts receivable, stock inventories, prepaid expenses and other liquid assets. Current assets could represent a significant component of the firm's total assets.

The goal of asset management is cost-effective resource allocation and programming decisions. This is because it allows companies to focus on assets comprehensively. Therefore, a well-designed asset management system has to be a vital element of companies so as to enable the mobility of clients, planning for future improvements, and being accountable and responsive to the assets and investments. It provides the best strategy for future readiness and ensures that companies achieve their goals of enhancing safety, increasing the value of assets, and expanding economic opportunities.

Some factors that affect asset management are asset type and complexity, organizational culture and leadership, and economic condition. Economic factors such as inflation, interest rates, and overall market conditions can influence the cost of acquiring, maintaining, and disposing of assets. Other factors include technological advancements, regulatory and compliance requirements, organization strategy and goals, asset condition and age, maintenance practices, and budget constraints. Financial limitations can restrict the ability to

purchase new assets, perform necessary maintenance, or upgrade existing assets. The efficiency of the organization's operational processes affects how well assets are utilized. Inefficient processes can lead to underutilisation of assets, higher operational costs, and increased wear and tear on equipment. Key metrics of asset management include:

- **Asset Utilization Ratio:** Evaluates how effectively a company uses its assets to generate revenue. It is calculated by total revenue divided by total assets. It helps in understanding how well a company's assets are being used to produce revenue. Higher ratios indicate better utilization.
- **Asset Turnover Ratio:** Measures the ability of a company to generate sales from its assets. It is Net sales divided by average total assets. A higher ratio indicates more efficient use of assets in generating sales. According to the study of Victor, Okwo, Nwoha & Eze (2024), the asset turnover ratio has a positive significant effect on return on assets, which implies that the extent of utilization of companies increases profitability; excessive accumulation of tangible assets has a strong negative impact on financial performance.
- **Asset Production Ratio:** measures the efficiency of an organization's assets in generating revenue. It is calculated by dividing the total revenue by the total assets. A higher asset production indicates that assets are managed and utilized efficiently to generate revenue, while a lower APR suggests that assets may not be fully utilized or managed.

These metrics help firms optimize their asset utilization, reduce costs, and improve financial performance.

Financial Performance: Return on assets (ROA) measures profitability relative to the company's total assets. $ROA = \text{Net Income} / \text{total assets}$. It indicates how efficiently a company is using its assets to generate profits. A higher ROA suggests more efficient asset use. According to the study by Purba & Bimantara (2019), fixed asset turnover (FATO) positively and significantly affects return on Assets. The study concludes that good asset management reflects that the company can control its financial performance effectively and efficiently.

Theoretical Background

The study used the Resource-Based View Theory: Resource-based theory is a managerial framework used to determine the strategic resources a firm can exploit to achieve sustainable competitive advantage (Priem & Butler, 2001). This theory was proposed by Barney (1995). Barney proposes that firms are heterogeneous because they possess heterogeneous resources, meaning that firms can adopt differing strategies because they have different resource mixes. Thus, according to the resource-based theory, managing strategically involves developing and exploiting a firm's unique resources and capabilities and continually maintaining and strengthening those resources. The theory asserts that it is advantageous for a firm to pursue a strategy that any other competing firm is not currently implementing. The theory predicts that possession of strategic resources provides an organization with an opportunity to develop competencies over its rivals, hence resulting in good performance. It further predicts that strategic resources and capabilities enable organizations to perform excellently. "Firm Resources and Sustained Competitive Advantage" is seen as pivotal in the emergence of the resource-based view. The resource-based view suggests that organizations must develop unique, firm-specific core competencies that will allow them to outperform competitors by

doing things differently. In the resource-based view, strategists select the strategy or competitive position that best exploits the internal resources and capabilities relative to external opportunities. Given that strategic resources represent a complex network of interrelated assets and capabilities, organizations can adopt many possible competitive positions. Relating this theory to the study, the possession of strategic resources provides manufacturing companies with an opportunity to develop competencies over efficient management of assets, hence resulting in good financial performance. Manufacturing companies with a resource-based view of efficient management of assets must develop unique company-specific core competencies that will allow them to outperform competitors by doing things differently.

