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EFFECT OF CASHFLOW REPORTING ON INVESTMENT DECISION OF MANUFACTURING COMPANIES IN NIGERIA

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Abstract
This study investigated the effect of cashflow reporting on investment decisions of manufacturing companies in Nigeria. Data for the study were sourced from the annual reports of firms spanning the period from 2017 to 2023 through content analysis. The variables were analysed using the Panel Error Correction-Generated Least Squares (EGLS) method, with E-views version 10 employed for data analysis. The findings revealed significant effects of Operating Activities and Investing Activities on investment decisions, while Financing Activities did not exhibit a significant influence. These findings emphasised the importance of robust cashflow reporting practices and strategic investment planning for manufacturing firms in Nigeria. Therefore, manufacturing companies are advised to prioritize enhancing the accuracy and transparency of their cashflow reporting related to operational activities to facilitate well-informed investment decisions and sustainable growth.

Keywords: Cashflow reporting, Investment decisions, Manufacturing companies, Operating activities, Investing activities

Introduction

Cash flow reporting has emerged as a pivotal aspect of financial reporting, providing stakeholders with a transparent view of liquidity and financial health of the company. In the dynamic and challenging business environment of Nigeria, where the manufacturing sector plays a crucial role in driving economic growth and development, understanding the impact of cash flow reporting on investment decisions has become increasingly significant (Salaudeen, 2020). Investment decisions are critical for manufacturing companies as they determine the allocation of resources towards various projects, acquisitions, or expansions, ultimately shaping the future profitability, growth, and sustainability of the company (Brealey et al., 2014).

The cash flow statement, a primary financial statement, offers insights that are not readily apparent from the income statement or balance sheet. It provides valuable information about the ability of the company to generate cash from its operations, manage its financing activities,

and invest in growth opportunities (Bhandari & Adams, 2017). By analyzing cash flow patterns, investors can better understand the liquidity position of a company, its capacity to meet financial obligations, and its potential for future growth (Subramanyam, 2014). This information is particularly crucial for manufacturing companies, which often require substantial capital investments in machinery, equipment, and infrastructure (Ajayi-Owoeye et al., 2022).

In Nigeria, the manufacturing sector has faced numerous challenges, including infrastructure deficiencies, power shortages, and an unfavourable business environment (Ogoun & Ekpulu, 2020). These challenges have heightened the importance of effective cash flow management and transparent reporting practices. Investors seek reliable and transparent financial information to assess the viability of their investments and make informed decisions (Ajayi-Owoeye et al., 2022). Accurate and comprehensive cash flow reporting can provide investors with the necessary information to evaluate the ability of a company to generate cash, service debt, and fund growth initiatives (Damodaran, 2012).

Furthermore, cash flow reporting plays a vital role in assessing the financial flexibility and risk management strategies of a company. Manufacturing companies often face fluctuations in demand, supply chain disruptions, and volatile commodity prices, all of which can impact their cash flows (Olagunju, Ojeleye & Kazeem, 2022). By analysing cash flow patterns, investors can gauge the capacity of a company to withstand economic downturns, adapt to changing market conditions, and seize emerging opportunities (Bhandari & Adams, 2017).

Additionally, cash flow reporting can shed light on the investment practices and capital allocation decisions of a company. Investors can evaluate whether a company is effectively reinvesting its cash flows into productive assets or diverting resources towards non-core activities (Damodaran, 2012). This information is particularly relevant in the Nigerian manufacturing sector, where companies often face challenges in accessing external financing and must rely heavily on internally generated funds for investment purposes (Salaudeen, 2020).

Despite the recognized importance of cash flow reporting in financial statement analysis and investment decision-making, there remains a significant gap in the literature regarding its impact on investment decisions among manufacturing companies in Nigeria. Several studies have explored the relationship between cash flow reporting and various aspects of firm performance, investment decisions, and financial health (Ajayi-Owoeye et al., 2022; Olagunju et al., 2022; Patil & Bagodi, 2021; Salaudeen, 2020). However, these studies have primarily focused on developed economies or other sectors within Nigeria, leaving a void in understanding the specific dynamics and challenges faced by the manufacturing sector.

The manufacturing sector in Nigeria plays a pivotal role in the economic growth and development of the country, contributing significantly to employment generation, export earnings, and overall industrial output (Ogoun & Ekpulu, 2020). However, this sector has faced numerous challenges, including infrastructure deficiencies, power shortages, and an unfavourable business environment (Olayiwola & Okodua, 2013). These challenges have highlighted the importance of effective cash flow management and transparent reporting practices for attracting and retaining investments in the manufacturing sector.

While some studies have examined the impact of cash flow reporting on investment decisions in Nigerian companies (Salaudeen, 2020; Ajayi-Owoeye et al., 2022), they have primarily focused on firms across various industries or have not specifically addressed the unique challenges faced by the manufacturing sector. The capital-intensive nature of the manufacturing sector, exposure to fluctuations in demand and supply chain disruptions, and

reliance on internally generated funds for investment purposes (Olagunju et al., 2022) warrant a dedicated investigation into the role of cash flow reporting in investment decision-making.

