



FORENSIC ACCOUNTING PRACTICES AND PROFITABILITY IN THE BANKING SECTOR IN RIVERS STATE, NIGERIA

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Abstract: This study examined the effect of forensic accounting practices on the profitability of banks in Rivers State, Nigeria. The research specifically focused on two dimensions of forensic accounting, fraud detection and investigation, internal control and risk assessment, while profitability was measured using Return on Assets (ROA) and Net Profit Margin (NPM). The study adopted a descriptive and explanatory research design, targeting employees and management staff of commercial banks in Rivers State. A sample of 410 respondents was selected using stratified random sampling, and data were collected through structured questionnaires and secondary financial reports. Descriptive statistics, correlation analysis, and multiple regression analysis were used to analyze the data. The findings revealed that banks in Rivers State have implemented robust forensic accounting practices, with employees acknowledging regular fraud detection, investigations, and strong internal control systems. Regression results showed a positive and significant effect of forensic accounting practices on profitability ($R^2 = 0.659$, $F = 123.45$, $p < 0.001$). Specifically, fraud detection & investigation ($B = 0.42$, $p < 0.001$) and internal control & risk assessment ($B = 0.38$, $p < 0.001$) were significant predictors of bank profitability, with fraud detection showing a slightly stronger influence. The study concludes that forensic accounting practices are critical for enhancing bank profitability, reducing financial losses, and ensuring operational efficiency. It recommends that banks invest in advanced fraud detection technologies, continuous staff training, effective internal controls, and risk assessment frameworks, while regulators should encourage and enforce the integration of forensic accounting into banking operations.

Keywords: Forensic Accounting, Fraud Detection, Internal Control, Risk Assessment, Bank Profitability, Rivers State, Nigeria

Introduction

The banking sector is a cornerstone of economic development in Nigeria, acting as a conduit for financial intermediation, investment facilitation, and economic growth. Banks mobilize savings; provide credit facilities, and support trade and commerce, making them vital to the stability and progress of the financial system. However, the sector is not without challenges. Over the past decades, Nigerian banks have faced increasing threats from financial fraud, embezzlement, mismanagement, and other unethical practices, which have eroded profitability, investor confidence, and operational efficiency (Edward, 2021). These challenges necessitate the adoption of robust

measures to ensure transparency, accountability, and sustainable profitability.

Forensic accounting has emerged as a critical tool in mitigating financial misconduct in organizations, particularly in the banking sector. Forensic accounting involves the integration of accounting, auditing, and investigative skills to detect, prevent, and investigate financial fraud, misrepresentation, and other irregularities in financial records (Singleton et al., 2020). Unlike traditional auditing, which primarily focuses on financial reporting accuracy, forensic accounting is proactive and investigative, targeting the identification of fraudulent activities before they escalate to significant financial loss

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(Albrecht et al., 2020). The application of forensic accounting practices in banks includes fraud detection and investigation, risk assessment, internal control evaluation, and litigation support, among others.

Profitability is a key indicator of a bank's financial performance and sustainability. It reflects how effectively a bank manages its resources, operations, and investments to generate income (Ogundana et al, 2018). Metrics such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) provide insights into operational efficiency and financial health. The interconnection between forensic accounting practices and profitability is increasingly relevant in Nigeria, where banks are vulnerable to complex financial crimes and regulatory scrutiny. Research suggests that effective implementation of forensic accounting practices can significantly enhance profitability by minimizing losses due to fraud, improving internal controls, and ensuring compliance with financial regulations (Ogbaini et al,2024).

