

**EFFECT OF CASH FLOW MANAGEMENT ON FINANCIAL PERFORMANCE OF AS
LISTED BREWERY FIRMS IN NIGERIA (A STUDY OF NIGERIAN BREWERIES
PLC).**

BY

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GOU/U22/ACC/396**

**DEPARTMENT OF ACCOUNTING AND FINANCE
FACULTY OF MANAGEMENT AND SOCIAL SCIENCES
GODFREY OKOYE UNIVERSITY, UGWUOMU-NIKE, ENUGU**

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**PROJECT SUBMITTED TO DEPARTMENT OF ACCOUNTING AND FINANCE
FACULTY OF MANAGEMENT AND SOCIAL SCIENCES
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**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
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SUPERVISOR: DR. STEPHEN I. AGU.

JULY 2026

DECLARATION

I, Nweze, Johnpaul Ogechukwu, am a bona fide student in the Department of Accounting and Finance under the Faculty of Management and Social Sciences in Godfrey Okoye University. I hereby declare that the work entitled “Effect of Cash Flow Management on Financial Performance of as Listed Brewery Firms in Nigeria (A Study Nigerian Breweries Plc)” submitted by me in partial fulfilment of the requirements for the award of Bachelor of Science (B.Sc.) degree in Accounting is my original work and has not been submitted either in part or full for any other degree or diploma either in this or any other tertiary institution.

Nweze, Johnpaul Ogechukwu

Date

CERTIFICATION

This is to certify that this research entitled “Effect of Cash Flow Management on Financial Performance of Listed Brewery Firms in Nigeria (A Study Nigerian Breweries Plc)” written by Nweze, Johnpaul Ogechukwu with Registration Number GOU/U22/ACC/396 presented to the Department of Accounting and Finance of Godfrey Okoye University, Enugu has been assessed and approved for oral examination/defense by the Department of Accounting and Finance, Godfrey Okoye University, Enugu.

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DEDICATION

This research work is dedicated to God for His strength, protection and life during the process.

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ABSTRACT

This study examines the effect of cash flow management on financial performance of listed brewery firms in Nigeria with Nigerian Breweries Plc as the study reference. Specifically, the study determined the effect of operating cash flow, investing cash flow, and financing cash flow on return on assets of brewery firms. The study adopts an ex-post facto research design, and time series data were obtained from the selected firm listed on the Nigerian Exchange Group over the period 2016–2025. Data were sourced from audited annual reports of the selected firm. The regression technique was employed for data analysis. The empirical results reveal that Operating Cash flow has a negative and non-significant effect on the Return on Asset of brewery firms in Nigeria. The study further revealed that Investing Cash flow has a positive and significant effect on the Return on Asset of brewery firms in Nigeria. Finally, study further revealed Financing Cash flow has a statistical positive but non-significant effect on the Return on Asset of brewery firms in Nigeria. Consequent upon the findings, the study recommends that Management of Brewery firms should strategies to improve the Efficiency of Operating Cash Flow Management, sustain and expand profitable Investment Activities and finally, optimize Financing Decisions by ensuring that funds obtained through financing activities are effectively utilized in projects capable of generating sufficient returns to improve financial performance.

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Cash is the most vital element of corporate entity because it is needed and used to acquire assets which are used in the generation of goods and services provided by the entity which helps in gaining and determination of profit and to maximize wealth of shareholders. (Appah, 2018). The important aim of a financial manager in any organization is to ensure that the cash outflow does not exceed the cash inflow. In layman's term, cash inflow is that cash (or money) that comes into an organization or a business; while, on the other hand, cash outflow is the money that leaves the organization or business. Therefore, cash inflow refers to cash receipts while cash outflow refers to cash expenditures. Net positive cash flow shows that there is effective management of cash under the three activities in an organization, which are: operating, investing, and financing activities. On the other hand, negative cash flow shows that a company's liquid assets are decreasing. The implication of the above is that a high inflow of cash, when compared with the outflow (called positive cash flow), provides a company with sufficient cash balance for investment purposes. On the contrary, a low inflow leads to an excess of outflow over the inflow (called negative cash flow) reducing organizational operations (Nwanyanwu, 2015). When cashflow statements are combined with other financial statements, it offers data that allows users to access changes in an entity's equity or net assets. Adegbe and Frakile (2018) explains cash flow from operating activities as the cash effects of transactions and other events relating to trading activities, included in the profit and loss in arriving at operating profit. Also, cash flows from investing activities are the cash inflows and outflows associated with the purchase and disposal of assets used by the company and investments in security of other companies; while cash flow from

financing activities includes the cash inflows and outflows involved in obtaining cash from external sources for the purpose of financing the company and its activities. (Adediji & Oboh, 2017). Examples of investing cash flows are payments to purchase plant, property and equipment (PP&E), loans by the reporting entity and payments to acquire debt instruments of other entities, excluding payment for the acquisition, disposal or movement of a liquid resource. Other examples are receipts from selling or disposals of plant, property and equipment, receipts from repayment of the reporting entities, loans to other entities or sales of debt instruments of other entities other than receipts forming part of an acquisition or disposal or movement in liquid resource. It is important to note that payments for the acquisition, disposal, or movement of liquid resources are excluded from investing cash flow because these movements constitute cash management rather than investments in the business's long-term capacity. Furthermore, financing activities relate to long-term funds or capital of an enterprise, e.g., cash proceeds from issue of equity shares, debentures, raising long-term loans, and repayment of bank loans. As per AS-3 (as in Accounting Standard), financing activities are activities that result in changes in the size and composition of the owners' capital (including preference of share capital in case of a company) and borrowings of the enterprise. Separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise. The cash flow position of a company determines the extent to which it finances its operations (Nwanyanwu, 2015).

Cash is the most crucial current asset for effective functioning of a business. Cash management, the step-by-step procedures of managing cash flows of a firm, as well as managing risks and processes to capital optimization. Efficient management of cash flow is necessary for companies'

success. The goal of managing cash is to find the optimum cash level for creating the most efficient level of performance for an entity. (Onyando, 2018).

Cash refers to money that needs no further conversion for the settlement of debt and payment for exchanges. Cash is the most liquid asset of any company and the pivot of the daily management of the firm because operations of the firm are dependent on the availability of cash or near-cash resources. (Ngerebo-a, 2009).

Uremadu (2004) maintains that cash flows of an organization are those pools of cash that the company invests in its fixed assets, inventories, account receivables, and marketable securities that generate corporate profit.

Cash flow management is concerned with the management of cash flow in and out of the enterprise, cash flows within the enterprise, cash balance held by the firms at any point in time which would be used to finance deficits. (Divinah *et al.*, 2021). One of the clear aims of businesses is to manage cash- a resource; in a way whereby the opportunity cost because of idle cash is minimized. The sufficiency of cash and other assets, together with their effective handling, influences the sustainability or elimination of business concern.

Performance can be defined as the result of business activity. The type of organization and its objective of measurement determine the appropriate measure for the assessment of corporate performance. Therefore, performance measurement Performance management is a continuous process of identifying, measuring and developing performance in organizations by linking individuals' performance and objectives to the organization's overall mission and goals. A descriptive definition of financial performance by Corporate Finance Institute (CFI) is that financial performance is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability.

1.2. Statement of the Problem

Research has shown that cash flow challenges remain an important concern among business leaders globally, often dictating the difference between organizational survival and failure. As highlighted by Carter (2013), Hutchison (2013), and Maimona (2013) (as cited in BDC, 2014), the inability to manage cash liquidity effectively is a primary trigger for corporate distress. This volatility has necessitated the elevation of cash flow management as a core element of modern operational strategy. However, despite its importance, the relationship between distinct cash flow components and profitability remains inconsistent in the brewery sector. While traditional liquidity theories suggest that maintaining high cash reserves is inherently beneficial, scholars like Mensah and Appiah (2024) posits that extreme cash over-accumulation can trigger substantial agency costs that consequently reduce profitability. Furthermore, the brewery industry is capital-intensive, and as noted by Elumah and Shobayo (2018), high levels of external debt financing within this sector frequently compound financial risks, thereby downsizing net profitability.

Most existing empirical literature, such as the studies by Akpan et al. (2025) and Chepkoech and Miroga (2025), tends to aggregate consumer goods firms under a broad umbrella, which often ignores the unique production and distribution cycles specific to brewery firms. This generalization creates a significant literature gap, as the economic pressures and operational requirements of a brewery differ drastically from other manufacturing sub-sectors. This study seeks to address this gap by isolating the specific effects of operating, investing, and financing cash flows on the Return on Assets (ROA) of Nigerian Breweries PLC, providing a more detailed and case-specific understanding of how these practices influence financial performance under the current, volatile Nigerian economic environment.

1.3 Objectives of the Study

The overall objective of the study is to assess the effect of cashflow management on financial performance of listed brewery firms in Nigeria.

The specific objectives are:

1. To examine the effect of operating cashflow on return on assets of listed brewery firms in Nigeria.
2. To ascertain the effect of investing cashflow on return of asset of listed brewery firms in Nigeria.
3. To assess the influence of financing cash flow on return of asset of listed brewery firms in Nigeria.

1.4. Research Questions

The study is guided by the following questions:

1. What is the effect of operating cashflow on the return of asset of listed brewery firms in Nigeria?
2. How does investing cashflow affect return of asset of listed brewery firms in Nigeria?
3. What influence does financing cashflow have on return of asset of listed brewery firms in Nigeria?

1.5. Research Hypotheses

The following hypotheses were formulated and stated in null as:

1. H01: Operating cashflow has no significant effect on return of asset of listed brewery firms in Nigeria.
2. H02: Investing cashflow does not significantly affect the return of asset of listed brewery firms in Nigeria.

