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ARTIFICIAL INTELLIGENCE (AI) TOOLS ADOPTION AND INVESTMENT MANAGEMENT OF QUOTED COMPANIES IN NIGERIA

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Abstract

In modern time, it is pertinent to say that the volumes of data derived from different sources require appropriate techniques of analysis and prediction other than the manual approach. The tools adopted in analysing these data by managers of companies are not reported and emphasized even though the outputs derived depict various tools used. In the presentation of annual reports and financial statements of quoted companies, the adoption of several AI applications for presenting financial information are revealed from the contents of the prepared annual reports and financial statements of companies. If AI applications/software are used by managers in the preparation of annual reports and financial statements of companies, can the contents of annual reports grouped as AI tools in this study predict investment management of the companies? This is the focus of the study. The study was conducted to evaluate the influence of AI tools adoption on investment management of quoted companies in Nigeria. AI tools adoption was represented by the factors in the contents of annual reports and financial statements of quoted companies in Nigeria selected for the study which were portfolio optimization (PO), predictive analytics (PA), data analysis (DA), big data processing (BDP) and risk analysis (RA). Leverage (LV) was used as the control variable. Both data for investment management and AI tools

adoption were all collected using content approach from the annual reports and financial statements of the companies selected for the study from 2013 to 2025. The nature of the data was panel and this mandated the adoption of panel linear regression approach. Twenty-three (23) manufacturing companies were sampled from the population of thirty-one (31) companies and were only the companies trading on the floor of Nigeria Exchange Group (NGX). The outcomes of the analysis showed that PO and DA exerted positive and consequential influence on IM, PA exerted negative and consequential influence on IM, BDP exerted positive but immaterial influence on IM while RA exerted negative and inconsequential influence on IM of the companies studied. It was concluded that AI tools adoption had significant influence on investment management of quoted companies in Nigeria. The following recommendations were suggested that information on portfolio management of quoted companies should be disclosed more with the adoption of AI applications and prediction of accounting data should be encouraged to provide more information to the users and to arouse the interest of the potential investors.

Keywords: [1]AI Tools Adoption, [2]Investment Management and [3]Quoted Companies in Nigeria

1.1 Introduction

Artificial intelligence (AI) is an important aspect of technology that drives development in different countries of the world. The idea of AI cuts across different disciplines or fields of study. This is why today we could talk about AI in science and in engineering, AI in social sciences and AI in management sciences. In all these areas, AI is a technology which helps in providing solutions to problems accurately and faster than the manual approach (Xu & Xu, 2023). In the area of management sciences, AI has several tools which support the activities of management or decision effectively and efficiently when they are properly put to use (Falcioni, 2024). The AI tools could be used to influence financial performance, decision making, management of resources which include investment management. In the contemporary time, especially in finance and accounting, several AI software/applications are invented to aid in analysing accounting information, preparation and presentation of financial statements as well as assisting in compilation of companies' annual reports and accounts. These software/applications include ChatGPT, Claude, Microsoft Copilot, Perplexity, NotebookLM, Gemini, Big Query ML, Google Sheet + AI, among others. Thus, AI tools are necessary tools that are continuously adopted by organizations and awareness is made to different individuals or managers about the importance of the tools.

On this note, it could be said that AI tools adoption and investment management is an emerging research area in the field of accounting and finance. AI tools are fundamentally used in mathematical automation which is linked to portfolio optimization, predictive analytics, data analysis, big data processing and risk analysis. The outputs of mathematical automation which are handled by various AI tools are presented on annual reports and financial statements of quoted companies. This simply means that whether AI software/application is adopted in presenting accounting information on annual reports of companies or not, the contents of every annual report always reveal what AI applications can handle proficiently. Thus, the outputs presented on annual reports and financial statements of quoted companies could serve as essential attributes in measuring AI tools. These factors, which could represent AI tools, are basically used in analysing market information, available data of organization and large volumes of data collected from different sources as well as the probability of achieving an expectation in organizations for optimal results which could be in form of financial improvement, managerial efficiency, investment performance and so on (Fong *et al*., 2025). AI tools could also be used for risk and fraud detection, prevention and control in companies with the expectation of achieving operational growth (Han *et al*., 2023). AI tools are capable of influencing the decision about

investment by assisting in analysing available historical data (Isaac & Jimoh, 2025). This is regarded as investment management.

Investment management could be viewed as the process in which managers of organization evaluate the possible opportunities to invest available resources of the organization for optimal growth (Lolo *et al*., 2026). It includes portfolio analysis or assets allocation, prediction of future outcomes, analysis of available historical data for decision making as well as assessing the prevailing risk of opportunities (Salemcity *et al*., 2023). Investment could also be regarded as assets acquisition, assets management and investment in other opportunities which is associated with purchase of other businesses and buying of other companies' shares (Sattar, 2025). Investment management is a core activity of financial manager who decides when and how to replace existing assets. It is the responsibility of the financial manager to decide when to acquire additional assets to boost the revenue stream of the organization (Xu & Xu, 2023). This is possible through effective analysis of historical data about investment status of the organization or diversification status. Analysis of investment status of organizations is made possible through AI tools.

Thus, AI tools adoption and investment management of quoted companies have link which could be established empirically in the extant literature. Several studies in this area of interest both locally and internationally do not dwell deeply on the influence of the various AI tools on investment management. Hence the need for this study to bridge the gap in the extant literature about AI tools adoption and investment management of quoted companies in Nigeria.

1.2 Statement of the Problem

AI tools adoption and investment management of companies is a topical area of research in the modern time. In modern time, it is pertinent to say that the volumes of data derived from different sources require appropriate techniques of analysis and prediction other than the manual approach (Sattar, 2025). The tools adopted in analysing these data by managers of companies are not reported and emphasized even though the outputs derived depict various tools used. This limits the knowledge of AI tools among stakeholders such as government, managers, investors and researchers. In the presentation of annual reports and financial statements of quoted companies, the adoption of several AI applications for presenting financial information are revealed from the contents of the prepared annual reports and financial statements of companies. A critical question to ask is that whether AI applications are fully adopted in the preparation of annual reports and financial statements of companies? The answer to this question can not be clearly stated but the most important thing is that AI applications in finance and accounting could be used to prepare and present financial information proficiently with high rate of accuracy. If AI applications/software are used by managers in the preparation of annual reports and financial statements of companies, can the contents of annual reports grouped as AI tools in this study predict investment management of the companies?

AI tools are used in asset allocation, analysis of market information, prediction of investment, analysis of risk, appraisal of asset acquisition or investment and so on. It seems that the level of adoption of these AI tools and the impact is not really emphasized despite the significant benefits derived by scholars and managers. This is why in some organizations, manual system of investment management and analysis is still adopted despite the availability of various AI software/applications. Also, for the fact that the benefits of utilizing AI tools are not really emphasized, the cost advantage achieved by managers is not stated on annual reports and financial statements of quoted companies.

In this study, the focus is to establish the empirical influence of AI tools, which are represented by financial information presented on annual reports and financial statements, on investment management of quoted companies in Nigeria to show the extent to which AI tools could assist managers in companies to achieve accurate and elaborate financial information. Studies in this area of

interest conducted both locally and internationally are limited especially in quoted companies and with the use of essential variables of AI as used in this study (Bhoomika & Charithra, 2024; Akinboyo, 2025). Several studies conducted in this area of interest do not focus more on the measurement of the variables AI tools and the influence of AI tools, such as portfolio optimization, predictive analytics, data analysis, big data processing and risk analysis, on investment management of quoted companies in Nigeria (Fong *et al*., 2025; Isaac & Jimoh, 2025; Sattar, 2025). Thus, this study investigated the influence of the variables of AI tools adoption on investment management of quoted companies in Nigeria from 2013 to 2025.

1.3 Objectives of the Study

The main objective of the study was to ascertain the influence of AI tools adoption on investment management of quoted companies in Nigeria. The specific objectives were to:

i. Examine the influence of portfolio optimization on investment management of quoted companies in Nigeria.
ii. Assess the influence of predictive analytics on investment management of quoted companies in Nigeria.
iii. Ascertain the influence of data analysis on investment management of quoted companies in Nigeria.
iv. Evaluate the influence of big data processing on investment management of quoted companies in Nigeria.
v. Examine the influence of risk analysis on investment management of quoted companies in Nigeria.
vi. Assess the combined influence of portfolio optimization, predictive analytics, data analysis, big data processing and risk analysis on investment management of quoted companies in Nigeria.

2. Literature Review

2.1 Conceptual Review

2.1.1 Artificial Intelligence (AI)

Artificial Intelligence (AI) is understood to be a particular technology which acts like human in reason and processing of information (Isaac & Jimoh, 2025). It could also be described as a way of allowing a computer to think and provide answers or solution to problems which could either be quantitative and qualitative in nature (Xu & Xu, 2023). Because of the level of benefits achieved so far or brought by AI, several parameters or tools are evolving over the years. As reported by the extant literature in accounting and finance, the adoption of AI tools is improving over the years and technological development of the world is also advancing the concept of AI especially in quantitative analysis and prediction of information (Bhoomika & Charithra, 2024). There are several AI software/applications which could be used in presenting financial information for easy assimilation by stakeholders or users.

The AI applications include ChatGPT, Claude, Microsoft Copilot, Perplexity, NotebookLM, Gemini, Big Query ML, Google Sheet + AI, among others. The outputs of these applications could serve as the tools to be used in predicting other variables to evaluate the importance of AI adoption. The adoption of AI tools is seen as fundamental idea which cut across different fields of study. This is because the adoption of AI has helped in processing of information with given data faster and easier than the antecedent manual approaches that have been used before the advent of AI (Akinboyo, 2025; Isaac & Jimoh, 2025). In management sciences, it is observed that AI is of great importance to the growth of organization or financial success. This is because of the essential tools that are made available by AI for mathematical manipulations of data or algorithms provided by AI for effective analysis or prediction of information (Han *et al*., 2023; Lolo *et al*., 2026).

The various tools of AI as provided by the level of technological advancement are capable of influencing investment management of companies for the fact that the level of performance anticipated by organizations could be attributed to the level of decision made in the past years of operation (Falcioni, 2024). Effective decision could be made from both qualitative and quantitative data where the quantitative data requires effective analysis and prediction. This is where AI tools are relevant because adequate and reasonable quantitative data are usually provided historically from the previous years of operation and the forecast of the future requires meaningful data analysis for essential prediction and this could be achieved faster and more accurate with the adoption of AI tools (Lolo *et al*., 2026).

The analysis of quantitative data of companies is anchored on the level of investment because the managers of organizations always wish to know the worth of an opportunity before committing the available funds of the entities. Also, the managers of companies always wish to understand the appropriate ways of diversification through appropriate allocation of available resources to investment opportunities. Management of risks is a core aspect of managerial activities in the operation of companies and AI tools could help in assessing and managing of risk in an organization (Xu & Xu, 2023). This is how importance AI tools could help to bring about growth in organization through essential investment management (Isaac & Jimoh, 2025).

2.1.2 AI Tools

Fundamentally, artificial intelligence (AI) is a technology that is evolving continuously over the years and different tools are invented which could help in facilitating efficient results in organizations today (Sattar, 2025). The AI tools considered in this study are mainly those that could facilitate efficient investment management which is associated with viability analysis, asset evaluation, capital budgeting appraisal and so on. In the annual reports of quoted companies, it is very clear that AI applications could be adopted to facilitate efficient and effective preparation of various analysis and financial statements because of the volumes of data that require faster analysis and prediction. It is the outputs or contents of financial reports that could be used to represent AI tools since the parameters could form part of the disclosures.

Thus, it is however imperative to say that the level of adoption of AI tools in the operation of companies is highly recommended because of the importance of the AI applications made available especially in the area of finance and accounting which therefore means that the influence of the tools on investment management could be investigated empirically (Sattar, 2025). The essential tools of AI include portfolio optimization, predictive analytics, data analysis, big data processing and risk analysis. All these AI tools are essential in investment proposal analysis or investment management because they could be used to facilitate efficient computation of proposed investment for the purpose of ascertaining the level of viability of such investment for reasonable recommendation (Salemcity *et al*., 2023). Also, these financial parameters are usually reported by some companies and with the advent of AI applications, it is expected that more information on the parameters should be adequately presented by management on the annual reports to attract the interest of potential investors. The following tools are discussed accordingly:

i. **Portfolio Optimization:** AI is a technology that helps in efficient portfolio analysis through efficient assets allocation and minimization of risk (Fong *et al*., 2025). The essence of portfolio optimization is to ensure that greater proportion of available resources of organization is not channelled to one investment but to several investments which are capable of yielding larger returns to the organization as well as minimization of the possibility of negative occurrence (Han *et al*., 2023). The use of AI can help to provide advance algorithms or AI application which could help in assets allocation to enable efficient diversification or optimal combination for efficient portfolio.

As compared with the antecedent idea of assets allocation which was mainly manual, AI portfolio optimization is capable of providing optimal portfolio for organization to enhance decision (Bhoomika & Charithra, 2024). This is seen as an important process of investment management as diversification of resources is associated with investment. The essential idea behind portfolio optimization is anchored on personalized investment strategies, dynamic assets allocation and automated portfolio rebalancing (Lolo *et al*., 2026). Portfolio optimization is associated with the ideology of investment in other subsidiaries, other companies through acquisition of shares or stock. It is associated with operating segment where a company is expected to show its operating segment and reveal internally the product or segment that provide more profits or the segment whose financial performance is high (Al-Slehat, 2020). Portfolio optimization is linked to minimization of risk through efficient assets allocation and shareholders structure which depict the range or category of shareholding (Ariyani *et al*., 2018). These are all regarded as functions of AI in portfolio optimization. The various items of portfolio optimization are expected to be presented on annual reports and financial statements of quoted companies especially in this era of AI applications where financial reports can be generated with ease and with high level of accuracy (Bhoomika & Charithra, 2024). Because of the importance of AI algorithms for portfolio analysis, the influence of portfolio optimization on investment management is an essential aspect of research to be investigated upon. This necessitated the conduct of this study.

ii. Predictive Analytics: Predictive analytics is associated with the ideology of forecasting market conditions to ascertain investment opportunities at any time (Isaac & Jimoh, 2025). This approach or tool of AI is important because market conditions do not remain static but move continuously over time depending on certain changes in economic parameters like inflation rate, interest rate, exchange rate and so on (Akinboyo, 2025). With predictive analytics, investment opportunities are identified through essential models and algorithms developed which are capable of predicting the future market condition based on available historical data. The prediction is suitably achieved through the identification of historical trend which allows managers to ascertain and anticipate changes also in future.