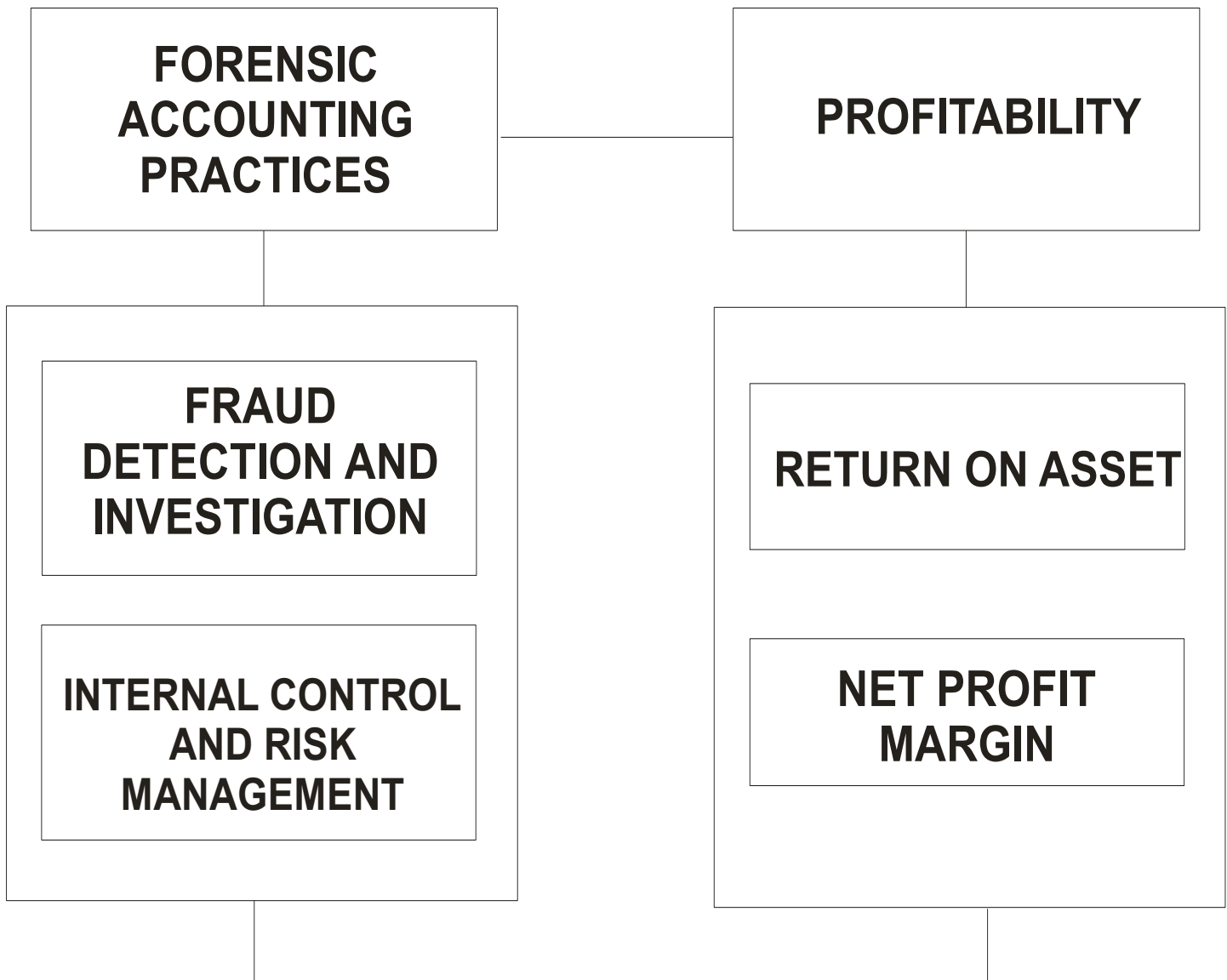
Rivers State, located in the Niger Delta region, is a hub of economic activity with a dense concentration of banking institutions serving a diverse population. Despite the economic potential, the banking sector in the state faces persistent challenges, including high incidences of financial irregularities, limited adherence to regulatory

frameworks, and evolving fraudulent schemes (Ewa et al, 2020). These challenges underscore the need to examine the effectiveness of forensic accounting practices in safeguarding bank assets, enhancing operational efficiency, and improving profitability.

Existing literature emphasizes the significance of forensic accounting as a tool for fraud prevention and detection in banking, but there remains a paucity of studies focused on the Nigerian context, particularly in Rivers State. Most studies have concentrated on broader national analyses, leaving a research gap in understanding the localized impact of forensic accounting practices on profitability within specific banking environments. Investigating this relationship can provide empirical evidence to inform bank management, policymakers, and regulators on effective strategies to combat financial fraud while enhancing financial performance.