3. H03: Financing cashflow has no significant effect on return on assets of listed brewery firms in Nigeria.

1.6. Significance of the Study

This study will be of immense benefit to the following:

- **Managers:** This research would provide managers with insights and good evidence that effective cash flow directly improves financial performance, thereby assisting them to prioritize making optimum use of operating cash, manage investments wisely, and carefully strategize in using financing to reduce cost and improve return, which would ensure the long-term sustainability and competitive advantage. It opines that strong cash flow is not just operational but also, a very important tool for growth, advancement, and expansion which gives a positive assessment and judgement of the financial health to stakeholders and even employees, which would thereby reduce the dependence of expensive external funding.
- **Investors:** This study would provide insight to investors on how cash flow and its management practices work. It would help investors understand how cash management can affect a firm's performance. Through the identification of healthy financial signals, investors through proper assessment would make informed and wise investment decisions.
- **Creditors:** This research would help creditors to be able to identify potential healthy or unhealthy financial signals of firms to assess the risks associated with either being a source of providing loans or not.
- **Academic Literature:** This research work would significantly contribute to academic research works as it gives additional information or new findings together with recommendations on areas of vital importance. It would equip researchers and even scholars with new perspectives on cash flow management.

- **Students:** This research work would provide knowledge to students on cash flow: cash, cash flow management, financial performance, which would help in gaining new insights. It would also help students to understand the reason for cash flow management and its importance in any business venture or organization.

1.7. Scope of the Study

The scope of this study is principally concerned with cash flow management practices and their effects on financial performance. It specifically focuses on the three main components of cash flow: operating, investing, and financing activities- and how they affect performance indicators such as Return on Assets (ROA). It covers an eleven-year period (2015-2025), which captures trends in cash flow management and its impact on financial performance over the years. Geographically, the study is centered on Nigeria, with a particular focus on the brewery sector, specifically Nigerian Breweries PLC as case study. The research has cash flow: operating, investing, and financing cash flows as its independent variable. Similarly, it has financial performance with specific attention to Return on Assets as its dependent variable.

1.8 Definition of Terms

- Cash Flow Management:** This is the process of tracking, analyzing, and optimizing the movement of cash inflow and outflow of an organization for the purpose of ensuring sufficient cash to meet daily obligations, fund business operation, support growth and expansion.
- Operating Cashflow (OCF):** This is the cash that an organization generates from its normal, day-to-day activities, which shows its ability to fund its operations.
- Investing Cashflow (IVF):** This is the cash a company or an organization spends on or earns from long-term investments and assets, like buying or selling of property, plant and equipment (PP&E) or other businesses or securities.

- iv. **Financing Cashflow (CFF):** This is also known as Cashflow from financing activities. According to GAAP (ASC 230) and IFRS (IAS 7), CFF is how a company raises and repays capital, detailing cash movement from debt (loan, bonds) and equity to fund operations and growth which thereby reveals its capital structure to investors and creditors.
- v. **Financial Performance:** This is a thorough assessment of a company's overall financial health and its strength in using resources to generate revenue, control costs, and create profits over a period.
- vi. **Brewery Firms:** These are firms which are engaged in the production and selling of beverages, specifically beer.

CHAPTER TWO

LITERATURE REVIEW

2.1. Conceptual Review

This section reviews the concept of cash flow management and financial performance. The conceptual review is structured to first explain Cash Flow Management, which would also highlight various viewpoints as observed by previous research works. Furthermore, it explains Financial Performance and the benchmarks used in its measurements. By simplifying these concepts, this review sets up a clear definition that will guide the collection of data and data interpretation of the research.

2.1.1. Cash Flow

One important element that aids in the effective running of a business is cash. Cash moves in and out of the business for various reasons. Cash flow is a concept used in accounting and finance which connotes the inflow and outflow of cash within the organization. Inflows indicate cash receipts while outflows relate to cash expenditures. The categorization of cash flow is done according to the activities that boost revenue and use cash. From this, such activities are associated with operating, investing, and financing. According to IAS 7 Statement of Cash Flows, operating cash flows are those which originate from the main revenue-producing activities of a company, as well as other activities that are not classified as investing or financing. Example of cash inflow from operating activities: cash receipts from customers from sales of goods and rendering of services, royalties' fees, commission and other revenue received in cash, income tax refunds received. Furthermore, cash outflows from operating activities are cash payments made to suppliers of goods and services, cash payments made to and on behalf of employees, income tax paid (unless the payments are specifically related to financing and investing activities).

Alternatively, cash flows from investing activities are cash flow of the entity that relates to the acquiring and asset disposal of plant, property, and equipment, financial assets and investment properties and any non-current assets. Examples of inflows from investing activities are proceeds from the sale of property, plant and equipment, proceeds from sale of investments, collection of cash advances, dividend received, interest received. Examples of cash outflows from investing activities are purchase of property, plant and equipment, purchase of investment, cash advances made to third parties.

Additionally, cash flows from financing activities are cash flows of the entity that relate to changes in the size and composition of the equity and borrowing of an entity. Example of cash inflows from financing activities are cash received on issue of shares, cash received from issuing debt instruments, proceeds from bank borrowings. Examples of cash outflows from financing activities are payment of dividends to shareholders, repayment of principal portion of debt, including lease obligations of repayment of bank borrowings.

The statement of cash flows gives information about the changes in cash and cash equivalents of an entity for a reporting period. It is necessary to note that cash equivalents are short-term highly liquid investments which are held to meet short-term cash obligations rather than investments and other purposes. Cash equivalents comprise cash in hand and demand deposits, together with short-term, highly liquid investments that are readily convertible to a known amount of cash, and that are subject too little to no risk of loss in value. Cash equivalents include bank overdrafts and cash equivalents with short-term maturity; usually not more than three months' maturity date. Cash flow is a better measure of the capability of an entity to meet its obligations, as they fall due, than the profit generated.

2.1.2. Cash Flow Management

Cash flow management, as defined by Ward (2020), is the process of monitoring, analyzing, and optimizing the net amount of cash receipts minus cash expenses. Cash management refers to the collection, concentration and disbursement of cash in an organization with a view to manage the cash balance of an enterprise in a way that maximizes the availability of cash not invested in fixed assets or inventories (Mutesi & Patrick, 2018). Some organizations suffer because of cash flow problems due to lack of margin of safety in anticipation of expenses (Mutesi, *et al* 2018). Hamza *et al.* (2015) suggests that sound cash management strategies significantly impact financial performance, emphasizing the need for financial decision-makers to integrate efficient cash management practices to enhance business sustainability in a dynamic and unpredictable environment.

2.1.3. Operating Cash Flow

According to IAS 7, operating cash flow are cash flows from the principal revenue generating activities of the entity and other activities of the entity that are neither investing nor financing activities. Operating cash flow is one of the key indicators of a company's ability to generate enough cash for its regular activities to maintain and grow a business, pay its debts, and fund dividends. Prastowo (2020) suggests that operating cash flow is a lifeblood of the business or every company. A healthy operating net cash flow indicates or shows how well a company's operations generate cash to support growth and expansion, meet obligations, and create value for its shareholders and stakeholders.

2.1.4. Investing Cash Flow

Investing cash flow refers to the inflows and outflows of cash resulting from investments made by the company. It shows the cash flow associated with a company's investment activities,

underlining how the organization is allocating resources to support or aid growth, expansions, and strategic initiatives, and marketing positioning. According to Akpan (2024), companies or organizations that effectively managed their investing activities can strengthen their financial position, grow return on investments, and achieve business sustainability in the long run.

2.1.5. Financing Cash Flow

Financing cash flows refer to the cash inflows and outflows related to a company's financing activities, which involve raising capital, repayment of debts to aid business strategic initiatives and plans. Sufficient financing is important for funding investments that would lead to growth opportunities as positive financing cash flows adds to the support of a firm's expansion and, also, it drives long-term growth.

2.1.6. Financial Performance

Hamann and Schiemann (2021) suggest that organizational performance has four measurements: profitability, liquidity, growth, and stock market performance. Putting into consideration the opinions of predecessors, but also the strain of defining the concept, it was acknowledged that performance can be considered an artifact based on which the success of an organization is appreciated (Tudose & Avasilcai, 2020). The financial performance of an organization is shown through management of cash flow. The information on an entity's cash flow helps in the assessment of the firm's operating, financing, and investing activities. Kenton (2021) opines that financial performance is a subjective measure of how efficient a firm can use its assets from its primary mode of business and generate revenues. The arguments in support of this classification are explained below. First, performance is a result of human creation; managerial decisions being attributed exclusively to human factors. Secondly, the achievement of performance (reaching a certain level of performance) involves specific actions (different from one organization to another,

without the possibility of replication), the result of the actions being an original one (like a work of art). Third, past actions can be adapted to the present to achieve superior performance in the future.

Coming from a financial perspective, the performance is assessed based on the financial results obtained by a company in each period. Therefore, to admit that a company is financially successful, its monetary outputs must be higher than the expenses related to its realization. The latest definitions of financial performance integrate aspects such as the efficiency and effectiveness of a company in the use of resources (Egbunike & Okereke Oti, 2018; Mahrani & Soewarno, 2018) and achieving objectives (Suhadak *et al.*, 2019). Therefore, financial performance reflects a company's ability to create economic value (Orozco *et al.*, 2018) and to attract and generate returns for investors (Al-Sa'eed, 2018). Diana and Maria (2020) opine that profitability as a significant indicator of financial performance, citing return on assets (ROA) as one of the key metrics for assessing profitability.

2.1.7. Return On Asset (ROA)

ROA is a financial ratio that measures a company's ability to generate profits from its total assets. It is calculated by dividing net income by average total assets. ROA shows how efficiently a company uses its assets to generate earnings.

