

EFFECT OF REAL EARNINGS MANAGEMENT ON FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

The objective of the study is to examine the effect of real earnings management on the financial performance of listed manufacturing companies in Nigeria. The financial performance proxied by Return on Assets (ROA) is the dependent variable of the study while real earnings management which is the independent variable was proxied by Sales Manipulation (SMP), Discretionary Expenses (DE), Abnormal Production Cost (APC) and Accrual-Based Earnings (ABE). The research design used in the study is ex-post facto research design which relies in using mainly secondary data. The targeted population of the study are all the 65 listed manufacturing firms in Nigerian Group Exchange. The study adopted random sampling technique and as such 21 listed manufacturing firms were selected for the data collection spanning from 2016 to 2023. Multiple regression technique was used in the study. The result shows statistically significant impact between Sales Manipulation, Discretionary Expenses, Abnormal Production Cost on Return on Asset. However, Accrual-Based Earnings was insignificant on Return on Asset. The study concluded that of real earnings management has on the financial performance of listed manufacturing companies in Nigeria. Based on this result, the study recommends that firms should focus on optimizing these costs. Implement cost control measures and enhance production efficiency to ensure that abnormal production costs contribute positively to financial performance.

Keywords: real earnings management, financial performance, listed manufacturing firms, Nigeria

1. Introduction

Financial performance is a cornerstone of corporate success, reflecting the ability of an organization to efficiently manage its resources, generate profits, and create value for its stakeholders. Financial performance is a critical aspect of assessing the health and viability of an organization. It involves evaluating various financial metrics, ratios, and indicators to gauge the efficiency, profitability, and overall financial well-being of a company (Sofyan, 2019). Financial performance is essential for stakeholders such as investors, creditors, management, and regulatory authorities to make informed decisions (Nirino et al., 2021). By analyzing financial statements and performance metrics, stakeholders can assess the profitability and operational efficiency of any listed



manufacturing firms. This information helps investors determine the potential return on investment, creditors evaluate creditworthiness, and management identify areas for improvement and strategic decision-making related to listed manufacturing firms in Nigeria (Ichsan et al., 2021).

Effective financial performance analysis enables stakeholders, including investors, creditors, management, and regulatory authorities, to make informed decisions about the financial health and prospects of a company. By evaluating financial statements, analyzing key performance indicators, and benchmarking against industry peers, stakeholders can assess the company's ability to meet its financial obligations, generate returns on investment, and adapt to changing market conditions (Cho et al., 2019). Additionally, companies may engage in real earnings management (REM) to smooth earnings over time, reducing perceived volatility and making the company appear more stable and predictable to investors and creditors (Kuo et al., 2017).

Engaging in real earnings management (REM) is multifaceted and often stems from the pressure to meet short-term financial goals. Moreover, management compensation is often tied to financial performance metrics, such as earnings per share (EPS) or return on equity (ROE), providing further incentive to manipulate earnings to secure bonuses or stock options (Cheng et al., 2016). This smoothing effect can help maintain a steady stock price and reduce the risk of shareholder litigation. However, the pursuit of these short-term benefits often comes at the expense of long-term financial health and sustainability. REM can provide immediate benefits by helping companies meet earnings targets, but the long-term consequences can be detrimental. By focusing on short-term financial gains, companies may neglect critical areas such as research and development (R&D), innovation, and maintenance, which are essential for long-term growth and competitiveness (Kim & Sohn, 2016).

Many companies employed various tactics for real earnings management so as to meet up with their short-term financial target by way of manipulating their financial report. Sales manipulation is a common technique used in real earnings management where a company intentionally influences its sales figures to meet short-term financial targets. This manipulation often involves practices such as offering excessive discounts, extending credit terms, or engaging in channel stuffing where products are shipped to distributors or retailers near the end of a reporting period to artificially inflate sales figures (Chen et al., 2021). Manipulating production costs is another tactic in real earnings management where companies alter their production schedules or inventory levels to influence reported financial outcomes. One common method is overproduction, where a company produces more goods than necessary to spread fixed costs over a larger number of units, thereby lowering the cost per unit (Roychowdhury, 2006).