Empirical Evidence

Akparhuere, Eze and Unah (2015) studied the effect of asset management efficiency on the corporate performance of building and construction companies in Nigeria. The study adopted the ex-post facto research design, and secondary data were collected on the independent and dependent variables for ten (10) years, 2006-2017. The data were analysed using the simple regression method, and it was found that inventory turnover had a significant effect on the corporate performance of building and construction companies in Nigeria. The study focused on building and construction companies; the current study looked at the impact of asset management on the financial performance of manufacturing companies, filling the void left.

Uguru, et al. (2018) examined the effect of working capital management on the profitability of brewery firms in Nigeria. This study adopts the ex-post-facto research design and employs the Ordinary Least Square (OLS) regression technique to analyse the data. The findings suggest that the management of the number of days accounts receivables, the number of days inventory held, and the cash conversion cycle are significant factors in the accomplishment of the profitability objective of brewery firms in Nigeria.

Ogunsola and Gbadebo (2022) examined the impact of working capital management on the financial performance of nine (9) listed manufacturing firms in Nigeria for the ten (10) years spanning 2011-2020. Descriptive statistics, correlation, and panel regression analysis methods were employed in data analysis. The result revealed that inventory turnover had a positive insignificant effect on return on assets. The trade receivable collection period had a negative insignificant effect on the return on assets. The cash conversion cycle had a negative insignificant effect on return on assets. The study of Uguru and Ogunsola focused on working capital management and neglected the impact of the asset utilization ratio and the impact of the current asset ratio on financial performance. The current study fills this gap.

Olaoye, and Ayodele (2019) carried out research on assets management and performance of selected quoted firms in Nigeria. Their variables are current asset, non-current asset, debt-equity ratio and profit after tax. Ten (10) quoted firms in Nigeria for ten years spanning from 2007 to 2016 were captured. Data were analysed using panel techniques of estimation, including Pooled OLS, fixed effect and random effect estimation, alongside post-estimation tests such as restricted F-test, Hausman test, Wald test of heterogeneity, Wooldridge autocorrelation test and Pesaran test of cross-sectional dependence. Results revealed that current assets exerted an insignificant positive impact on profit after tax, non-current assets exerted a significant positive impact on profit after tax, and the Debt-equity ratio, on the other hand, exerted an insignificant negative impact on profit after tax. The study found that asset management contributed meaningfully towards improved performance of quoted firms in Nigeria, especially when measured in terms of profit after tax, but did not consider the return

on assets, asset productivity ratio, and how they impact financial performance; the current study fills this gap.

METHODOLOGY

Research Design

The research adopted the Ex-post factor research design to examine how the independent variables affected the dependent variables. The design aimed to examine the impact of asset management on the financial performance of manufacturing firms listed on the Nigerian Stock Exchange.

Sources of Data

The main sources of data for this study were secondary sources obtained from the online publication of the annual reports of eighteen Nigerian manufacturing companies quoted in the Nigerian Stock Exchange in 2022. The year 2022 was taken for an expanded scope of companies. Most of the selected companies' financial statements are not accessible online for the current year, while some are accessible.

Sampling Size and Sampling Technique

A sample size of eighteen manufacturing firms whose financial statements were accessible online for the year 2022 was purposively taken. These include: Berger Paints PLC, Larfarge Africa PLC, John Holt PLC, Chellarams PLC, Champion Breweries PLC, BUO Cement PLC, Dangote Cement PLC, Cutix PLC, Aluminium Extrusion PLC, Beta Paints PLC.

Guinness Nigeria PLC, Enamel Wares PLC, Nigerian Brewery PLC, Vita Foam PLC, Nascon Allied Industry PLC, Nigeria Floor Mill, Cadbury PLC, Nestle Nigerian PLC and Dangote Sugar PLC, respectively. The sample technique was purposive sampling.