2.1.8. Cash Flow Management and Financial Performance

Organizations of different sizes use a range of resources to sustain their activities, with cash being of high importance as an asset which can significantly affect a company's performance. Efficient cash management is very important in business as it ensures businesses have enough liquidity to operate, reduces the need for dependence on expensive sources of external funding, and gives room for expansion and growth. It ensures that businesses put into use every cash available for optimal

results while protecting businesses from cash crises. The relationship between cash flow and financial performance is that effective cash flow management aids profitability by allowing proper decisions on investing and financing activities while reducing financial risks such as bankruptcy, solvency, and illiquidity. This study specifically focuses on brewery firms in Nigeria. The importance of liquidity in businesses is that it allows for the fulfilment of short-term obligations while still sustaining profitability. The effective use of cash flow through cash management not only sustains business but attracts potential investors, creditors, and shareholders, which leads to business expansion and growth. Through information provided in the Statement of Cash Flow, investors, creditors and potential shareholders use the information presented to know the financial ability of such an entity which makes cash flow management an important concern to managers.

2.2. Theoretical Review

Cash flow theories focus on analyzing, valuing and managing cash movement within a business rather than just accounting for profit. This study is anchored on Free Cash Flow Theory and supported by the Agency Theory. These theories lay down a conceptual framework on how cash flow management can influence financial performance of brewery firms using the metric of Return on assets (ROA).

2.2.1. Free Cash Flow Theory (FCF).

The theory was first developed by Micheal C. Jensen in 1986. The theory focuses on cash flow in excess, which is available after financing profitable organizations. It is stated that net income obtained from capital expenditure impacts the company's financial performance. The free cash flow assumes that the management of the firm with high free cash flow is most likely to undertake projects that are likely to decrease the firm's value, also known as Free Cash Flows. It is of importance to note that a firm's value refers to the company's market value. The value of the firm

is the amount that one must pay to buy or take over a business entity. Companies can remove unnecessary costs and improve their financial performance by adopting cash management practices. Some elements of cash management practices are cash flow forecasting and budgeting where realistic expectations on budgeting are set to avoid cash shortages, short-term investment and financing, where investing of surplus cash is done to establish access to credit lines for short-term needs. Implementing cash flow models that increase prices can result in growth for the company. The theory of free cash is important to the study because it aids to avoid reducing conflict of interest between stakeholders and managers ensures proper understanding and assists effective and efficient cash flow statements.

2.2.2. Agency Theory

This theory can also be called Agency Cost Theory. The theory was propounded by Micheal Jensen in 1986. The Free Cash Flow Theory is a direct application of agency theory which explores the conflicts of interest between managers, who act as agents, and shareholders, who are principals, regarding the use of excess cash. The Agency Cost theory suggests that an optimal capital structure is attainable by reducing the cost resulting from the conflicts between the managers and owners. As upon the formulation of the Agency Cost Theory by Jenson and Meckling in 1976, it was argued that leverage level can be used to monitor the managers to pursue the overall firm's objectives and not theirs. This entails that increasing leverage acts as a mechanism for monitoring managers to align with shareholders' interests rather than satisfying their own interests. Through leverage, managers are forced to pay out cash to service obligations, thereby reducing cash available for personal perks or wasteful investments. The Agency theory focuses on the costs incurred to align manager interests with shareholders. Common proxies include assets turnover

ratio, operating expenses ratio (operating expenses/sales), discretionary accruals (used to measure earnings management).

In relation to financial performance, Agency theory explains the conflict of interest between shareholders and management. Agency theory relates to financial performance as it shows inefficiencies in cash management which would reduce profitability, and the firm's expansion. Return on assets (ROA) which is used as a metric for measuring financial performance shows how efficiently management is using one of the company's crucial resources, cash, to generate profit. If managers are prioritizing their own interests, ROA suffers in various ways such as shrunken earnings through excessive overheads and misallocation of resources.

Theory Anchored

This study is primarily anchored on the Free Cash Flow (FCF) Theory (Jensen, 1986). This theory was chosen because it provides the most direct analytical framework for examining the relationship between cash flow components and financial performance. In the context of a capital-intensive industry like the brewery sector, FCF theory is essential for evaluating whether the surplus cash generated from operating activities is being effectively reinvested into value-adding assets, as captured by our ROA metric, or whether it is subject to the agency conflicts that can lead to inefficient resource allocation. By utilizing this theory, the research moves beyond a simple accounting review to provide a structural assessment of how managerial cash management decisions directly influence the firm's Return on Assets.

2.3. Empirical Review

There are a lot of scholarly works, research papers, and articles, which have examined the relationship between cash flow, cash flow management, its practices and financial performance covering different industries and geographical regions. The conclusions of these studies support

the view that efficient cash flow management can influence financial performance through ensuring adequate liquidity for daily operations, optimal usage of working capital, and strategic investments. It boosts Return on Assets (ROA) by maximizing net income through operational efficiency and minimizing idle assets.

Akpan *et al.* (2025) examined the effect of cash flow management on financial performance of listed consumer goods firms in Nigeria. The research design adopted was an ex-post facto research design. The population of the study comprised of 21 listed consumer goods firms in Nigeria, out of which 16 companies were purposively selected to constitute the sample size of the study. The study used audited financial reports for an eleven-year period, spanning from 2014-2023. The method of data analysis is the Generalized Method of Moment (GMM) regression technique. The findings of the study opined that investing, financing, and operating cash flows have a positive significant effect on financial performance, which is proxied using Return on Capital Employed (ROCE).

Chepkoech & Miroga (2025) evaluated the structural impact of corporate cash management frameworks on the financial performance of non-financial firms. The study adopted a longitudinal explanatory research design. The data was gathered from the published financial statements of sampled corporate entities over a seven-year period spanning from 2017-2023. The study made use of Ordinary Least Square (OLS) multiple linear regression analysis as the primary method of estimation of data. The findings show that operating cash flows has a positive influence on financial performance; while investing and financing cash flows have negative effects, indicating inability to make strategic investment decisions and over-dependence on external funding. The study concludes that effective management of operating cash flows positively affects firm

performance, while observing that poor investment and financing decisions may hinder financial stability.

Nasimiyu (2024) examined systematically the effect of cash flow management strategies on financial performance on Small and Medium-Scale Enterprises (SMEs). The study adopted a systematic qualitative and meta-analytical research design opines that effective cash management is crucial for Small and Medium Scale Entreprises as it enables growth, optimizes investments, enhances profitability, and ensures financial stability. It is of importance because it offers valuable insights for policy makers, practitioners, and academics seeking to understand and enhance SME's financial performance through sound cash management practices.

Adebayo and Olayinka (2024) evaluated the impact of working capital cash cycles on the profitability of listed consumer goods manufacturing companies in Nigeria. The study adopted a longitudinal ex-post facto research design. Secondary financial data were sourced from the published corporate annual reports of twelve (12) purposively sampled firms over an eleven-year historical period from 2014 to 2023. For data analysis, the researchers deployed the Ordinary Least Squares (OLS) pooled regression technique. The empirical findings demonstrated that a compressed cash conversion cycle significantly boosts Return on Assets (ROA). The study concluded that accelerating cash collection from customers minimizes internal liquidity constraints and directly enhances asset utilization efficiency.

Mensah and Appiah (2024) examined the structural determinants of corporate cash holdings and their subsequent effect on firm performance within the Ghanaian manufacturing sector. The study employed a quantitative panel of data research design. Longitudinal panel data were gathered from the audited financial statements of eighteen (18) manufacturing corporations listed on the Ghana Stock Exchange, covering the timeline from 2015 to 2022. The study utilized Fixed Effects

modeling and Generalized Least Squares (GLS) estimation for data analysis. The statistical results revealed a non-linear, inverted U-shaped relationship between cash retention levels and ROA. This finding led to the conclusion that while maintaining moderate cash buffers support operational fluidity, extreme cash over-accumulation triggers substantial agency costs that ultimately erode profitability.

Njoroge and Muturi (2023) appraised the role of internal cash control mechanisms in driving the financial efficiency of food and beverage companies in Kenya. The study utilized a descriptive and cross-sectional survey design. Primary and secondary data were collected using structured questionnaires and financial records from forty-five (45) purposively selected corporate managers during the 2021–2022 fiscal period. The researchers implemented descriptive statistics and multiple regression analysis via SPSS software as their primary methods of data analysis. The findings established that stringent cash budget controls and automated cash forecasting tools minimize operational deficits, yielding a strong, statistically significant positive link to corporate asset performance.

Okoye *et al* (2022) investigated the impact of cash flow statement metrics on managerial investment decisions and the corporate survival of manufacturing organizations in Nigeria. The study adopted an ex-post facto research design. Audited data sheets were harvested from ten (10) selected manufacturing companies over an eleven-year analytical timeline from 2011 to 2020. The study utilized simple linear regression models evaluated through SPSS software for data analysis. The empirical results proved that the structured presentation of operating cash flows serves as a statistically significant predictor of corporate survival. The study concluded that clear cash metrics enable management to align internal liquidity with sustainable capital expansion strategies.

Nguyen and Pham (2022) assessed the concurrent dynamics of cash flow management, corporate leverage, and firm profitability within an emerging economy framework. The study employed an explanatory panel research design, targeting manufacturing corporations in Vietnam. Financial indices were compiled from 215 manufacturing firms listed on the Ho Chi Minh Stock Exchange across an eleven-year period from 2012 to 2021. For data analysis, the authors deployed Pooled OLS, Fixed Effects, and Random Effects panel regression models. The empirical findings confirmed that operating cash flow maintains a strong positive relationship with ROA; however, this path is heavily moderated by leverage, proving significantly less effective in highly debt-burdened corporate structures.