For instance, if an investment yields larger return in the last three years and continues to grow, managers might anticipate the same trend in the next three years in future and this is achieved with the help of AI model and algorithms (Sattar, 2025). Prediction is required in effective investment management. This is because managers of companies cannot invest their available resources into acquisition of assets without effective assessment of the worth of such investment. Prediction of accounting data is expected on revenue, assets, market conditions, which include stock price, market capitalization and earnings per share (Edet & Umoh, 2024). Prediction is also required on the risk and level of growth attained by a quoted company (Fong *et al*., 2025). This essential information is rare in annual reports of quoted companies in Nigeria especially in the era before the advent of AI applications. On this note, it could be said that the managers of quoted companies in Nigeria usually adopt predictive analytics in evaluating the worth of any investment as well as forecasting the future market conditions. Thus, the influence of predictive analytics on investment management of quoted companies in Nigeria was investigated.

iii. Data Analysis: AI technology offers algorithms for analysing data to arrive at meaningful results (Xu & Xu, 2023). It helps an organization to analyse market data in real time and provide relevant information to managers of organization on where and when to invest their available resources (Sattar, 2025). In AI data analysis algorithms, trend of data can be derived to enable managers to make informed decisions. For instance, AI tool on data analysis is capable of estimating regression equation faster and accurate than the manual computation when provided with relevant data with respective

variables. Other statistical parameters can be estimated accurately from given set of data which include mean, standard deviation, mode, mean deviation and so on especially in a volume of data (Fong *et al*., 2025). On annual reports of quoted companies, financial performance, financial position, cashflow position, stock market data and key financial ratios are expected to be presented via data analysis (Han *et al*., 2023). But because of the volume of data available to be analysed in antecedent time which was mainly manual approach, key financial information to be presented on annual reports is usually avoided because of the time and the resource constraint. With the various AI financial applications, all this information could be derived and presented on annual reports of companies by managers with ease (Isaac & Jimoh, 2025). Thus, AI data analytical tool is an important tool that could influence investment management significantly if properly used in an organization. On this note, the empirical influence of AI data analytical tool on investment management of quoted companies in Nigeria is an important area of research to investigate upon.

iv. Big Data Processing: AI analytical tool is capable of analysing larger volume of data from various sources such as annual reports, newspapers, social media and articles (Bhoomika & Charithra, 2024). This is why it is called big data processing because other tools of analysing data have limitations and one of the limitations is that they cannot handle larger volume of data from different sources. AI big data processing is associated with the process of extracting relevant information through the evaluation of larger volumes of data from various sources as stated earlier (Isaac & Jimoh, 2025). Big data processing has replaced the human idea in analysis of data because of the efficient nature of the technology. This AI tool is associated with accuracy and efficiency (Salemcity *et al*., 2023).

The ability to process larger volume of data at a time therefore means that the speed of operation is more as compared with the human capacity. The systematic and accurate big data analysis through the use of AI tool could help the managers of companies to make faster and accurate decision at a time because of the information provided (Fong *et al*., 2025). With the availability of AI applications, huge data such as data on environmental, social and governance (ESG)/sustainability reporting, key performance indicators and strategies of companies, risk management approach, corporate governance and the technology adopted can be clearly analsyed and presented by managers of companies (Lolo *et al*., 2026). The various discussions, analyses and decisions of managers in meetings held annually could be analysed and presented as well. In other words, the advent of AI brought about big data processing technique which takes into consideration both the qualitative and the quantitative data (Ogala, 2025). With the benefits, it could be said that the volumes of analysis often presented on annual reports and financial statements are through the help of big data processing especially in the contemporary period. On this note, the influence of big data processing on investment management of quoted companies in Nigeria could be investigated empirically.

v. Risk Analysis: AI is a technology that can help in risk detection, prevention and control at any time (Davies & Macfubara, 2018). This is possible through the help of AI algorithms which is capable of analysing several risk components or factors. This simply means that AI tool for risk analysis is capable of assessing market risk, credit risk, operational risk and liquidity risk which are fundamental components of risk or organization (Xu & Xu, 2023). Inputs are required for effective risk analysis to be achieved in all the four basic components of risk. It takes in raw data from the market as input and provides output of risk analysis based on the market information available at a time (Akinboyo, 2025). It is often used to assess the level of risk attached to an investment for a manager to decide on the possibility of investing surplus funds. It is faster and accurate in the computation of standard deviation as well as coefficient of variation which are fundamentally considered as statistical measures of risk attached to investment opportunities (Falcioni, 2024).

The fundamental risk factors that are expected to be disclosed on annual reports are liquidity, credit, operational, capital management, inflation and exchange rate risk (Salemcity *et al*., 2023). These attributes of risk give rise to the approach of management which are also expected to be disclosed which include risk transfer, risk assessment/measurement, risk acceptance, risk avoidance and risk reduction (Sattar, 2025). The AI tool for risk analysis is capable of revealing risks that might negatively affect investment portfolio which in turn will help managers to make some certain adjustments in acquisition of assets or investing in other businesses for the purpose of mitigating negative outcomes (Al-Slehat, 2020). In this case, it could be observed that risk analysis as an AI tool is capable of influencing investment management through the role of revealing the risk from market information that might negatively affect the expected outcomes of investment opportunities. For this reason, it is pertinent to say that the investigation of risk analysis on investment management of quoted companies in Nigeria is an essential connection to be tested.

2.1.3 Leverage

Leverage is another variable that could influence investment management in quoted companies. This is because after effective appraisal of investment, funds are required for viable investment evaluated and it is known that the sources of financing assets or investments in quoted companies in long-term are mainly debts and equity (Al-Slehat, 2020; Boonyanet & Promsen, 2024). Leverage is described as the use of borrowed funds to finance assets or viable investments at any given time (Altahtamouni, 2018). The types of leverage considered in this study is called financial leverage and not operating leverage because the focus is on how debt capital in the capital structure could be used to finance viable investments (Anuar *et al*., 2021). The accumulation of long-term debt capital in a quoted company's capital structure is caused by the continuous use of debt capital (Ariyani *et al*., 2018). When an opportunity is identified, funds could be generated by financial managers through debt especially when it is considered cheaper at the moment and easy to access (Boonyanet & Promsen, 2024). Leverage is usually measured by debt to asset ratio, debt to equity ratio and sometimes long-term debt ratio (Buzinskiene & Rudyte, 2021). This is the clear case of financial leverage

2.1.4 Investment Management

Investment management is a fundamental activity of a finance manager in an organization. This simply means that for expansion of organization to be made possible, opportunities must be identified by the financial manager (Ajape *et al*., 2018). These opportunities are regarded as potential investment in which adequate appraisal is required to be made (Abazu & Onuora, 2023). Investment management is associated with effective assets allocation, diversification of available resources as well as investment risk analysis (Abughniem *et al*., 2020). It could also be described as the process of planning and controlling of the level of assets acquired and accumulated by a quoted company at a given period of time. When talking about investment management and in the context of quoted companies, it is often viewed as assets acquisition, assets management and other investments (Altahtamouni, 2018).

Investment management associated with assets acquisition is concerned with the process of purchasing more non-current assets for business purpose (Anuar *et al*., 2021). It is associated with the accumulation of more assets for the purpose of meeting up with the expectations of organizations in terms of realising more revenue. Before more assets are acquired, there must have been adequate appraisal which requires the accumulation of more assets. The appraisal caried out before the acquisition of assets is regarded as investment management because the aim is to ensure that funds are not tied down in assets but to acquire essential assets capable of generating more revenue to the organisation (Charlie & Edet, 2023). Non-current assets are acquired only when the need arise and appraisal usually carried out is to ascertain of there is any need to acquire more assets or not.

Asset management is associated with the planning and controlling of non-current assets accumulated by a quoted company on the statement of financial position. It has to do with the process of ascertaining the viability of the accumulated assets in generating revenue (Ariyani *et al*., 2018). This is because the aim of acquiring any asset is to boost the revenue stream of an organization and in effective management of the accumulated assets, it is expected that managers of organizations should check if the objective is met or not. This process is capable of revealing the idle assets in which in some cases those assets are disposed. In other words, asset management could be seen as a process of evaluating the contribution of accumulated assets to revenue stream of organization as well as ascertain the idle assets (Buzinskiene & Rudyte, 2021). It is associated with depreciation of the accumulated assets since they are continuously used in business operation (Ogala, 2025).

It is also associated with assessing the value or the condition of the assets over the years through appropriate method of depreciation (Charlie & Edet, 2023). By depreciating the accumulated assets, it could provide information to the financial manager about the time to acquire more assets for replacement. This is how important asset management is in investment management. Other investments are associated with purchase of shares in other companies and other diversification of resources which is not connected to acquisition of assets of organization or asset management (Chehade & Prochazka, 2022). Other investments could also be said to be purchase of other businesses which could provide more revenue and profit to the existing organization. In investing in other businesses, adequate appraisal is required in terms of available resources as well as the worth of the potential investment(s). The process is regarded as investment management (Davies & Macfubara, 2018).

Investment management could be represented by total assets accumulated by a company, the ratio of non-current assets to total assets, the techniques of portfolio management, investment in other businesses and purchase of shares (Der *et al*., 2016). This simply means that investment management could be measured differently in accounting and finance. In the annual reports and financial statements of quoted companies, the variables stated above are often reported year by year which therefore means that investments are usually managed by quoted companies but the approaches of management differ. This was the essence of this study to ascertain the level of influence exerted by different AI tools on investment management.

2.2 Theoretical Review

An important theory that is related to this study is diffusion of innovations theory. This was because the theory has to do with technological advancement and its impact.

2.2.1 Diffusion of Innovations (DOI) Theory

The theory was developed and made popular by Everett Rogers in his book titled diffusion of innovation which was first published in 1962 (Rogers, 1962). According to Rogers (1962), diffusion and innovation are two key terms that drive technological development. He described diffusion as the act of disseminating information about innovation through mediums in a given time to get to individuals in a social system. The idea of diffusion of innovations has assisted greatly in the era of computer system in which the use of technology to drive transformation is very crucial. Diffusion of innovations is associated with the process of communicating new ideas to participants or individuals in societies which cut across managers of organization. The fact that the theory is associated with effective dissemination of information about new ideas to individuals in the societies makes it important to have a significant link with the social system.

According to Rogers (1962), the essential attributes in which new ideas could be disseminated include innovation, adopter, communication, time and social system. This simply means that an innovation must be adopted by individuals and the idea must be spread among participants. Innovation

must be effectively communicated through channels, it must be based on time and it must be innovated enough to suit to the concept of new idea. The entire process of diffusion of innovations theory solely depends on social capital. The adopters are regarded as innovators, early adopters, early majority, late majority and laggards. Diffusion of innovations theory helps in explaining technological parameters which include AI tools.

This theory is related to the present study because it is associated with technology and AI adoption, being an independent variable in this study, is a technological factor. Thus, AI tool adoption and investment management of quoted companies in Nigeria is linked to this theory because the theory explains the spread of new ideas which the author described as diffusion. AI tools for investment management, regarded as portfolio optimization, predictive analytics, data analysis, big data processing and risk analysis, are new techniques for management of investments in quoted companies today and this idea is spreading day-by-day. The influence of AI tool adoption on investment management of quoted companies in Nigeria could be described as the level of diffusion of AI tools to adopters and innovators (Abazu & Onuora, 2023; Bhoomika and Charithra, 2024). Thus, the theory was adopted in this study.

2.3 Empirical Review

Relevant empirical studies in this area of interest conducted locally and internationally were reviewed for the purpose of ascertaining gap for the conduct of this study. These included the following:

Bhoomika and Charithra (2024) examined the long-term impact of artificial intelligence (AI) on financial metrics of the companies. The study was conducted to empirically examine the long-term influence of AI adoption on corporate financial performance of Tata Steel and ABB. The indicators of corporate financial performance examined were operational efficiency, productivity and decision-making. Regression analysis was done with the data obtained for the study and the results revealed that there was about 15% increase in the revenue, 20% growth in profitability and 25% increase in net income of Tata steel. However, there was 12% increase in revenue, 18% increase in profitability and 22% rise in net income in ABB. It was also noticed that the market shares of Tata steel and ABB improved by 5% and 4% respectively. Thus, it was concluded that AI adoption exerted positive and significant increase in both financial and operational performance of the firms studied.

Adeniran & Balarabe (2025) who investigated the role of artificial intelligence in investment management in Nigeria used technological infrastructure to represent the variable of AI which include ICT adoption and high technology intensity. The study period ranged from 2015 to 2024 and relevant data were collected from World Bank and Central Bank of Nigeria bulletins. The outcomes of the analysis revealed that ICT infrastructure, technological advancement and research and development investment strongly influenced the adoption of AI which therefore implied that investment in technological infrastructures enhance the adoption of AI in the operation of the company.

Akinboyo (2025) investigated the impact of artificial intelligence on firm performance in Nigeria: Evidence from commercial banks in Nigeria. The quantitative approach was employed in the study to evaluate the influence of artificial intelligence (AI) implementation, frequency of adoption, type of technology, integration strategy on the indicators of firm performance, which were operational efficiency and customer service. Data for the study was obtained using a structured questionnaire which were issued and retrieved from two hundred (200) stake holders of four major banks in Ibadan, Nigeria. From the result of the analysis conducted, it was discovered that a better adoption of AI caused improvements in operational efficiency. Also, there was a substantial improvement in the quality of customer service offered.

