# The Effect of Forensic Auditing on Organizational Performance in Nigeria: Insights from Nigeria Breweries Plc (2013-2023)

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***ABSTRACT***

*This research examines the influence of forensic auditing on organizational performance in Nigeria, specifically focusing on Nigeria Breweries Plc from 2013 to 2023. This period is marked by significant events, including Nigeria's economic recession in 2016, the financial repercussions of the COVID-19 pandemic in 2020–2021, and the aftermath of the global financial crisis of 2008–2009. These occurrences provide valuable insights into how forensic auditing may have aided companies in addressing fraud issues, managing complex financial challenges, and coping with the pandemic's economic fallout. The study aimed to achieve several objectives: to evaluate the effect of auditors' independence on return on assets (ROA) at Nigeria Breweries Plc, to assess how the size of auditors impacts ROA, and to investigate the relationship between auditors' remuneration and ROA. Utilizing an ex-post facto research design, the research relied on secondary data sourced from the annual reports and financial statements of Nigeria Breweries Plc during the specified period. The analysis employed the Ordinary Least Squares (OLS) regression technique using e-views 10 statistical software to test the formulated hypotheses. The results revealed that auditors' independence does not have a significant effect on ROA at Nigeria Breweries Plc, whereas auditors' size does have a meaningful impact. Conversely, auditors' remuneration showed no significant correlation with ROA. Based on these results, the study recommends that Nigeria Breweries Plc strengthen its internal control systems and enhance supervisory measures alongside external auditing, as auditors' independence seems to have little influence on ROA. This strategy will improve the effectiveness of fraud detection and prevention within the organization.*

**Keywords:** *Forensic Auditing, Auditors' Independence, Size, Remuneration and Organisational performanc*

## INTRODUCTION

The rise in deceptive activity in governments as well as businesses globally in the past few years, coupled with the collapse of Enron, the largest energy corporation in the world, and other large, multinational companies due to illegal business conduct, has resulted in a growing lack of investor confidence in the financial markets and an increased need for forensic audit services. Therefore, having essential security and fraud detection processes that can recognise and thwart any type of fraud, no matter how complex, is essential. One of these safety measures is forensic auditing. The increasing frequency of frauds has led to a growing interest in the accounting subject of forensic auditing.

The forensic audit is a technique used to prevent fraud and corruption. It provides judges and pertinent legal authorities with information and sufficient evidence to examine and present in court, enabling them to decide whether or not there is fraud at issue based on legal texts (Wadesango, et al., 2023). According to Appah and Inini (2021) it is perceived as a summary and adaptation of financial skills, litigation services, criminology, and investigative auditing to the detection of fraud. According to Enofe et al. (2015), the Institute of Forensic Accountants (IFA) in Nigeria, forensic auditing is an accounting speciality that refers to a forensic auditor's or accountant's involvement in a dispute or lawsuit that is expected. The area of accounting that offers analysis appropriate for the court will serve as the foundation for discussion, disagreement, and final conflict resolution.

This study is based on three quantifiable alternatives to forensic auditing that are frequently included in an organization's annual report: auditor independence, auditor size, and auditor remuneration. These elements affect forensic audits' dependability and accuracy, which makes them useful for both theoretical analysis and practical use.

The field of forensic auditing places significant emphasis on the independence of auditors, since they are more likely to provide an objective assessment devoid of any conflicts of interest or bias. Compromised audit results arising from bias may reduce the efficacy of forensic audits. The size of the audit company is one potential indicator of the resources available for thorough forensic auditing. Larger businesses usually have better technology, more seasoned auditors, and auditors trained to handle complex forensic investigations. The complexity and extent of the forensic audit being conducted may be reflected in the high remuneration. Excessive remuneration may also imply that auditors would likely carry out their investigations more fully, raising questions about the audit's objectivity. Organisational performance is significantly impacted by forensic auditing aspects or practices, which support the positive relationship between forensic audit and organisational performance.

Nigerian Breweries Plc, a major player in the beer industry, reported ₦227billion in revenue for its first quarter that ended on March 31, 2024, up 84% from the same period in 2023. The increase was made possible by a difficult macroeconomic climate that was characterised, among other things, by growing inflation and foreign exchange (FX) volatility. The outcome was further enhanced by the overlaying of a bad first quarter of 2023 caused by the currency shortage that followed the Naira Redesign policy. The performance, according to Essaadi (2024), is the consequence of the company's strategic recovery plan's intentional activities as well as the commitment of its committed team in exhibiting resilience in the face of a difficult macroeconomic climate.

Numerous studies have examined, with differing degrees of a successful outcome, the connection between forensic auditing and an organization's performance. According to Eyisi & Agbaeze (2014) and Enofe et al. (2015), forensic audit services assist forensic auditors in strengthening management accountability, supporting the independence of external auditors, detecting, preventing, and reducing corporate fraud, and assisting audit committee members in carrying out their oversight responsibilities. Financial frauds will not get better with the help of certified and competent forensic auditors (Kehinde et al., 2020; Akenbor & Ironkwe, 2014).