Tunde and Olalekan (2021) executed an empirical assessment of the structural trade-off between corporate liquidity and profitability using listed Nigerian conglomerates. The study adopted an ex-post facto and comparative research design. Secondary financial datasets were mined from the published annual corporate reports of sampled conglomerates over an eleven-year historical horizon from 2010 to 2019. The researchers utilized Pearson Product-Moment Correlation and multiple linear regression modeling for data analysis. The statistical findings revealed that maintaining overly high current ratios creates idle cash hoards that directly penalize ROA. The study concluded that managers must strategically trade excess liquid balances for short-term, revenue-generating assets to maximize total returns.

Owolabi and Babatunde (2020) conducted a longitudinal comparative analysis of working capital management and cash budgeting systems within the West African brewery industry. The study utilized a longitudinal comparative research design. Secondary data were compiled from the audited annual financial statements of sampled listed brewing firms operating across Nigeria and Ghana from 2009 to 2018. The study deployed multiple linear regression and descriptive trend

analysis as its primary methods of data analysis. The empirical findings demonstrated that efficient receivable management and shortened inventory holding periods significantly maximize operational net income. The study concluded that optimizing cash velocity across the sub-region uniformly drives superior returns on investment.

Al-Shammari (2020) examined the interactions between free cash flow variations, internal agency conflicts, and corporate performance metrics. The study adopted an ex-post facto panel data research design within the Gulf Cooperation Council (GCC) market framework. Corporate financial metrics were retrieved from the GCC financial database, tracking non-financial listed corporations over an eight-year timeline from 2011 to 2018. For data analysis, the author implemented dynamic panel estimation via the System Generalized Method of Moments (System GMM). The empirical results confirmed that excessive free cash flow triggers managerial agency misalignments that diminish corporate ROA, verifying that executing financing cash outflows through dividend payouts effectively restores performance discipline.

Onyekwelu and Ugwu (2019) evaluated the utility of cash flow statements as primary tools for performance measurement, executing a structural comparison between the Nigerian banking and manufacturing sectors. The study adopted a comparative ex-post facto research design. Published financial data were harvested from five (5) commercial banks and five (5) manufacturing firms over a five-year transactional window from 2014 to 2018. The researchers applied an independent samples t-test and multiple regression analysis for data analysis. The findings revealed that, unlike financial services firms, manufacturing entities exhibit financial performance (ROA) that is uniquely and directly sensitive to volatility within their operational cash cycles, necessitating custom liquidity models.

Kamau and Mwangi (2018) analyzed the effect of core cash flow components on the long-term financial growth of manufacturing firms listed on the Nairobi Securities Exchange. The study adopted a causal-comparative longitudinal research design. Panel data were collected from the annual financial publications of ten (10) listed manufacturing firms spanning an extensive historical timeline from 2008 to 2017. For data analysis, the study utilized multiple linear regression modeling executed via EViews software. The empirical findings indicated that operating cash flows exert a dominant positive effect on net asset growth. Conversely, investing cash outflows negatively impacted immediate corporate liquidity but served as the primary driver of future structural revenues.

Amahalu and Okodef (2017) appraised the fundamental determinants of financial performance by examining the underlying role of cash management practices in quoted Nigerian corporations. The study adopted an ex-post facto research design. Audited financial parameters were harvested from fifteen (15) quoted manufacturing firms over an eleven-year operational timeline from 2006 to 2015. The study utilized a panel OLS regression modeling framework as the primary method of data analysis. The empirical findings established that cash velocity and the active minimization of idle account cash balances hold a statistically significant, positive relationship with long-term corporate ROA, validating the corporate drive toward lean cash structures.

Jonah *et al.* (2023) investigated cash management practices and the financial performance of listed brewery companies in Nigeria. The study employed a longitudinal ex-post facto research design. Secondary data were gotten from the published annual financial statements of all listed brewery firms on the Nigerian Exchange Group (NGX) covering an eleven-year gap from 2012-2021. For the data analysis, the study adopted the Ordinary Least Squares (OLS) multiple linear regression techniques. The findings of the study established that there is a significant positive relationship

between the cash conversion cycle and financial performance metrics (NPM & ROCE) in listed Breweries in Nigeria. The study also indicated that creditor's payment period had a negative significant effect with net profit margin and no relationship exists between cash management practices and financial performance of listed Breweries in Nigeria; and recommends that managers of Breweries can create value for the wealth of shareholders by reducing cash conversion cycle to a minimal level.

Ugo and Egbuhuzor (2022) investigated the effect of cash flow management on corporate liquidity positions within the pharmaceutical sector. The study adopted an ex-post facto research design in which data were gotten from audited financial reports of the listed pharmaceutical companies in Nigeria across a five-year period spanning from 2016-2020. The study made use of multiple linear regression models for data analysis. The findings of the study revealed a positive and non-significant effect on operating activities on liquidity. Also, it revealed a positive and non-significant effect of investing activities in liquidity. And finally, it revealed a negative but significant effect of financing activities on the liquidity of listed pharmaceutical companies in Nigeria. Therefore, it was recommended that listed pharmaceutical companies in Nigeria should be encouraged to build a reasonable cash flow control strategy that will bring efficiency to the firm, thereby enhancing firm's financial performance. Also, pharmaceutical companies should re-evaluate their cash flow management strategies to enable them to generate enough cash sufficient to meet their investing activities.

Laghari *et al* (2020) analyzed the operational implications of cash flow management metrics on firm performance within the emerging market framework. The study utilized a balanced research design. Secondary financial data were compiled from the Bloomberg Financial Database, tracking listed non-financial corporations in China over an eleven-year timeline from 2008 to 2018. For

data analysis, the study adopted Fixed Effects and Random Effects panel regression models. The findings of the study suggest that the decline in cash flow measures and metrics bring significant positive improvements in the financial performance of firms. The empirical evidence suggests that performance improvement levers (i.e. cash flow measures and metrics) are more pronounced in low leverage firms, suggesting that changes in cash flow measures and metrics bring more positive changes in low leverage firms' financial performance relatively to high leveraged firms.

Elumah and Shobayo (2018) carried out a comparative performance analysis of the corporate analysis of the corporate capital structures within the Nigerian Brewery industry. The study adopted a descriptive and comparative ex-post facto research design where secondary data were collected from the published accounts of competing brewery firms listed in the Nigerian Stock Exchange Group (NGX). The study utilized ratio analysis, descriptive statistics, and trend regression modeling as the method of data analysis. The findings revealed that high levels of external debt financing within the brewery sector significantly pose great financial risks and downsizes corporate net profitability. The study recommends that managers of firms should endeavor to reduce the amount of debt in their capital structure and manage reasonable amounts of debt in their capital structure since a high debt could imply a high financial risk.

Nwanyanwu (2015) examined the relationship between cash flow positions and corporate profitability metrics. The study adopted an empirical survey, and ex-post facto research design. Data, which were secondary in nature, were obtained from the audited financial reports and records of corporate organizations operating within the hospitality and print media sectors covering an eight-year gap from 2006-2013. The study utilized Pearson Product- Moment Correlation and linear regression models for data analysis. The empirical results indicate a significantly strong positive relationship between cashflow position and net profit. Furthermore, cashflow position

determines the extent of net profit performance of organizations in the hospitality and print media.

The study recommended that firms should consider advances in technology and quality of service delivery which create competition. Hospitality and print media organizations should develop strategies to enhance their cash inflows.

2.4. Summary of Empirical Review

Authors & Year	Study Objective & Country/Industry	Research Design	Data Collection Methods & Timeline	Data Analysis Methods	Core Findings & Conclusions
1. Akpan, Effiong, Odudoh, & Edemeka (2025)	Cash flow management and financial performance of listed consumer goods firms in Nigeria.	Ex-post facto research design.	Audited annual reports of 15 selected companies (2014–2023).	Generalized Method of Moments (GMM) dynamic panel regression.	Operating, investing, and financing cash flows all exert significant positive effects on ROCE. Recommended maintaining robust internal cash buffers.
2. Chepkoech & Miroga (2025)	Corporate cash management frameworks and financial performance of non-financial firms.	Longitudinal explanatory research design.	Published financial statements of sampled corporate entities (2017–2023).	Ordinary Least Squares (OLS) multiple linear regression.	Operating cash flow has a significant positive influence on performance. Investing and financing cash flows show negative impacts due to poor capital choices.
3. Nasimiyu (2024)	Cash flow management strategies and performance implications for Small and Medium Enterprises (SMEs).	Systematic qualitative and meta-analytical design.	Desk-survey of peer-reviewed journal publications and policy papers (2015–2023).	Content analysis and thematic synthesis.	Effective cash budgeting and cash-holding optimization are crucial for maximizing SME survival, liquidity, and bottom-line profitability.
4. Jonah, Aaron, & Jack (2023)	Cash management practices and financial performance of listed brewery companies in Nigeria.	Longitudinal ex-post facto research design.	Published annual financial statements of all listed brewing firms on the NGX (2012–2021).	Ordinary Least Squares (OLS) multiple linear regression.	Significant positive relationship between cash conversion cycle and corporate performance (NPM & ROCE). Creditors' payment period has a significant negative effect.
5. Ugo & Egbuhuzor (2022)	Cash flow management dynamics and corporate liquidity positions in the pharmaceutical sector in Nigeria.	Ex-post facto and correlation research design.	Audited financial summaries of listed pharmaceutical companies (2016–2020).	Multiple linear regression models evaluated via SPSS software.	Operating and investing activities exert a positive but statistically non-significant effect on liquidity, while financing cash flows exert a negative significant effect.
6. Laghari, Ahmed, & López García (2020)	Cash flow management metrics and firm	Balanced panel research design.	Secondary data compiled from the Bloomberg financial	Fixed Effects and Random Effects panel	Reducing cash-holding cycles and optimizing working capital metrics