Fong *et al*. (2025) investigated how the adoption of artificial intelligence improves financial performance for business-to-business (B2B) companies. The study aimed at assessing the influence effect of artificial intelligence (AI) on the financial performance of Business-to-Business companies. A systematic literature review method was adopted and from the literature reviewed, it was gathered that the adoption of artificial intelligence leads to enhanced profitability, improved operational efficiency and better decision-making capabilities. It was also discovered by the researchers that the impact of AI on financial performance in B2B contexts has generally been positive, but these gains are influenced by factors such as technological readiness and strategic alignment. Thus, it was concluded that the adoption of Artificial Intelligence (AI) enhances positive and significant improvement on the profitability of entities as we as the general performance of companies.

Isaac & Jimoh (2025) investigated the effect of artificial intelligence on the financial performance of deposit money banks in Nigeria. The study was conducted to examine the influence of artificial intelligence (AI) on the financial performance of deposit money banks in Nigeria. Financial performance was the dependent variable used in the study and it was proxied by Earnings per Share (EPS) while Artificial Intelligence (AI) was the independent variable and the indicators of AI used in the study were Software Book Value (SBV), AI-Related Keyword Disclosures (AKD) and Software Expenses Disclosed (SED). The study covered the period from 2014 to 2023 and the study adopted quantitative approach and this allowed for the collection of numerical data from the financial statements of the deposit money banks studied. Analysis of the data obtained was done using descriptive statistics and fixed effect regression tools. The analysis revealed that AKD and SED showed an insignificant influence on EPS while SBV exerted a positive and significant influence on EPS of the firms studied. It was concluded that AI integration exerted significant influence on the financial performance of Nigerian deposit money banks studied. The researchers recommended that banks should increase tangible AI investments, embed AI into core operational areas as well as aligning disclosures with substantive implementation as this would enhance the financial performance of the firms.

Ogala (2025) who evaluated artificial intelligence (AI) and business enhancement in Nigeria with emphasis on banking sector used operational efficiency and decision making as essential factors for AI adoption. Three hundred and fifty-four (354) employees were studied from selected commercial banks in Nigeria in Imo and Abia state. The results of the study encouraged managers of banks, policy makers and stakeholders to make the adoption of AI a priority.

Sattar (2025) conducted a study to assess the effect of artificial intelligence on financial performance of companies in UAE. The aim of the study was to examine the impact of artificial intelligence adoption on financial performance of companies operating in United Arab Emirates. The study covered the period from 2020 to 2023 and seventy-five (75) companies operating in United Arab Emirates were selected for the study. The dependent variable of financial performance was proxied by return on assets (ROA), return on equity (ROE), profit margins (PF) and revenue growth rates (RGR) while the independent variable of artificial intelligence (AI) was measured by technology investment ratios (TIR), automation levels (AL) and digital transformation (DT). Appropriate data in line with the variables of the study was obtained from the published annual reports and financial statements of the entities studied and the data was analysed using regression analytical tool. From the analysis, it was observed that there was a positive and significant influence of AI adoption on financial outcomes. However, it was concluded that the adoption of AI exerted significant improvement on the overall performance of the firms studied.

2.3.1 Gap in the Literature

The empirical studies reviewed conducted both locally and internationally reveal important gap in the extant literature. Studies on artificial intelligence (AI) tools adoption and investment management are limited especially in quoted companies. The studies that adopted secondary data in this area of interest were few in number. The influence of artificial intelligence (AI) on financial performance was focused mostly by researchers in this topical area and financial performance was represented by profitability ratios and operating efficiency. Studies on AI and investment management of quoted companies are limited. Aside from improvement or growth in profits, there are other accounting factors that could help a company to achieve overall growth in operation capable of affecting interest and wealth of the stakeholders and shareholders positively as well as maximizing profits. Investment management is one of the factors that could assist in achieving this essential improvement and this was why the attribute was selected for this study other than financial performance used by other researchers. In this study, the content analysis technique, which is an aspect of secondary data approach, was utilized in ascertaining the influence of AI tools adoption on investment management of quoted companies in Nigeria. This clearly stated the level of disparities in this study as compared with already conducted studies in this area of interest. Thus, this study would contribute to knowledge and the stock of extant literature in the field of accounting and finance.

3. Methodology

The nature of the study called for the adoption *ex-post facto* research design because of the data collection approach. The design was meant to direct on the kind of data to extract in line with the relevant variables of AI adoption tools as well as investment management. The quoted companies in Nigeria considered in this study were those whose shares are listed on the floor of Nigerian exchange group (NGX) for both industrial and consumer goods as at 31st August, 2026. The population of this study was thirty-one (31) quoted companies drawn from twenty-one (21) quoted consumer and ten (10) quoted industrial goods companies in Nigeria as reported in Appendix One (i). The sample size of this study drawn purposively was twenty-three (23) from the two sub-sectors of manufacturing companies in Nigeria. Panel data was employed in this study through the content analysis approach from the period of 2013 to 2025.

The dependent variable was investment management (IM) while AI tools adoption was an independent variable unbundled into portfolio optimization (PO), predictive analytics (PA), data analysis (DA), big data processing (BDP) and risk analysis (RA) where a control variable of leverage (LV) used. The relevant variables were presented on Table 3.1:

Table 3.1: Variable Description

S/N	Variable	Abbreviation	Measurement	*Apriori* Expectation
1.	Investment Management	IM	Content analysis	
2.	Portfolio Optimization	PO	Content analysis	Positive
3.	Predictive Analytics	PA	Content analysis	Positive
4.	Data Analysis	DA	Content analysis	Positive
5.	Big Data Processing	BDP	Content analysis	Positive
6.	Risk Analysis	RA	Content analysis	Positive
7.	Leverage	LV	Total debts divided by total assets	Positive

Source: Researchers' Compilation (2026)

The functional presentation of the models in line with the objectives were stated:

$IM=f(PO, LV)$ (3.1a)
$IM=f(PA, LV)$ (3.1b)
$IM=f(DA, LV)$ (3.1c)
$IM=f(BDP, LV)$ (3.1d)
$IM=f(RA, LV)$ (3.1e)

Where IM=dependent variable, PO, PA, DA, BDP and RA=independent variables and LV=control variable. The mathematical representation of the above functions based on the objectives was stated:

$IM_{ij}=\beta_o+\beta_1 PO_{ij}+e_{ij}$ (3.2a)
$IM_{ij}=\beta_o+\beta_1 PA_{ij}+e_{ij}$ (3.2b)
$IM_{ij}=\beta_o+\beta_1 DA_{ij}+e_{ij}$ (3.2c)
$IM_{ij}=\beta_o+\beta_1 BDP_{ij}+e_{ij}$ (3.2d)
$IM_{ij}=\beta_o+\beta_1 RA_{ij}+e_{ij}$ (3.2e)
$IM_{ij}=\beta_o+\beta_1 PO_{ij}+\beta_2 PA_{ij}+\beta_3 DA_{ij}+\beta_4 BDP_{ij}+\beta_5 RA_{ij}+e_{ij}$ (3.2f)

The adapted panel linear regression models with the inclusion of a control variable of leverage were presented below:

$IM_{ij}=\beta_o+\beta_1 PO_{ij}+\beta_2 LV_{ij}+e_{ij}$ (3.3a)
$IM_{ij}=\beta_o+\beta_1 PA_{ij}+\beta_2 LV_{ij}+e_{ij}$ (3.3b)
$IM_{ij}=\beta_o+\beta_1 DA_{ij}+\beta_2 LV_{ij}+e_{ij}$ (3.3c)
$IM_{ij}=\beta_o+\beta_1 BDP_{ij}+\beta_2 LV_{ij}+e_{ij}$ (3.3d)
$IM_{ij}=\beta_o+\beta_1 RA_{ij}+\beta_2 LV_{ij}+e_{ij}$ (3.3e)
$IM_{ij}=\beta_o+\beta_1 PO_{ij}+\beta_2 PA_{ij}+\beta_3 DA_{ij}+\beta_4 BDP_{ij}+\beta_5 RA_{ij}+\beta_6 LV_{ij}+e_{ij}$ (3.3f)

Where e_{ij}=random error terms.

The data of this study was analysed using descriptive statistics and inferential statistics. The inferential statistics was the panel linear regression that was used. Regression analysis was done in accordance with acceptable error level of 5%.

4. Analysis and Discussion

Analysis of the essential variables were performed in this section using relevant statistical tools. The approach adopted in the data collection was content analysis where items of annual reports of companies were examined critically with the scoring ratio of 1 and 0 for available and not available respectively. The findings of the study were discussed as well based on the results obtained. The dependent variable was investment management while the independent variable was AI tools adoption represented by essential factors disclosed on annual reports and financial statements of companies.

4.1 Data Analysis

4.1.1 Descriptive Statistical Analysis

Table 4.1: Descriptive Statistics

	IM	PO	PA	DA	BDP	RA	LV
Mean	0.606020	0.713712	0.344482	0.822742	0.989967	0.508361	0.571840
Median	0.600000	0.800000	0.400000	0.800000	1.000000	0.600000	0.554931
Maximum	1.000000	1.000000	0.800000	1.000000	1.000000	0.600000	1.504326
Minimum	0.400000	0.400000	0.200000	0.600000	0.600000	0.400000	0.000000
Std. Dev.	0.154889	0.148976	0.103600	0.073397	0.054647	0.099817	0.217580
Skewness	0.425899	-0.040505	-0.097113	1.351300	-5.868598	-0.167812	0.649679
Kurtosis	2.835571	2.683717	3.357627	5.902850	38.36976	1.028161	4.309723
Jarque-Bera	9.376121	1.328025	2.063361	195.9768	17301.91	49.84321	42.40453

Probability	0.009205	0.514782	0.356407	0.000000	0.000000	0.000000	0.000000
Sum	181.2000	213.4000	103.0000	246.0000	296.0000	152.0000	170.9803
Sum Sq. Dev.	7.149164	6.613779	3.198395	1.605351	0.889900	2.969097	14.10769
Observations	299	299	299	299	299	299	299

Source: Researchers' Computation (2026)

The descriptive statistics computed for both the variables of investment management (IM) and AI tools adoption represented by portfolio optimization (PO), predictive analytics (PA), data analysis (DA), big data processing (BDP) and risk analysis (RA). The control variable of leverage (LV) was analysed descriptively. The result presented on Table 4.1 showed that the average of all the variables was below 30% with standard deviation less than the average. With the skewness and kurtosis, all the variables were approximately normal with the exception of BDP with high value of kurtosis. In other words, the data for the variables exhibit some degree of normality. The observations of two hundred and ninety-nine (299) were ascertained by multiplying the 23 companies studied with the number of years which is 13 (2013-2025). The graphical illustration of each of the variables was presented in Appendix Four (iv).

4.2 Evaluation of the Models and Test of Hypotheses

Model One (i): The influence of portfolio optimization (PO) on investment management (IM)

$IM_{ij}=\beta_o+\beta_1 PO_{ij}+\beta_2 LV_{ij}+e_{ij}$

Table 4.2: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 01:53				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.391092	0.053843	7.263539	0.0000
PO	0.196800	0.060119	3.273519	0.0012
LV	0.130228	0.041163	3.163696	0.0017
R-squared	0.054636	Mean dependent var		0.606020
Adjusted R-squared	0.048249	S.D. dependent var		0.154889
S.E. of regression	0.151106	Akaike info criterion		-0.931690
Sum squared resid	6.758561	Schwarz criterion		-0.894561
Log likelihood	142.2876	Hannan-Quinn criter.		-0.916829
F-statistic	8.553479	Durbin-Watson stat		0.513963
Prob(F-statistic)	0.000245			

Source: Researchers' Computation (2026)

The linear regression analysis was conducted between PO and IM where LV was the control variable. The outcomes indicated that both PO and LV complied with the *apriori* expectation and PO and LV exerted positive and consequential influence on IM of the companies studied. It was observed that the model was significant as shown by probability of F-statistic. On this note, the alternative hypothesis (portfolio optimization significantly influence investment management of quoted companies in Nigeria) was confirmed to be valid. One of the ways of mitigating investment risk is by portfolio management. When the accumulated wealth of a company is effectively managed by acquiring other companies, investment in other companies, creating different branches and different products, adequate allocation of accumulated assets and achieving optimal shareholders structure, the company is said to have achieve optimal portfolio. When optimal portfolio is achieved in a company, techniques of managing investment is certain to be improved as the investment risk of the company is mitigated through the portfolio management. It is on this note that it could be deduced that the connection between portfolio optimization and investment management of quoted companies in Nigeria had positive and significant influence. The adoption of AI applications in analyzing the portfolio of a quoted company on annual reports will help to provide more accounting information in elaborate manner that can attract the interest of the potential investors. This study negated the study of Sattar (2025) who conducted a study to assess the effect of artificial intelligence on financial performance of companies in UAE.