This study aims to assess the potential impact of forensic auditing on Nigeria Breweries Plc's organisational performance between 2013 and 2023. Among the significant events that took place during this time were the COVID-19 pandemic's financial breakdowns in 2020–2021, Nigeria’s downturn in 2016, and the aftermath of the global financial crisis in 2008–2009. These events offer crucial new information on how forensic auditing may have aided businesses in managing intricate financial issues, handling fraud-related issues, and dealing with the financial consequences of the pandemic. The paper presents a full understanding of the influence of forensic audits on Nigeria Breweries Plc's performance by focussing on this timeframe span and taking shifting financial practices and regulatory advancements into consideration. So, it is interesting to glance at the paper.

**Statement of the problem**

Much critique has been levelled at audit departments' contributions to better financial reporting. To be helpful in making choices, a financial statement must present an accurate and impartial view of the condition and performance of the business. This accuracy can only be ensured by regular, recurrent audits of the financial statements by auditors. However, independent audits have steadily lost their full usefulness due to corporate failures. Further oversight was necessary as a result of these inadequacies, which is why independent audit committees were established to monitor auditors.

Despite the establishment of audit committees, credit programs involving Nigerian corporations have highlighted their inadequacies and raised questions about their effectiveness. These scams have brought to light the deficiencies in the oversight provided by audit committees, as well as their inability to protect shareholders' interests and improve company performance. This has raised questions about the effectiveness of forensic auditing as a fraud-fighting strategy.The primary gap identified by this study is the inability of traditional auditing methods to prevent fraud and financial crimes in Nigerian commercial organisations. This study attempts to evaluate the effect of forensic audits on the organisational performance of Nigeria Breweries Plc with the objective to determine the need for more secure financial control to improve performance and decrease criminal behaviour..

**Objectives of the study**

i. To examine the effect of auditors' independence on return on asset in Nigeria Breweries Plc.
ii. To ascertain the effect of auditors' size on return on asset in Nigeria in Nigeria Breweries Plc.
iii. To investigate the effect of auditors' remuneration on return on asset in Nigeria Breweries Plc.

**Research questions**

i. What is the effect of auditors' independence on return on asset in Nigeria Breweries Plc?
ii. What is the effect of auditors' size on return on asset in Nigeria Breweries Plc?
iii. What is the effect of auditors' remuneration on return on asset in Nigeria Breweries Plc?

**Research hypotheses**

$H_{O1}$: Auditors' independence has no significant effect on return on asset in Nigeria Breweries Plc.
$H_{O2}$: Auditors' size has no significant effect on return on asset in Nigeria Breweries Plc.
$H_{O3}$: Auditors' remuneration on has no significant effect on return on asset in Nigeria Breweries Plc.

## Review of Related Literature

### Conceptual Framework

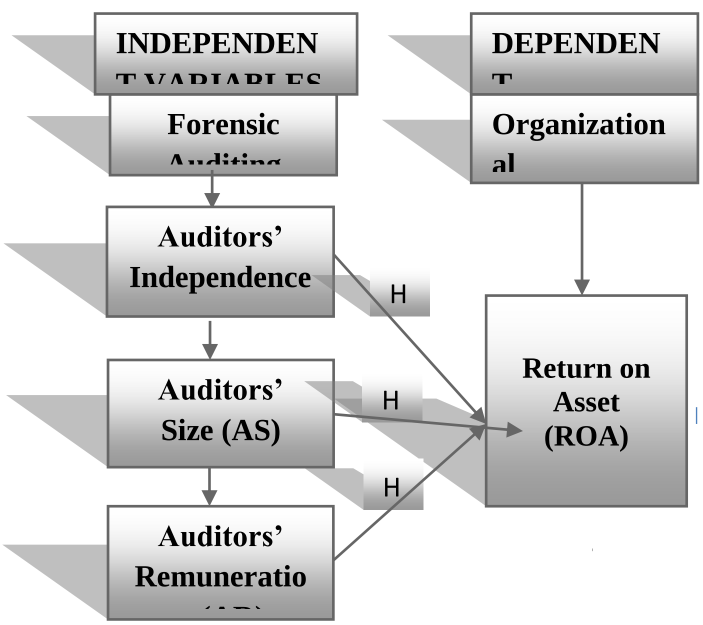


**Figure 1:** Author's Conceptual Model (2024)

### Forensic auditing

The forensic audit is a technique for preventing fraud and corruption. It provides judges and the appropriate legal authorities with information and enough proof to examine and present in court, enabling them to decide whether or not there is fraud at issue based on legal texts (Okoye, et al., 2019). The entire process of looking into a financial situation, including testifying as an expert witness in the event that the fraud is put on trial, is known as forensic auditing (ACCA 2018). It uses broadly defined terms to encompass a wide range of activities. The phrase "forensic auditing" often refers to the entire spectrum of investigative tasks that licensed practitioners of accounting may be required to complete. On the other hand, forensic auditing describes certain steps used to generate proof (ACCA, 2018). Political corruption in Nigeria has led to widespread mismanagement that has a detrimental effect on foreign direct investment, tax collection, and law enforcement (Okunbor & Obaretin, 2010).