The integration of forensic accounting practices in the banking sector represents a strategic approach to ensuring financial integrity, regulatory compliance, and sustainable profitability. This study aims to explore the relationship between forensic accounting practices particularly fraud detection, investigation, and internal control measures and profitability in banks operating in Rivers State, Nigeria.

Conceptual Framework



Objective of the study

The Main purpose of this study is to examine the effect of forensic accounting practices on the profitability of banks in Rivers State, Nigeria. Specific Objectives are:

1. To assess the impact of fraud detection and investigation on the return on assets (ROA) of banks in Rivers State.
2. To determine the influence of fraud detection and investigation on the net profit margin (NPM) of banks in Rivers State.
3. To evaluate the effect of internal control and risk assessment on the return on assets (ROA) of banks in Rivers State.



4. To examine the effect of internal control and risk assessment on the net profit margin (NPM) of banks in Rivers State.

Research Questions

1. To what extent does fraud detection and investigation influence the return on assets of banks in Rivers State?
2. How does fraud detection and investigation affect the net profit margin of banks in Rivers State?
3. What is the effect of internal control and risk assessment on the return on assets of banks in Rivers State?
4. How does internal control and risk assessment impact the net profit margin of banks in Rivers State?

Research Hypotheses

These hypotheses are stated in the null form (H_0) for statistical testing

H_{01} : Fraud detection and investigation have no significant effect on the return on assets of banks in Rivers State.

H_{02} : Fraud detection and investigation have no significant effect on the net profit margin of banks in Rivers State.

H_{03} : Internal control and risk assessment have no significant effect on the return on assets of banks in Rivers State.

H_{04} : Internal control and risk assessment have no significant effect on the net profit margin of banks in Rivers State.

Theoretical Framework

A theoretical framework provides the lens through which a study interprets and analyzes the relationship between variables, for the present study, forensic accounting practices and profitability of banks in Rivers State, Nigeria. The following theories are particularly relevant:

Agency Theory

Agency theory, pioneered by Jensen and Meckling (1976), explains the relationship between principals and agents in an organization. The theory asserts that conflicts of interest arise when agents, entrusted to manage resources on behalf

of principals, pursue their own objectives instead of the owners' best interests. In banking, such conflicts may manifest as misappropriation of funds, fraudulent reporting, or other unethical behaviors that undermine profitability.

Forensic accounting practices are designed to mitigate agency problems by monitoring, detecting, and investigating financial misconduct. Mechanisms such as fraud detection, internal controls, and risk assessments act as checks that align the interests of managers (agents) with shareholders (principals). By reducing fraudulent activities and ensuring proper reporting, forensic accounting enhances transparency, accountability, and ultimately profitability (Mamidu et al, 2025). Banks in Rivers State can implement forensic accounting frameworks to monitor managerial activities, investigate anomalies, and enforce internal controls. Improved monitoring reduces agency costs, which translates to better Return on Assets (ROA) and Net Profit Margin (NPM).

Fraud Triangle Theory

The Fraud Triangle Theory, developed by Cressey (1950), posits that three key elements must be present for an individual to commit fraud: pressure, opportunity, and rationalization. Pressure this entails that Financial or personal pressures motivate fraudulent behavior. Opportunity deals with Weaknesses in internal controls that make fraud feasible. Rationalization entails Justification of fraudulent acts by the perpetrator. This theory underpins forensic accounting by highlighting why fraud occurs and how it can be prevented. Fraud detection, internal control, and risk assessment reduce opportunities and pressures for fraud, while promoting ethical behavior in banking operations (Singleton et al., 2020). By addressing these elements, forensic accounting practices help safeguard assets, reduce losses, and improve bank profitability.

Application:

Banks in Rivers State can implement regular forensic audits and strong internal control systems to minimize the opportunity for fraud. Employee training and ethical reinforcement can reduce rationalization of fraudulent acts. As fraud decreases, banks experience fewer financial



leakages and higher operational efficiency, positively impacting ROA and NPM.