Model Two (ii): The influence of predictive analytics (PA) on investment management (IM)

$IM_{ij}=\beta_o+\beta_1 PA_{ij}+\beta_2 LV_{ij}+e_{ij}$

Table 4.3: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 01:58				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.618766	0.033947	18.22734	0.0000
PA	-0.269999	0.088805	-3.040359	0.0026
LV	0.140360	0.042284	3.319456	0.0010
R-squared	0.050077	Mean dependent var		0.606020
Adjusted R-squared	0.043658	S.D. dependent var		0.154889
S.E. of regression	0.151470	Akaike info criterion		-0.926878
Sum squared resid	6.791157	Schwarz criterion		-0.889750
Log likelihood	141.5683	Hannan-Quinn criter.		-0.912018
F-statistic	7.802068	Durbin-Watson stat		0.538459
Prob(F-statistic)	0.000499			

Source: Researchers' Computation (2026)

The linear regression analysis was conducted between PA and IM where LV was the control variable. The outcomes indicated that LV complied with the *apriori* expectation while PA deviated from the expectation and PA exerted negative and consequential influence on IM while LV indicated positive and meaningful effect on IM of the companies studied. It was observed that the model was significant as shown by probability of F-statistic. On this note, the alternative hypothesis (predictive analytics significantly influence investment management of quoted companies in Nigeria) was confirmed to be valid. Financial data requires prediction but it is so unfortunate that in many annual reports of companies, prediction of revenue, profit, assets and other vital accounting variables are not presented. The idea of not presenting this kind of information before now could be understood from the standpoint of the fact that there was not technological device or application to assist in the mathematical computation and presentation of this information. Inadequate financial content of predictive accounting data can affect investment management negatively and this is a case in this study where predictive analytics, which represent AI tool exerted negative and material influence on investment management of the companies studied. This study was not in consistent with the previous studies such as Akinboyo (2025) and Isaac & Jimoh (2025) because of the variables used in representing AI as well as the nature of the companies studied.

Model Three (iii): The influence of data analysis (DA) on investment management (IM)

$IM_{ij}=\beta_o+\beta_1 DA_{ij}+\beta_2 LV_{ij}+e_{ij}$

Table 4.4: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 02:05				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.037463	0.099603	0.376122	0.7071
DA	0.613414	0.116195	5.279190	0.0000
LV	0.111701	0.039196	2.849795	0.0047
R-squared	0.104708	Mean dependent var		0.606020
Adjusted R-squared	0.098659	S.D. dependent var		0.154889
S.E. of regression	0.147050	Akaike info criterion		-0.986109
Sum squared resid	6.400591	Schwarz criterion		-0.948981
Log likelihood	150.4233	Hannan-Quinn criter.		-0.971249
F-statistic	17.30916	Durbin-Watson stat		0.547148
Prob(F-statistic)	0.000000			

Source: Researchers' Computation (2026)

The linear regression analysis was conducted between DA and IM where LV was the control variable. The outcomes indicated that both DA and LV complied with the *apriori* expectation and DA and LV exerted positive and substantial influence on IM of the companies studied. It was observed that the model was significant as shown by probability of F-statistic. On this note, the alternative hypothesis (data analysis significantly influence investment management of quoted companies in Nigeria) was confirmed to be valid. Different kinds of data are usually presented on annual reports and financial statements of quoted companies based on classification of financial statements as well as classification of accounting ratios. The data mostly presented include data on financial performance, data on statement of financial position, data on cash flows, data on market status of the company and essential ratios. It appears that ratios are not usually presented while other data are usually analysed and presented. In this advent of AI application, presentation of accounting ratios can be enhanced as more information could be derived by users. The adequate presentation of accounting data can influence investment management significantly and positively and this is the case in this study. Adeniran & Balarabe (2025) who investigated the role of artificial intelligence in investment management in Nigeria used technological infrastructure to represent the variable of AI which include ICT adoption and high technology intensity and this showed that it is not in accordance with this study even though the findings were connectively the same.

Model Four (iv): The influence of big data processing (BDP) on investment management (IM)

$IM_{ij}=\beta_o+\beta_1 BDP_{ij}+\beta_2 LV_{ij}+e_{ij}$

Table 4.5: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 02:10				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.383415	0.167230	2.292738	0.0226
BDP	0.163165	0.164061	0.994541	0.3208
LV	0.106809	0.041205	2.592148	0.0100
R-squared	0.023674	Mean dependent var		0.606020
Adjusted R-squared	0.017077	S.D. dependent var		0.154889
S.E. of regression	0.153560	Akaike info criterion		-0.899463
Sum squared resid	6.979914	Schwarz criterion		-0.862335
Log likelihood	137.4697	Hannan-Quinn criter.		-0.884603
F-statistic	3.588732	Durbin-Watson stat		0.499321
Prob(F-statistic)	0.028842			

Source: Researchers' Computation (2026)

The linear regression analysis was conducted between BDP and IM where LV was the control variable. The outcomes indicated that both BDP and LV complied with the *apriori* expectation and BDP and LV exerted positive influence on IM of the companies studied where LV was significant. It was observed that the model was significant as shown by probability of F-statistic. On this note, the null hypothesis (big data processing does not significantly influence investment management of quoted companies in Nigeria) was confirmed to be valid. Big data processing involves the analysis of financial, non-financial and qualitative data at a given period of time associated with environmental impact, level of technology, company risk assessment and management, level of sustainability, corporate governance, management decisions, among others. This kind of information are rarely presented on annual reports and financial statements of companies. This is why in this study the positive influence of the variable was not really felt on investment management. This study negated that of Bhoomika and Charithra (2024) who examined the long-term impact of artificial intelligence (AI) on financial metrics of the companies.

Model Five (v): The influence of risk analysis (RA) on investment management (IM)

$IM_{ij}=\beta_o+\beta_1 RA_{ij}+\beta_2 LV_{ij}+e_{ij}$

Table 4.6: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 02:17				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.559169	0.046871	11.92983	0.0000
RA	-0.027282	0.095586	-0.285413	0.7755
LV	0.106183	0.043851	2.421461	0.0161
R-squared	0.020681	Mean dependent var		0.606020
Adjusted R-squared	0.014064	S.D. dependent var		0.154889
S.E. of regression	0.153796	Akaike info criterion		-0.896402
Sum squared resid	7.001311	Schwarz criterion		-0.859274
Log likelihood	137.0121	Hannan-Quinn criter.		-0.881542
F-statistic	3.125451	Durbin-Watson stat		0.496970
Prob(F-statistic)	0.045370			

Source: Researchers' Computation (2026)

The linear regression analysis was conducted between RA and IM where LV was the control variable. The outcomes indicated that LV complied with the *apriori* expectation while RA deviated from the expectation and RA exerted negative and inconsequential influence on IM while LV indicated positive and meaningful effect on IM of the companies studied. It was observed that the model was significant as shown by probability of F-statistic. On this note, the null hypothesis (risk analysis does not significantly influence investment management of quoted companies in Nigeria) was confirmed to be valid. Risk analysis is an important aspect of investment. In the operation of any company, it is expected that operational risks are clearly measured and managed to help users to assess the health of companies in terms of financial sustainability. When information on risk analysis is not clearly stated, the interest of the potential investors is affected negatively and this is replicated into the results of this study where the variable exerted negative although inconsequential influence on investment management. This study was not in line with the previous studies such as Adeniran & Balarabe (2025); Fong *et al*. (2025) and Sattar (2025)

Table 4.7: Variance Inflation Factor

Variance Inflation Factors			
Date: 09/26/26 Time: 02:57			
Sample: 1 299			
Included observations: 299			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	0.029416	445.9964	NA
PO	0.003543	28.55216	1.188256
PA	0.012928	25.35738	2.096766
DA	0.014711	152.1777	1.197542
BDP	0.025558	380.9150	1.153294
RA	0.014878	60.53634	2.240008
LV	0.001682	9.544922	1.203571

Source: Researchers' Computation (2026)

The variance inflation factor (VIF) was used to test the level of multicollinearity in the predictors including the control variable. From the result computed and presented on Table 4.7, it was observed that the centered VIF for all the independent variables was less than ten (10) and thus, the combined influenced of all the predictors was examined on investment management as presented on Table 4.8.

Model Six (vi): The influence of PO, PA, DA, BDP and RA on investment management (IM)

$IM_{ij}=\beta_o+\beta_1PO_{ij}+\beta_2PA_{ij}+\beta_3DA_{ij}+\beta_4BDP_{ij}+\beta_5RA_{ij}+\beta_6LV_{ij}+e_{ij}$

Table 4.8: Linear Regression Output

Dependent Variable: IM				
Method: Panel Least Squares				
Date: 09/26/26 Time: 02:51				
Sample: 2013 2025				
Periods included: 13				
Cross-sections included: 23				
Total panel (balanced) observations: 299				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000935	0.171511	0.005453	0.9957
PO	0.280414	0.059524	4.710930	0.0000
PA	-0.312653	0.113703	-2.749740	0.0063
DA	0.710978	0.121289	5.861830	0.0000
BDP	-0.253053	0.159868	-1.582886	0.1145
RA	0.166768	0.121976	1.367219	0.1726
LV	0.163398	0.041018	3.983598	0.0001
R-squared	0.194525	Mean dependent var		0.606020
Adjusted R-squared	0.177974	S.D. dependent var		0.154889
S.E. of regression	0.140431	Akaike info criterion		-1.065071
Sum squared resid	5.758475	Schwarz criterion		-0.978439
Log likelihood	166.2281	Hannan-Quinn criter.		-1.030397
F-statistic	11.75314	Durbin-Watson stat		0.650784
Prob(F-statistic)	0.000000			

Source: Researchers' Computation (2026)

Table 4.8, the combined predictors of AI tools used in this study on investment management of quoted companies in Nigeria was calculated. The influence of PO, PA and DA on IM were as the individual analysis presented on Table 4.2, 4.3 and 4.4 and the influence of BDP and RA were not as the individual analysis presented on Table 4.5 and 4.6. This could be explained by the fact that the influence of other variables in the model contributed to the disparities. The entire model was significant as stated by probability of F-statistic and based on this statistic, it was observed that all AI tools exerted significant influence on investment management of quoted companies in Nigeria.

5. Summary, Conclusion and Recommendations

The study was conducted to evaluate the influence of AI tools adoption on investment management of quoted companies in Nigeria. AI tools adoption was represented by the factors in the contents of annual reports and financial statements of quoted companies in Nigeria selected for the study which were portfolio optimization (PO), predictive analytics (PA), data analysis (DA), big data processing (BDP) and risk analysis (RA). Leverage (LV) was used as the control variable of the study. Both data for investment management and AI tools adoption were all collected using content approach from the annual reports and financial statements of the companies selected for the study from 2013 to 2025. The nature of the data was panel and this mandated the adoption of panel linear regression approach. Twenty-three (23) manufacturing companies were sampled from the population of thirty-one (31) companies and were only the companies trading on the floor of Nigeria Exchange Group (NGX). The

outcomes of the analysis showed that PO and DA exerted positive and consequential influence on IM, PA exerted negative and consequential influence on IM, BDP exerted positive but immaterial influence on IM while RA exerted negative and inconsequential influence on IM of the companies studied. It was concluded that AI tools adoption had significant influence on investment management of quoted companies in Nigeria. The following recommendations were suggested from the findings of the study:

i. Information on portfolio management of quoted companies should be disclosed more with the adoption of AI applications.

ii. Prediction of accounting data should be encouraged to provide more information to the users and to arouse the interest of the potential investors.

iii. The use of AI software/applications should be used in the presentation of financial information on annual reports to enable more of data analysis.

iv. AI software/applications should be mostly used to analyse and present non-financial data and annual reports as well as qualitative data.

v. AI applications should be used to analyse financial data on various kinds of risk and present those that are directly linked to the operations of individual company on the annual reports and financial statements.

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APPENDICES

Appendix One (i)

Table 3.1: Population of the Study

S/N	Company	Sector
1.	Cadbury Nigeria Plc	Consumer Goods
2.	Champion Brew. Plc	Consumer Goods
3.	Dangote Sugar Ref. Plc	Consumer Goods
4.	DN Tyre and Rubber Plc	Consumer Goods
5.	Flour Mills Nig. Plc	Consumer Goods
6.	Golden Guinea Brew. Plc	Consumer Goods
7.	Guinness Nig. Plc	Consumer Goods
8.	Honeywell Flour Mills Plc	Consumer Goods
9.	International Brew. Plc	Consumer Goods
10.	Mcnichols Plc	Consumer Goods
11.	Multi-Trex Int. Foods Plc	Consumer Goods
12.	N Nig. Flour Mills Plc	Consumer Goods
13.	Nascon Allied Indust. Plc	Consumer Goods
14.	Nestle Nig. Plc	Consumer Goods
15.	Nigerian Brew. Plc	Consumer Goods
16.	Nigerian Enamelware Plc	Consumer Goods
17.	P Z Cussons Nigeria Plc	Consumer Goods
18.	Unilever Nigeria Plc	Consumer Goods
19.	Union Dicon Salt Plc	Consumer Goods
20.	Vitafoam Nig. Plc	Consumer Goods
21.	BUA Food Plc	Consumer Goods
22.	Austin Laz and Co. Plc	Industrial Goods
23.	Berger Paints Plc	Industrial Goods
24.	Beta Glass Plc	Industrial Goods
25.	CAP Plc	Industrial Goods
26.	BUA Cement Plc	Industrial Goods
27.	Cutix Plc	Industrial Goods
28.	Dangote Cement Plc	Industrial Goods
29.	Lafarge Africa Plc	Industrial Goods
30.	Meyer Plc	Industrial Goods
31.	Notore Chemical Indust. Plc	Industrial Goods

Source: Researcher's Compilation (2026)

Table 3.2: Sample Size of the Study

S/N	Company	Sector
1.	Cadbury Nigeria Plc	Consumer Goods
2.	Champion Brew. Plc	Consumer Goods
3.	Dangote Sugar Ref. Plc	Consumer Goods
4.	Flour Mills Nig. Plc	Consumer Goods
5.	Guinness Nig. Plc	Consumer Goods
6.	Honeywell Flour Mills Plc	Consumer Goods
7.	International Brew. Plc	Consumer Goods
8.	N Nig. Flour Mills Plc	Consumer Goods
9.	Nascon Allied Indust. Plc	Consumer Goods
10.	Nestle Nig. Plc	Consumer Goods
11.	Nigerian Brew. Plc	Consumer Goods
12.	Nigerian Enamelware Plc	Consumer Goods
13.	P Z Cussons Nigeria Plc	Consumer Goods
14.	Unilever Nigeria Plc	Consumer Goods
15.	Vitafoam Nig. Plc	Consumer Goods
16.	Berger Paints Plc	Industrial Goods
17.	Beta Glass Plc	Industrial Goods
18.	BUA Cement Plc	Industrial Goods
19.	Cutix Plc	Industrial Goods
20.	Dangote Cement Plc	Industrial Goods
21.	Lafarge Africa Plc	Industrial Goods
22.	Meyer Plc	Industrial Goods
23.	CAP Plc	Industrial Goods