Furthermore, the existing literature has provided mixed and inconsistent findings regarding the relationship between cash flow reporting and investment decisions. Some studies have found a positive association (Salaudeen, 2020; Ajayi-Owoeye et al., 2022), while others have reported insignificant or negative relationships (Olagunju et al., 2022; Olayiwola & Okodua, 2013). These conflicting findings highlight the need for further research to clarify the nature and magnitude of the impact of cash flow reporting on investment decisions within the Nigerian manufacturing sector. Thus, this study aims to contribute to the existing body of knowledge and provide valuable insights to policymakers, regulators, and industry stakeholders by investigating the effect of cash flow reporting on investment decisions of manufacturing companies in Nigeria.

Hypotheses of the Study

The study tested the following null hypotheses:

HO_1: Operating Activities has no significant effect on investment decision of manufacturing companies in Nigeria

HO_2: Investing Activities has no significant effect on investment decision of manufacturing companies in Nigeria

HO_3: Financing Activities has no significant effect on investment decision of manufacturing companies in Nigeria

LITERATURE REVIEW

Conceptual Review

Concept of Cashflow Reporting

Cashflow reporting is a critical aspect of financial reporting that provides valuable insights into a company's liquidity, solvency, and overall financial health. It is a detailed statement that outlines the sources and uses of cash within a specific period, typically a fiscal year. The concept of cashflow reporting is based on the fundamental principle that cash is the lifeblood of any business, and its effective management is crucial for long-term sustainability and growth (Etim et al., 2022).

The importance of cashflow reporting stems from the fact that it offers a more accurate representation of a company's financial performance compared to traditional accrual-based accounting methods. While accrual accounting recognizes revenue and expenses when they are earned or incurred, regardless of the actual cash flows, cashflow reporting focuses on the actual inflows and outflows of cash during a given period (Nangih et al., 2020). This provides stakeholders, such as investors, creditors, and management, with a clearer understanding of the company's ability to generate and manage cash, which is essential for meeting financial obligations, funding operations, and pursuing growth opportunities.

Cashflow reporting typically consists of three main components: cash flows from operating activities, cash flows from investing activities, and cash flows from financing activities (Kiaupaite-Grušniene, 2019). Operating activities represent the cash inflows and outflows related to the company's core business operations, such as sales, purchases, and operating expenses. Investing activities capture cash flows associated with the acquisition or disposal of long-term assets, such as property, plant, and equipment, or investments in other companies. Financing activities reflect cash flows related to the company's capital structure, including the issuance or repayment of debt, equity transactions, and dividend payments.

The presentation of cashflow information in a standardized format, as prescribed by accounting standards such as the International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (GAAP), enhances transparency and comparability across companies and industries. This transparency is particularly valuable for investors and analysts, as it allows them to assess the company's ability to generate sufficient cash flows to fund its operations, service debt obligations, and pursue growth opportunities (Adebayo & Adebiyi, 2016).

Furthermore, cashflow reporting plays a crucial role in investment decision-making processes. Investors and analysts often rely on cashflow analysis to evaluate a company's financial performance, assess its liquidity and solvency, and identify potential investment opportunities or risks (Imhanzenobe & Adeyemi, 2020). Positive and sustainable cash flows from operations, combined with prudent investment and financing decisions, can signal a company's financial strength and potential for future growth, making it an attractive investment prospect.

Importance of Cash Flow Reporting

Cash flow reporting is critical for assessing a company's liquidity and financial health, offering a detailed view of the cash generated and utilized during a specific period. It enables stakeholders, including investors, managers, and creditors, to evaluate the company's ability to generate cash from its operating activities, which is a key indicator of its sustainability and operational efficiency. For instance, according to Brigham and Houston (2013), companies that consistently generate positive cash flows from operations are typically seen as having a stable financial footing, thereby making them more attractive to investors and creditors. This liquidity assessment is crucial, especially in volatile economic conditions, as it helps stakeholders understand whether a company can meet its short-term obligations without resorting to additional financing.

Moreover, cash flow reporting provides insights into a company's solvency and long-term viability by detailing cash flows related to investing and financing activities. It reflects the company's strategy in managing its capital structure and future growth investments. Regular positive cash flows indicate prudent financial management and the ability to fund expansion projects, repay debts, and distribute dividends, thereby enhancing investor confidence. As noted by Kieso, Weygandt, and Warfield (2019), transparent cash flow statements are essential for making informed investment decisions, as they reveal the true financial performance and potential of a company, beyond what accrual-based financial statements might suggest. This transparency and accuracy in reporting foster better strategic planning and governance, crucial for the long-term success of manufacturing companies, particularly in challenging environments like Nigeria.