Concept of Forensic Accounting Practices

Forensic accountings practices refer to the application of specialized accounting, auditing, and investigative skills to detect, prevent, and investigate financial fraud, misappropriation, and other irregularities in an organization's financial records (Singleton et al., 2020). Unlike traditional auditing, which primarily focuses on verifying the accuracy of financial statements, forensic accounting is proactive and investigative, aimed at uncovering fraudulent activities before they result in substantial financial losses (Albrecht et al, 2019).

Forensic accounting practices are critical because banks are high-risk institutions where large volumes of deposits, loans, and transactions occur daily. Fraudulent practices such as embezzlement, loan misappropriation, accounting manipulation, and insider trading can severely compromise profitability and stakeholder trust (Ogundana et al, 2018). Forensic accounting provides a structured mechanism to safeguard assets, enhance internal controls, and improve financial reporting quality, thereby supporting operational efficiency and profitability.

Fraud Detection and Investigation

Fraud detection involves identifying anomalies, irregularities, or suspicious transactions in financial records, while investigation refers to systematically gathering evidence to substantiate or refute suspicions of fraud (Adam et al, 2024). This concept encompasses techniques such as: Forensic audits, Examination of suspicious transactions, Data mining and analytical reviews, Employee background checks and monitoring.

Fraud detection and investigation are critical in minimizing financial losses and maintaining the integrity of bank operations. Banks that implement effective detection and investigative mechanisms experience reduced incidents of fraud, increased customer trust, and improved profitability (Edward, 2021). It serves as the first line of defense in identifying irregular financial activities before they escalate into larger operational or reputational crises.

Internal Control and Risk Assessment

Internal control refers to the policies, procedures, and mechanisms established by an organization to safeguard its assets, ensure accurate financial reporting, and promote compliance with regulations. Risk assessment involves identifying, analyzing, and managing potential threats to financial integrity (Uniamikogbo et al, 2019). This dimension includes: Segregation of duties and authorization protocols, regular monitoring and reconciliation of accounts, Compliance audits and evaluation of operational risks, Implementation of preventive and detective controls.

Strong internal control and risk assessment mechanisms reduce the opportunity for fraud and enhance operational efficiency, thereby supporting profitability. By systematically evaluating risks and enforcing internal controls, banks can prevent financial leakages, protect shareholders' investments, and enhance Return on Assets and Net Profit Margin (Eniola & Popoola, 2024)

Concept of Profitability

Profitability represents the ability of a firm to generate incomes relative to its expenses and other relevant costs over a particular period. In the banking sector, profitability is a key indicator of financial performance, sustainability, and competitiveness. It reflects how effectively a bank manages its resources, operations, and investments to generate income

Profitability is not only an internal measure of efficiency but also a signal to investors, regulators, and other stakeholders regarding the bank's financial health. High profitability ensures that banks can meet their obligations, expand operations, reward shareholders, and withstand economic shocks (Eniola & Popoola, (2024). In the context of this study, profitability is influenced by forensic accounting practices. Banks that implement effective fraud detection, investigation, and internal control systems are likely to minimize financial losses, optimize resource utilization, and achieve higher returns

Return on Assets (ROA)



Return on Assets (ROA) is a financial metric that measures a bank's ability to generate profit from its total assets. It is calculated as the ratio of net income to total assets:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100$$

ROA provides insights into how efficiently a bank utilizes its assets to produce earnings.

A higher ROA indicates effective management and resource utilization, which can be directly influenced by forensic accounting practices such as fraud detection and internal controls.

By preventing fraudulent activities and reducing operational inefficiencies, banks can protect asset values and enhance ROA ((Eniola & Popoola, (2024).

Banks with strong fraud investigation and internal control mechanisms are likely to maintain higher asset efficiency and improved profitability ratios.

Net Profit Margin (NPM)

Net Profit Margin (NPM) measures the percentage of revenue that remains as profit after all operating expenses, taxes, and interest have been deducted. It is calculated as:

$$\text{NPM} = \frac{\text{Net Profit}}{\text{Total Revenue}} \times 100$$

NPM reflects operational efficiency, cost management, and revenue optimization.