According to Inyada, Olopade, and John (2019), forensic auditing is the methodical application of auditing techniques to situations that may have legal ramifications. Appah and Awuji (2023) stated that forensic auditing entails the merger of litigation services, accounting, investigative auditing, and criminology. Eyisi and Agbaeze (2014) state that forensic auditors are certified experts in financial affairs with the ability to recognise, investigate, and prevent corporate abuse and fraud. Their conclusions needed to be presented in tribunal so that appropriate legal action can be taken.

As stated by Adesina et al. (2020), forensic auditing entails carrying out an exhaustive investigation, spotting and halting fraudulent activities, and providing assistance for legal proceedings in court. In contrast, Enofe et al. (2015) noted that forensic audit examines the finding, assessment, and sharing of evidence of dishonest activity. Furthermore, forensic auditing is the process of tracking and obtaining forensic evidence using accounting procedures in order to investigate and prosecute fraudulent activities, according to Madu-Chima et al. (2020). It consists of steps done to get reliable and pertinent documentation in the event of disagreements or legal action.

### Auditors' independence

"Audit independence" refers to the objectivity of the auditing the choice-making process all through the preparation of financial statements, including audit procedures. Without any kind of independence, the audit report and audit service will be far less value. Independence, according to Rahmina and Agoes (2014), is the condition of not being influenced by prejudice, persuasion, or intervention. According to Aliu et al. (2018), an auditor must be independent in order to be unbiased and free from bias. The researchers further assert that public perception of an independent auditor as an unbiased professional influences public belief in the accuracy of a company's financial accounts. Accordingly, the degree of independence possessed by an auditor is a result of both the attitudes of those engaged in a given audit assignment and the guidelines and practices established by the audit company (Tepalagul & Lin, 2014). Audit independence is the auditor's independence in carrying out his responsibilities, according to Harrison (2015). The auditing process is characterised by its impartiality and honesty. According to the notion, the auditor must do their duties impartially and freely.

Audit independence, as defined by Zayol and Kukeng (2017) is the unbiased perspective that an auditor has while making decisions on financial reporting and the audit. Since the audit help will be much less valuable due to the lack of objectivity, they define independence as the state of not being subject to convincing others, impact, or prejudice. If an auditor lacks independence, there is a greater chance that he will appear biassed in his report or opinion. This suggests that if a breach is discovered, the auditor will probably fail to report it.

### Auditors' size

Auditors utilise state-guaranteed marketplaces to promote other services like corporate governance and pension plans, according to Sikka et al. (2018). Like other companies, auditors work at various sizes and levels of process sophistication. Four audit companies emerge as the world's leading accounting services firms in the audit market: KPMG, Deloitte, Ernst & Young, and PWC. They call themselves the big four with pride. Due to their expanding global network and impact, the Big Four have distinguished themselves from other types of auditors.

Three factors determine the scale of an auditor: the number of audit partners in the business, the size of the partners' client portfolios, and the wealth of the audit partners. Because investors can recover their losses from the auditor in the case of an audit failure, wealth serves as a bond to assure high-quality audits in high-risk litigation scenarios (Lennox & Li, 2012). The financial stability of the partners who own and run the audit company is measured by the wealth of the audit partners. Labour economics says that when wages rise, workers offer more labour and leisure becomes more expensive; this is known as the substitution effect. A worker may afford to take more time off as their salary rises, according to the income impact theory. When it comes to auditing, an audit partner might spend longer hours, prepare carefully, and do more thorough substantive tests to raise detection risk and decrease audit risk. The reduction in liability risk is a major factor in an audit partner's high earnings (Zhou, 2015).

The variety and range of clients that audit partners oversee are reflected in their client portfolios. Greater client portfolios show that audit partners work with a diverse variety of businesses in various industries, which broadens their knowledge and perspectives. It also suggests that the company is capable of managing intricate audits for big businesses, which strengthens its standing as a dependable and meticulous provider (Zhou, 2015).

A higher number of partners also suggest that the firm has a greater ability to conduct large-scale audits and manage a high volume of clients without compromising the quality of services. The size of the audit company is determined by the number of audit partners, assuming that the size of each partner's client portfolio remains unchanged. Sundgren and Svanstrom (2014) discover that the number of public clients in a portfolio is inversely associated to the probability to offer a going-concern opinion before bankruptcy.

### Auditors' remuneration

According to Smii (2016), auditors get paid an audit fee to perform their services for a customer or organisation. The study goes on to say that the auditor's audit remuneration will determine the kind of service they provide in fulfilling their duties for the company. According to Enofe et al. (2012), the auditing fee is the sum of money paid to an audit business in exchange for doing an audit task. The objective variables that determine the typical rate of change in the audit fee are the magnitude of the company, the level of difficulty of the audit that impacts the financial data on the balance sheets and account for profits and losses of the organisation, and modifications made to the accounts and organisational structures as the previous audit completed.