The Concept of Investment Decision

Investment decision-making is crucial in corporate finance, influencing the allocation of resources and the strategic direction of a company. One key metric used in evaluating investment decisions is Return on Equity (ROE), which measures the profitability of a corporation in relation to shareholders' equity. ROE is calculated by dividing net income by shareholders' equity, expressed as a percentage, and provides insights into how effectively management is using the equity invested by shareholders to generate profits (Brigham & Houston, 2013). A higher ROE indicates that the company is more efficient at converting equity financing into profit, making it an attractive option for investors seeking high returns (Ross, Westerfield, & Jaffe, 2019). Additionally, ROE is used for comparative analysis within the same industry, helping investors identify companies with superior management efficiency and profitability (Gitman, Juchau, & Flanagan, 2015). Firms with consistent high ROE are

often able to reinvest their earnings effectively, leading to sustainable growth and higher future earnings, which is essential for long-term investors (Ehrhardt & Brigham, 2011).

However, while ROE is a powerful tool, there are some limitations to its application. For instance, ROE does not distinguish between returns generated from operational efficiency and those generated from high leverage. Companies with significant debt can show inflated ROE due to a smaller equity base, potentially misleading investors about the true financial health and risk profile of the company (Damodaran, 2012). Additionally, ROE varies significantly across industries, making it less useful for comparing companies in different sectors. Industry-specific factors and economic cycles can influence ROE, necessitating a consideration of industry norms when using this metric for investment decisions (Gitman et al., 2015). Furthermore, companies may engage in earnings management practices to artificially boost their net income, thus inflating ROE. Therefore, investors should examine the quality and sustainability of earnings reported and use ROE in conjunction with other financial indicators, such as Return on Assets (ROA) and Return on Investment (ROI), for a more accurate assessment of a company's financial health and operational efficiency (Ross et al., 2019).

Operating Activities and Investment Decisions: The operating activities section of the cash flow statement reveals the cash generated or consumed by a company's core business operations. For manufacturing companies in Nigeria, this segment is particularly crucial because it indicates the firm's ability to generate sufficient cash flow to sustain day-to-day operations without relying on external financing. A positive cash flow from operating activities suggests efficient management and robust operational health, which can positively influence the Return on Equity (ROE). Investors closely scrutinize this section as it reflects the company's fundamental earning power and its ability to generate profits from core business activities (Brigham & Houston, 2013). For instance, consistent positive cash flow from operations indicates that the company can cover its operating expenses and still generate profits, thus potentially leading to a higher ROE. This information helps investors gauge whether the company is utilizing its equity efficiently to produce sustainable earnings (Gitman, Juchau, & Flanagan, 2015).
Conversely, negative cash flow from operating activities can be a red flag for investors. It may indicate that the company is struggling to maintain its operational efficiency and might be relying excessively on debt or equity financing to sustain its operations. This scenario can lead to lower ROE due to the increased financial burden from interest expenses or dilution of shareholders' equity through additional equity issuance. For manufacturing companies in Nigeria, where economic volatility and infrastructural challenges are prevalent, maintaining a strong positive cash flow from operations is essential for reassuring investors about the company's financial stability and operational competence (Uwuigbe, Uwuigbe, & Okorie, 2015).

Investing Activities and Investment Decisions: The investing activities section of the cash flow statement details the cash used for or generated from investments in long-term assets such as property, plant, and equipment (PP&E) and securities. For Nigerian manufacturing companies, this section is vital for understanding how the company is positioning itself for future growth. Significant capital expenditures on PP&E, for example, suggest that the company is investing in expanding its production capacity or upgrading its facilities, which could lead to increased future earnings and, consequently, a higher ROE (Peiris et al., 2022). However, consistent outflows in this section, without corresponding growth in operating cash flows, might concern investors about the company's capital allocation efficiency and its impact on profitability.

Investors need to assess whether the investments made by the company are likely to yield substantial returns that enhance ROE. For instance, investments in new technologies or efficient machinery can reduce production costs and improve product quality, thereby boosting sales and profitability. On the other hand, poor investment decisions can lead to asset write-downs and impairments, negatively impacting net income and subsequently lowering ROE (Kieso, Weygandt, & Warfield, 2019). Therefore, the insights gained from the investing activities section help investors determine whether a company's capital investments are strategic and aligned with long-term profitability goals.

Financing Activities and Investment Decisions: The financing activities section of the cash flow statement encompasses cash flows related to changes in the company's capital structure, including borrowing, repaying debt, issuing equity, and paying dividends. For manufacturing companies in Nigeria, understanding this section is crucial for evaluating how the company finances its operations and growth initiatives. Positive cash flows from financing activities might indicate that a company is raising funds to support expansion or other strategic projects, which can be favourable if these initiatives lead to higher returns on equity (ROE) (Ehrhardt & Brigham, 2013). However, a heavy reliance on debt financing can increase financial risk due to the burden of interest payments, potentially lowering net income and ROE if not managed effectively.

Investors also look at dividend payments and share repurchases reported in this section. Companies that pay regular dividends or engage in share repurchases are often perceived as financially healthy and confident in their cash-generating abilities, which can positively influence investor sentiment and ROE (Ross, Westerfield, & Jaffe, 2019). However, excessive dividend payments might restrict the company's ability to reinvest in its growth, possibly limiting future ROE improvements. Similarly, issuing new equity can dilute existing shareholders' equity, potentially lowering ROE unless the capital raised is deployed in highly profitable ventures (Damodaran, 2012).