Source: Researchers' Compilation (2026)

Appendix Two (ii)

Checklists for Relevant Variables of the Study for Content Analysis

Table 1a: Investment Management

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	Assets allocation		
2.	Diversification of available resources		
3.	Investment risk analysis		
4.	Planning and controlling of available assets		
5.	Acquisition of assets and shares		

Source: Researchers' Compilation (2026)

Table 1b: Portfolio Optimization

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	Investment in subsidiaries		
2.	Investment in other companies (associates)		
3.	Segment reporting		
4.	Assets allocation and minimization of risk		
5.	Shareholding structure		

Source: Researchers' Compilation (2026)

Table 1c: Predictive Analytics

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	Prediction of revenue		
2.	Prediction of assets		
3.	Prediction of market conditions		
4.	Prediction of prevailing risks		
5.	Prediction of growth		

Source: Researchers' Compilation (2026)

Table 1d: Data Analysis

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	Financial performance data		
2.	Financial position data		
3.	Cashflow data		
4.	Market data		
5.	Key ratios		

Source: Researchers' Compilation (2026)

Table 1e: Big Data Processing

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	ESG/sustainability reporting		
2.	Strategy and key performance indicators (KPIs)		
3.	Risk management		
4.	Corporate governance/technology		
5.	Management discussion and analysis		

Source: Researchers' Compilation (2026)

Table 1f: Risk Analysis

S/N	ITEM	YES (1 POINT)	NO (0 POINT)
1.	Risk transfer		
2.	Risk assessment/measurement		
3.	Risk acceptance		
4.	Risk avoidance		
5.	Risk reduction		

Source: Researchers' Compilation (2026)

Appendix Three (iii)

Table 2: Data for the Study from 2013 to 2025

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Cadbury Nig. Plc	2013	43,172,624.00	19,177,693.00	0.80	0.60	0.40	0.60	0.80	0.40	0.44
Cadbury Nig. Plc	2014	28,820,107.00	17,278,081.00	0.80	0.60	0.40	0.60	0.80	0.40	0.60
Cadbury Nig. Plc	2015	28,417,005.00	16,131,708.00	0.40	0.40	0.40	0.60	0.80	0.40	0.57
Cadbury Nig. Plc	2016	28,392,951.00	17,336,217.00	0.40	0.40	0.40	0.60	0.80	0.40	0.61
Cadbury Nig. Plc	2017	28,423,121.00	16,680,330.00	0.40	0.40	0.40	0.60	0.80	0.40	0.59
Cadbury Nig. Plc	2018	27,528,040.00	14,851,894.00	0.40	0.40	0.40	0.80	0.80	0.40	0.54
Cadbury Nig. Plc	2019	28,801,938.00	15,235,703.00	0.60	0.40	0.40	0.80	0.80	0.40	0.53
Cadbury Nig. Plc	2020	33,210,684.00	19,661,161.00	0.60	0.60	0.40	0.80	1.00	0.60	0.59
Cadbury Nig. Plc	2021	43,688,291.00	30,051,937.00	0.60	0.60	0.40	0.80	1.00	0.60	0.69
Cadbury Nig. Plc	2022	59,713,684.00	46,411,056.00	0.60	0.60	0.40	0.80	0.60	0.60	0.78
Cadbury Nig. Plc	2023	76,458,376.00	69,944,698.00	0.60	0.60	0.40	0.80	0.60	0.60	0.91
Cadbury Nig. Plc	2024	72,443,944.00	68,064,751.00	0.60	0.60	0.40	0.80	0.60	0.60	0.94
Cadbury Nig. Plc	2025	75,363,153.00	61,942,992.00	0.60	0.60	0.40	0.80	0.60	0.60	0.82
Flour Mills Nig. Plc	2013	223,889,726.00	136,425,942.00	0.80	1.00	0.40	0.80	1.00	0.60	0.61
Flour Mills Nig. Plc	2014	220,145,554.00	130,467,091.00	0.80	1.00	0.40	0.80	1.00	0.60	0.59
Flour Mills Nig. Plc	2015	231,529,878.00	134,878,212.00	0.60	1.00	0.40	0.80	1.00	0.60	0.58
Flour Mills Nig. Plc	2016	233,296,607.00	133,052,468.00	0.80	1.00	0.40	0.80	1.00	0.60	0.57
Flour Mills Nig. Plc	2017	343,933,157.00	235,817,458.00	0.80	1.00	0.40	0.80	1.00	0.60	0.69
Flour Mills Nig. Plc	2018	322,604,582.00	171,158,286.00	0.80	1.00	0.40	0.80	1.00	0.60	0.53
Flour Mills Nig. Plc	2019	314,058,187.00	175,128,914.00	0.60	1.00	0.40	0.80	1.00	0.60	0.56
Flour Mills Nig. Plc	2020	314,267,060.00	167,950,170.00	0.80	1.00	0.40	0.80	1.00	0.60	0.53
Flour Mills Nig. Plc	2021	380,322,525.00	220,443,731.00	0.80	1.00	0.40	0.80	1.00	0.60	0.58
Flour Mills Nig. Plc	2022	487,617,576.00	312,953,729.00	0.80	1.00	0.40	0.80	1.00	0.60	0.64
Flour Mills Nig. Plc	2023	719,285,322.00	537,464,795.00	0.80	1.00	0.40	0.80	1.00	0.60	0.75
Flour Mills Nig. Plc	2024	1,043,445,303.00	851,112,211.00	0.80	1.00	0.40	0.80	1.00	0.60	0.82
Flour Mills Nig. Plc	2025	1,043,445,303.00	851,112,211.00	0.80	1.00	0.40	0.80	1.00	0.60	0.82
Guiness Nig. Plc	2013	121,060,621.00	0.00	0.60	0.80	0.60	0.80	1.00	0.60	0.00
Guiness Nig. Plc	2014	132,328,273.00	0.00	0.60	0.80	0.60	0.80	1.00	0.60	0.00
Guiness Nig. Plc	2015	122,246,632.00	73,905,256.00	0.40	0.60	0.80	0.80	1.00	0.60	0.60
Guiness Nig. Plc	2016	136,992,444.00	95,331,839.00	0.40	0.60	0.40	0.80	1.00	0.60	0.70
Guiness Nig. Plc	2017	146,038,216.00	103,095,201.00	0.60	0.80	0.60	0.80	1.00	0.60	0.71
Guiness Nig. Plc	2018	153,254,968.00	65,666,794.00	0.60	0.80	0.60	0.80	1.00	0.60	0.43
Guiness Nig. Plc	2019	160,792,627.00	71,732,165.00	0.60	0.80	0.60	0.80	1.00	0.60	0.45
Guiness Nig. Plc	2020	144,145,581.00	71,107,441.00	0.40	0.60	0.40	0.80	1.00	0.60	0.49
Guiness Nig. Plc	2021	169,406,525.00	95,119,950.00	0.60	0.80	0.60	0.80	1.00	0.60	0.56
Guiness Nig. Plc	2022	215,660,208.00	125,680,817.00	0.80	0.60	0.60	0.80	1.00	0.60	0.58
Guiness Nig. Plc	2023	241,748,144.00	185,323,528.00	0.60	0.80	0.40	0.80	1.00	0.60	0.77
Guiness Nig. Plc	2024	226,130,077.00	223,968,611.00	0.80	0.80	0.40	0.80	1.00	0.60	0.99
Guiness Nig. Plc	2025	245,176,709.00	201,852,543.00	0.80	0.60	0.40	0.80	1.00	0.60	0.82

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Honeywell F. M. Plc	2013	55,437,478.00	36,884,395.00	0.60	0.60	0.40	0.80	1.00	0.60	0.67
Honeywell F. M. Plc	2014	63,830,439.00	43,225,191.00	0.60	0.60	0.40	0.80	1.00	0.60	0.68
Honeywell F. M. Plc	2015	67,943,444.00	47,627,610.00	0.60	0.60	0.40	0.80	1.00	0.60	0.70
Honeywell F. M. Plc	2016	76,046,576.00	59,683,977.00	0.60	0.60	0.40	0.80	1.00	0.60	0.78
Honeywell F. M. Plc	2017	113,151,715.00	60,817,050.00	0.60	0.60	0.40	0.80	1.00	0.60	0.54
Honeywell F. M. Plc	2018	124,835,013.00	68,443,349.00	0.60	0.60	0.40	0.80	1.00	0.60	0.55
Honeywell F. M. Plc	2019	137,505,112.00	80,837,143.00	0.60	0.60	0.40	0.80	1.00	0.60	0.59
Honeywell F. M. Plc	2020	142,261,292.00	84,975,499.00	0.60	0.60	0.40	0.80	1.00	0.60	0.60
Honeywell F. M. Plc	2021	147,394,656.00	89,425,978.00	0.60	0.80	0.40	0.80	1.00	0.60	0.61
Honeywell F. M. Plc	2022	149,869,159.00	93,439,408.00	0.60	0.60	0.40	0.80	1.00	0.60	0.62
Honeywell F. M. Plc	2023	164,999,977.00	132,023,688.00	0.60	0.60	0.40	0.80	1.00	0.60	0.80
Honeywell F. M. Plc	2024	148,965,948.00	126,109,437.00	0.60	0.60	0.40	0.80	1.00	0.60	0.85
Honeywell F. M. Plc	2025	167,932,243.00	130,293,549.00	0.60	0.60	0.40	0.80	1.00	0.60	0.78
Int Breweries Plc	2013	23,036,762.00	13,656,589.00	0.80	0.60	0.40	1.00	1.00	0.60	0.59
Int Breweries Plc	2014	24,370,540.00	13,100,617.00	0.80	0.60	0.40	1.00	1.00	0.60	0.54
Int Breweries Plc	2015	30,171,590.00	18,003,331.00	0.60	0.60	0.40	1.00	1.00	0.60	0.60
Int Breweries Plc	2016	33,482,106.00	19,484,715.00	0.80	0.60	0.40	1.00	1.00	0.60	0.58
Int Breweries Plc	2017	232,149,251.00	192,923,888.00	0.80	0.60	0.40	1.00	1.00	0.60	0.83
Int Breweries Plc	2018	310,278,920.00	275,117,997.00	0.80	0.60	0.40	1.00	1.00	0.60	0.89
Int Breweries Plc	2019	365,146,533.00	357,682,832.00	0.80	0.60	0.40	1.00	1.00	0.60	0.98
Int Breweries Plc	2020	372,646,406.00	220,912,549.00	0.80	0.40	0.40	1.00	1.00	0.60	0.59
Int Breweries Plc	2021	469,953,215.00	334,649,314.00	0.80	0.60	0.40	1.00	1.00	0.60	0.71
Int Breweries Plc	2022	484,251,740.00	366,921,307.00	0.80	0.60	0.40	1.00	1.00	0.60	0.76
Int Breweries Plc	2023	733,113,172.00	608,535,717.00	0.80	0.60	0.40	1.00	1.00	0.60	0.83
Int Breweries Plc	2024	727,872,297.00	278,958,220.00	0.80	0.60	0.40	1.00	1.00	0.60	0.38
Int Breweries Plc	2025	739,743,846.00	239,916,096.00	0.80	0.60	0.40	1.00	1.00	0.60	0.32
N Nig. Flour Plc	2013	3,623,417.00	2,017,700.00	0.40	0.80	0.40	0.80	1.00	0.60	0.56
N Nig. Flour Plc	2014	3,266,615.00	1,492,703.00	0.40	0.80	0.40	0.80	1.00	0.60	0.46
N Nig. Flour Plc	2015	2,225,405.00	745,342.00	0.40	0.80	0.40	0.80	1.00	0.60	0.33
N Nig. Flour Plc	2016	1,843,217.00	592,280.00	0.60	0.80	0.40	0.80	1.00	0.60	0.32
N Nig. Flour Plc	2017	4,337,444.00	3,097,866.00	0.60	0.80	0.40	0.80	1.00	0.60	0.71
N Nig. Flour Plc	2018	5,917,639.00	4,743,377.00	0.40	0.80	0.40	0.80	1.00	0.60	0.80
N Nig. Flour Plc	2019	4,992,912.00	3,842,200.00	0.60	0.80	0.40	0.80	1.00	0.60	0.77
N Nig. Flour Plc	2020	8,491,986.00	5,722,993.00	0.40	0.80	0.40	0.80	1.00	0.60	0.67
N Nig. Flour Plc	2021	7,365,270.00	4,577,499.00	0.60	0.80	0.40	0.80	1.00	0.60	0.62
N Nig. Flour Plc	2022	13,315,128.00	10,460,659.00	0.60	0.60	0.40	0.80	1.00	0.60	0.79
N Nig. Flour Plc	2023	17,827,833.00	11,248,266.00	0.60	0.80	0.40	0.80	1.00	0.60	0.63
N Nig. Flour Plc	2024	17,924,446.00	9,846,707.00	0.60	0.80	0.40	0.80	1.00	0.60	0.55
N Nig. Flour Plc	2025	30,548,937.00	20,855,571.00	0.60	0.80	0.40	0.80	1.00	0.60	0.68