The possibility of being assigned, the difficulty of the help being given, and the experience stature, along with additional professional criteria all affect the audit fee amount, according to Yuniarti (2011). It proves that in conjunction to the higher audit price, a better quality audit will be given. The research continues by stating that the perceived independence of public accountants may also be impacted by the quantity of the audit charge. While a little cost could reduce the amount of labour and resources needed to finish the audit process, a big price might deter accounting firms from defying the client's requests. Members must be able to show that their job is done properly and meets both the specified quality criteria and the demands of the customer.

**Organization Performance**

According to Jacob et al. (2022), organisational justice is a key factor in organisational performance because it motivates workers to devote themselves fully to tasks assigned to them. To ensure appropriate organisational performance, accountability, and fraud prevention on the part of management, forensic auditors—who possess specialised knowledge in both scientific and legal fields—and financial fraud experts can assist management in enhancing performance within their organisation. Although forensic auditing is still relatively new in Nigeria, more and more organisations are seeing the necessity for their services due to the rise in fraudulent financial activities.

Among the various variables that have been identified to influence the financial viability of a business are its age, size, leverage, liquidity, and managerial competency index (Almajali, et al., 2012). An entrepreneurial company must be profitable. Due to the company's improved reputation, investors are only ready to purchase its shares when it is profitable; as demand for the company's shares grows, so does the price of the shares, increasing the firm's worth. A company's stability is improved and its capacity to endure adverse economic shocks is enhanced by profitability. Additionally, profitability increases business value, maximises shareholder utility through dividends, and serves stakeholders' interests through CSR (Bhutta & Hasan, 2013).

**Return on Assets (ROA)**

The return on assets (ROA) measures a company's profitability in relation to its total assets. An investor or manager can determine a company's efficiency in generating profits from its assets by looking at its return on assets (ROA) (Adeoye & Olojede, 2022). ROA is a metric used to assess how profitably a firm is using its assets. In contrast to other measures, ROA accounts for a company's debt. The return on assets (ROA) metric indicates how well a business turns investment capital into net income (Olayemi & Fakayode, 2021). It is the estimated increase in cash flows generated by the operating cycle as a result of asset or investment expenditures. Anarfo and Appiahene (2017) define return on assets (ROA) as the amount of profit generated by each asset. When making financing decisions, one of the manager's top priorities is to ensure that the firm uses a healthy financing mix or capital structure at all times.

## Theoretical Framework

## Fraud Diamond Theory

The fraud diamond model was first proposed by Wolf and Hermanson in 2004. In this model, they offered an alternative perspective on the elements that contribute to fraud. The model extends the three-factor theory of the fraud triangle by include a fourth component, "capabilities." According to Wolf and Hermanson, many scams would not have happened if the correct individual had not been able to carry out the specifics of the scam. Additionally, they proposed four observational characteristics of fraud: i. Possessing an authoritative position within the company; ii. Being able to comprehend and take advantage of the accounting and internal control systems within the company; iii. Being confident that they won't be discovered or, if they are, that they can escape it with ease; iv. Being able to handle the stress that an otherwise decent person experiences when they commit a bad act.

Better systems of checks and balances should also be put in place and closely watched in order to proactively reduce risks and costs brought on by fraudulent activity in the workplace. Therefore, in order to prevent fraud and other atrocities from occurring and to enhance organisational performance, the services of a qualified and experienced investigator, such as a forensic auditor, are necessary due to the competence of individuals who participate in such activities.

The Fraud Diamond Theory served as the study's foundation. This is due to the fact that it added to the elements in the fraud diamond theory that influence people's decisions to commit fraud; auditors and organisations must have a deeper understanding of workers' unique characteristics and skills in order to evaluate the likelihood of fraudulent activity.

The theory also highlights how important it is for forensic auditors to be able to evaluate the effectiveness of internal control systems, check and balances, and their suitability in light of the control environment that would proactively minimise risks and losses that are likely to arise. In order to protect the organization's assets, he will also devise and implement practical plans and methods for control implementation and oversight. In the end, this will lessen, prevent, and minimise the instances of fraud and other atrocities in an organisation that can have a detrimental impact on its continuous operations. Preventing such fraud and improving Nigeria Breweries Plc's organisational performance requires a forensic auditor or other qualified and experienced investigator.

**Empirical Review**

A study conducted in 2020 by Kehinde et al. examined the application of forensic audit in the prevention of financial crimes that endanger or harm the stability and operations of Deposit Money Banks (DMBs) in Nigeria. Techniques for designing surveys were used in the study. The results of the Ordinary Least Squares (OLS) method, which was also used, showed that having qualified and experienced forensic auditors on staff will not only lessen financial crimes in DMBs but also give Nigeria's banking sector much-needed stability.\.

Abdulsalam, et al. (2020) assess the performance of enterprises and forensic accounting using the net profit margin, return on equity, and return on asset of the Cement Company of Northern Nigeria. The research employed the survey approach. The Statistical Packages for Social Sciences (SPSS) were utilised to conduct multiple regression analysis after a standardised questionnaire was provided utilising quantitative data. The findings demonstrated a positive and significant correlation between net profit margin, return on equity, and return on asset and forensic accounting.