Manipulation of discretionary expenses is a key element of real earnings management, where management adjusts spending on non-essential or controllable costs to meet earnings targets. Discretionary expenses include areas such as research and development (R&D), advertising, maintenance, and employee training, which are crucial for long-term growth and competitiveness but can be easily adjusted in the short term (Kim & Sohn, 2016).

Accrual-based earnings management (AEM) is another form of earnings manipulation that involves adjusting accounting entries to influence reported earnings. Unlike real earnings management, which affects cash flow and real operations, AEM relies



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on the flexibility allowed within accounting standards to manipulate accruals, such as revenue recognition timing, depreciation methods, or provisioning for bad debts (Dechow et al., 2012).

Manufacturing sector has significant impact on the Nigerian economy in a number of areas like employment, social services, tax, among others. The decline in the Manufacturing sector's contribution to the real GDP this quarter was anticipated, given the challenging macroeconomic conditions it faced. Elevated energy costs, significant exchange rate fluctuations, increased interest rates, and the rising cost of raw material imports forced many companies to scale back production and endure narrower profit margins (Aghogho, 2023). Real earnings management (REM) involves adjusting operational activities rather than accounting figures, potentially distorting financial outcomes without breaching explicit accounting rules. This study aims to address this theoretical gap by clarifying the distinction between genuine earnings management and manipulative REM, enhancing the discourse on ethical financial reporting (Philomena et al., 2022).

REM poses unique challenges in developing economies such as Nigeria, where regulatory oversight may be less stringent than in advanced markets. According to Bassey Udo (2017), an alleged "insider dealings" and manipulation of Oando Plc's shareholding structure led to breach of the Investment and Security Act 2007 and Security and Exchange Commission (SEC) Code of Corporate Governance for Public Companies on earnings manipulation. This manipulation was detected by the regulators of capital market through a forensic audit of the company.

The main objective of this study is to assess the effect of real earnings management on the financial performance of listed manufacturing firms in Nigeria from 2016 to 2023. This study provides investors with insights into the true financial health of companies, enabling more accurate assessment of investment risks and opportunities. Also, identifying companies engaged in REM practices could help investors avoid potential pitfalls associated with distorted financial outlooks, thus promoting better resource allocation and contributing to a healthier financial market. Similarly, corporate governance and financial reporting transparency would benefit as an unchecked REM can erode trust between companies and stakeholders by compromising the integrity of financial statements. Moreover, on the part of the managers it helps in highlighting the long-term implications of REM on financial performance. Academics and researchers would benefit from this study as it expands the knowledge base on REM and its financial implications. Nevertheless, policymakers would find the outcomes of this study invaluable in shaping regulations that foster a transparent and efficient financial market.

2. Literature Review

Concept of Financial Performance

Financial performance is a multifaceted metric used to evaluate a company's overall financial health and efficiency. According to Keter et al. (2023), it is measured through various metrics such as return on assets (ROA), return on equity (ROE), and profit margins, which reflect a company's profitability and operational efficiency. Curtis et al. (2021) describe it as encompassing profitability, liquidity, efficiency, and solvency, highlighting the impact of financial reporting integrity on performance assessments. Aghab (2020) defines it as the measurement of financial health through operational outcomes and results,



with a recognition of how earnings management can influence these outcomes. Osma et al. (2022) emphasize that financial performance includes profitability and operational efficiency but acknowledges the distortion that earnings management can create. This definition is chosen because it provides a comprehensive view that integrates various dimensions of financial performance while explicitly acknowledging the potential distortions caused by earnings management, making it particularly relevant for studies exploring the effects of such practices.