Forensic accounting practices help reduce financial losses from fraud, improve compliance, and minimize unnecessary expenditures, thereby positively affecting the net profit margin (Mamidu et al, 2025). A higher NPM indicates that the bank retains a larger portion of its income as profit, making it more sustainable and competitive in the financial sector. Banks in Rivers State that adopt strong internal controls and risk assessment mechanisms can prevent financial leakages and improve profitability, enhancing NPM over time.

Empirical Literature Review

Eniola and Popoola (2024) examined the effect of forensic accounting practices specifically fraud investigation, fraud examination, and fraud prevention on financial accountability and transparency in the Nigerian banking subsector. The study used a field survey design and collected both primary and secondary data, with questionnaires administered to staff of selected banks. A

total of 98 valid responses were analysed using frequency statistics and regression analysis to assess the relationship between forensic accounting practices and financial accountability. The results indicated that fraud investigation had a significant positive effect on financial accountability and transparency. Fraud prevention demonstrated an even stronger significant influence, while fraud examination also showed a statistically significant effect. The study concluded that forensic accounting practices substantially enhance financial accountability and transparency in Nigerian banks. Based on these findings, the authors recommended that banks strengthen fraud detection and prevention mechanisms, invest in continuous staff training, and collaborate closely with regulatory authorities. Such measures supported by competent professionals and updated regulatory frameworks, would improve fraud management and promote sustained transparency and accountability within the banking sector.

Mamidu et al. (2025) investigated the influence of forensic accounting techniques on the performance of publicly listed Deposit Money Banks (DMBs) in Nigeria. The study adopted a mixed-method approach, combining survey and ex post facto research designs. Primary data were collected through structured questionnaires administered to 50 professional accountants working in banks located in the capitals of Ondo and Ekiti States, using stratified and census sampling techniques. Regression analysis was employed to examine the relationship between forensic accounting measures such as forensic accounting procedures, reliability of financial reporting, fraud detection, and forensic methodologies and bank performance. The findings revealed that forensic accounting practices exert a statistically significant positive effect on bank performance. Although other forensic-related variables showed positive relationships with performance, their effects were not statistically significant. Overall, the study concluded that forensic accounting techniques contribute positively to the financial performance of banks. Based on these results, the authors recommended that banks invest in forensic accounting tools and professional training, integrate forensic processes into routine operations, and strengthen fraud detection



systems. Additionally, regulatory authorities were advised to promote the development of forensic accounting capacity across the banking sector to enhance financial performance and reduce fraud risk.

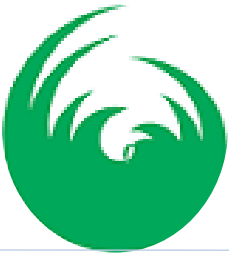
Ewa et al. (2020) examined the application of forensic accounting techniques in the prevention and detection of fraudulent practices in Nigerian commercial banks. The study precisely assessed the effectiveness of commercial data mining, ratio analysis, and trend analysis techniques in enhancing fraud control mechanisms. Descriptive statistics and the Ordinary Least Squares (OLS) regression model was used, and results showed that the application of forensic accounting techniques significantly improves fraud detection and prevention within the banking system. The results further highlighted the critical role of ratio analysis and trend analysis in identifying irregular financial patterns, as well as the effectiveness of commercial data mining software in uncovering fraudulent activities. However, the study identified notable gaps in staff capacity and awareness regarding the use of data mining technologies and trend analysis tools in fraud detection. The researchers recommended that commercial banks should acquire robust data mining software and invest in continuous staff training to improve technical competence in forensic techniques. Additionally, the establishment of anonymous reporting channels and enhanced public awareness initiatives were encouraged, alongside prompt responses to customer queries, to strengthen fraud prevention efforts in the banking sector.