Over a six-year period, from 2010 to 2016, Okoye, et al. (2019) assessed the impact of forensic audits on the financial performance of listed food and beverage enterprises in Nigeria. Ex post facto research is the type of research design used in this study. STATA 13 statistics software was the statistical instrument utilised to evaluate the hypothesis. According to the study, forensic auditing has a significant and favourable influence on the ROA, ROE, and EPS of food and beverage companies listed on the Nigerian stock exchange.

Ukuma carried out a study in 2019 about forensic auditing and the decline in fraud in Nigeria. This study employed a survey research design with a sample of 48 operational and general managers, including bank auditors, and only sixteen banks were used for data analysis. Data were gathered using questionnaires, interviews, and secondary sources. When the data was examined using the ordinary least square method, it was found that there was a significant correlation between forensic auditing and internal control and bank cash management systems, but not with loan administration and repayment systems.

Uniamikogbo et al. (2019) looked into how forensic auditing affected the detection and prevention of fraud in Nigerian banks. Ex post facto research methodology was employed in this study, and tables, charts, graphs, and regression analysis were utilised to analyse the data. Data from a countrywide bank census conducted between 2013 and 2016 was gathered from secondary sources, including yearly reports. The results of their analysis indicate that the number of fraud cases in Nigeria's banking sector is considerably and adversely impacted by forensic audit. Furthermore, the analysis showed that forensic auditing had no appreciable effect on anticipated losses in Nigeria's banking sector.

Amal (2019) conducted an empirical study to investigate the impact of forensic accounting on the financial performance of investment enterprises. By integrating knowledge in financial reporting, litigation, auditing, and investigation, forensic accounting may be able to detect and thwart frauds, according to research using data from a five-year study. Comparably, it reduces accounting irregularities while also promoting improved corporate governance, higher levels of internal control, and shareholder confidence. Thus, forensic accounting improves the profitability and performance of investment enterprises as a result of these successes.

The impact of forensic accounting on the performance of the Nigerian banking sector was examined by Okoroyibo and Omoregie (2019). A sample of First Bank and United Bank of Africa (UBA) Plc's annual reports and accounts were utilised to gather data during a twelve-year period (2007–2018). The multiple regression strategy was employed in the study project to analyse data using the E-view 9.0 software package. The study's conclusions show that forensic audit has a major impact on a portion of Nigerian banks' net profit margins. It was also observed that the profitability of Nigerian banks after taxes are impacted by forensic audits. The study also demonstrated that forensic audit had a major influence on Nigerian banks' retained earnings and dividend per share.

Ekechukwu, Ugwu, and Mbah (2018) investigated the effect of forensic accounting on the operation of the Nigerian banking system. The data was extracted from a sample of Access Bank Plc and Guarantee Trust Bank's annual reports and accounts covering the twelve-year period (2006-2017). The study project employed multiple regression analysis, and the data analysis tool was the E-view 9.0 software program. The analysis's result shows that forensic audit has a major impact on the net profit margins of a selection of Nigerian banks. It was also observed that the profitability of Nigerian banks after taxes are impacted by forensic audits. The study also demonstrated that forensic audit had a major influence on Nigerian banks' retained earnings and dividend per share.

Enofe, Omagbon, and Ehigiator (2015) investigated the impact of forensic auditing on corporate fraud in Nigeria. The data was analysed using IBM SPSS Statistics 21's ordinary least square (OLS) regression methodology, utilising the survey approach. The paper claims that regular use of forensic audit services would significantly help in the detection, prevention, and reduction of fraud incidences in businesses. Consequently, it was found that forensic auditing was an effective and practical tactic in the fight against corporate fraud.

## Gap in Review of the Related Literatures

It is acknowledged that the area of forensic auditing combines financial knowledge, criminology, litigation assistance, and investigative auditing to identify fraud. Forensic auditing is becoming a crucial instrument for efficiently investigating and prosecuting fraud cases and individuals involved in fraudulent practices because of the increasing complexity of fraudulent operations. While relatively new in Nigeria, company executives have increasingly acknowledged the need for forensic auditors as the incidence of financial fraud continues to rise.

However, the reviewed literature indicates that limited research has been conducted to assess the effect of forensic auditing proxies—such as auditor independence, audit size, and auditors' remuneration—on organizational performance, specifically using return on assets as a measure in the manufacturing sector. This is particularly evident in the case of Nigeria Breweries Plc over the recent period from 2013 to 2023. The necessity for this investigation is highlighted by this gap in the literature.

## METHODOLOGY

### Research Design

Ex-post facto research is used to analyse secondary data since it is intended to examine an event that has already occurred rather than conduct an experiment.

**Sampling Method**

The Nigerian Breweries Plc was selected based on judgmental sample technique because The Brewery has drawn investments from both domestic and foreign sources, increasing production and job opportunities in Nigeria. In addition, the rationale is to guarantee the accessibility of financial information and the availability of resources required for the achievement of company objectives.

**Research Instrumentation**

The instrument used for the collection of the data is through documentation and annual reports of Nigerian Breweries Plc. The data covered a period of eleven years from 2013 to 2023 alongside text books, journal articles.