Concept of Real Earnings Management

Huang et al. (2020) explain it as involving adjustments in discretionary spending, production, and investment to manage earnings. Al-Shattarat et al. (2022) highlight it as the manipulation of operational decisions to influence reported earnings and financial metrics. Sitanggang et al. (2020) note that real earnings management can lead to temporary performance improvements but may harm long-term financial health. Finally, Klietstik et al. (2021) argue that real earnings management is complex to detect due to its impact on operational data and the need for advanced analytical methods. The definition adopted is from Roychowdhury (2006), which defines real earnings management as managerial actions aimed at altering financial outcomes through operational changes. This definition is chosen because it succinctly captures the essence of real earnings management by focusing on the manipulation of operational activities rather than accounting entries, aligning well with the focus on tangible business decisions in the study.

Concept of Sales Manipulation

Sales manipulation involves altering the timing or volume of sales to influence financial performance. Roychowdhury (2006) defines it as adjusting sales transactions to artificially inflate revenues without improving actual business performance. Dechow et al. (2010) describes it as practices like channel stuffing or accelerating shipments to boost reported sales temporarily. Cohen et al. (2008) characterize it as involving tactics such as offering discounts or incentives to induce early purchases, impacting revenue recognition. Sales manipulation is the process of influencing customer perceptions or decisions through tactics that may range from persuasive to deceptive (Kotler & Armstrong, 2020).

Sales manipulation "encompasses techniques used to control or influence customer decisions, frequently leveraging psychological tactics (Schiffman & Wisenblit, 2019). Sales manipulation can be seen as the use of targeted persuasion methods to skew buyer choices in favour of a specific outcome (Grewal & Levy, 2021). The definition adopted is from Roychowdhury (2006), which defines sales manipulation as adjusting sales transactions to artificially inflate revenues. This definition is selected because it directly addresses the core issue of sales manipulation altering sales practices to impact reported financial performance, which is crucial for understanding the nuances of how such manipulation affects financial reporting.

Concept of Abnormal Production Costs

Abnormal production costs refer to expenses that deviate significantly from normal manufacturing costs. Al-Shattarat et al. (2022) define these as costs incurred during production that are unusually high or low compared to expected costs. Dong et al. (2020) describes them as costs resulting from inefficiencies or deviations from standard production practices. Abnormal production cost is defined as unexpected expenses in the production process that exceed standard or budgeted costs (Drury, 2021). Abnormal



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production cost refers to the unexpected increase in production costs arising from factors such as wastage or equipment failure (Edmonds et al., 2021).

Abnormal production cost is excess production cost that results from abnormal production events such as breakdowns or supply issues (Hansen & Mowen, 2021). Abnormal production cost includes "unplanned costs in manufacturing due to disruptions in the normal production process" (Garrison et al., 2021). The adopted definition is from Dakhlallh et al. (2020), which describes abnormal production costs as manipulated expenses affecting reported profitability. This definition is chosen because it specifically addresses the role of abnormal production costs in the context of earnings management, highlighting how these costs are used to influence reported financial outcomes.

Concept of Discretionary Expenses

Discretionary expenses are cost that management can adjust without affecting the core operations. Habib et al. (2022) defines them as expenses like advertising or R&D that can be altered in the short term to influence financial results. Cohen et al. (2020) describe discretionary expenses as those that offer flexibility in timing and amount, making them a tool for earnings management. Grieser et al. (2021) view them as expenditures that can be manipulated to smooth earnings or meet financial targets. Al-Shattarat et al. (2022) noted that discretionary expenses include items such as bonuses or training costs, which can be adjusted to impact reported performance. The adopted definition is from Cohen et al. (2020), which defines discretionary expenses as those offering flexibility in timing and amount, which can be manipulated to influence financial results. This definition is selected because it effectively captures the essence of discretionary expenses as a flexible tool for earnings management, making it highly relevant for understanding their role in financial reporting.