Uniamikogbo et al. (2019) explored the impact of forensic auditing on fraud detection and prevention in the Nigerian banking sector. The study adopted a census approach; covering all 16 Deposit Money Banks (DMBs) listed on the Nigerian Stock Exchange as of 31 December 2016. Secondary data were sourced from the Nigerian Deposit Insurance Corporation (NDIC) annual reports for the period 2012–2016. Data were analysed using charts, tables, graphs, and regression techniques. The results discovered that forensic auditing has a significant negative effect on the number of fraud cases, the number of staff involved in fraud, and the actual amount of losses incurred due to fraud in Nigerian banks. This indicates that increased application of forensic auditing reduces the

incidence and financial impact of fraudulent activities. However, the study found that forensic auditing had an insignificant effect on expected fraud losses. Based on these results, the authors recommended that Nigerian banks should strengthen the implementation of forensic auditing as a strategic tool for fighting fraud and forgery. They further advised that forensic audit efforts should specifically target the reduction of fraud cases and staff involvement in fraudulent activities. Additionally, improving staff welfare and remuneration was emphasized, given the crucial role employees play in fraud prevention within banking institutions.

Ogundana et al. (2018) examined the role of forensic accountants in the prevention and detection of fraud in the Nigerian banking sector. The study adopted a survey research design and relied on primary data collected through questionnaires administered to selected banks. Three hypotheses were formulated and tested using simple regression analysis at a 5% significance level, alongside Independent t-test and one-way ANOVA techniques. The findings indicated a significant relationship between forensic accounting and fraud prevention and detection, confirming the importance of forensic accountants in combating fraudulent activities within banks. The study also revealed a low level of awareness and understanding of forensic accounting practices in the Nigerian banking industry. Additionally, the results showed a negative significant relationship between IFRS adoption and foreign direct investment in Nigerian banks. Based on these findings, the authors recommended that the Nigerian government should create an enabling environment for the growth of the forensic accounting by strengthening the legal, educational, and institutional frameworks. Enhancing awareness and professional development in forensic accounting was also emphasized as a critical step toward improving fraud control in the banking sector..

Ogbaini et al. (2024) examined the role of forensic accounting in fraud detection and prevention in the Nigerian public sector. The study sought to evaluate the impact of forensic accounting on fraud control and to propose strategies for strengthening fraud prevention mechanisms in public institutions. A purposive sample of 60 certified accountants was selected, and data were



obtained from both structured responses and secondary financial statements. The analysis was conducted using frequency distribution tables, simple percentages, and the chi-square statistical technique. The findings revealed that forensic accounting is minimally applied within the Lagos State Government, as there is no dedicated forensic accounting department and limited management training on forensic fraud prevention. The study concluded that the absence of structured forensic frameworks weakens fraud detection and prevention efforts in the public sector. Consequently, the authors recommended that government institutions move beyond routine annual audits and institutionalize the regular engagement of forensic accountants to review major financial transactions. They further advocated for the establishment of independent forensic accounting units across all levels of government in Nigeria, alongside continuous management training to enhance fraud detection and prevention capacity.

Adam et al. (2024) examined the impact of forensic accounting on the prevention of financial fraud in Nigerian banking institutions, with particular focus on First Bank of Nigeria. The study was motivated by the growing incidence of financial fraud in Nigeria, which continues to result in substantial financial losses, reputational damage, and legal consequences for organizations, especially within the banking sector. The research aimed to evaluate how forensic accounting contributes to fraud prevention, identify challenges associated with its implementation, and propose practical solutions. It also explored the concept of forensic accounting, its role in addressing corporate financial misconduct, and the importance of internal control systems in strengthening fraud management. The study adopted an ex-post facto research design and relied on both primary and secondary data sources. The findings indicated that strengthening forensic accounting systems significantly reduces the occurrence of financial fraud, particularly in First Bank. The results further underscored the relevance of internal control mechanisms and forensic investigative procedures in detecting and preventing fraudulent activities. Based on these findings, the authors recommended that banks and other organizations invest in advanced forensic accounting technologies, including data analytics tools and fraud detection software. They also

emphasized the need for continuous professional training and capacity building to enhance the effectiveness of forensic accounting practices in combating financial fraud within Nigerian banking institutions.