Theoretical Review

The theoretical framework for this study integrates several financial theories and concepts that elucidate the relationship between financial information disclosure and investor behaviour. This framework draws primarily on the Efficient Market Hypothesis (EMH), Agency Theory, and Signaling Theory.

Efficient Market Hypothesis (EMH): The Efficient Market Hypothesis posits that financial markets are informationally efficient, meaning that all available information, including financial reports, is quickly and accurately reflected in asset prices (Fama, 1970). According to EMH, the disclosure of cash flow information allows investors to make informed decisions, as the cash flow statements provide critical insights into the liquidity, solvency, and overall financial health of a company. For manufacturing companies in Nigeria, where market conditions can be volatile and information asymmetry prevalent, the timely and transparent reporting of cash flows from operating, investing, and financing activities is crucial. Investors rely on this information to assess the performance and potential for future earnings of the company, which are reflected in the stock price and ultimately impact investment decisions of the company (Henrique et al., 2018).

Agency Theory: Agency Theory explores the relationship between principals (shareholders) and agents (company management). It suggests that conflicts of interest can arise when agents pursue their own goals over those of the principals (Jensen & Meckling, 1976). Comprehensive and transparent cash flow reporting serves as a mechanism to reduce information asymmetry

between management and shareholders, thereby aligning the interests of both parties. For Nigerian manufacturing companies, robust cash flow statements can mitigate the agency problem by providing shareholders with clear insights into how management is utilizing the resources of the company. This transparency helps investors evaluate whether management's decisions are contributing to shareholder value, particularly in terms of ROE. By scrutinizing cash flows from operating, investing, and financing activities, investors can better understand the operational efficiency, investment strategies, and financial policies of the company, thus making more informed investment decisions (Panda & Leepsa, 2017).

Signaling Theory: Signaling Theory posits that managers have more information about the prospects of the company than outside investors and that they can signal this information through financial decisions and reporting practices (Spence, 1973). Cash flow reporting serves as a vital signal to the market about the financial health and future performance of a company. For instance, positive cash flow from operations signals strong operational performance and future profitability, potentially leading to a higher ROE. Conversely, significant cash outflows in the investing activities section may signal strategic expansions or investments expected to generate future returns, influencing investor perceptions and decisions (Ross, Westerfield, & Jaffe, 2019). In the Nigerian manufacturing companies, signaling through detailed cash flow reports is particularly important due to the prevalent economic uncertainties and regulatory challenges. Investors interpret these signals to adjust their investment strategies accordingly. For example, consistent positive cash flow from operations can enhance investor confidence, leading to increased equity investment and improved stock performance. On the other hand, high levels of debt financing might be viewed cautiously, impacting investor decisions and the perceived risk associated with the company's equity (Peiris et al., 2020).

Review of Empirical Studies

Mrema (2024) examined the impact of Financial Statement Analysis tools on investment decisions in the banking industry. The study employed horizontal, ratio, and vertical analysis, using data from five commercial banks listed on the Dar es Salaam Stock Exchange from 2012 to 2021. The findings showed a significant positive relationship between these analyses and investment decisions, recommending timely financial statement provision and investor training to mitigate investment risks.

Oluwayemisi et al. (2020) analyzed the effect of financial statements on the financial decisions of 14 deposit money banks in Nigeria, using data from 2007 to 2020. The study employed various descriptive and inferential analytical techniques, finding that asset tangibility and credit risk have mixed impacts on capital structure and liquidity decisions. The results highlighted the significant influence of financial statements on bank financial decisions.

A study by Ajayi and Owoeye (2022) focused on the quality of financial reporting and its impact on investment decisions in Nigerian manufacturing companies. The research found that detailed and transparent cash flow reports significantly improve investors' ability to make informed decisions, thus enhancing investment performance in terms of Return on Equity (ROE).

An empirical study by Anachedo et al. (2021) explored how cash flow information impacts corporate investment decisions. They concluded that cash flow from operations is a critical indicator for investors, as it reflects a company's ability to generate funds internally and sustain growth without relying excessively on external financing.

Patil and Bagodi (2021) investigated factors influencing investment decisions in the Indian stock market, focusing on 30 companies listed on BSE-30 SENSEX. Using a survey of 467

respondents and the KANO model, they identified financial statement conditions and economic indicators as crucial factors, revealing sector-specific investment decision behaviours.

Kantudu and Umar (2021) explored the relationship between free cash flow and investment efficiency in Nigerian manufacturing companies. Using an accounting-based model and data from 48 companies from 2008 to 2018, the study confirmed a positive relationship between free cash flow and overinvestment, highlighting the practical implications for investors and policymakers.

Imhanzenobe and Adeyemi (2020) analyzed the effect of financial decisions on sustainable cash flows in 17 Nigerian firms from 2008 to 2016. The study found asset turnover positively impacts cash flows, while debt-to-equity ratio and dividend payout negatively affect them. Recommendations included moderating dividend demands and promoting investment policies that generate positive cash flows.