Concept of Accrual-Based Earnings Management

Accrual-based earnings management involves manipulating accounting entries to affect financial statements. Dakhlallh et al. (2020) defined it as the adjustment of accounting accruals to influence reported earnings. Liu (2020) describes it as the timing of revenue and expense recognition to achieve desired financial outcomes. Galdi & John (2021) view it as involving the strategic use of accruals to smooth earnings or meet targets. Rennekamp et al. (2020) noted that it includes altering estimates or assumptions in financial statements to manage earnings. Martin et al. (2023) characterises it as involving manipulations such as changing inventory valuations or expense deferrals to affect financial results. This study adopt definition from Dakhlallh et al. (2020), which described accrual-based earnings management as the adjustment of accounting accruals to influence reported earnings. This definition is chosen because it clearly focuses on the manipulation of accounting entries, which is central to understanding accrual-based earnings management and its impact on financial statements.

Empirical Review

Sales Manipulations and Financial Performance

Nguyen and Tran (2024) analyzed the impact of sales manipulation on both immediate and extended periods concerning financial performance indicators in Asia and Europe from the period 2018–2023 (6years). Population of the study was the entire manufacturing sector in Asia and Europe and a sample of 150 firms was arrived at using purposive sampling technique. The data of the study was analyzed by time-series data



analysis method. The findings proved that sales manipulation inflates ROA but causes financial strain in subsequent periods.

Kwaghi et al. (2023) examined the effect of creative accounting practices on the profitability of listed industrial goods companies in Nigeria. The study specifically examined the effect of revenue and sales manipulation, manipulation of depreciation figures and methods and manipulation of interest and development costs on profitability of listed industrial goods companies in Nigeria. The study adopted the Agency theory as the anchor theory while panel data was extracted from the annual financial statements of the companies for the period 2016 to 2020. Regression analysis was used for test of hypotheses. The study found that: revenue and sales manipulation have significant positive effect on the profitability of industrial goods companies in Nigeria

Choi and Park (2023) for a period of 4 years ranging from 2019–2023 assessed the impact of sales-driven earnings management on financial health, particularly ROA, in listed firms. Asia firms were sampled in the study. Data of the study was analyzed by panel regression with fixed effects. The results revealed that sales manipulation was found to be detrimental to ROA in periods following manipulation practices. And the study finally recommended that external audits should be intensified to identify manipulative practices. The study is criticized by its small sample size which reduces the study's generalizability.

Ahmed and Bello (2022) examined the costs and benefits of sales manipulation in relation to ROA in listed manufacturing firms. The period of the study was from 2017–2021 (5 years). The population consisted all of the global manufacturing firms and a sample of 110 firms was used. Data for the study was analysed by regression with robust standard errors. The findings revealed that sales manipulation showed a statistically significant negative impact on long-term ROA.

Abnormal Discretionary Expenses and Financial Performance

Uchegbu et al. (2023) examined the effect of abnormal discretionary expenses on financial performance of listed manufacturing firms in Nigeria for a period of ten (10) years covering from 2013-2022. Sudden collapse of companies that once appeared viable and futuristic is a serious concern. Panel data were used in this study, which were obtained from the annual reports and accounts of twenty (21) sampled listed manufacturing firms for the period 2013-2022. Ex-post facto research design was employed. Inferential statistics using Pearson correlation coefficient, multicollinearity test, Panel Least Square (PLS) regression analysis and Hausman test were applied to test the hypotheses of the study. The results revealed that abnormal corporate social responsibility cost has a significant and positive effect on listed manufacturing firms in Nigeria.

Johnson and Smith (2023) examined how abnormal production costs impact ROA in the manufacturing sector in Europe for 5 years (2017–2021). All the listed manufacturing firms in Europe were the population of study and a sample of 80 firms was used. Panel regression was the method of data analysis. Findings revealed that abnormal production costs were associated with reduced ROA due to inefficient resource allocation.

Kimura and Fujii (2023) explored the relationship between abnormal production costs and ROA in Japanese manufacturing firms for a period of 6 years from 2018–2023. A population of the entire Japan manufacturing firms and a sample of 65 firms. Time-series regression analysis was employed. Findings revealed that elevated production costs significantly decreased financial performance over time.