Jonah et al. (2025) examined the impact of forensic accounting practices on fraud prevention in Rivers State ministries, using a survey research design grounded in the Fraud Triangle Theory. Primary data were collected from 140 staff across selected ministries. Data were analysed by means of descriptive statistics, Pearson correlation, and regression techniques through SPSS version 22.0. The study found a strong positive relationship between forensic accounting practices and fraud prevention. Specifically, investigative accounting and litigation support services were significantly associated with the reduction of payroll fraud. The findings suggest that forensic accounting practices effectively enhance fraud prevention within Rivers State ministries. The study recommended that the government employ more forensic auditors to participate in statutory reviews and preparation for Auditor-General audits, thereby curtailing fraudulent activities. Additionally, the establishment of a functional whistleblowing policy was advised to ensure effective reporting and litigation of fraudulent acts, discouraging misconduct within the ministries.

Edward (2021) investigated the impact of forensic accounting on financial fraud detection in Deposit Money Banks (DMBs) in Nigeria. The study adopted a survey research design and relied primarily on data collected through structured Likert-scale questionnaires. Data analysis was conducted using descriptive statistics and regression analysis with the aid of SPSS (version 20.0). The findings revealed that key forensic accounting techniques such as conducting investigations, analysing financial transactions, and reconstructing incomplete accounting records have a significant positive effect on financial fraud detection in Nigerian DMBs. These techniques were found to enhance the ability of banks to uncover fraudulent activities and strengthen internal monitoring systems. Based on the results, the study recommended that DMBs employ more qualified forensic accountants to address the increasing complexity of technologically driven fraud. Additionally, banks were



encouraged to implement automated control mechanisms, such as biometric transaction authentication, to deter and reduce fraudulent activities.

Methodology

The study adopted a descriptive and explanatory research design. The descriptive component enabled the collection of detailed information on existing forensic accounting practices and profitability levels in banks operating in Rivers State, while the explanatory design facilitated the examination of the causal relationship between forensic accounting practices and profitability (Kothari, 2019). Since both forensic accounting practices and profitability are measurable variables, the study employed quantitative methods to assess their relationship using empirical data. The target population comprised employees directly involved in financial management and control within commercial banks in Rivers State, including bank managers, internal auditors, finance and accounts officers, and compliance/risk officers. According to the Central Bank of Nigeria (2021), 23 commercial banks operate in Rivers State, with an estimated 1,300 relevant staff. Using Yamane’s (1967) formula for finite populations, a sample size of 410 respondents was determined. Stratified random sampling was applied to ensure adequate representation across key job categories. Data were collected through structured five-point Likert scale questionnaires (Strongly Agree to Strongly Disagree) to measure perceptions of forensic accounting practices and their effect on profitability. The instrument was validated by experts in accounting and banking to ensure content validity; while reliability was assessed using Cronbach’s Alpha, with a coefficient of 0.70 or above considered acceptable (Sekaran & Bougie, 2016). In addition, secondary data

were obtained from annual reports, financial statements, and regulatory filings of banks covering the period 2018–2023 to measure profitability indicators, specifically Return on Assets (ROA) and Net Profit Margin (NPM). The integration of primary and secondary data enhanced triangulation and strengthened the validity and reliability of the findings (Sekaran & Bougie, 2016). Data were analysed using descriptive statistics to summarize the variables and multiple regression analysis to determine the effect of forensic accounting practices on bank profitability.

Model Specification

$$P = \beta_0 + \beta_1 FDI + \beta_2 ICRA + \epsilon$$

Where:

P= Profitability (ROA or NPM)

F DI = Fraud Detection and Investigation

I CRA = Internal Control and Risk Assessment

β_0 = Constant

β_1, β_2 = Coefficients

ϵ = Error term

Data Presentation, Analysis and Discussion of Finding

This showed the results of the study on the effect of forensic accounting practices on profitability of banking sector in Rivers State, Nigeria. The analysis covers descriptive statistics of the study variables, and inferential analysis to test the research hypotheses. The discussion of findings is linked to prior empirical studies. A total of 410 questionnaires were distributed to finance and operations managers across selected manufacturing firms, distributed out of which 300 were returned and found usable, representing a response rate of 73.17%, which is adequate for analysis