**Method of Data Analysis**

The study employed multiple regression models for data analysis, specifically using the Ordinary Least Squares (OLS) method. The analysis was performed using the e-view 10 statistical techniques. The linear relation between the study's variables can be stated implicitly as illustrated below:

ROA= $f$ (AI) . . . 1
ROA = $f$ (AS) . . . 2
ROA = $f$ (AR) . . . 3

The study's clear and specific link between the dependent and independent variables is illustrated below.

$$ROA = \beta_0 + \beta_1 (AI) + \beta_2 (AS) + \beta_3 (AR) + \epsilon \quad . \quad . \quad . \quad 4$$

By log linearizing, the model becomes;

$$\text{Log (ROA)} = \beta_0 + \beta_1 \log (AI) + \beta_2 \log (AS) + \beta_3 \log (AR) + \mu \quad . \quad . \quad 5$$

Where,
ROA = Return on Asset (Dependent Variable)
AI = Auditors' Independence (Independent Variable)
AS = Audit Size (Independent Variable)
AR = Auditors' Remuneration (Independent Variable)
$\beta_1$, $\beta_2$ & $\beta_3$ = Regression Coefficients
$\epsilon$ = Error Term

**Table 1:** Summary of Measurement of Variables

| Variables | Symbol | Measurement |
|---|---|---|
| Return on Assets | ROA | Profit after tax divided by the total assets |
| Auditor Independence | AI | Number of members of Audit Committee |
| Audit Size | AS | Log of the size of a company's assets |
| Auditors' Remuneration | AR | Amount paid to auditors of the firm (audit fees) |

Source: Author's compilation, 2024

## ANALYSIS OF RESULTS

**Table 1:** Data showing Natural Logarithm of the variable under study Return on Assets (ROA), Auditors' Independence (AI), Audit Size (AS), and Auditors' Remuneration (AR)

| | ROA | LAI | LAS | LAR |
|---|---|---|---|---|
| 2013 | 0.170440 | 1.791759 | 19.34795 | 10.59771 |
| 2014 | 0.121599 | 1.791759 | 19.67252 | 10.68492 |
| 2015 | 0.106669 | 1.791759 | 19.69243 | 10.74158 |
| 2016 | 0.077241 | 1.791759 | 19.72261 | 10.81156 |
| 2017 | 0.086248 | 1.791759 | 19.76283 | 10.94260 |
| 2018 | 0.049904 | 1.945910 | 19.77849 | 10.94260 |
| 2019 | 0.042104 | 1.945910 | 19.76225 | 11.02582 |
| 2020 | 0.016933 | 1.609438 | 19.91232 | 11.08981 |
| 2021 | 0.026784 | 1.609438 | 19.99478 | 11.16463 |
| 2022 | 0.022412 | 1.609438 | 20.24735 | 11.16463 |
| 2023 | -0.132655 | 1.609438 | 20.49678 | 11.63956 |

**Source:** e-views output, 2024

Table 1 displays data on the natural logarithms of important variables relevant to the research: Return on Assets (ROA), Auditors' Independence (LAI), Audit Size (LAS), and Auditors' Remuneration (LAR) for Nigeria Breweries Plc from 2013 to 2023. ROA steadily decreases throughout the course of the time, showing a notable reduction in 2023 (-0.132655), which suggests declining profitability or inefficiency in the utilisation of assets. From 2013 until 2017, the Logarithm of Auditors' Independence (LAI) stays around 1.791759. After that, it fluctuates between 1.609438 and 1.945910, which represents slight variations in audit independence. The progressive growth in LAS (Logarithm of Audit Size) over time indicates a potential expansion in the scale or scope of audit activities. The LAR (Logarithm of Auditors' Remuneration) shows a gradual increase in auditor compensation each year, peaking in 2023. This pattern suggests that there may be a relationship between the performance of the organisation and the independence, size, and compensation of the audit team, especially during difficult fiscal years like 2023.

**Table 2**: Shows the descriptive statistics of the variables under study

| | ROA | LAI | LAS | LAR |
|---|---|---|---|---|
| Mean | 0.053425 | 1.753488 | 19.85366 | 10.98231 |
| Median | 0.049904 | 1.791759 | 19.76283 | 10.94260 |
| Maximum | 0.170440 | 1.945910 | 20.49678 | 11.63956 |
| Minimum | -0.132655 | 1.609438 | 19.34795 | 10.59771 |
| Std. Dev. | 0.077839 | 0.128210 | 0.307560 | 0.289572 |
| Skewness | -0.983639 | 0.128056 | 0.671820 | 0.842787 |
| Kurtosis | 4.257231 | 1.821769 | 3.234576 | 3.486617 |
| Jarque-Bera | 2.498289 | 0.666335 | 0.852681 | 1.410730 |
| Probability | 0.286750 | 0.716650 | 0.652894 | 0.493928 |
| Sum | 0.587679 | 19.28837 | 218.3903 | 120.8054 |
| Sum Sq. Dev. | 0.060589 | 0.164378 | 0.945931 | 0.838522 |

**Source:** e-view output, 2024.

In table 2 all the variables summary statistics under study in their raw form have been shown. Particularly, the mean values of the Return on Assets (ROA), Auditors' Independence (AI), Audit Size (AS), and Auditors' Remuneration (AR) in respectively stood at about 0.053425, 1.753488, 19.85366 and 10.98231 showing the 11 years of Nigeria Breweries Plc covering 2013 to 2023 under study average value, and equally, It displays their different lowest and maximum values along with how they have changed throughout time. Conversely, the above sum of squares dev. represents a departure from the mean. The standard deviation value, which represented the spread in the data series, indicates that the series's divergence from the mean increases with increasing value and decreases with decreasing value.