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Torres and Silva (2022) assessed how abnormal production costs affect financial performance in emerging markets. A period of 5 years (2016–2020). The manufacturing firms in Latin America consisted the population of study and 90 firms was the sample of the study. Structural Equation Modelling (SEM) was employed for the data analysis. Findings revealed that abnormal production costs led to a decrease in performance, particularly in firms with volatile revenue streams.

Discretionary Expenses and Financial Performance

Liu and Chen (2023) explored the impact of discretionary expenses on earnings management and financial performance of listed manufacturing firms in China for the period 2018–2022. Population was listed Chinese manufacturing firms and the study sampled 100 firms. Data was analysed using Structural Equation Modeling (SEM). The findings of the study depicted that, discretionary expenses were found to manipulate earnings, leading to lower ROA in the long term.

O'Brien and Lee (2022) investigated how corporate governance affects the relationship between discretionary expenses and financial performance in Europe for 3years spanning 2019–2021. The study population was the listed European manufacturing firms and only 85 firms was the sample of the study. Multivariate regression was employed for the data analysis. The study results found strong corporate governance mitigated the negative effects of discretionary expenses on return on assets of listed European countries.

Watti et al. (2014) explored the intersection of real earnings manipulation and Corporate Social Responsibility (CSR) using data from 27 companies listed on the Indonesian Stock Exchange during 2006-2008. Their analysis, based on ordinary least squares regression, revealed that real manipulation, specifically of operational cash flows, had a negative effect on the relationship between CSR activities and financial performance.

Accrual-Based Earnings Management and Financial Performance

Umobong (2024) examined the long run impact of earning management on performance of manufacturing firms in Nigeria for the period 2013 to 2022. The study adopted cross sectional ex-post facto design and census sampling method. The dynamic panel data estimation framework was used and Hausman test for selection of model. The study found that discretional Accruals, Related party transactions and Real Earnings management all have significant effects on Returns on Asset.

Kothari et al. (2016) assessed the role of both accrual-based and real earnings management in causing overvaluation during seasoned equity offerings (SEOs). Their study revealed that REM, particularly through the reduction of expenditures on R&D and other activities, was more predictably linked with post-SEO stock market underperformance compared to accrual-based management. The findings suggest that managers' use of REM, although costlier in the long run, is a common strategy to overstate earnings during SEOs, leading to eventual market underperformance.

Braam et al. (2015) explored whether politically connected firms are more likely to use REM as opposed to accrual-based management strategies. Their study, which utilized a sample of 5,493 publicly traded firms across 30 countries, found that politically connected firms preferred REM due to its higher secrecy and reduced detectability compared to accrual-based methods.

Enomoto et al. (2015) examined the differences in accrual-based and real earnings management across countries, focusing on the role of investor protection. Analyzing data



from 222,513 firm-year observations in 38 countries from 1991 to 2010, they found that stronger investor protection constrained accrual-based earnings management but led to an increase in REM as a substitute.

He and Zhang (2020) investigated the impact of firm-specific risk factors on REM using a sample of 1,500 firms from 2009 to 2018. The study found that firms with higher operational risks are more likely to engage in REM. This indicates that increased risk can drive firms toward earnings manipulation as a way to stabilize reported financial performance.

Theoretical Framework

This study adopts Agency Theory as the theoretical framework to explore the relationship between earnings management and executive compensation. Agency theory, as articulated by Jensen and Meckling (1976), addresses the conflicts of interest between principals (shareholders) and agents (managers). This framework is pivotal in understanding how various incentives and contracts impact managerial behavior and financial reporting practices. Agency theory posits that principals delegate decision-making authority to agents, which can lead to conflicts due to differing interests (Jensen & Meckling, 1976). This delegation creates potential agency problems, including: The risk that agents may not act in the best interest of the principals. In the context of this study, the principal-agent relationship is exemplified by the interactions between shareholders (principals) and Chief Executive Officers (CEOs) or other executives (agents). This relationship is influenced by various contracts, such as management compensation contracts, debt contracts, and employee contracts.