The justification for choosing the eighteen manufacturing firms outlined above is that the annual published financial statements were accessible online for the year 2022 and are all denominated in Nigeria currency units (Naira). The justification for using 2022 includes recency. 2022 is a recent year, allowing for analysis of contemporary assessment of management practices and their impact on financial performance and data availability. Financial reports and assessment of management data from 2022 were available, ensuring reliable and accurate analysis. It is relevant to the current business landscape:

Limitations for using only one year. There was limited access to company data, especially for private or non-listed companies. Also, potential errors or inconsistencies in financial reports may affect data quality and accuracy. A robust statistics approach and good methodology were adopted to address these limitations.

Measurement of Variables

The operational performance, which is the dependent variable, was measured with Return on Asset (ROA). The independent variables are Asset management ratios which are: Asset Utilization Ratio (ASUR), Current Asset Ratio (CASR) and Asset Productivity Ratio (ASPR).

The variables were standardized with the natural logarithm of the variables.

Model Specification

Regression Estimate

A linear relationship is established between Return on Asset (ROA), the dependent variable, and the independent variables, Asset Utilization Ratio (ASUR), Current Asset Ratio (CASR) and Asset Productivity Ratio (ASPR). The model is specified thus: $ROA = C(1)*ASUR + C(2)*CASR + C(3)*ASPR + C(4)$ and is presented in Econometric form as : $ROA = \beta_0 + \beta_1 ASUR + \beta_2 CASR + \beta_3 ASPR + U_t$

Where ROA = Return on Asset: Profit after Tax / Total Asset

ASUR = Asset Utilization Ratio: Sales / Profit after Tax

ASPR = Asset Productivity Ratio: Sales/ Average Asset

CASR = Current Asset Ratio: Sales/ Current Asset

Method of Data Analysis

Ordinary Least Square Regression Model

The Ordinary Least Square Regression Model was used to express the relationship between the dependent variable and independent variables of the model. The decision rule is based on the t-statistics results; we will reject null hypotheses if the probability of T-statistics is less than 0.05 at a 5% level of significance; otherwise, we will accept the alternative hypotheses. Further descriptive statistics were employed to analyse the descriptive properties of the variables.

Analytical Tool

In data analysis, the analytical tool employed is E-view 10. Data was analyzed using descriptive statistics.

DISCUSSION OF FINDINGS

The descriptive properties of the variables are displayed below in Table 4.1

Descriptive properties of the Variables in the Model

| | ROA | ASUR | CASR | ASPR |
|-----------|------------|-------------|-------------|-------------|
| Mean | -2.674863 | 2.676487 | -0.193913 | 2.060769 |
| Median | -2.478715 | 2.350511 | 0.564177 | 2.345645 |
| Maximum | -0.230670 | 5.240847 | 1.264692 | 2.915064 |
| Minimum | -5.116000 | 1.273406 | -6.907760 | -1.832580 |
| Std. Dev. | 1.251230 | 1.075330 | 1.985918 | 1.017559 |
| Skewness | -0.042682 | 1.024714 | -2.411544 | -3.133897 |
| Kurtosis | 2.982119 | 3.135831 | 8.150712 | 12.63708 |

| | | | | |
|--------------|-----------|----------|-----------|----------|
| | | | | |
| Jarque-Bera | 0.005705 | 3.163952 | 39.41868 | 104.6256 |
| Probability | 0.997152 | 0.205568 | 0.000000 | 0.000000 |
| | | | | |
| Sum | -48.14753 | 48.17677 | -3.684347 | 39.15461 |
| Sum Sq. Dev. | 26.61482 | 19.65769 | 70.98963 | 18.63768 |
| | | | | |
| Observations | 18 | 18 | 19 | 19 |