In table 2 above, it can be said that all the series are normally distributed due to the normality of the series of ROA, AI, AS, and AR respectively and since the probability value of Jargue-berra statistics of all the series are shown to be more than the acceptable 0.05 with 2.498289, 0.666335, 0.852681 and 1.410730 for ROA, AI, AS and AR respectively; with their respective p-value 0.286750, 0.716650, 0.652894 and 0.493928 higher than 0.05 with exemption of AR. All of the series have a normal distribution according to the probability values for Jarque Berra statistics in the descriptive table. As a result, one of the assumptions of Ordinary Least Square is used to evaluate the regression model employing the modified data. Regression is the normalcy of satisfied series.

**Table 3:** Multi Regression Estimate Results

Dependent Variable: ROA

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| LAI | -0.064526 | 0.056906 | -1.133908 | 0.2942 |
| LAS | -0.047185 | 0.058733 | -0.803377 | 0.4482 |
| LAR | -0.231633 | 0.057726 | -4.012637 | 0.0051 |
| C | 3.647229 | 0.698857 | 5.218847 | 0.0012 |

| | | | |
|---|---|---|---|
| R-squared | 0.964630 | Mean dependent var | 0.053425 |
| Adjusted R-squared | 0.949471 | S.D. dependent var | 0.077839 |
| S.E. of regression | 0.017497 | Akaike info criterion | -4.978271 |
| Sum squared resid | 0.002143 | Schwarz criterion | -4.833582 |
| Log likelihood | 31.38049 | Hannan-Quinn criter. | -5.069478 |
| F-statistic | 63.63549 | Durbin-Watson stat | 2.588396 |
| Prob(F-statistic) | 0.000019 | | |

**Source:** e-view output, 2024.

The correlation results displayed in Table 3 above demonstrate that $R^2$, the multiple coefficient of determination of the variables, remained at 0.964630, meaning that deviations in the independent variables recorded in the study account for approximately 96.46% of the overall variance in ROA. The adjusted $R^2$ of 0.949471 further suggests that even if additional variables were included in the study, the AI, AS, and AR would still report for 96.46% of the variance in ROA. Furthermore, it should be noted that linear regression also requires the presumption that the error terms do not autocorrelate. Durbin-Watson is a useful tool for testing the independence of error terms, according to Norusis (1995). He continued by saying that the premise of term independence is not broken if the Durbin-Watson value falls between 1.5 and 2.5. As indicated in Table 3, the Durbin Watson coefficient was 2.588396, which is slightly above the benchmark. This suggests a potential negative serial correlation though not severe. Since the regression sum of squares (0.017497) has a higher value than the residual sum of squares (0.002143), more variance in the dependent variable can be attributed to the model, proving that the model is not the result of coincidence. The model is suited for the data, as indicated by the F-statistic, which assesses the suitability and appropriateness of the research's model, which stood at 63.63549 with a p-value of 0.000019, significant at 5%. As a result, the model and any conclusions drawn from it are deemed appropriate.

**$H_{O1}$:** Auditors’ independence has no significant effect on return on asset in Nigeria Breweries Plc.

Auditors’ independence (AI) is found to be negatively related to the return on assets (ROA) of Nigeria Breweries Plc. It has a beta coefficient of -0.064526. It means that for every one-unit increase in AI, ROA decreases by 0.064526 units. In real terms, the ROA is anticipated to decrease by 0.064526 units for every Naira spent on enhancing auditors’ independence. This inverse association implies that a higher level of auditors’ independence can be linked to a worse return on assets for Nigeria Breweries Plc. However, the value of the p-value of 0.2942 is more than 0.05 level of significant indicating that Auditors’ independence (AI) actually have an insignificant effect on return on assets (ROA). As a result, the alternative hypothesis is rejected and the null hypothesis is accepted. Thus, we draw the conclusion that Nigeria Breweries Plc's return on asset is not significantly impacted by the independence of the auditors.

**$H_{O2}$:** Auditors’ size has no significant effect on return on asset in Nigeria Breweries Plc.

Auditors’ size (AS) is also found to be negatively related to the return on assets (ROA) of Nigeria Breweries Plc. It has a beta coefficient of -0.047185. It means that for every one-unit increase in AS, ROA decreases by 0.047185 units. In real terms, the ROA is anticipated to decrease by 0.047185 units for every Naira spent on enhancing auditors’ size. This inverse association implies that a higher level of auditors’ independence can be linked to a worse return on assets for Nigeria Breweries Plc. However, the value of the p-value of 0.4482 is more than 0.05 level of significant indicating that In actuality, return on assets (ROA) is not much impacted by the size of auditors (AS). Consequently, the null hypothesis is considered valid and the alternative hypothesis is disallowed. We draw the conclusion that Nigeria Breweries Plc's return on asset is not significantly impacted by the size of its auditors.