3. Methodology

Correlation research design is used to analyze the relationship between the explanatory variables and the explained variable. The population of the study consisted all the 65 listed manufacturing firms in Nigeria as at 31st December 2023. The study adopted random sampling technique and as such 21 listed manufacturing firms were selected for the data collection. The source of data was secondary source extracted from the annual reports of the firms for the period of study, panel data multiple regression is employed as the technique of data analysis and the tool of analysis used in this study is STATA 13.0.



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Variable Measurement

Table 1

Variable Definition, Measurement and Sources

Variable	Nature of Variable	Proxy	Measurement	Source
Return on Assets	Dependent Variable	ROA	Earnings Before Tax divided by Total Assets	Husna et al., 2019
Sales Manipulation	Independent Variable	SMP	Abnormal cash flow from operations divided by total asset	Cohen and Zarowin (2020)
Abnormal Production Costs	Independent Variable	APC	Natural Log of Cost of Goods Sold plus changes in inventory (ΔINV) between the beginning and the end of the year.	Roychowdhury (2016)
Discretionary Expenses	Independent Variable	DCE	Natural Log of The sum of R&D, advertising and selling and general and administrative expenses	Cohen and Zarowin (2020)
Accrual-Based Earnings Management	Independent Variable	AEM	Total Accruals in year plus changes in receivables since the previous year end plus property, plant and equipment, and return on assets scaled by total assets.	Kothari et al., 2015

Source: Researcher's Compilation, 2025

4. Results and Discussions

Descriptive Analysis

Table 2

Descriptive Result

Variable	Observation	Mean	Std. Dev	Min	Max
ROA	149	0.334	0.432	-0.71	0.99
SMP	149	0.108	0.161	-0.19	0.94
APC	149	1.870	2.730	4271	9.920
DE	149	16.006	2.725	11	20
ABE	149	8.670	71.940	-5.87	858.7

Source: STATA 2024.



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The Return on Assets (ROA) serves as a key indicator of the financial performance of the listed manufacturing firms in Nigeria. With an average mean value of 0.33%, this means that, companies on average generate a positive return on their assets. However, the substantial standard deviation of 0.432% suggests significant variability in performance across the sample. The negative minimum ROA of -0.71 indicates that some companies experienced periods of negative returns, while the maximum is 0.99 underlining the diverse ROA within the sector.

Sales Manipulation (SMP) provides insights into the manipulation of the financial performance of the listed manufacturing firms in Nigeria. The average manipulation of 0.108 This shows that on average the sampled firm's annual sales growth rate is 10% which suggests that the companies in the sample have been proved that sales manipulation inflates ROA but causes financial strain in subsequent periods, while the low standard deviation showing 0.161% suggests significant variation in performance across some companies from the sample. The negative minimum sale manipulation of -0.19 indicates that some companies experienced periods of negative returns, underlining the diverse sale manipulation within the sector and a positive maximum sale manipulation of 0.94.

Abnormal Production Cost (APC) provides insights into the Abnormal Production Cost of the financial performance of the listed manufacturing firms in Nigeria. The average Abnormal Production Cost of 1.870 This shows that APC from the result affect reported profitability and financial outcomes which also means that some of the APC normally goes beyond the actual or standard cost, which in turn distort firm performance. While the wide standard deviation shows a variation of about 2.730 suggests a significant variation in APC level among the sample across some companies from the sample. The minimum APC which is represented in it absolute value is 4271 indicates that some companies experienced as low as 4271 ROA and some of the firm experience as much as 9,920 ROA as their return.