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Nascon Allied Plc	2013	11,431,167.00	4,538,541.00	0.60	0.80	0.40	0.80	1.00	0.60	0.40
Nascon Allied Plc	2014	12,555,885.00	6,248,579.00	0.60	0.80	0.40	0.80	1.00	0.60	0.50
Nascon Allied Plc	2015	16,294,826.00	17,619,545.00	0.60	0.80	0.40	0.80	1.00	0.60	1.08
Nascon Allied Plc	2016	24,603,267.00	22,188,084.00	0.60	0.80	0.40	0.80	1.00	0.60	0.90
Nascon Allied Plc	2017	30,123,247.00	31,977,854.00	0.40	0.60	0.40	0.80	1.00	0.60	1.06
Nascon Allied Plc	2018	30,270,429.00	34,244,587.00	0.60	0.80	0.40	0.80	1.00	0.60	1.13
Nascon Allied Plc	2019	38,668,792.00	27,579,507.00	0.60	0.80	0.40	0.80	1.00	0.60	0.71
Nascon Allied Plc	2020	44,308,991.00	31,589,171.00	0.60	0.80	0.40	0.80	1.00	0.60	0.71
Nascon Allied Plc	2021	40,521,398.00	25,890,718.00	0.60	0.80	0.40	0.80	1.00	0.60	0.64
Nascon Allied Plc	2022	55,530,771.00	36,488,405.00	0.60	0.80	0.40	0.80	1.00	0.60	0.66
Nascon Allied Plc	2023	83,591,991.00	56,120,133.00	0.60	0.80	0.40	0.80	1.00	0.60	0.67
Nascon Allied Plc	2024	78,502,487.00	35,447,027.00	0.80	0.80	0.40	0.80	1.00	0.60	0.45
Nascon Allied Plc	2025	135,265,957.00	64,086,069.00	0.60	0.60	0.40	0.80	1.00	0.60	0.47
Nestle Nig. Plc	2013	108,207,480.00	85,203,012.00	0.80	0.40	0.40	0.80	1.00	0.60	0.79
Nestle Nig. Plc	2014	106,062,067.00	76,005,283.00	0.80	0.40	0.40	0.80	1.00	0.60	0.72
Nestle Nig. Plc	2015	119,215,053.00	81,207,979.00	0.80	0.40	0.40	0.80	1.00	0.60	0.68
Nestle Nig. Plc	2016	169,585,932.00	138,707,857.00	0.80	0.40	0.40	0.80	1.00	0.60	0.82
Nestle Nig. Plc	2017	146,804,128.00	101,925,951.00	0.60	0.40	0.40	0.80	1.00	0.60	0.69
Nestle Nig. Plc	2018	162,334,442.00	112,113,956.00	0.80	0.40	0.40	0.80	1.00	0.60	0.69
Nestle Nig. Plc	2019	193,374,314.00	147,816,684.00	0.80	0.40	0.40	0.80	1.00	0.60	0.76
Nestle Nig. Plc	2020	246,184,996.00	216,888,012.00	0.60	0.40	0.40	0.80	1.00	0.60	0.88
Nestle Nig. Plc	2021	310,238,504.00	288,860,295.00	0.80	0.40	0.40	0.80	1.00	0.60	0.93
Nestle Nig. Plc	2022	415,044,031.00	384,752,807.00	0.80	0.60	0.40	0.80	1.00	0.60	0.93
Nestle Nig. Plc	2023	581,774,407.00	659,809,563.00	0.80	0.40	0.40	0.80	1.00	0.60	1.13
Nestle Nig. Plc	2024	858,698,352.00	950,988,269.00	0.80	0.40	0.40	0.80	1.00	0.60	1.11
Nestle Nig. Plc	2025	846,159,936.00	833,268,641.00	0.80	0.40	0.40	0.80	1.00	0.60	0.98
Nig. Breweries Plc	2013	349,676,784.00	237,317,599.00	0.60	0.80	0.40	0.80	1.00	0.60	0.68
Nig. Breweries Plc	2014	349,229,163.00	177,264,900.00	0.60	0.80	0.40	0.80	1.00	0.60	0.51
Nig. Breweries Plc	2015	356,707,123.00	184,473,658.00	0.60	0.80	0.40	0.80	1.00	0.60	0.52
Nig. Breweries Plc	2016	367,639,915.00	201,834,373.00	0.60	0.80	0.40	0.80	1.00	0.60	0.55
Nig. Breweries Plc	2017	382,726,540.00	204,575,606.00	0.60	0.80	0.40	0.80	1.00	0.60	0.53
Nig. Breweries Plc	2018	388,766,316.00	222,122,132.00	0.40	0.60	0.40	0.80	1.00	0.60	0.57
Nig. Breweries Plc	2019	382,503,815.00	214,939,253.00	0.60	0.80	0.40	0.80	1.00	0.60	0.56
Nig. Breweries Plc	2020	444,437,374.00	283,286,497.00	0.60	0.80	0.40	0.80	1.00	0.60	0.64
Nig. Breweries Plc	2021	482,639,565.00	310,500,262.00	0.60	0.80	0.40	0.80	1.00	0.60	0.64
Nig. Breweries Plc	2022	621,318,254.00	440,439,175.00	0.60	0.80	0.40	0.80	1.00	0.60	0.71
Nig. Breweries Plc	2023	797,362,993.00	732,194,381.00	0.60	0.80	0.40	0.80	1.00	0.60	0.92
Nig. Breweries Plc	2024	1,126,267,553.00	660,803,033.00	0.60	0.80	0.40	0.80	1.00	0.60	0.59
Nig. Breweries Plc	2025	1,059,264,844.00	503,967,922.00	0.60	0.80	0.40	0.80	1.00	0.60	0.48

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Nig. Enamelware Plc	2013	2,203,388.00	1,019,450.00	0.40	0.60	0.40	0.80	1.00	0.60	0.46
Nig. Enamelware Plc	2014	3,084,021.00	1,842,440.00	0.60	0.60	0.40	0.80	1.00	0.60	0.60
Nig. Enamelware Plc	2015	5,022,544.00	3,716,941.00	0.40	0.60	0.40	0.80	1.00	0.60	0.74
Nig. Enamelware Plc	2016	4,539,683.00	3,125,117.00	0.60	0.60	0.40	0.80	1.00	0.60	0.69
Nig. Enamelware Plc	2017	5,826,562.00	4,399,450.00	0.40	0.60	0.40	0.80	1.00	0.60	0.76
Nig. Enamelware Plc	2018	4,576,107.00	3,152,328.00	0.60	0.60	0.40	0.80	1.00	0.60	0.69
Nig. Enamelware Plc	2019	4,381,630.00	3,199,485.00	0.40	0.60	0.40	0.80	1.00	0.60	0.73
Nig. Enamelware Plc	2020	4,987,799.00	4,156,460.00	0.40	0.60	0.40	0.80	1.00	0.60	0.83
Nig. Enamelware Plc	2021	4,619,354.00	4,063,548.00	0.60	0.60	0.40	0.80	1.00	0.60	0.88
Nig. Enamelware Plc	2022	4,408,807.00	4,264,062.00	0.60	0.60	0.40	0.80	1.00	0.60	0.97
Nig. Enamelware Plc	2023	6,037,147.00	4,206,345.00	0.40	0.80	0.40	0.80	1.00	0.60	0.70
Nig. Enamelware Plc	2024	2,499,514.00	3,243,868.00	0.40	0.60	0.40	0.80	1.00	0.60	1.30
Nig. Enamelware Plc	2025	2,700,054.00	3,428,826.00	0.60	0.40	0.40	0.80	1.00	0.60	1.27
PZ Cusson Nig. Plc	2013	72,296,420.00	25,859,563.00	0.40	0.60	0.40	0.80	1.00	0.60	0.36
PZ Cusson Nig. Plc	2014	70,965,735.00	28,427,153.00	0.40	0.60	0.40	0.80	1.00	0.60	0.40
PZ Cusson Nig. Plc	2015	48,106,661.00	21,521,732.00	0.40	0.60	0.40	0.80	1.00	0.60	0.45
PZ Cusson Nig. Plc	2016	56,261,100.00	22,468,811.00	0.40	0.60	0.40	0.80	1.00	0.60	0.40
PZ Cusson Nig. Plc	2017	73,039,610.00	38,963,380.00	0.40	0.60	0.40	0.80	1.00	0.60	0.53
PZ Cusson Nig. Plc	2018	74,576,119.00	40,825,740.00	0.40	0.60	0.40	0.80	1.00	0.60	0.55
PZ Cusson Nig. Plc	2019	64,315,676.00	30,499,094.00	0.40	0.80	0.40	0.80	1.00	0.60	0.47
PZ Cusson Nig. Plc	2020	59,486,850.00	35,590,039.00	0.40	0.60	0.40	0.80	1.00	0.60	0.60
PZ Cusson Nig. Plc	2021	69,368,707.00	46,323,241.00	0.40	0.60	0.40	0.80	1.00	0.60	0.67
PZ Cusson Nig. Plc	2022	79,875,535.00	56,003,388.00	0.40	0.60	0.40	0.80	1.00	0.60	0.70
PZ Cusson Nig. Plc	2023	110,826,000.00	82,148,532.00	0.40	0.60	0.40	0.80	1.00	0.60	0.74
PZ Cusson Nig. Plc	2024	118,112,517.00	134,859,216.00	0.40	0.60	0.40	0.80	1.00	0.60	1.14
PZ Cusson Nig. Plc	2025	145,787,625.00	155,836,549.00	0.40	0.60	0.40	0.80	1.00	0.60	1.07
Unilever Nig. Plc	2013	43,754,114.00	34,406,192.00	0.80	0.60	0.40	1.00	1.00	0.60	0.79
Unilever Nig. Plc	2014	45,736,255.00	38,257,447.00	0.80	0.60	0.40	1.00	1.00	0.60	0.84
Unilever Nig. Plc	2015	50,172,484.00	42,169,231.00	0.80	0.60	0.40	1.00	1.00	0.60	0.84
Unilever Nig. Plc	2016	72,491,309.00	60,801,366.00	0.80	0.60	0.40	1.00	1.00	0.60	0.84
Unilever Nig. Plc	2017	121,084,365.00	45,175,990.00	0.80	0.60	0.40	1.00	1.00	0.60	0.37
Unilever Nig. Plc	2018	131,843,373.00	49,053,830.00	0.80	0.60	0.40	1.00	1.00	0.60	0.37
Unilever Nig. Plc	2019	103,677,519.00	37,149,169.00	0.60	0.80	0.40	1.00	1.00	0.60	0.36
Unilever Nig. Plc	2020	91,517,538.00	29,388,418.00	0.80	0.60	0.40	1.00	1.00	0.60	0.32
Unilever Nig. Plc	2021	108,288,535.00	42,526,867.00	0.80	0.60	0.40	1.00	1.00	0.60	0.39
Unilever Nig. Plc	2022	125,389,892.00	57,825,176.00	0.80	0.60	0.40	1.00	1.00	0.60	0.46
Unilever Nig. Plc	2023	116,302,344.00	41,793,241.00	0.80	0.60	0.40	1.00	1.00	0.60	0.36
Unilever Nig. Plc	2024	141,646,696.00	56,540,616.00	0.80	0.60	0.40	1.00	1.00	0.60	0.40
Unilever Nig. Plc	2025	180,179,325.00	72,723,214.00	0.80	0.60	0.40	1.00	1.00	0.60	0.40

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Berger Paints Plc	2013	3,627,598.00	1,151,341.00	0.60	0.80	0.40	0.80	1.00	0.60	0.32
Berger Paints Plc	2014	3,640,145.00	1,180,315.00	0.40	0.80	0.40	0.80	1.00	0.60	0.32
Berger Paints Plc	2015	3,895,870.00	1,308,540.00	0.40	0.80	0.40	0.80	1.00	0.60	0.34
Berger Paints Plc	2016	4,102,265.00	1,498,084.00	0.40	0.60	0.40	0.80	1.00	0.60	0.37
Berger Paints Plc	2017	4,311,424.00	1,670,279.00	0.40	0.80	0.40	0.80	1.00	0.60	0.39
Berger Paints Plc	2018	4,535,299.00	1,722,247.00	0.60	0.80	0.40	0.80	1.00	0.60	0.38
Berger Paints Plc	2019	5,066,449.00	1,993,049.00	0.40	0.80	0.40	0.80	1.00	0.60	0.39
Berger Paints Plc	2020	4,971,872.00	1,824,900.00	0.40	0.80	0.40	0.80	1.00	0.60	0.37
Berger Paints Plc	2021	5,110,669.00	1,879,966.00	0.40	0.80	0.40	0.80	1.00	0.60	0.37
Berger Paints Plc	2022	5,528,528.00	2,205,083.00	0.40	0.80	0.40	0.80	1.00	0.60	0.40
Berger Paints Plc	2023	6,610,970.00	3,079,569.00	0.40	0.60	0.40	0.80	1.00	0.60	0.47
Berger Paints Plc	2024	7,534,781.00	3,678,881.00	0.40	0.80	0.40	0.80	1.00	0.60	0.49
Berger Paints Plc	2025	9,006,102.00	4,032,849.00	0.40	0.80	0.40	0.80	1.00	0.60	0.45
Beta Glass Plc	2013	27,166,481.00	13,413,324.00	0.60	0.80	0.40	0.80	1.00	0.40	0.49
Beta Glass Plc	2014	26,928,387.00	10,975,406.00	0.40	0.80	0.20	0.80	1.00	0.40	0.41
Beta Glass Plc	2015	27,171,069.00	9,592,944.00	0.60	0.80	0.20	0.80	1.00	0.40	0.35
Beta Glass Plc	2016	33,184,130.00	11,709,166.00	0.40	0.80	0.20	0.80	1.00	0.40	0.35
Beta Glass Plc	2017	38,211,613.00	13,066,499.00	0.40	0.80	0.20	0.80	1.00	0.40	0.34
Beta Glass Plc	2018	46,079,629.00	16,452,056.00	0.40	0.80	0.20	0.80	1.00	0.40	0.36
Beta Glass Plc	2019	52,080,362.00	17,522,361.00	0.40	0.60	0.20	0.80	1.00	0.40	0.34
Beta Glass Plc	2020	53,963,634.00	16,773,916.00	0.40	0.80	0.20	0.80	1.00	0.40	0.31
Beta Glass Plc	2021	63,112,410.00	20,984,992.00	0.40	0.80	0.20	0.80	1.00	0.40	0.33
Beta Glass Plc	2022	75,944,552.00	29,681,202.00	0.40	0.80	0.20	0.80	1.00	0.40	0.39
Beta Glass Plc	2023	106,851,898.00	54,846,892.00	0.40	0.80	0.20	0.80	1.00	0.40	0.51
Beta Glass Plc	2024	137,352,197.00	72,560,314.00	0.40	0.80	0.20	0.80	1.00	0.40	0.53
Beta Glass Plc	2025	183,892,203.00	87,624,904.00	0.40	0.80	0.20	0.80	1.00	0.40	0.48
Champion B. Plc	2013	9,137,716.00	13,746,102.00	0.80	0.80	0.20	0.80	1.00	0.40	1.50
Champion B. Plc	2014	9,592,381.00	3,721,950.00	0.80	0.60	0.20	0.80	1.00	0.40	0.39
Champion B. Plc	2015	10,329,160.00	3,207,523.00	0.60	0.60	0.20	0.80	1.00	0.40	0.31
Champion B. Plc	2016	9,961,240.00	2,290,380.00	0.60	0.60	0.20	0.80	1.00	0.40	0.23
Champion B. Plc	2017	10,088,861.00	1,953,401.00	0.60	0.80	0.20	0.80	1.00	0.40	0.19
Champion B. Plc	2018	10,487,010.00	2,551,478.00	0.60	0.80	0.20	0.80	1.00	0.40	0.24
Champion B. Plc	2019	10,981,383.00	2,949,587.00	0.40	0.80	0.20	0.80	1.00	0.40	0.27
Champion B. Plc	2020	11,368,517.00	3,325,523.00	0.60	0.80	0.20	0.80	1.00	0.40	0.29
Champion B. Plc	2021	13,486,815.00	4,267,172.00	0.60	0.60	0.20	0.80	1.00	0.40	0.32
Champion B. Plc	2022	15,453,585.00	4,334,201.00	0.60	0.60	0.20	0.80	1.00	0.40	0.28
Champion B. Plc	2023	20,533,079.00	9,337,780.00	0.60	0.60	0.20	0.80	1.00	0.40	0.45
Champion B. Plc	2024	21,345,197.00	9,289,111.00	0.60	0.60	0.20	0.80	1.00	0.40	0.44
Champion B. Plc	2025	82,338,577.00	69,261,481.00	0.60	0.60	0.20	0.80	1.00	0.40	0.84