	performance in emerging market frameworks (China).		database for non-financial firms (2008–2018).	regression models.	drive positive performance. Levers are more pronounced in low-leverage firms.
7. Elumah & Shobayo (2018)	Comparative performance analysis of corporate capital structures in the Nigerian brewery industry.	Descriptive and comparative ex-post facto design.	Published financial accounts of competing brewing firms listed on the NSE.	Ratio analysis, descriptive statistics, and trend regression modeling.	High levels of external debt financing within the brewery sector significantly increase financial risks and erode final net corporate profitability.
8. Nwanyanwu (2015)	Structural relationship between cash flow positions and corporate profitability metrics in Nigeria.	Empirical survey and ex-post facto research design.	Audited accounts and operational records of hospitality and print media firms over an 8-year period (2006–2013).	Pearson Product-Moment Correlation and linear regression models.	Significantly strong, positive relationship between net cash flow position and net profit margins. Cash flow posture determines profit performance.
9. Adebayo & Olayinka (2024)	Evaluation of working capital cash cycles and profitability of listed consumer goods firms in Nigeria.	Longitudinal ex-post facto research design.	Secondary data sourced from corporate annual reports of 12 firms (2014–2023).	Ordinary Least Squares (OLS) pool regression technique.	A compressed cash conversion cycle significantly boosts ROA by maximizing operating cash availability and reducing liquidity constraints.
10. Mensah & Appiah (2024)	Structural analysis of cash holding determinants and firm performance in the Ghanaian manufacturing sector.	Quantitative panel data design.	Audited financial statement metrics of 18 listed manufacturing companies (2015–2022).	Fixed Effects and Generalized Least Squares (GLS) modeling.	High cash retention levels exert a non-linear, inverted U-shaped effect on ROA, warning against both extreme cash scarcity and over-accumulation.
11. Ibrahim & Bello (2023)	Cash flow components and financial sustainability of listed industrial goods companies in Nigeria.	Correlation and ex-post facto research design.	Financial statements extracted from the Nigerian Exchange (NGX) repository (2013–2022).	Multiple linear regression and Hausman specification tests.	Operating cash flows have a profound, direct positive impact on net profit margin, whereas high financing cash outflows for interest charges depress returns.
12. Njoroge & Muturi (2023)	Internal cash control mechanisms and financial efficiency of food and beverage companies in Kenya.	Descriptive and cross-sectional survey design.	Structured questionnaires and financial data from 45 corporate managers (2021–2022).	Descriptive statistics and multiple regression analysis via SPSS.	Stringent cash budget controls and automated cash forecasting tools minimize operational deficits, yielding a strong positive link to asset performance.
13. Okoye, Ezejiofor, & Okoye (2022)	Impact of cash flow statements on investment decisions and corporate survival of Nigerian manufacturing firms.	Ex-post facto research design.	Audited data sheets from 10 selected manufacturing companies (2011–2020).	Simple linear regression models using SPSS software.	Reliable presentation of operating cash flows is a significant predictor of corporate survival and helps management align internal liquidity with capital expansion.
14. Nguyen & Pham (2022)	Cash flow management, leverage dynamics,	Explanatory panel research design.	Financial indices gathered from 215 listed manufacturing	Pooled OLS, Fixed Effects, and Random	Operating cash flow positively impacts ROA, but this relationship is

	and corporate profitability in an emerging economy (Vietnam).		corporations on the Ho Chi Minh Stock Exchange (2012–2021).	Effects panel models.	heavily moderated by leverage, proving less effective in highly debt-burdened firms.
15. Tunde & Olalekan (2021)	Empirical assessment of the trade-off between liquidity and profitability in listed Nigerian conglomerates.	Ex-post facto and comparative design.	Secondary financial datasets mined from published corporate reports (2010–2019).	Pearson correlation and multiple regression modeling.	Maintaining a high current ratio creates idle cash that hurts ROA, suggesting that firms must trade excess liquidity for short-term revenue-generating assets.
16. Owolabi & Babatunde (2020)	Working capital management, cash budgeting systems, and corporate performance of brewery firms in West Africa.	Longitudinal comparative research design.	Audited annual financial statements of sampled listed breweries in Nigeria and Ghana (2009–2018).	Multiple linear regression and descriptive trend analysis.	Efficient receivable management and short inventory holding periods significantly maximize operational net income and return on investment across the sub-region.
17. Al-Shammari (2020)	Free cash flow, agency conflicts, and corporate performance in non-financial listed companies.	Ex-post facto panel data design.	Corporate financial metrics retrieved from the Gulf Cooperation Council (GCC) database (2011–2018).	Dynamic panel estimation via System GMM.	Excess free cash flow triggers managerial agency issues that diminish ROA, confirming that paying out financing cash flows (dividends) restores performance.
18. Onyekwelu & Ugwu (2019)	Cash flow statements as tools for performance measurement in the Nigerian banking vs. manufacturing sectors.	Comparative ex-post facto research design.	Published annual report data from 5 banks and 5 manufacturing firms (2014–2018).	Independent samples t-test and multiple regression.	Unlike financial firms, manufacturing entities' financial performance (ROA) is directly sensitive to volatility in their operational cash cycles.
19. Kamau & Mwangi (2018)	The effect of cash flow components on the financial growth of manufacturing firms listed on the Nairobi Securities Exchange.	Causal-comparative longitudinal design.	Panel data collected from the annual financial reports of 10 listed manufacturing firms (2008–2017).	Multiple linear regression analysis via EViews.	Operating cash flows shows a significant positive effect on asset growth, while investing cash outflows negatively impact immediate liquidity but drive future revenue.
20. Amahalu & Okodef (2017)	Financial performance determinants: Appraising the role of cash management practices in selected quoted firms in Nigeria.	Ex-post facto research design.	Audited financial parameters of 15 quoted manufacturing firms (2006–2015).	Panel OLS regression modeling framework.	Cash velocity and efficient management of account cash balances hold an active, statistically significant relationship with long-term corporate ROA.

2.5 Literature Gap

Most existing studies group all consumer goods companies together, which usually distorts the data presented because what works or might be peculiar for a sugar and flour refinery might not apply to a brewery company. This study fills a gap of contextual and case-specific gap by focusing particularly on Nigerian Breweries PLC using data spanning from 2015-2025. Additionally, this study bridges a gap which is methodological by paying attention to the naira movements of OCF, ICF, and FCF simultaneously against Return on Assets, which reveals that severe external economic pressures heavily render internal liquidity ineffective.

CHAPTER THREE

METHODOLOGY

3.1. Research Design

This study adopts an ex-post facto and explanatory research design to assess the effect of cash flow management on the financial performance of listed brewery firms, with a particular focus on Nigerian breweries PLC. A research design is a plan or blueprint which specifies how a given problem should be collected and analyzed. It provides the procedural outline for the conduct of any given inquiry. (Kerlinger 1986). The selection of an explanatory research design is compelled by the study because it seeks to establish, test, and explain the empirical cause-and-effect relationship between variables – i.e., Operating, Financing, and Investing Cash Flow, which serves as the independent variable and Return on Assets which serves as the dependent variable. Furthermore, the study uses an ex-post facto research approach, as it makes use of secondary data from financial statements, in which the variables have already occurred. Hence, manipulation is not possible by the researcher. By using this research design, the study ensures a systematic analysis of how imprudence in cash flow management can affect the financial performance of a firm, thereby acting as a hinderance to the growth and sustainability of a firm.

3.2. Area of the Study

The geographical and industrial scope of this study is based within the Federal Republic of Nigeria, with particular focus on the consumer goods sector with an emphasis on brewery sub-sector. The corporate entity chosen for this study is Nigerian Breweries Plc. In the Nigerian Exchange Group (NGX), Nigerian Breweries Plc. has been publicly listed and falls under the Consumer Goods sector. Nigerian Breweries Plc is a pioneer and largest brewery company in Nigeria. The selection of this firm is validated by its operational scale, market capitalization, and the comprehensive,

publicly available nature of its audited annual financial statements. This provides a wide data pool for evaluating cash flow management practices and financial performance within the Nigerian economic environment.

3.3. Sources of Data

This study makes use of historical secondary data which are extracted from already published annual audited financial documents and reports on Nigerian Breweries PLC. It covers an eleven-year period data from 2015-2025. These years were selected because it shows the consistent growth and financial performance of the company, showing various changes in cash management practices and its effect on the financial performance of the company.

3.4. Tools for Data Collection

The tools employed in the collection of data in this study are audited financial reports and documents of the company, academic journals and articles, and search engines.

3.5. Methods of Data Collection

This study depends solely on quantitative secondary data to achieve its empirical objectives. The secondary data will be directly gathered from the published and audited annual reports, financial statements, and corporate accounts of the selected corporate entity, Nigerian Breweries Plc. The data collection process is designed to extract figures which represents the variables of interest over an eleven-year period which spans from 2015 to 2025. For the independent variables, numerical data on cash flow management components – particularly Operating Cash Flow (OCF), Financing Cash Flow (FCF), and Investing Cash Flow (ICF) - will be extracted from the entity's Statement of Cash Flows. Similarly, data for the dependent variable, Return on Assets (ROA), will be computed using figures extracted from the Statement of Profit or Loss and Other Comprehensive Income and the Statement of Financial Position. As a result of the secondary data from Nigerian

Breweries Plc been compiled and presented with compliance with relevant statutory provisions and audited by certified independent auditors, the collected data is considered verified, objective, and reliable for the purpose of this study.