Tunji et al. (2020) evaluated the impact of creative accounting on investment decisions in Nigerian manufacturing firms from 2007 to 2017. Using regression analysis, the study found a positive but insignificant effect of creative accounting, recommending proper corporate governance to ensure creative accounting benefits stakeholders.

Mohammed et al. (2016) investigated the role of financial reporting in investment decision-making in Access Bank branches. Using survey data and SPSS analysis, the study found significant reliance on financial statements for investment decisions, highlighting their importance in forecasting performance and guiding new investors.

Blessing and Onoja (2015) analyzed the role of financial statements in investment decisions at United Bank for Africa Plc. Using OLS regression on ten years of financial data, the study found that transparent financial statements significantly influence investor decisions, emphasizing the importance of credible auditor approval.

Ekwe (2013) conducted an investigation into how much corporate investors rely on published financial statements. Using a survey research design, data were collected via questionnaires administered to 150 corporate investors and senior management officials from selected banks. Descriptive statistics and percentage analysis were utilized to analyze the data, with hypotheses tested using the t-test statistic. The findings indicated that one of management's primary responsibilities is to provide standardized financial statements, evaluated and authenticated by qualified auditors or financial experts. The study also revealed that investors thoroughly understand these financial statements before making investment decisions and heavily depend on the credibility of auditors or financial experts' approvals, underscoring the importance of published financial statements in the investment decision-making process.

Peter (2013) evaluated the role of financial reports as tools for effective managerial planning and decision-making. The study aimed to reaffirm the relevance of financial reporting in organizational management. To achieve this, questionnaires were administered to staff at WEMA Bank branches in the Western States of Nigeria. The results indicated that financial reporting, as a disclosure device for an organization's financial activities, can mitigate issues arising from poor planning and decision-making.

METHODOLOGY

This study adopted the ex-post facto research design. In conformity with the research design, data used were collected from secondary source only. Specifically, data were sourced from published financial statements of manufacturing firms for the periods starting from 2019 to

2023. It was augmented with the financial information of manufacturing firms as contained in the Nigeria Exchange Group (NGX) fact book. The population of the research comprised 61 manufacturing firms listed on the Nigeria Exchange Group as at 31st, December 2023. As at that date, the firms were classified into 7 sub-sectors (agriculture, conglomerates, construction/real estates, consumer goods, health care, industrial goods, and natural resources). The study filtered the firms based on the following criteria:

i. Firms to be selected must be trading on the Nigerian Exchange Group before the base year of the study.
ii. Firms to be selected must not be delisted from the Nigerian Exchange Group for the period of the study.
iii. Firms to be selected must have complete information for the period under review.

Upon the application of the above filters, seventeen firms were selected as sample for the study. The firms include;

i. Dangote Cement Plc
ii. BUA Cement Plc
iii. Nestle Nigeria Plc
iv. Flour Mills Plc
v. Unilever Nigeria Plc
vi. Lafarge Africa Plc
vii. PZ Cussons Plc
viii. International Breweries Plc
ix. Guinness Nigeria Plc
x. Cadbury Nigeria Plc
xi. Nigerian Breweries Plc
xii. Honeywell Flour Mills Plc
xiii. May & Baker Nigeria Plc
xiv. Berger Paints Plc
xv. Livestock Feeds Plc
xvi. Caverton Offshore Support Group Plc
xvii. GlaxoSmithKline Consumer Plc

Method of Data Collection

Data for this study were sourced from the annual reports of the firms from 2017 to 2023 through Content Analysis.

Variable Measurement

Table 1 shows the measurement of the variables used in the study.

Table 1: Variable Measurement

Variable	Measurement	Source
Dependent variable		
Investment Decisions (Return on Equity [ROE])	Measured by dividing net income by shareholders' equity	Amahalu (2020), Marshall (2019)
Independent variables		

Operating Activities (OPA)	Measured through the net cash flow from operating activities reported in the cash flow statement	Ikechukwu *et al.* (2015)
Investing Activities (INA)	Measured through the net cash flow from investing activities reported in the cash flow statement	Ikechukwu *et al.* (2015)
Financing Activities (FIA)	measured through the net cash flow from financing activities reported in the cash flow statement	Ikechukwu *et al.* (2015)
Control variable		
Firm Size (FSZ)	Measured as the natural logarithm of the book value of Total Assets of a firm	Marshall (2019)

Method of Data Analysis
Data generated for the variables of the study were analysed using Panel Error Correction-Generated Least Squares (EGLS) method. E-views version 10 was the computer package used for this. The results from the analysis were extracted and presented in tables.