Descriptive properties of the variables displayed in Table 4.1 indicate that the observed distribution of Return on Assets (ROA) has skewness coefficients, which estimate the asymmetry of its distribution of series around its mean of -2.674863 with negative skewness. The observed distribution is normally distributed with its Jarque-Bera probability value of 0.997152, which is greater than 0.05. Asset Utilization Ratio (ASUR) has skewness coefficients which estimate the asymmetry of its distribution of series around its mean of 2.676487 with positive skewness; the observed distribution is also normally distributed with its Jarque-Bera probability value of 0.205568 which is greater than 0.05. Current Asset Ratio (CASR) and Asset Productivity Ratio (ASPR) have skewness coefficients, which estimate the asymmetry of their distribution of series around their mean of -0.193913 and 2.060769 with negative skewness. Their observed distribution was not normally distributed since their Jarque-Bera probability value is 0.000000, respectively, and is greater than 0.05.

Regression Results of the model relationship between asset management and operational performance

Dependent Variable: ROA

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| ASUR | -1.088997 | 0.174473 | -6.241644 | 0.0000 |
| CASR | -0.001022 | 0.084333 | -0.012119 | 0.9905 |
| ASPR | 0.479640 | 0.475680 | 1.008325 | 0.3304 |
| C | -0.852425 | 0.969638 | -0.879116 | 0.3942 |
| R-squared | 0.761591 | Mean dependent var | | -2.674863 |
| Adjusted R-squared | 0.710503 | S.D. dependent var | | 1.251230 |
| S.E. of regression | 0.673223 | Akaike info criterion | | 2.239651 |
| Sum squared resid | 6.345215 | Schwarz criterion | | 2.437511 |
| Log likelihood | -16.15686 | Hannan-Quinn criter. | | 2.266933 |
| F-statistic | 14.90753 | Durbin-Watson stat | | 2.178535 |
| Prob(F-statistic) | 0.000122 | | | |

$$ROA = -0.852425196341 - 1.08899679931 * ASUR - 0.00102199474431 * CASR + 0.47963964961 * ASPR$$

The result proved that a strong relationship of 0.761 exists between the asset management variables and the operational performance of manufacturing firms in Nigeria. Again, the adjusted R-square value of 0.710 shows that the explanatory variables explained about 71% of the total variation in Return on Asset (ROA). The F-statistics has a value of 14.90753, and

its probability value is 0.000122. Since the probability value is less than 0.05, it shows that the model is fit and the explanatory variables of the model predicted the dependent variable.

The regression results revealed that the T-statistics of Asset Utilization Ratio (ASUR) in the estimated regression line presented above is -6.241644; it also had a probability value of 0.0000. Since the probability value is less than 0.05, it denotes significance. The result reveals that the Asset Utilization Ratio significantly affected the Return on Assets of manufacturing firms for the period in view. The conclusion is that asset management, as proxied by the Asset Utilization ratio, made a significant impact on return on assets; this, therefore, led to the rejection of null hypothesis one, which stated that the Asset Utilization Ratio has no significant effect on Return on Assets. The finding is in line with Jan and Bimantara (2019), who established empirically that asset management is needed to improve the profitability of the company.

The current Asset Ratio in the regression result has a T-statistics value of -0.012119 with a probability value of 0.9905. The results, therefore, reveal that the current asset ratio insignificantly affected the Return on Assets of manufacturing firms during the period in view. This is because its probability value is greater than 0.05. The conclusion is that asset management, as proxied by the Current Asset ratio, had an insignificant effect on Return on Assets; this, therefore, led to the acceptance of null hypothesis two, which stated that the Current Asset Ratio has no significant effect on Return on Assets.