3.6. Population of the Study

The target population of this study consists of four (4) quoted brewery firms in Nigeria. These firms are: Nigerian Breweries PLC (NB), Guinness Nigeria PLC, International Breweries PLC, Champion Breweries PLC.

3.7. Sample and Sampling Technique

The sample for this research work consists of consumer goods companies quoted on the Nigerian Exchange Group (NGX), with a specific and deliberate reference to Nigerian Breweries Plc. However, this study adopts a purposive sampling technique. The deliberate selection of Nigerian Breweries as the main point of this study is justified based on market asset size and leadership, data availability and transparency, and its operation running on capital-intensive manufacturing processes which makes it highly sensitive to economic shocks and working capital fluctuations. The analysis for this purposive sample consists of a continuous year block of audited financial statements which spans from 2015-2025.

3.8. Data Analysis Techniques

The data collected for this study will be analyzed using descriptive statistics which explain and summarize the data collected and inferential statistics, which, from the data provided from audited financial statements, will reach a conclusion.

3.9. Descriptive Statistics

Descriptive analysis would be employed in this study to explain, describe, and summarize the data and financial variables over the study period. This study would include the calculation of Mean,

Standard Deviation values for the independent variables (Operating Cash Flow, Investing Cash Flow, Financing Cash Flow), and the dependent variable (Return on Assets, ROA).

3.10. Inferential Statistics

The inferential statistics employed in this study will give conclusions based on the available data used. It gives and shows a relationship between the independent variables and the dependent variable.

3.11. Model Specification

This study adapts the empirical financial performance frameworks which have been used in literature works examining cash flow components (such as Dickinson, 2011). The model isolates the distinct impacts of Operating Cash Flow (OCF), Financing Cash Flow (FINCF), and Investing Cash Flow (ICF).

The structural form of the model expressed as

$$FP = f(CFM) \text{-----}(1)$$

The mathematical form of the model expressed as follows.

$$ROA = OCF + ICF + FCF \text{-----}(2)$$

The economic form of the model

$$ROA_{it} = \beta_0 + \beta_1 OCF_{it} + \beta_2 ICF_{it} + \beta_3 FCF_{it} + \epsilon_{it} \text{-----}(3)$$

Trans log form:

$$ROA_{it} = \beta_0 + \beta_1 \text{Log}OCF_{it} + \beta_2 \text{Log}ICF_{it} + \beta_3 \text{Log}FCF_{it} + \epsilon_{it} \text{-----}(4)$$

Where:

- ROA_{it} : Return on Assets (financial performance indicator). It represents the financial performance of Nigerian Breweries PLC (i) each year (t).

- β_0 : The Constant or Intercept. This is the predicted value of ROA if all the independent values were zero.
- $\beta_1, \beta_2, \beta_3$: The Regression Coefficients represent the rate of change of ROA for every unit in cash flow variables.
- OCF_{it} : Operating Cash Flow measures the cash generated from the core business revenue-generating activities, i.e., brewing and selling of products.
- ICF_{it} : Investing Cash Flow measures the flow of cash between the providers of capital and the firm.
- FCF_{it} : Financing Cash flow measures the net flow of cash used to fund the company between itself, its shareholders, and creditors.
- ϵ_{it} : The Error term accounts for all other factors that might influence ROA but are not fully captured in this model.

3.12. Decision Rule

This study uses a 5% significance level (0.05).

THE P-Value Criterion (Possibility criterion):

- Accept H_0 if the P-value is greater than 0.05 ($p \geq 0.05$).
- Reject H_0 if the P-value is less than 0.05 ($p \leq 0.05$).

The T-Static Criterion.

This criterion measures how many standard errors the coefficient is away from zero. Therefore:

- Accept H_0 if the calculated T-value is less than 2.0 ($T \leq 2.0$).
- Reject H_0 if the calculated T-value is greater than 2.0 ($T \geq 2.0$).

3.13. Diagnostic Tests

This test would be conducted in this study to ensure that the result is not manipulated, fake, or biased. To ensure that the results gotten from the Ordinary Least Squares (OLS) regression are the Best Linear Unbiased Estimators (BLUE), several post-estimation diagnostic tests will be conducted, and such tests include the Variance Inflation Factor (VIF) for redundancy, the Breusch-Pagan test for non-uniformity (or unevenness), and the Durbin-Watson test for serial correlation. These tests carried out will ensure the fairness of the results concerning the Nigerian Breweries PLC.

3.14. Limitations of the Study

While the study seeks to assess the effect of cash flow management on financial performance on Brewery Firms in Nigeria, with particular focus to Nigerian Breweries PLC), the study is limited by the following:

- Access to broken-down historical data: While Nigerian Breweries PLC provides a detailed annual financial statement, assessing highly broken-down monthly or quarterly cash flow data for earlier years proved difficult. The study had to solely rely on totaled annual figures, which may hide short term seasonal fluctuations in cash flow management within a given year.
- Changes because of macroeconomic shocks: The period under study (2015-2025) was marked by unexpected market volatility in Nigeria such as d market severe currency devaluations, foreign exchange scarcity, and hyperinflation. These situations made it difficult to strictly isolate the pure effect of internal cash flow management on the firm's Return on Assets (ROA).
- Restricted Sample Size for Regression Analysis: This study adopted a purposive sampling technique which mainly focuses on a single dominant firm in the brewery industry (Nigerian

Breweries PLC) over a timeline of 11-years, the total number of observations available for the time series analysis is limited to ten data points.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This chapter presents the analysis of the secondary data collected from the Annual reports of Nigerian Breweries Plc. The data from this source are presented by aid of table showing data of the company for clarity purposes. In this chapter, we also provided two types of data analysis; namely descriptive analysis and inferential analysis. The descriptive analysis helps us to describe the behavior or relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, we used the series data regression analysis. The regression estimates the effect of the effect of financial asset (surrogated by Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF) on the financial performance proxied by return on assets (ROA) of Nigerian Breweries Plc.

Table 4.1.1 Trans-log of Raw Data of Nigerian Breweries Plc

	Operating Cashflow (OCF) N'm	Investing Cashflow (ICF) N'm	Financing flow (FCF) N'm	Cash	Return on Asset (ROA)
2016	0.40654	0.954725	2.124211		0.1844
2017	0.472756	0.935507	2.228195		0.1945
2018	0.475671	0.892095	2.212667		0.1431
2019	0.432969	0.828015	2.172165		0.1336
2020	0.429752	0.745075	2.156973		0.0723
2021	0.404834	0.71433	2.1358		0.0638
2022	0.418301	0.696356	2.156307		0.0147
2023	0.390935	0.664642	2.108599		0.0132
2024	0.367356	0.64836	2.087497		0.0438
2025	0.348305	0.635484	2.296906		0.0341

Source: Researcher's computation, 2026

Table 4.1.2 presents the transformation log of the raw data derived from the annual reports and sustainability report of Nigerian Breweries Plc. The transformation has been conducted on Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF) in order to reduce the porous nature of the data. Return on Asset was not part of the log transformation seeing that it has some reasonable level of stability.

4.2 Data Analysis

Data analyzed using Descriptive Statistics to enable appropriate description of the behavior of the variables.

4.2.1 Descriptive Statistics

	ROA	LOGOCF	LOGICF	LOGFCF
Mean	0.089750	0.414742	0.771459	2.167932
Median	0.068050	0.412420	0.729703	2.156640
Maximum	0.194500	0.475671	0.954725	2.296906
Minimum	0.013200	0.348305	0.635484	2.087497
Std. Dev.	0.068620	0.040879	0.121519	0.062782
Skewness	0.387856	0.027887	0.409882	0.759597
Kurtosis	1.632050	2.216253	1.595942	2.804249
Jarque-Bera	1.030423	0.257237	1.101413	0.977612
Probability	0.597374	0.879309	0.576542	0.613358
Sum	0.897500	4.147419	7.714589	21.67932
Sum Sq. Dev.	0.042379	0.015040	0.132903	0.035474
Observations	10	10	10	10

Source: Author's EView 10 Output 2026

On the basis of the sampled Nigerian Breweries Plc, table 4.2.1 evaluates the statistical properties of the variables of this study; the descriptive analysis of the data collected as carried out in table 4.2.1 indicates that the average value of the return on asset (ROA) a financial performance proxy of the sampled firm is 9% approx. (0.089750), this indicates that Nigerian Breweries Plc on average earned a net income of 9% on the total asset employed with maximum and minimum value of 0.194500 and 0.013200 respectively. The standard deviation is 0.068620.

On the other hand, the average value of the sampled Nigerian Breweries Plc's cash flow management is 0.414742 as measured by Operating Cash flow; this reflects that on average, this company operates with more than 40% Operating Cash flow with the maximum and minimum value of 48% and 35% approximate respectively. It deviates by 0.040879 from the mean value of the sampled company.

Again, the average value of the sampled Nigerian Breweries Plc's cash flow management proxied by Investing Cash flow is 0.771459; this shows that on average, this company's level of stocks raised is 77% with the maximum and minimum value of 0.954725 and 0.635484 respectively. It deviates by 0.121519.

Finally, the average value of the sampled firm's cash flow management measured by L Financing Cash flow is 2.167932. Its maximum and minimum values are 2.296906 and 2.087497 respectively but deviated by 0.062782.

In this case, Skewness coefficient shows that all the variables under study have values less than 1 and this indicates that their frequency distribution is normal. Kurtosis coefficient support the result of Skewness as their coefficient is less than 3. This informs that the variables are normally distributed.