Discretionary Expenses (DE) results show that the average mean of 15.007 indicating that it is another earnings management indicator that can be altered in the short term to influence financial results of the financial performance of the listed manufacturing firms in Nigeria. The average mean value shows that DE from the result affect reported financial outcomes. While the wide standard deviation shows a variation of about 2.725 suggests a significant variation in DE level among the sample across some companies from the sample. The minimum DE value is 11% indicates that some companies experienced as low as 11% ROA and some of the firm experience as much as 20% ROA as their return.

Accrual-Based Earnings (ABE) the average mean value shows about 8.670 meaning that Accrual-based earnings management involves adjustments in accruals, which enable managers to influence reported net income, this is because many firms engaged in ABE to report high ROA which has a negative impact to such an organization in the long-run. While the wide standard deviation shows a variation of about 71.940 suggests a significant variation in ABE level among the sample across some companies from the sample size. And the negative minimum value is -5.87% indicates that some companies report negative ROA even when such a firm tempered with their ABE so as to maximized ROA and some of the firm experience as high as 858.7% ROA as their return with ABE.



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Correlation Matrix

Table 3

Correlation Result

	ROA	SMP	APC	DE	ABE
ROA	1				
SMP	0.0143	1			
APC	-0.4049	-0.0556	1		
DE	-0.4521	-0.0914	0.0423	1	
ABE	0.0919	0.1734	-0.0029	-0.0476	1

Source: STATA 2024.

The correlation matrix provides insights into the relationships between the variables in the study. Starting with Return on Assets (ROA), its correlations with other variables are generally weak, indicating that real earnings management practices (such as Sales Manipulation, Abnormal Production Costs, and Discretionary Expense) have minimal direct influence on ROA. Specifically, the correlation between ROA and Sales Manipulation (SMP) is 0.0143, which means positive relationship exist. The negative correlation of -0.4049 exist between ROA and Abnormal Production Costs (APC) relationship indicating that firms engaging in abnormal production costs tend to have a higher ROA. This could imply that manipulating abnormal production costs might improve profitability, at least in the short term. Furthermore, ROA and DE show a value of -0.452 which implies that the relationship between the variables is negative. More so, ABE and ROA show a value of 0.092, which implies a positive relationship also. Sales Manipulation (SMP) the relationship between (SMP) and (APC) shows a negative relation of (-0.056), DE (-0.091) and a positive relationship of (0.173) with ABE. Abnormal Production Cost has a positive association with DE of listed manufacturing firms in Nigeria from the computed values of coefficient of (0.042) and a negative relationship with ABE of (-0.003) and finally DE with ABE is (-0.0476) which is also negative.

Regression Result

Table 4

Regression Analysis

ROA	CO-EFFICIENT	T – VALUE	P-VALUE
SMP	-.201	-1.99	0.047
APC	-3.220	-2.98	0.003
DE	-0.049	-4.92	0.000
ABE	.000	0.52	0.601
F-Statistics			
P-Value			34.43 (0.0000)
R ²			0.25

Source: STATA 2024

The summary of regression results provides an overview of the relationship between independent variables and the dependent variable, highlighting the strength,



direction, and statistical significance of these relationships. The regression result from Table 4.4 has shown that the co-efficient of determination R^2 stood at 0.25 which means 25% of the total variation in Return on Assets of listed manufacturing firms in Nigeria is caused by the combined impact of SMC, APC, DE and ABE, while the remaining 75% is caused by other factors not captured in the model of this study. The F- statistics of the model of the study is 34.43 with p-value of 0.0000 which is insignificant at any level of significant. This signifies that the model of the study is well fitted with the variables of the study.

Sales Manipulation and Return on Assets

The sales manipulation (SMP) has a negative coefficient of -.201 with a P-value of 0.047 indicating statistical insignificance at 5% significance level. The negative coefficient suggests that, on average, an increase of SMP will leads to 20% decrease on ROA. This finding implies that if a firm engage in SMP it will leads to a decrease in on ROA of a firm. The study is in line with the work of Nguyen and Tran (2023); Choi and Park (2023); while contrary to the study of Ahmed and Bello (2022) and Santos and Perez (2023).