Results revealed that the Asset Productivity Ratio (ASPR) in the regression result had a T-statistics value of 1.008325 with a probability value of 0.3304. Analysis, therefore, showed that the Asset Productivity Ratio insignificantly affected the Return on Assets of manufacturing firms for the period in view. Asset Utilization Ratio has no significant effect on Return on Assets. This is because its probability value is greater than 0.05. The conclusion is that asset management, as proxied by the Asset Productivity ratio, had an insignificant effect on return on Asset, leading to the acceptance of null hypothesis three, which stated that the Asset Productivity Ratio has no significant impact on Return on Asset. The findings of Uguru, et al. (2018) suggest that the management of the number of days accounts receivables, the number of days inventory held, and the cash conversion cycle are significant factors in the accomplishment of the profitability objective of brewery firms in Nigeria, which is in contrast with the findings of this study. The finding of this study is in line with Enekwe Ayogu and Bolaji (2023), who empirically revealed that non-current assets (NCA) have a positive but insignificant effect on the return on assets (ROA) of listed consumer goods companies in Nigeria. Asset Utilization Ratio significantly impacts ROA because it measures how efficiently assets are used to generate revenue, hence leading to improved profitability. The finding is in line with Jan and Bimantara (2019), who established empirically that asset management is needed to improve the company's profitability.

Conclusion

The study sought to examine the impact of asset management ratio on the financial performance of manufacturing companies. Specifically, the study sought to establish the extent to which asset management ratio as proxied by asset utilisation ratio, asset productivity ratio, and current asset turnover ratio, affects return on asset, which indicates financial performance. From the study findings, it can be inferred that asset management ratio, as proxied by the Asset Utilization Ratio, significantly affected the Return on Assets of manufacturing companies for the period in view. The conclusion is that asset management, as proxied by the Asset Utilization

ratio, has a significant impact on return on assets, while the asset productivity ratio and current Asset ratio have an insignificant effect on return on assets. The efficiency of the organisation's asset management affects its operational performance. Inefficient processes can lead to underutilisation of assets, higher operational costs, and increased wear and tear on equipment. The role of asset management among Nigerian manufacturing companies should not be undermined if improved financial performance is desired. Improved asset management could contribute to broader economic stability in Nigeria. This is because effective asset management ensures that resources are utilised efficiently, contributing to investment attractiveness because investors seek stability. When stability is achieved in companies, growth is achieved. Efficient asset management can lead to the creation of new businesses and the expansion of existing ones, resulting in job creation, which contributes to an increase in employment, economic stability and reduced poverty level.

Recommendations

Based on the findings, Manufacturing firms should:

1. Develop strong asset management practices that are crucial to achieving efficient performance.
2. Manufacturing companies should focus on maintaining and optimizing assets. This will help them reduce costs, increase productivity, and enhance overall efficiency, leading to improved performance and profitability.
3. Nigerian Manufacturing companies should maintain a good current asset turnover ratio and substantial management of productivity ratio to improve profitability.
4. Manufacturing companies should identify underutilized assets, support resource optimization, and enhance asset allocation for maximum return on investment. They should conduct regular asset assessments to identify opportunities for improvement.

Suggestion for Further Studies

It is essential to mention that this research has been limited to Nigerian manufacturing companies. Future research may consider researching other sectors in Nigeria and other developing countries. Future research could consider how asset management impacts financial performance across industries and how a change in asset management practice over time affects financial performance. Finally, cross-country comparisons of asset management and financial performance of companies could be considered for future studies.

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Appendix 1

Year 2022 Consolidated Financial Statement Variables from 18 sampled Firms For Asset Management Ratios Computation.