Model Specification
The following regression models were developed in this study in their implicit form to capture the variables of the study:

$$ROE = f(OPA, INA, FIA, FSZ) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The econometric form or testable form is given as:

$$ROE_{it} = \beta_0 + \beta_1 OPA_{it} + \beta_2 INA_{it} + \beta_3 FSZ_{it} + e_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where:
ROE = Return on Equity (Investment Decisions)
OPA = Operating Activities
INA = Investing Activities
FIA = Financing Activities
FSZ = Firm Size (control variable)
e = Error Term
β_0 = Intercept
$\beta_1 - \beta_3$ = Coefficients of the regression

RESULTS AND DISCUSSIONS

Descriptive statistics
The result presented in Table 2 shows the descriptive statistics of the various indicators used for the study.

Return on Equity (ROE): The average Return on Equity (ROE) for the observed manufacturing companies is 13.14%, indicating that, on average, these companies generate a decent return on shareholders' equity. The median ROE is slightly lower at 11.5%, suggesting that the central tendency of ROE is slightly below the mean. The maximum ROE of 38% indicates that some companies perform exceptionally well in generating returns, whereas the minimum ROE of 4% highlights the variability in performance across firms. The standard deviation of 7.44% further confirms this variability. The positively skewed distribution (skewness of 1.67) and high kurtosis (5.97) indicate a long right tail, meaning a few companies have very high ROEs. The significant Jarque-Bera statistic suggests that the ROE distribution is not normal. For investors, these statistics imply that while there are opportunities for high returns, there is also significant variability and risk in selecting the right companies.

Operating Activities: Operating activities have a mean cash flow of ₦67.5 billion, with a median of ₦32 billion. This substantial difference indicates a skewed distribution, supported

by a skewness value of 3.00. The maximum cash flow from operating activities is ₦510 billion, while the minimum is ₦3 billion, showing a wide range. The standard deviation of ₦110 billion reflects this high variability. The extremely high kurtosis (11.38) indicates that the distribution has heavy tails, with some companies generating extraordinarily high cash flows from operations. The Jarque-Bera statistic further confirms non-normality. For investors, strong positive cash flows from operating activities are a good indicator of a company's operational efficiency and profitability. However, the high variability suggests that some firms may be significantly more successful in their operations than others, necessitating a careful selection process.

Investing Activities: Investing activities show a negative mean of ₦-41 billion, indicating that, on average, these companies are spending more on investments than they are generating from sales of investments. The median is also negative at ₦-17 billion. The maximum value is a relatively small negative ₦-1 billion, while the minimum is a substantial negative ₦-330 billion, leading to a high standard deviation of ₦72.5 billion. The distribution is highly negatively skewed (-3.07) with a kurtosis of 11.65, indicating that most companies have significant outflows, with a few having extremely large investment expenditures. This pattern is confirmed by the Jarque-Bera test. For investors, negative cash flows in investing activities are typical for companies that are investing heavily in growth and expansion. However, the extreme variability and skewness indicate that while some firms are prudently investing for future growth, others may be overspending without generating corresponding returns.

Financing Activities: The mean cash flow from financing activities is negative at ₦-8.56 billion, and the median is also negative at ₦-5 billion. This suggests that, on average, these companies are repaying more debt, repurchasing shares, or paying dividends rather than raising new funds. The range is broad, from a maximum inflow of ₦-18 billion to a minimum outflow of ₦-70 billion, with a standard deviation of ₦15.7 billion. The skewness is -2.22, indicating a distribution with a long left tail, and the kurtosis of 8.44 points to heavy tails. The Jarque-Bera statistic indicates non-normality. Negative financing activities can be seen as a sign of financial health, where companies are able to return capital to shareholders or reduce debt. However, the variability suggests differing financial strategies among firms, which could influence investment decisions.

Firm Size: The mean firm size on a log scale is 5.38, with a median of 5.83, indicating a relatively symmetric distribution around the mean. The maximum and minimum values are 8.61 and 2.48, respectively, with a standard deviation of 1.67. The skewness is close to zero (0.013), indicating near symmetry, and the kurtosis is 2.00, suggesting a distribution close to normal. The Jarque-Bera statistic indicates no significant deviation from normality. Firm size can be a critical factor in investment decisions as larger firms might have more established operations and stability, whereas smaller firms could offer higher growth potential but with increased risk. The relatively normal distribution of firm sizes suggests a balanced mix of large and small firms, providing diverse opportunities and risk profiles for investors.

Table 2: Descriptive statistics

Statistics	Return on equity	Operating activities	Investing activities	Financing activities	Firm size
Mean	13.14118	6.75E+10	-4.10E+10	-8.56E+09	5.384983
Median	11.50000	3.20E+10	-1.70E+10	-5.00E+09	5.828946
Maximum	38.00000	5.10E+11	-1.00E+09	1.80E+10	8.612503
Minimum	4.000000	3.00E+09	-3.30E+11	-7.00E+10	2.484907
Std. Dev.	7.436082	1.10E+11	7.25E+10	1.57E+10	1.673900
Skewness	1.666708	3.002855	-3.073918	-2.220465	0.013232
Kurtosis	5.965199	11.37684	11.64774	8.441864	2.001408

Jarque-Bera	70.49356	376.2668	398.7185	174.7307	3.534184
Probability	0.000000	0.000000	0.000000	0.000000	0.170829
Sum	1117.000	5.74E+12	-3.49E+12	-7.28E+11	457.7236
Sum Sq. Dev.	4644.806	1.01E+24	4.42E+23	2.06E+22	235.3631
Observations	85	85	85	85	85

Hausman Test

The findings in Table 3 shows the Hausman Test, on the effect of cashflow reporting on investment decision of manufacturing companies in Nigeria between 2019 and 2023. The result presented showed that at 5% level of significance, the chi-square statistic was 0.635428 and p-value >5% which is insignificant. This lack of significance in the p-value indicates that the Hausman test supported the interpretation of the random effect model.