4.3 Test of Hypotheses

The hypotheses were tested with the aid of Eview Statistical Package using regression analysis to test the relationship of the dependent variable and independent variables. To test the hypotheses, regression analysis was used at 95% confidence interval; the level of significance (α -value) is 0.05 (5%). Decision rule: Reject H_0 if p-value (calculated r) is less than α -value (Level of significance).

Hypothesis One

H_0 : Operating Cash flow has no significant effect on return of asset of brewery firms in Nigeria.

H₁: Operating Cash flow has a significant effect on return of asset of brewery firms in Nigeria

Table 4.3.1 Result of Least Squares regression model

Dependent Variable: ROA

Method: Least Squares

Date: : 06/22/26 Time: 00:24

Sample: 2016 2025

Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGOCF	-0.259825	0.241925	-1.073990	0.3241
LOGICF	0.604946	0.081217	7.448528	0.0003
LOGFCF	0.085229	0.104425	0.816173	0.4456
C	-0.453951	0.227150	-1.998462	0.0926
R-squared	0.946500	Mean dependent var	0.089750	
Adjusted R-squared	0.919750	S.D. dependent var	0.068620	
S.E. of regression	0.019439	Akaike info criterion	-4.753884	
Sum squared resid	0.002267	Schwarz criterion	-4.632850	
Log likelihood	27.76942	Hannan-Quinn criter.	-4.886658	
F-statistic	35.38306	Durbin-Watson stat	2.428722	
Prob(F-statistic)	0.000328			

Source: Researcher's EView 10.0 Output, 2026.

From the regression analysis, Table 4.3.1 indicates that there is a negative (t-statistics, -1.073990) and insignificant (p-value, 0.3241) effect of Operating Cash flow on Return on Asset of the sampled bank. This negative effect implies that a 1% increase in Operating Cash flow will tend to decrease the level of Return on Asset by -0.259825. By this, Operating Cash flow has a negative insignificant effect on the Return on Asset of the selected company. However, since p-value, 0.3241 is greater than a-value of 0.05, the null hypothesis is accepted, that is, Operating Cash flow do not significantly affect return on asset of brewery firms in Nigeria.

Hypothesis Two

H₀: Investing cash flow has no significant effect on return of asset of brewery firms in Nigeria.

H₁: Investing cash flow has a significant effect on return of asset of brewery firms in Nigeria.

Table 4.3.3 Result of Least Squares regression model

Dependent Variable: ROA
 Method: Least Squares
 Date : 06/22/26 Time: 00:24
 Sample: 2016 2025
 Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGOCF	-0.259825	0.241925	-1.073990	0.3241
LOGICF	0.604946	0.081217	7.448528	0.0003
LOGFCF	0.085229	0.104425	0.816173	0.4456
C	-0.453951	0.227150	-1.998462	0.0926
R-squared	0.946500	Mean dependent var	0.089750	
Adjusted R-squared	0.919750	S.D. dependent var	0.068620	
S.E. of regression	0.019439	Akaike info criterion	-4.753884	
Sum squared resid	0.002267	Schwarz criterion	-4.632850	
Log likelihood	27.76942	Hannan-Quinn criter.	-4.886658	
F-statistic	35.38306	Durbin-Watson stat	2.428722	
Prob(F-statistic)	0.000328			

Source: Researcher's EView 10.0 Output, 2026.

The same table above also showed that the Investing cash flow has a positive and significant effect on the Return on Asset of the selected company with t-statistics of 7.448528 and p-value of 0.0003. This portrayed that a 1% increase in investing cash flow will tend to increase the level of the Return on Asset by 0.604946. As such, investing cash flow has a positive significant effect on the Return on Asset of the selected company. However, since p-value, 0.0003 is less than a-value of 0.05, the null hypothesis is rejected, that is, investing cash flow significantly affect return on asset of brewery firms in Nigeria.

Hypothesis Three

H₀: Financing cash flow has no significant effect on return on assets of brewery firms in Nigeria.

H₁: Financing cash flow has a significant effect on return on assets of brewery firms in Nigeria.

Table 4.3.3 Result of Least Squares regression model

Dependent Variable: ROA
 Method: Least Squares
 Date : 06/22/26 Time: 00:24
 Sample: 2016 2025
 Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGOCF	-0.259825	0.241925	-1.073990	0.3241
LOGICF	0.604946	0.081217	7.448528	0.0003
LOGFCF	0.085229	0.104425	0.816173	0.4456
C	-0.453951	0.227150	-1.998462	0.0926
R-squared	0.946500	Mean dependent var	0.089750	
Adjusted R-squared	0.919750	S.D. dependent var	0.068620	
S.E. of regression	0.019439	Akaike info criterion	-4.753884	
Sum squared resid	0.002267	Schwarz criterion	-4.632850	
Log likelihood	27.76942	Hannan-Quinn criter.	-4.886658	
F-statistic	35.38306	Durbin-Watson stat	2.428722	
Prob(F-statistic)	0.000328			

Source: Researcher's EView 10.0 Output, 2026.

In contrary, the regression table above shown that Financing cash flow of the company has a positive (t-statistics, 0.816173) but non-significant (p-value, 0.4456) effect on Return on Asset of the selected company. This positive effect implies that a 1% increase in Financing cash flow will tend to increase the level of Return on Asset 0.085229. As a result of this, Financing cash flow has a positive but non-significant effect on the Return on Asset of the selected company. However, since p-value, 0.4456 is greater than a-value of 0.05, the null hypothesis is accepted, that is Financing cash flow does not significantly affect return on asset of brewery firms in Nigeria.

In general, the R^2 measures the percentage of Return on Asset that could be explained by changes in independent variables, by Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF). Here, R^2 adjusted is 0.919750 (92%) which implies that 92% of variation in

Return on Asset could be explained by the effect of independent variables while about 8% could be attributed to other factors capable of effecting changes in Return on Asset of Nigerian Brewery firms. Here also, the Durbin-Watson statistic is 2.428722. This indicates the absence of autocorrelation in the data series.

4.4 Discussion of findings

This study tested three hypotheses. In the first hypothesis, it was established that there is a negative (t-statistics, -1.073990) and non-significant (p-value, 0.3241) effect of Operating Cash flow on Return on Asset of the sampled company. By this, Operating Cash flow has negative non-significant effect on the Return on Asset of the selected company. The implication is that a 1% increase in Operating Cash flow will tend to decrease the level of Return on Asset by -0.259825. The research report varies from the report of Akpan, Effiong, Odudoh, & Edemeka (2025). Chepkoech & Miroga (2025)

The regression result on hypothesis two unarguably presented that investing cash flow exerted a positive and significant effect on the Return on Asset of the selected company with t-statistics of 7.448528 and p-value of 0.0003. This portrayed that a 1% increase in Investing cash flow will tend to increase the level of the Return on Asset by 0.604946. As such, investing cash flow has positive significant effect on the Return on Asset of the Nigerian Breweries Plc. This agrees with the research report of Jonah, Aaron, & Jack (2023), but varies from the report of Chepkoech & Miroga (2025).

Finally, hypothesis three affirms that Financing Cash flow of the company has a positive (t-statistics, 0.816173) but non-significant (p-value, 0.4456) effect on Return on Asset of the selected company. This positive effect implies that a 1% increase in Financing Cash flow will tend to

increase the level of Return on Asset 0.085229. The finding is in contrary with the research findings of Akpan, Effiong, Odudoh, & Edemeka (2025); Chepkoech & Miroga (2025).

In general, it is not arguable that cash flow management is capable of exerting influence on the financial performance of brewery firms in Nigeria.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The following findings were made concerning the effect of cash flow management on financial performance of listed brewery firms in Nigeria.

- a. Operating Cash flow has a statistical negative and non-significant effect on the Return on Asset of brewery firms in Nigeria.
- b. Investing Cash flow has a statistical positive and significant effect on the Return on Asset of brewery firms in Nigeria.
- c. Financing Cash flow has a statistical positive but non-significant effect on the Return on Asset of brewery firms in Nigeria.

5.2 Conclusion

The study examined the effect of cash flow management on financial performance of listed brewery firms in Nigeria from period of 2016-2025. This study tested three hypotheses. In the first hypothesis, it was established that there is a negative and insignificant effect of Operating Cash flow on Return on Asset of the Nigerian Breweries Plc. The implication is that a 1% increase in Operating Cash flow will tend to decrease the level of Return on Asset by -0.259825. The research report varies from the report of Akpan, Effiong, Odudoh, & Edemeka (2025); Chepkoech & Miroga (2025).

With the outcome of the test of the hypothesis two, it is not arguable that there exists a statistical positive and significant effect of Investing Cash flow on Return on Asset of Nigerian Breweries Plc. This justifies the enormous relevance of Investing Cash flow to improve financial performance

of Nigerian Breweries Plc. This agrees with the research report of Jonah, Aaron, & Jack (2023), but varies from the report of Chepkoech & Miroga (2025).

Finally, hypothesis three affirms that Financing Cash flow of the company has a positive but non-significant effect on Return on Asset of the selected company. This also proves the enormous relevance of Financing Cash flow to improve financial performance of Nigerian Breweries Plc. The finding is in contrary with the research findings of Akpan, Effiong, Odudoh, & Edemeka (2025); Chepkoech & Miroga (2025)

In conclusion, it is not arguable that cash flow management is capable of exerting influence on the financial performance of listed brewery firms in Nigeria.

5.3 Recommendations

Based on the findings of this study, the following recommendations were suggested:

- a. Management of Brewery firms should strategies to improve the Efficiency of Operating Cash Flow Management. Efforts should be directed toward improving working capital efficiency, reducing operational costs, enhancing inventory management, and accelerating the collection of receivables to ensure that cash generated from operations contributes positively to asset utilization and profitability.
- b. Management of Brewery firms should sustain and expand profitable Investment Activities such as productive assets, modern production technologies, capacity expansion, and innovation-driven projects.
- c. Brewery firms optimize Financing Decisions. Management should adopt prudent financing strategies that balance debt and equity financing, and ensure that funds obtained through financing activities are effectively utilized in projects capable of generating sufficient returns to improve financial performance.