**$H_{O3}$:** Auditors’ remuneration on has no significant effect on return on asset in Nigeria Breweries Plc.

Auditors’ remuneration (AR) is found to be negatively related to the return on assets (ROA) of Nigeria Breweries Plc. It has a beta coefficient of -0.231633. It means that for every one-unit increase in AS, ROA decreases by 0.231633 units. In real terms, the ROA is anticipated to decrease by 0.231633 units for every Naira spent on enhancing auditors’ remuneration. This inverse association implies that a higher level of auditors’ remuneration can be linked to a worse return on assets for Nigeria Breweries Plc. We determine that auditors' remuneration has an important influence on return on asset in Nigeria Breweries Plc because the p-value of 0.0051 is below the 0.05 threshold of significance, suggesting that auditors' remuneration (AR) truly has an important impact on return on assets (ROA). As a result, the alternative hypothesis is considered and the null hypothesis is dismissed.

**Implications of the Findings**

First, the absence of a significant correlation between auditor independence (AI) and return on assets (ROA) at Nigeria Breweries Plc implies that enhancing auditor independence has no direct impact on the profitability or operational effectiveness of the business, as determined by ROA. This may imply that, in the absence of other measures, the independence of the auditors may not be sufficient to enhance the company's financial performance. It raises questions about the efficiency of the independence-related monitoring duties and if other factors, such as internal controls, corporate governance structures, or management skill, have a greater bearing on an organization's performance. This finding would suggest that, in addition to emphasising auditor independence, Nigeria Breweries Plc should focus on more thorough financial strategies or governance enhancements.

Second, the return on assets (ROA) of Nigeria Breweries Plc is not significantly impacted by the size of the auditors: The result that the number of partners, clients, or resources at the audit firm does not significantly affect ROA implies that the size of the audit company does not directly affect Nigeria Breweries Plc's financial performance. This suggests that hiring bigger or more reputable audit firms does not automatically translate into better financial outcomes for a corporation. This implies that using bigger audit firms might not always translate into improved organisational performance. This could compel the company to reevaluate its audit selection standards, possibly accounting for factors other than audit firm size, such cost-effectiveness or experience in a particular industry.

Finally, the return on assets (ROA) of Nigeria Breweries Plc is significantly impacted by the auditors' compensation: The finding that ROA is strongly impacted by auditor remuneration suggests that there is a connection between the auditors' fees and the financial success of the firm. Given that higher fees may attract more seasoned auditors who would carry out more comprehensive audits and more successfully spot financial anomalies, this might imply that higher audit quality is connected with higher auditor income. This finding highlights the necessity of paying auditors fairly in order to ensure high-quality audits, which might improve Nigeria Breweries Plc's financial performance. The company may need to balance the cost of hiring auditors against the benefits of having them to enhance the organization's operational performance and financial integrity.

### All-purpose Implication

These findings highlight the nuanced nature of external auditors' impact on financial performance. It seems that profitability is more impacted by auditors' appropriate compensation than by their independence or size. Accordingly, care should be taken with the auditor engagement structure for Nigeria Breweries Plc, ensuring that auditors are paid fairly to provide high-quality audit services in addition to being independent or a member of a sizable company. This might also imply that internal accounting practices and corporate governance have a greater direct impact on ROA than only external auditing components.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

Organising analysis of empirical findings from multiple studies aimed at examining how forensic auditing affects organisational performance in Nigeria Breweries Plc revealed that the rise in accounting frauds, which includes asset theft, bribery, corruption, money laundering, and accounting record manipulation, among other crimes, has been influenced by technological advancements. However, by combining expertise from financial reporting, litigation, auditing, and investigation, forensic auditing has proven effective in locating and preventing fraud. Furthermore, it enhances the accuracy of financial reporting, promotes corporate governance, lessens accounting oddities, and boosts shareholder trust. These results demonstrate how forensic auditing improves corporate performance and profitability.

As a result, the study concludes that: Nigeria Breweries Plc's return on assets (ROA) is not significantly impacted by the auditors' independence. The return on assets (ROA) of Nigeria Breweries Plc is not greatly impacted by the auditors' size. The return on assets (ROA) of Nigeria Breweries Plc is significantly impacted by the auditors' remuneration.

### Recommendations

The report makes the following recommendations:

1. Since the independence of auditors has no appreciable impact on ROA, the organisation should build internal control systems and supervision processes in addition to external auditing to allow more effective fraud detection and prevention.
2. Even though audit size has no appreciable effect on ROA, Nigeria Breweries Plc should regularly evaluate the size of their audit teams and partner involvement to ensure that audit quality and coverage are optimum for organisational success, particularly in complex financial environments.
3. Given the significant influence this has on return on assets, Nigeria Breweries Plc should focus on aligning auditor remuneration with performance objectives to ensure more accountability and diligence in audits.

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