Table 3: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section and period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section and period random	0.635428	4	0.5873

Panel regression analysis

Table 4 presents the results of a panel regression analysis on the effect of various cash flow components on the investment decision (Return on Equity) for manufacturing companies in Nigeria from 2019 to 2023.

Operating Activities: The coefficient for operating activities (2.955090, p-value 0.0211) is positive and significant at 5%, indicating that higher cash flows from operating activities are associated with an increase in ROE. This suggests that efficient management and utilization of operational cash flows contribute positively to the firm's profitability. Studies by Dechow (1994), Penman and Zhang (2002) and Ball and Nikolaev (2022) support this view, indicating that firms that manage their operating cash flows effectively can achieve higher profitability and better financial health. This also aligns with the research findings by Gitagia (2020) and a report by PwC (2021), which emphasize the importance of strategic reinvestment of operational cash to drive growth and profitability in firms. Furthermore, the positive relationship between operating activities and ROE underscores the critical role of operational efficiency in enhancing shareholder value. Companies that generate robust operating cash flows are better positioned to reinvest in high-return projects, reduce debt, and provide dividends, thus enhancing overall financial performance. This is consistent with findings by PwC (2021), which highlight the necessity for Nigerian manufacturing firms to optimize their operational processes to improve profitability. In essence, these findings suggest that investors should closely monitor the operating activities of firms as a key indicator of their potential for sustainable growth and profitability, reinforcing the importance of efficient cash flow management in driving positive investment outcomes.

Investing Activities: The results from Table 4 indicate a significant negative effect of cash flows from investing activities on ROE at 1% significant level, with a coefficient of -5.85E-11 and a p-value of 0.0069. This suggests that higher outflows in investing activities are associated with lower ROE, implying that substantial investments in long-term assets such as property, plant, and equipment have not yielded immediate positive returns. This finding aligns with the

results of Fama and French (1998) and Barber and Lyon (1997), who found that large capital expenditures often lead to lower short-term profitability due to the initial costs associated with these investments. Similarly, Jensen's Free Cash Flow Theory (1986) suggests that firms with substantial free cash flow might invest in projects with negative net present value (NPV), leading to inefficiencies and lower returns. This study supports previous findings by highlighting the delayed benefits of significant investments in capital-intensive industries. For instance, Chen, Goldstein, and Jiang (2019) found that while investment in innovation and technology can significantly enhance long-term returns, the short-term impact on profitability metrics like ROE can be negative due to high initial costs and a time lag in realizing benefits. Additionally, a study by Brealey, Myers, and Allen (2020) emphasizes that in industries requiring substantial capital investment, the upfront costs can depress initial returns, with improvements in financial performance realized over a longer period. These results emphasise the importance for investors to consider the long-term potential and strategic alignment of a company's investments, rather than focusing solely on immediate financial performance indicators.

Financing Activities: The coefficient for Financing Activities in the panel regression analysis is -4.58E-11 and is not statistically significant ($p = 0.2333$). This suggests that cash flows related to financing activities such as issuing or repurchasing equity, borrowing, or repaying debt do not have a clear or consistent impact on the ROE for Nigerian manufacturing firms during the study period. This lack of significance indicates that changes in financing activities might not directly translate into changes in equity returns, possibly due to the complex nature of how these activities influence a firm's capital structure and cost of capital. For instance, the pecking order theory posited by Myers (1984) suggests that firms prioritize internal financing and debt over equity financing, which may explain the inconsistent impact on ROE observed in this study. Empirical studies have found mixed results regarding the impact of financing activities on investment decisions. For example, Frank and Goyal (2003) and Aras and Mutlu Yildirim (2018) highlighted that the effect of financing decisions on firm value could vary based on the firm's existing leverage and market conditions. Moreover, Doan (2020) observed that in emerging markets, the relationship between financing activities and firm performance is influenced by factors such as market maturity and regulatory environment. This aligns with the findings in the Nigerian situation, where market volatility and regulatory changes might obscure the direct impact of financing activities on ROE.