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
BUA Cement Plc	2013	15,058,476.00	6,773,857.00	0.60	0.60	0.20	1.00	1.00	0.40	0.45
BUA Cement Plc	2014	15,780,013.00	6,334,355.00	0.60	0.60	0.20	1.00	1.00	0.40	0.40
BUA Cement Plc	2015	17,146,883.00	7,002,115.00	0.80	0.60	0.20	1.00	1.00	0.40	0.41
BUA Cement Plc	2016	20,030,222.00	8,536,950.00	0.60	0.60	0.20	1.00	1.00	0.40	0.43
BUA Cement Plc	2017	24,648,676.00	10,236,469.00	0.60	0.60	0.20	1.00	1.00	0.40	0.42
BUA Cement Plc	2018	347,746,456.00	14,258,768.00	0.60	0.60	0.20	1.00	1.00	0.40	0.04
BUA Cement Plc	2019	356,753,843.00	15,982,341.00	0.60	0.80	0.20	1.00	1.00	0.40	0.04
BUA Cement Plc	2020	766,302,578.00	390,347,850.00	0.60	0.60	0.20	1.00	1.00	0.40	0.51
BUA Cement Plc	2021	728,507,473.00	330,390,725.00	0.40	0.60	0.20	1.00	1.00	0.40	0.45
BUA Cement Plc	2022	874,011,884.00	462,899,342.00	0.60	0.60	0.20	1.00	1.00	0.40	0.53
BUA Cement Plc	2023	1,215,686,377.00	830,462,227.00	0.60	0.60	0.20	1.00	1.00	0.40	0.68
BUA Cement Plc	2024	1,570,351,865.00	1,181,803,630.00	0.60	0.60	0.20	1.00	1.00	0.40	0.75
BUA Cement Plc	2025	1,856,127,006.00	1,183,227,360.00	0.60	0.60	0.20	1.00	1.00	0.40	0.64
Cutix Plc	2013	1,073,865.00	476,311.00	0.60	0.60	0.20	0.80	1.00	0.40	0.44
Cutix Plc	2014	1,744,670.00	1,044,967.00	0.60	0.60	0.20	0.80	1.00	0.40	0.60
Cutix Plc	2015	1,968,813.00	1,225,102.00	0.60	0.60	0.20	0.80	1.00	0.40	0.62
Cutix Plc	2016	1,891,720.00	1,021,503.00	0.60	0.60	0.20	0.80	1.00	0.40	0.54
Cutix Plc	2017	2,329,792.00	1,315,823.00	0.80	0.60	0.20	0.80	1.00	0.40	0.56
Cutix Plc	2018	2,836,262.00	1,536,970.00	0.60	0.60	0.20	0.80	1.00	0.40	0.54
Cutix Plc	2019	2,861,339.00	1,248,248.00	0.60	0.80	0.20	0.80	1.00	0.40	0.44
Cutix Plc	2020	3,627,990.00	1,822,352.00	0.60	0.60	0.20	0.80	1.00	0.40	0.50
Cutix Plc	2021	4,801,452.00	2,587,119.00	0.60	0.60	0.20	0.80	1.00	0.40	0.54
Cutix Plc	2022	5,086,471.00	2,319,311.00	0.60	0.60	0.20	0.80	1.00	0.40	0.46
Cutix Plc	2023	5,796,790.00	2,563,989.00	0.40	0.60	0.20	0.80	1.00	0.40	0.44
Cutix Plc	2024	7,212,949.00	3,332,866.00	0.40	0.60	0.20	0.80	1.00	0.40	0.46
Cutix Plc	2025	8,522,531.00	4,182,291.00	0.60	0.80	0.20	0.80	1.00	0.40	0.49
Dang. Cem. Plc	2013	821,699,780.00	250,136,954.00	0.60	0.80	0.20	0.80	1.00	0.40	0.30
Dang. Cem. Plc	2014	963,441,064.00	324,897,950.00	0.60	0.80	0.20	0.80	1.00	0.40	0.34
Dang. Cem. Plc	2015	1,124,475,000.00	375,996,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.33
Dang. Cem. Plc	2016	1,502,564,000.00	521,197,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.35
Dang. Cem. Plc	2017	1,611,087,000.00	620,070,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.38
Dang. Cem. Plc	2018	1,721,974,000.00	428,426,000.00	0.60	0.60	0.20	0.80	1.00	0.40	0.25
Dang. Cem. Plc	2019	1,823,984,000.00	541,735,000.00	0.80	0.80	0.20	0.80	1.00	0.40	0.30
Dang. Cem. Plc	2020	2,116,060,000.00	763,683,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.36
Dang. Cem. Plc	2021	2,582,298,000.00	1,120,826,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.43
Dang. Cem. Plc	2022	2,658,463,000.00	1,166,928,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.44
Dang. Cem. Plc	2023	3,070,468,000.00	1,467,504,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.48
Dang. Cem. Plc	2024	5,194,814,000.00	3,067,198,000.00	0.60	0.80	0.20	0.80	1.00	0.40	0.59
Dang. Cem. Plc	2025	4,444,595,000.00	2,110,702,000.00	0.60	1.00	0.20	0.80	1.00	0.40	0.47

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Dang. S. Ref. Plc	2013	87,112,182.00	29,986,350.00	1.00	1.00	0.20	0.80	1.00	0.40	0.34
Dang. S. Ref. Plc	2014	97,287,804.00	45,874,084.00	1.00	1.00	0.20	0.80	1.00	0.40	0.47
Dang. S. Ref. Plc	2015	97,287,804.00	38,761,602.00	1.00	1.00	0.20	0.80	1.00	0.40	0.40
Dang. S. Ref. Plc	2016	106,671,333.00	40,283,276.00	1.00	1.00	0.20	0.80	1.00	0.40	0.38
Dang. S. Ref. Plc	2017	198,064,664.00	98,857,306.00	1.00	1.00	0.20	0.80	1.00	0.40	0.50
Dang. S. Ref. Plc	2018	178,523,711.00	71,343,585.00	0.80	1.00	0.20	0.80	1.00	0.40	0.40
Dang. S. Ref. Plc	2019	174,646,907.00	67,797,325.00	1.00	1.00	0.20	0.80	1.00	0.40	0.39
Dang. S. Ref. Plc	2020	259,280,544.00	133,977,642.00	1.00	1.00	0.20	0.80	1.00	0.40	0.52
Dang. S. Ref. Plc	2021	349,382,869.00	219,552,700.00	1.00	1.00	0.20	0.80	1.00	0.40	0.63
Dang. S. Ref. Plc	2022	490,969,836.00	318,940,151.00	1.00	1.00	0.20	0.80	1.00	0.40	0.65
Dang. S. Ref. Plc	2023	601,040,524.00	519,230,614.00	1.00	1.00	0.20	0.80	1.00	0.40	0.86
Dang. S. Ref. Plc	2024	1,018,344,271.00	838,648,805.00	0.80	1.00	0.20	0.80	1.00	0.40	0.82
Dang. S. Ref. Plc	2025	939,617,469.00	829,402,894.00	1.00	1.00	0.20	0.80	1.00	0.40	0.88
Lafarge Africa Plc	2013	159,866,917.00	67,225,252.00	0.60	0.80	0.20	0.80	1.00	0.40	0.42
Lafarge Africa Plc	2014	343,627,558.00	66,963,220.00	0.60	0.80	0.20	0.80	1.00	0.40	0.19
Lafarge Africa Plc	2015	381,272,953.00	78,671,084.00	0.60	0.80	0.20	0.80	1.00	0.40	0.21
Lafarge Africa Plc	2016	537,598,212.00	197,504,069.00	0.60	0.80	0.20	0.80	1.00	0.40	0.37
Lafarge Africa Plc	2017	616,169,940.00	351,401,045.00	0.60	0.80	0.20	0.80	1.00	0.40	0.57
Lafarge Africa Plc	2018	577,692,296.00	321,948,571.00	0.80	0.80	0.20	0.80	1.00	0.40	0.56
Lafarge Africa Plc	2019	500,081,653.00	138,660,094.00	0.60	0.80	0.20	0.80	1.00	0.40	0.28
Lafarge Africa Plc	2020	505,332,716.00	131,357,783.00	0.60	0.80	0.20	0.80	1.00	0.40	0.26
Lafarge Africa Plc	2021	534,054,123.00	138,704,653.00	0.60	0.60	0.20	0.80	1.00	0.40	0.26
Lafarge Africa Plc	2022	609,182,343.00	174,906,540.00	0.60	0.80	0.20	0.80	1.00	0.40	0.29
Lafarge Africa Plc	2023	689,780,550.00	239,660,214.00	0.60	0.80	0.20	0.80	1.00	0.40	0.35
Lafarge Africa Plc	2024	997,632,873.00	478,381,215.00	0.60	0.80	0.20	0.80	1.00	0.40	0.48
Lafarge Africa Plc	2025	1,205,381,777.00	508,189,218.00	0.80	0.80	0.20	0.80	1.00	0.40	0.42
Meyer Paints Plc	2013	2,597,517.00	1,975,135.00	0.60	0.80	0.20	0.80	1.00	0.40	0.76
Meyer Paints Plc	2014	2,435,368.00	1,853,742.00	0.60	0.80	0.20	0.80	1.00	0.40	0.76
Meyer Paints Plc	2015	2,301,121.00	1,663,021.00	0.60	0.80	0.40	0.80	1.00	0.40	0.72
Meyer Paints Plc	2016	2,178,705.00	1,755,007.00	0.60	0.80	0.40	0.80	1.00	0.40	0.81
Meyer Paints Plc	2017	1,890,966.00	1,587,997.00	0.60	0.80	0.40	0.80	1.00	0.40	0.84
Meyer Paints Plc	2018	1,839,132.00	1,218,069.00	0.60	0.80	0.40	0.80	1.00	0.40	0.66
Meyer Paints Plc	2019	3,720,214.00	3,112,644.00	0.60	0.80	0.40	0.80	1.00	0.40	0.84
Meyer Paints Plc	2020	2,952,080.00	1,236,004.00	0.40	0.80	0.40	0.80	1.00	0.40	0.42
Meyer Paints Plc	2021	1,986,513.00	983,355.00	0.60	0.80	0.40	0.80	1.00	0.40	0.50
Meyer Paints Plc	2022	1,907,674.00	510,899.00	0.60	0.60	0.40	0.80	1.00	0.40	0.27
Meyer Paints Plc	2023	2,424,767.00	792,023.00	0.60	0.80	0.40	0.80	1.00	0.40	0.33
Meyer Paints Plc	2024	2,813,107.00	1,034,307.00	0.60	0.80	0.40	0.80	1.00	0.40	0.37
Meyer Paints Plc	2025	3,416,001.00	1,298,782.00	0.60	0.80	0.40	0.80	1.00	0.40	0.38

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Table 2: Data for the Study from 2013 to 2025 Continued