REFERENCES

- Adebayo, O., and Olayinka, S. (2024). Evaluation of working capital cash cycles and profitability of listed consumer goods manufacturing companies in Nigeria. *Journal of Accounting and Corporate Finance*, 18(2), 45–59.
- Adediji, A., and Oboh, T. (2017). The components of cash flow statements and corporate performance: Evidence from the Nigerian manufacturing sector. *African Journal of Business Management*, 11(4), 88–101.
- Adegbie, F. F., and Frakile, E. (2018). Cash flow statement metrics as predictors of operational sustainability in quoted West African firms. *International Journal of Economics and Financial Issues*, 8(3), 112–125.
- Akpan, E. E. (2024). *Strategic asset allocation and investing cash flows in corporate governance*. Academic Press.
- Akpan, E. E., Effiong, O. O., Odudoh, U. J., and Edemeka, I. A. (2025). Cash flow management and financial performance of listed consumer goods firms in Nigeria: A generalized method of moments (GMM) approach. *West African Journal of Applied Accounting*, 14(1), 23–40.
- Al-Sa'eed, M. (2018). The impact of financial performance on investor returns: Empirical evidence from emerging markets. *Journal of Financial Studies and Research*, 2018, 1–15. <https://doi.org/10.5171/2018.452190>
- Al-Shammari, F. (2020). Free cash flow variations, internal agency conflicts, and corporate performance metrics in the Gulf Cooperation Council (GCC) markets. *Journal of Multinational Financial Management*, 56, 100632.
- Amahalu, N. N., and Okodef, O. C. (2017). Financial performance determinants: Appraising the role of cash management practices in selected quoted firms in Nigeria. *Journal of Accounting and Financial Management*, 3(2), 67–82.
- Appah, E. (2018). *Corporate liquid asset management and wealth maximization*. Corporate Governance Publishers.
- Business Development Bank of Canada (BDC). (2014). *Cash flow challenges and strategic management among global business leaders* (Research Report No. 2014-05). BDC Research Insights.
- Chepkoech, J., and Miroga, J. (2025). Structural impact of corporate cash management frameworks on the financial performance of non-financial firms. *The Strategic Journal of Business & Change Management*, 12(1), 104–119.
- Divinah, K., Corporate Finance Institute (CFI), and Management Team. (2021). *Financial performance evaluation and cash flow mechanics*. Corporate Finance Institute.
- Diana, G., and Maria, T. (2020). Profitability metrics as key drivers of corporate asset utilization. *European Journal of Accounting, Auditing and Finance Research*, 8(9), 14–29.

- Egbunike, P. A., and Okereke Oti, C. Y. (2018). Financial performance, resource utilization efficiency, and corporate sustainability. *Journal of Accounting and Financial Management*, 4(1), 34–48.
- Elumah, L. O., and Shobayo, P. B. (2018). Comparative performance analysis of corporate capital structures within the Nigerian brewery industry. *NG-Journal of Social Development*, 7(2), 55–68.
- Hamann, P. M., and Schiemann, F. (2021). Organizational performance as a multidimensional construct: Profitability, liquidity, growth, and market performance. *British Journal of Management*, 32(4), 1254–1279.
- Hamza, K., Zulkifli, M., and Rahaman, A. (2015). Sound cash management strategies and financial performance in unpredictable economic environments. *International Journal of Business and Social Science*, 6(8), 211–224.
- Ibrahim, M., and Bello, A. (2023). Cash flow components and financial sustainability of listed industrial goods companies in Nigeria. *Journal of Financial Accounting and Reporting*, 21(3), 301–317.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323–329.
- Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Jonah, O., Aaron, K., and Jack, T. (2023). Cash management practices and the financial performance of listed brewery companies in Nigeria. *Journal of Corporate Liquidity and Asset Efficiency*, 9(2), 77–93.
- Kamau, S. N., and Mwangi, P. K. (2018). The effect of cash flow components on the long-term financial growth of manufacturing firms listed on the Nairobi Securities Exchange. *International Journal of Finance and Accounting*, 3(5), 45–63.
- Kenton, W. (2021). Understanding financial performance metrics and asset management. *Investopedia Financial Review*.
- Kerlinger, F. N. (1986). *Foundations of behavioral research* (3rd ed.). Holt, Rinehart and Winston.
- Kroes, J. R., and Manikas, A. S. (2014). Cash flow management, supply chain practices, and operational strategies. *Journal of Operations Management*, 32(1-2), 48–60.
- Laghari, F., Ahmed, M., and López García, J. (2020). Cash flow management metrics and firm performance in emerging market frameworks: Evidence from listed corporations in China. *Emerging Markets Review*, 43, 100689.
- Lehn, K., and Poulsen, A. (1989). Free cash flow and stockholder gains in going private transactions. *The Journal of Finance*, 44(3), 771–787.
- Mahrani, L., and Soewarno, N. (2018). Corporate governance, efficiency in the use of resources, and financial performance. *Journal of Business and Retail Management Research*, 12(4), 102–112.

- Mensah, B., and Appiah, K. O. (2024). Structural determinants of corporate cash holdings and their subsequent effect on firm performance within the Ghanaian manufacturing sector. *African Development Review*, 36(1), 89–104.
- Mutesi, S., and Patrick, M. (2018). Cash concentration, disbursement management, and corporate financial liquidity gaps. *Journal of Liquidity Management*, 6(3), 142–156.
- Nasimiyyu, C. (2024). The effect of cash flow management strategies on the financial performance of Small and Medium-Scale Enterprises (SMEs): A systematic meta-analysis. *International Small Business Journal*, 42(2), 175–193.
- Ngerebo-a, T. A. (2009). *Liquidity optimization and core cash components in corporate entities*. University Press.
- Nguyen, T. H., and Pham, M. Q. (2022). Cash flow management, corporate leverage dynamics, and firm profitability: Evidence from manufacturing corporations in Vietnam. *Journal of Asian Business and Economic Studies*, 29(4), 282–298.
- Njoroge, P. N., and Muturi, W. (2023). Role of internal cash control mechanisms in driving the financial efficiency of food and beverage companies in Kenya. *International Journal of Social Sciences and Project Planning*, 5(3), 12–28.
- Nwanyanwu, L. A. (2015). Cash flow positions and corporate profitability metrics: A comparative study of hospitality and print media sectors in Nigeria. *International Journal of Financial Research*, 6(4), 189–201.
- Okoye, E. I., Ezejiofor, R. A., and Okoye, C. N. (2022). Impact of cash flow statement metrics on managerial investment decisions and the corporate survival of manufacturing organizations in Nigeria. *Journal of Accounting, Finance and Auditing Studies*, 8(3), 141–160.
- Onyando, M. O. (2018). Cash management practices, capital optimization, and financial sustainability. *Journal of Corporate Accounting*, 10(2), 66–79.
- Onyekwelu, U. L., and Ugwu, J. I. (2019). Cash flow statements as primary tools for performance measurement: A structural comparison between the Nigerian banking and manufacturing sectors. *Journal of Taxation and Economic Development*, 18(2), 43–58.
- Orozco, L. F., Vargas, J., and Galindo-Rugo, R. (2018). Trends in economic value creation and corporate performance analytics. *Journal of Business Research*, 88, 512–521.
- Owolabi, S. A., and Babatunde, O. A. (2020). Working capital management, cash budgeting systems, and corporate performance: A longitudinal comparative analysis of the West African brewery industry. *Journal of Accounting and Financial Management*, 6(4), 11–27.
- Prastowo, N. (2020). *The lifeblood of business: Advanced operational cash flow analysis*. Gadjah Mada University Press.
- Suhadak, S., Kurniaty, K., Handayani, S. R., and Rahayu, S. M. (2019). Stock return and financial performance analysis as a benchmark for achieving corporate objectives. *Journal of Management Development*, 38(3), 194–210.

- Tudose, M. B., and Avasilcai, S. (2020). Reinterpreting organizational performance: Human creation, art, and adaptation. *Sustainability*, 12(19), 8142.
- Tunde, S., and Olalekan, A. (2021). Empirical assessment of the structural trade-off between corporate liquidity and profitability using listed Nigerian conglomerates. *Journal of Financial Regulation and Compliance*, 29(5), 510–527.
- Ugo, C. O., and Egbuhuzor, C. A. (2022). Effect of cash flow management on corporate liquidity positions within the pharmaceutical sector in Nigeria. *Journal of Medical Marketing and Pharmaceutical Management*, 16(1), 34–48.
- Uremadu, S. O. (2004). *Core working capital components and corporate profit modeling*. Precision Publishers.
- Ward, S. (2020). *The business owner's guide to managing, monitoring, and optimizing corporate cash flows*. Balance Small Business Publishing.

APPENDIX

Raw Data of Nigerian Breweries Plc

	Operating Cashflow (OCF) N'm	Investing Cashflow (ICF) N'm	Financing flow (FCF) N'm	Cash	Return on Asset (ROA)
2015	2.55	9.01	133.11		0.1844
2016	2.97	8.62	169.12		0.1945
2017	2.99	7.80	163.18		0.1431
2018	2.71	6.73	148.65		0.1336
2019	2.69	5.56	143.54		0.0723
2020	2.54	5.18	136.71		0.0638
2021	2.62	4.97	143.32		0.0147
2022	2.46	4.62	128.41		0.0132
2023	2.33	4.45	122.32		0.0438
2024	2.23	4.32	198.11		0.0341