Firm Size: The coefficient for Firm Size is 5.011773, significant at the 1% level ($p = 0.0005$). This result indicates that larger firms tend to have higher ROE. Larger firms often benefit from economies of scale, a greater market presence, and better access to capital, which can lead to higher returns. For instance, larger firms typically have more resources to invest in efficient technologies and processes that enhance productivity and profitability. They also tend to have stronger negotiating power with suppliers and customers, which can improve their profit margins. Furthermore, larger firms can diversify their investments and operations, reducing risk and stabilizing returns. This finding supports studies such as Kumar and Saranga (2009), which found that firm size positively correlates with financial performance in manufacturing sectors. Additionally, larger firms often have better access to financing at lower costs due to perceived lower risk, which can enhance their investment capabilities and profitability (Amankwaah & Baidoo, 2023).

Model Diagnostics

Weighted R-squared: The weighted R-squared is 0.721295, suggesting that approximately 72.13% of the variance in ROE is accounted for by the variables in the model. This is a relatively high R-squared value, indicating that the model has good explanatory power.

F-statistic: The F-statistic is 51.76041, and the associated probability (Prob(F-statistic)) is 0.000000. This indicates that the overall regression model is statistically significant at a very high level of confidence. In other words, at least one of the independent variables has a significant effect on the dependent variable.

Durbin-Watson statistic: The Durbin-Watson statistic is 1.808423, which suggests that there is no sign of autocorrelation present in the residuals.

Test of Null Hypotheses

HO_1: Operating Activities has no significant effect on investment decision: Since the probability (0.0211) is less than the significance level (0.05 for a 5% significance level), we reject the null hypothesis HO_1. Therefore, Operating Activities has a significant effect on the investment decision of manufacturing companies in Nigeria.

HO_2: Investing Activities has no significant effect on investment decision: Since the probability (0.0069) is less than the significance level, we reject the null hypothesis HO_2. Therefore, Investing Activities has a significant effect on the investment decision of manufacturing companies in Nigeria.

HO_3: Financing Activities has no significant effect on investment decision: The probability (0.2333) is greater than the significance level of 1% and 5%. Therefore, the study fails to reject the null hypothesis HO_3, suggesting that Financing Activities may not have a significant effect on the investment decision of manufacturing companies in Nigeria.

Table 4: Panel regression analysis

Dependent Variable: Return on Equity				
Method: Panel EGLS (Two-way random effects)				
Date: 05/19/24 Time: 02:12				
Sample: 2019 2023				
Periods included: 5				
Cross-sections included: 17				
Total panel (balanced) observations: 85				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
OPERATING ACTIVITIES	2.955090**	1.255649	2.353436	0.0211
INVESTING ACTIVITIES	-5.85E-11***	2.11E-11	-2.773957	0.0069
FINANCING ACTIVITIES	-4.58E-11	3.81E-11	-1.201093	0.2333
FIRM SIZE	5.011773***	1.373009	3.650211	0.0005
C	-83.34555	24.09954	-3.458387	0.0009
	Effects Specification			
			S.D.	Rho
Cross-section random			5.785816	0.9949
Period random			0.000000	0.0000
Idiosyncratic random			0.413408	0.0051
	Weighted Statistics			
R-squared	0.721295	Mean dependent var		0.419703
Adjusted R-squared	0.707360	S.D. dependent var		0.882878
S.E. of regression	0.477604	Sum squared resid		18.24846
F-statistic	51.76041	Durbin-Watson stat		1.808423
Prob(F-statistic)	0.000000			
	Unweighted Statistics			

R-squared	0.049001	Mean dependent var	13.14118
Sum squared resid	4417.204	Durbin-Watson stat	0.004465

Where *** and ** are significant at 1% and 5% probability levels respectively

CONCLUSION AND RECOMMENDATIONS

This study on the effect of cashflow reporting on the investment decisions of manufacturing companies in Nigeria has provided insightful findings. Operating Activities and Investing Activities were identified as significant factors influencing investment decisions, as evidenced by their respective coefficients and associated probability levels. However, Financing Activities did not demonstrate a significant effect on investment decisions based on the analysis. These results suggest that operational and investment activities play crucial roles in shaping the investment decisions of manufacturing firms in Nigeria. Effective management and reporting of cashflows from operating and investing activities are essential for guiding investment decisions and enhancing financial performance. The study emphasises the importance of understanding the dynamics of cashflow reporting and its implications for investment decision-making in the manufacturing sector.

Based on the findings of the study, the following recommendations were made:

i. Given the significant effect of Operating Activities on investment decisions, manufacturing companies should prioritize improving the accuracy and transparency of their cashflow reporting related to operational activities. This includes ensuring that financial statements adequately reflect the company's operating performance and cashflow generation, enabling investors to make well-informed investment decisions based on reliable financial information.

ii. Building on the finding that Investing Activities significantly influence investment decisions, manufacturing firms should develop strategic investment plans that align with their long-term growth objectives. This entails conducting thorough analyses of potential investment opportunities, assessing risks, and prioritizing investments that enhance the company's competitive position and maximize shareholder value.

iii. While Financing Activities did not show a significant effect on investment decisions in the study, manufacturing companies should still focus on optimizing their financial management practices. This involves implementing effective strategies to manage capital structure, leverage financial resources, and optimize funding sources. By maintaining sound financial management practices, companies can enhance their financial flexibility, mitigate financial risks, and support their investment activities effectively.

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