| Companies | Total Assets (N 000) | Net Income (N 000) | Average Assets (N 000) | Revenue (N 000) | Current Assets (N 000) |
|----------------------------|---------------------------------|-------------------------------|-----------------------------------|----------------------------|-----------------------------------|
| Berger Paints PLC | 5528528 | 208670 | 460710.6 | 6331634 | 2645411 |
| Larfarge Africa PLC | 600711473 | 53647456 | 50059289 | 373244938 | 196278670 |
| John Holt PLC | 10552 | 541 | 879.33 | 3553 | 5356 |
| Chellarams PLC | 11123983 | 882215 | 926998.58 | 9680395 | 4004220 |
| Champion Breweries PLC | 15453585 | 1585978 | 1287798 | 12288893 | 4672413 |
| BUO Cement PLC | 874011884 | 101010626 | 72834323.66 | 360989105 | 197770485 |
| Dangote Cement PLC | 2615655 | 382311 | 217071.21 | 1618323 | 1023461 cu |
| Cutix PLC | 5116100 | 786307 | 426341.66 | 7867764 | 4057172 |
| Aluminium Extruction PLC | 3068163 | 48529 | 235680.25 | 2637065 | 970280 |
| Beta Paints PLC | 75944552 | 4685414 | 6328712.6 | 54340363 | 51541176 |
| Guinness Nigeria PLC | 215660208 | 15651362 | 17971684 | 206822127 | 117601036 |
| Enamel Wares PLC | 4408807 | (431224) | 2204403.5 av | 354804 sales | 3593364 cu |
| Nigerian Brewery PLC | 619888682 | 13186761 | 51657390.16 | 550637994 | 155421928 |
| Vita Foam PLC | 39437016 | 4522278 | 3286418 | 46310015 | 32846493 |
| Nascon Allied Industry plc | 55530771 | 5469248 | 4627564 | 58786251 | 39167216 |
| Nigeria Floor Mill TA | 13315128 | 80668 NET INC | 1109594 | 15232820 | 412116420 |
| Cadbury Plc | 59713684 | 583111 | 4976140.33 | 55212617 | 45596905 |
| Nestle Nigerian Plc | 415044031 | 48965488 | 34587002.58 | 446819260290 | 290511094 |
| Dangote Sugar Plc | 827110100 | 54742134 | 68925841.6 | 463245988 | 334672734 |

Appendix 2

Computed Financial Ratios from Table of Appendix One

| Companies | Year | ROA | ASUT | ASPR | CASR |
|----------------------------|------|--------|--------|--------|-------|
| Dangote Cement PLC | 2022 | 0.618 | 4.33 | 7.42 | 1.87 |
| Cutix PLC | 2022 | 0.153 | 10 | 18.45 | 1.939 |
| Aluminium Extruction PLC | 2022 | 0.015 | 54.33 | 10.31 | 2.717 |
| Beta Paints PLC | 2022 | 0.061 | 11.59 | 8.58 | 1.054 |
| Guinness Nigeria PLC | 2022 | 0.072 | 13.21 | 11.5 | 1.758 |
| Enamel Wares PLC | 2022 | -0.097 | -0.822 | 0.16 | 0.098 |
| Nigerian Brewery PLC | 2022 | 0.021 | 41.75 | 10.65 | 3.542 |
| Vita Foam PLC | 2022 | 0.114 | 10.24 | 14.091 | 1.409 |
| Nascon Allied Industry plc | 2022 | 0.098 | 10.748 | 12.7 | 0.001 |
| Nigeria Floor Mill | 2022 | 0.006 | 188.83 | 13.72 | 0.036 |
| Cadbury Plc | 2022 | 0.0097 | 94.68 | 11.095 | 1.21 |
| Berger Paints PLC | 2022 | 0.037 | 30.34 | 13.74 | 2.393 |
| Larfarge Africa PLC | 2022 | 0.089 | 6.957 | 7.546 | 1.901 |
| John Holt PLC | 2022 | 0.051 | 6.567 | 4.04 | 0.663 |
| Chellarams PLC | 2022 | 0.079 | 10.972 | 10.44 | 2.417 |
| Champion Breweries PLC | 2022 | 0.102 | 7.748 | 9.546 | 2.63 |
| BUO Cement PLC | 2022 | 0.115 | 3.573 | 4.956 | 1.825 |
| Dangote Sugar Plc | 2022 | 0.794 | 7.366 | 5.85 | 1.2 |
| Nestle Nigerian Plc | 2022 | 0.117 | 9.125 | 12.918 | 1.538 |

Where ROA = Return on Asset: Profit after Tax / Total Asset

ASUT = Asset Utilization Ratio: Sales / Profit after Tax

ASPR = Asset Productivity Ratio: Sales/ Average Asset

CASR = Current Asset Ratio: Sales/ Current Asset