Company	Year	TA (₦'000)	TD (₦'000)	IM	PO	PA	DA	BDP	RA	LV
Vitafoam Nig. Plc	2013	9,376,225.00	6,108,912.00	0.60	0.80	0.40	0.80	1.00	0.40	0.65
Vitafoam Nig. Plc	2014	11,032,131.00	7,285,127.00	0.60	0.80	0.40	0.80	1.00	0.40	0.66
Vitafoam Nig. Plc	2015	11,734,739.00	7,931,907.00	0.60	0.80	0.40	0.80	1.00	0.40	0.68
Vitafoam Nig. Plc	2016	13,098,732.00	8,723,509.00	0.60	0.80	0.40	0.80	1.00	0.40	0.67
Vitafoam Nig. Plc	2017	12,974,483.00	8,511,277.00	0.40	0.80	0.40	0.80	1.00	0.40	0.66
Vitafoam Nig. Plc	2018	15,156,727.00	10,333,733.00	0.60	0.80	0.40	0.80	1.00	0.40	0.68
Vitafoam Nig. Plc	2019	12,358,342.00	6,426,298.00	0.60	0.60	0.40	0.80	1.00	0.40	0.52
Vitafoam Nig. Plc	2020	19,802,249.00	11,115,236.00	0.60	0.80	0.40	0.80	1.00	0.40	0.56
Vitafoam Nig. Plc	2021	29,693,840.00	17,292,718.00	0.60	0.80	0.40	0.80	1.00	0.40	0.58
Vitafoam Nig. Plc	2022	36,913,111.00	21,900,038.00	0.60	0.80	0.40	0.80	1.00	0.40	0.59
Vitafoam Nig. Plc	2023	46,673,301.00	30,495,269.00	0.60	0.80	0.40	0.80	1.00	0.40	0.65
Vitafoam Nig. Plc	2024	45,907,461.00	24,282,588.00	0.60	0.80	0.40	0.80	1.00	0.40	0.53
Vitafoam Nig. Plc	2025	54,522,311.00	24,609,586.00	0.40	0.60	0.40	0.80	1.00	0.40	0.45
CAP Plc	2013	3,035,012.00	1,766,864.00	0.40	0.80	0.40	0.80	1.00	0.40	0.58
CAP Plc	2014	3,080,882.00	1,900,309.00	0.40	0.80	0.40	0.80	1.00	0.40	0.62
CAP Plc	2015	3,409,300.00	1,889,167.00	0.40	0.80	0.40	0.80	1.00	0.40	0.55
CAP Plc	2016	4,915,999.00	2,632,509.00	0.60	0.80	0.40	0.80	1.00	0.40	0.54
CAP Plc	2017	5,013,990.00	2,771,770.00	0.40	0.80	0.40	0.80	1.00	0.40	0.55
CAP Plc	2018	6,311,246.00	3,502,307.00	0.40	0.80	0.40	0.80	1.00	0.40	0.55
CAP Plc	2019	6,760,961.00	4,239,277.00	0.40	0.80	0.40	0.80	1.00	0.40	0.63
CAP Plc	2020	8,526,076.00	4,781,268.00	0.40	0.60	0.40	0.80	1.00	0.40	0.56
CAP Plc	2021	12,115,919.00	7,706,131.00	0.40	0.80	0.40	0.80	1.00	0.40	0.64
CAP Plc	2022	13,406,204.00	6,806,603.00	0.60	0.80	0.40	0.80	1.00	0.40	0.51
CAP Plc	2023	15,373,521.00	7,403,814.00	0.40	0.80	0.40	0.80	1.00	0.40	0.48
CAP Plc	2024	19,677,179.00	9,040,692.00	0.40	0.60	0.40	0.80	1.00	0.40	0.46
CAP Plc	2025	24,466,333.00	10,218,349.00	0.40	0.80	0.40	0.80	1.00	0.40	0.42

Source: Annual Reports of Selected Companies and Authors' Computation (2026)

Where TA=Total Assets, TD=Total Debts, IM= Investment Management, PO=Portfolio Optimization, PA= Predictive Analytics, DA= Data Analysis, BDP= Big Data Processing, RA= Risk Analysis and LV= Leverage

Appendix Four (iv)

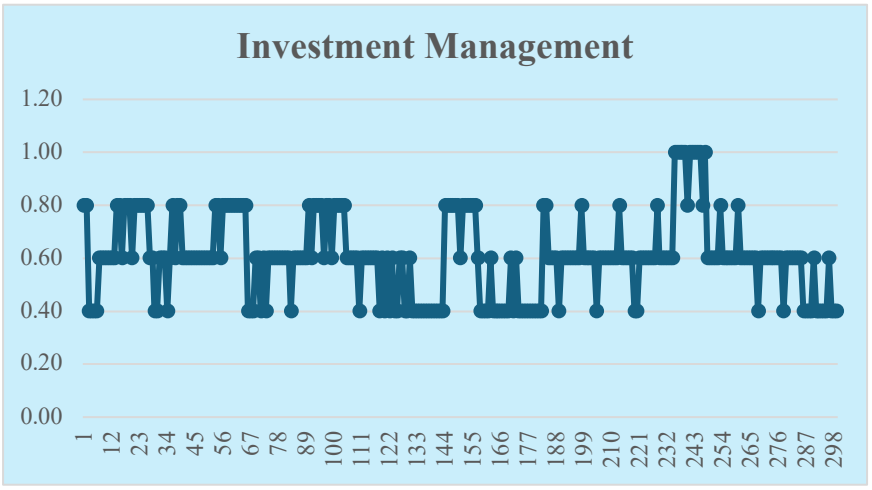


Figure 1: Graphical Illustration of Investment Management

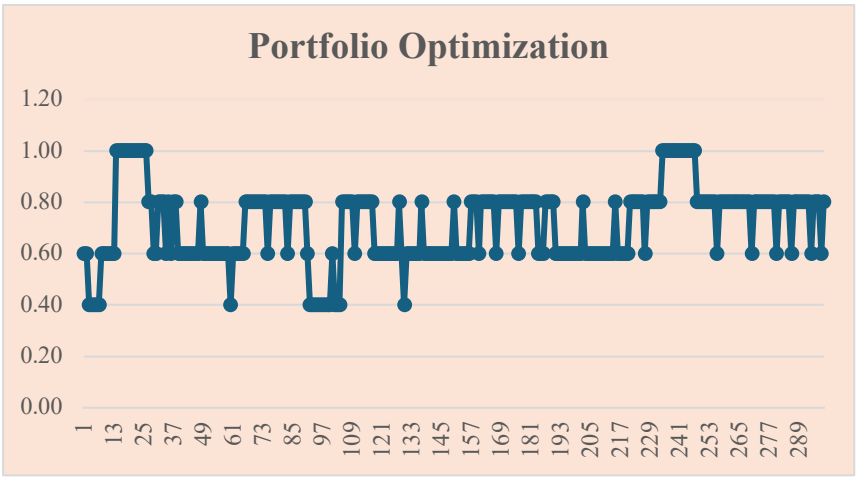


Figure 2: Graphical Illustration of Portfolio Optimization

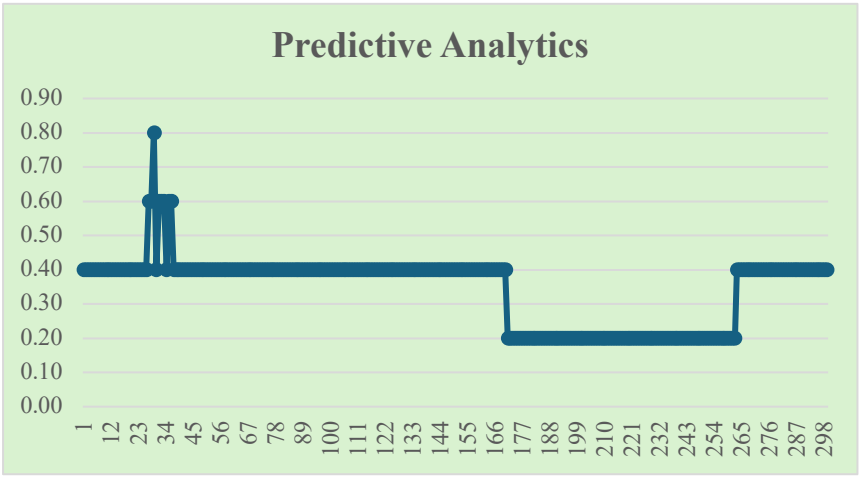


Figure 3: Graphical Illustration of Predictive Analysis

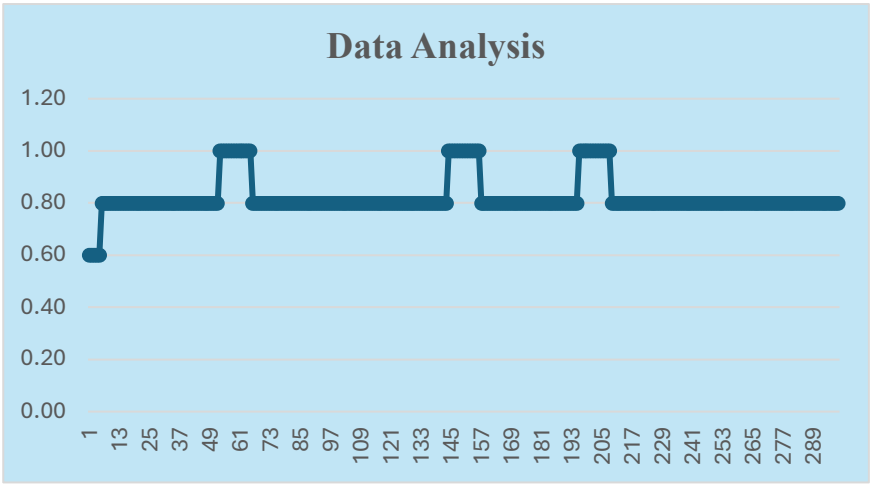


Figure 4: Graphical Illustration of Data Analysis

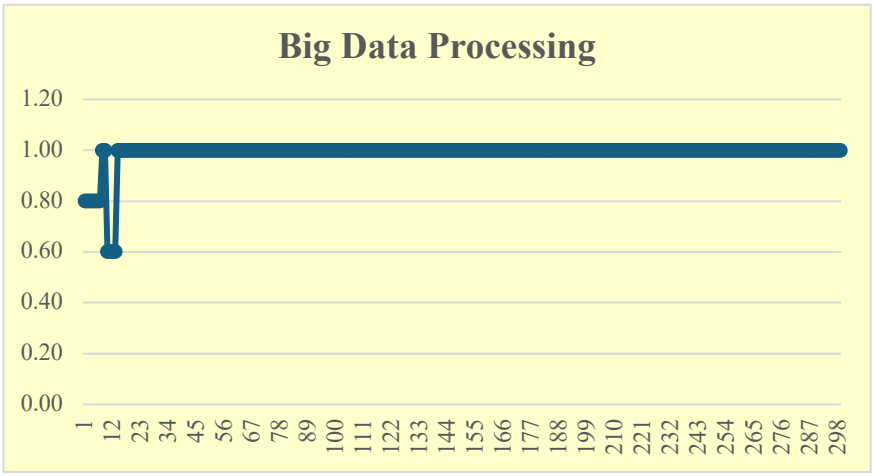


Figure 5: Graphical Illustration of Big Data Processing

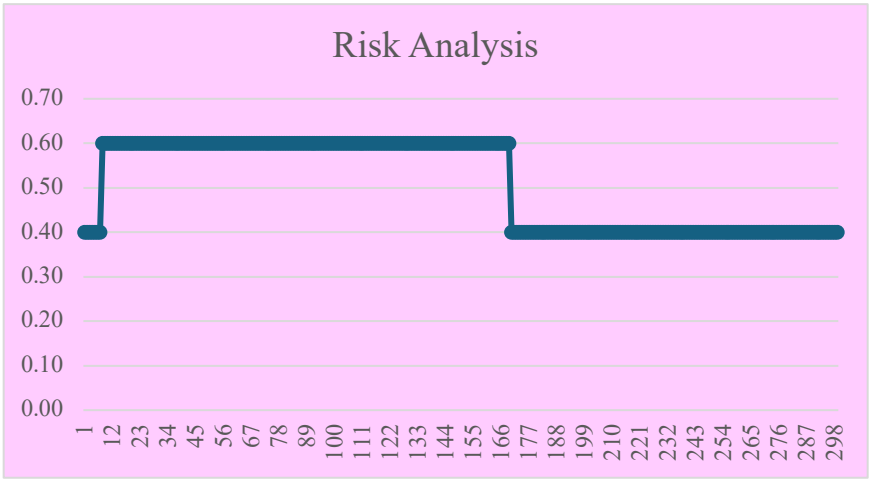


Figure 6: Graphical Illustration of Risk Analysis

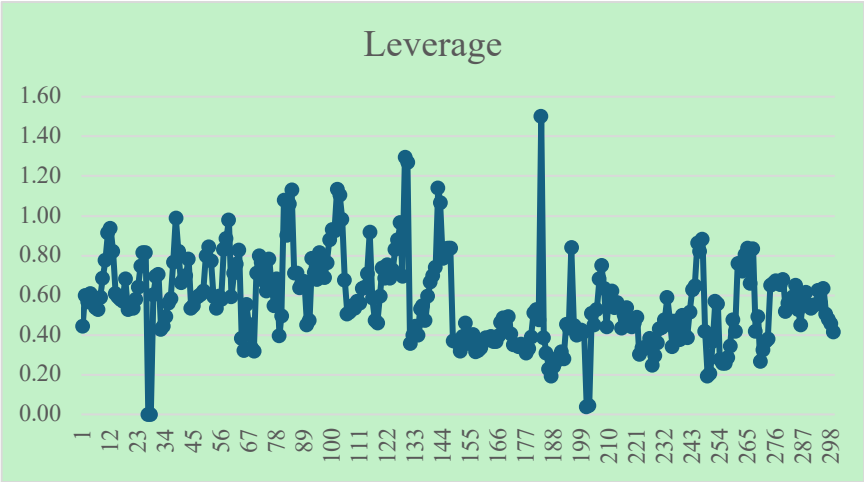


Figure 7: Graphical Illustration of Leverage