Abnormal Production Cost and Return on Assets

The table 4 shows that there is a negative and a significant relationship between Abnormal Production Cost and Return on Assets of listed manufacturing firms in Nigeria. This can be observed from the computed value of beta coefficient of -3.220 with the corresponding P-value of 0.003 which is significant at 5% level of significant. The existence of significant relationship between Abnormal Production Cost and Return on Assets in Nigeria is signifying that higher Abnormal Production Cost will lead to decrease in financial performance of listed manufacturing firms in Nigeria at significant level. The study is in line with the study of Johnson and Smith (2023); Kimura and Fujii (2023); Torres and Silva (2022); while contrary to the work of Tabassum et al. (2014).

Discretionary Expenses and Return on Assets

The table 4 shows that there is a negative but significant relationship between Discretionary Expenses and Return on Assets of listed manufacturing firms in Nigeria. This can be confirmed by the computed value of beta coefficient of -0.49 with the corresponding P-value of 0.000 which is statistically significant at 5% level of significant. The existence of significant relationship between Discretionary Expenses and Return on Assets in Nigeria is signifying that and increase in Discretionary Expenses will result to a decrease on the financial performance of listed manufacturing firms in Nigeria. The study is in line with the study of Vorst (2016) and Wattu (2014); while contrary to the works of Liu and Chen (2023).

Accrual-Based Earnings Management and Return on Assets

The table 4 shows that there is a positive but insignificant relationship between Accrual-Based Earnings Management and Return on Assets of listed manufacturing firms in Nigeria. This can be seen by the computed value of beta coefficient of 0.000 with the corresponding P-value of 0.601 that is insignificant This implies that for every increase in accrual-based earnings management, ROA of listed manufacturing firms in Nigeria will not be affected by the co-efficient value which is 0.000. The existence of positive and insignificant relationship between Accrual-Based Earnings Management and Return on Assets in Nigeria is signifying that listed manufacturing firms in Nigeria utilized their accruals for smooth earnings and target financial performance at a significant level. The



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study is in line with the work of Kothari (2016), Braam et al (2015); while contrary with the work of Wang and Zhang (2016).

5. Conclusion and Recommendations

The study concluded that Sales manipulation, abnormal production costs and discretionary expenses do not significantly influence the Returns on Assets (ROA) of listed manufacturing firms in Nigeria. This implies that firms' efforts in manipulating sales figures, adjusting discretionary spending or higher levels of abnormal production costs associated with financial performance, possibly due to less production efficiencies or strategic financial management do not substantially affect their financial performance. Furthermore, Accrual-Based Earnings management has a significant impact on ROA. This implies that firms' practices in managing earnings through accruals has substantially affect their financial performance in the context of this study.

Nevertheless, with regards to sales manipulation, the study recommended that firms should reconsider their focus on manipulating sales figures. Resources would be better allocated towards enhancing actual operational performance rather than engaging in practices that may not yield substantial financial benefits. Develop strategies that emphasize genuine sales growth and customer satisfaction, and invest in product and service improvements rather than focusing on sales manipulation tactics.

On abnormal production cost, the study recommended that firms should focus on optimizing these costs. Implement cost control measures and enhance production efficiency to ensure that abnormal production costs contribute positively to financial performance. Conduct regular reviews of production processes, invest in technology to streamline operations, and employ strategic cost management practices to monitor and reduce inefficiencies.

Regarding discretionary expenses, the study recommended that firms should manage these expenses judiciously, ensuring they align with strategic goals without expecting significant changes in financial performance. Implement a disciplined budgeting process, regularly review discretionary spending, and ensure that expenditures are justified by strategic objectives and potential returns.

Concerning accrual-based earnings management, the study recommended that efforts in this area might not enhance financial performance. Firms should focus on transparent and accurate financial reporting. Strengthen financial reporting practices, ensure compliance with accounting standards.

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