Descriptive Statistics of Study Variables

Variable	N	Sum	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
FDI	300	1110	2	5	3.70	0.62	-0.12	-0.35
ICRA	300	1125	2	5	3.75	0.58	-0.15	-0.42
ROA	300	1104	2	5	3.68	0.61	-0.18	-0.39



Variable	N	Sum	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
NPM	300	1113	2	5	3.71	0.60	-0.10	-0.41

SOURCE: SPSS OUTPUT, 2026

All variables have 300 respondents, consistent with the sample size, the mean scores for the independent variables (FDI = 3.70, ICRA = 3.75) indicate that respondents agree to a high extent that their banks practice effective forensic accounting. The mean scores for profitability (ROA = 3.68, NPM = 3.71) suggest that banks are moderately profitable, reflecting the perceived impact of forensic accounting practices. Standard Deviation (SD) values are relatively low (<1), indicating low variability in responses. This implies that most respondents gave similar answers regarding forensic accounting practices and profitability. All variables have slightly negative skewness (-0.12 to -0.18), suggesting that the distribution of responses is slightly left-skewed, with more respondents rating higher Likert scores. Negative kurtosis values (-0.35 to -0.42)

indicate a slightly flat distribution, meaning responses are relatively evenly spread around the mean without extreme peaks.

Regression Model Summary table

Annual reports, financial statements, and regulatory filings of banks in Rivers State (2018–2023) were collected to measure profitability indicators (ROA and NPM). Combining primary and secondary data allows for triangulation, enhancing the reliability and validity of the study (Sekaran & Bougie, 2016). Descriptive Statistics and Multiple Regression Analysis were used to summarize the data and describe the current state of forensic accounting practices on profitability in banks

Model Summary Statistic	Value
R	0.812
R ²	0.659
Adjusted R ²	0.654
Standard Error of Estimate	0.32
F-Statistics	123.45
Significance F	0.000
Durbin-Watson	1.89

SOURCE: SPSS OUTPUT, 2026

The value of R (Correlation Coefficient = 0.812) indicates a strong positive relationship between forensic accounting practices and bank profitability. Suggests that as forensic accounting practices improve, profitability also tends to increase, R² (Coefficient of Determination = 0.659) Shows that 65.9% of the variation in profitability is explained by the two independent variables (FDI and ICRA). The remaining 34.1% of variation is due to other factors not included in the model (macroeconomic factors, competition, management policies). Adjusted R² = 0.654, Adjusts R² for the number of predictors in the model, confirming that the model has good explanatory power

without over fitting. Standard Error of Estimate = 0.32: Indicates the average deviation of the observed profitability from the predicted values. A low standard error suggests high precision of the regression estimates. F-Statistics = 123.45, Significance F = 0.000: The F-test shows that the overall regression model is statistically significant at the 5% level. This confirms that forensic accounting practices (FDI & ICRA) jointly have a significant effect on bank profitability. Durbin-Watson = 1.89, indicates no serious autocorrelation in the residuals, as values close to 2 suggest independence of observations.



Regression Coefficients Table

Predictor Variable	Unstandardized Coefficient (B)	Std. Error	Standardized Coefficient (Beta)	t-Statistic	p-Value (Sig.)	95% Confidence Interval for B
Constant	0.850	0.120	—	7.08	0.000	0.614 – 1.086
FDI	0.420	0.045	0.500	9.33	0.000	0.332 – 0.508
ICRA	0.380	0.047	0.450	8.09	0.000	0.287 – 0.473

Dependent Variable: Profitability (ROA & NPM)

SOURCE: SPSS OUTPUT, 2026

Constant (0.850) indicates that if both FDI and ICRA were zero (hypothetically), profitability would start at 0.85 units. Fraud Detection & Investigation (FDI), $B = 0.420$ means that for every one-unit increase in FDI, profitability increases by 0.42 units, holding internal controls constant. The p-value (0.000) indicates that this effect is statistically significant at the 5% level. The standardized beta (0.500) suggests FDI has a strong influence on profitability. Internal Control & Risk Assessment (ICRA), $B = 0.380$ indicates that a one-unit increase in ICRA is associated with a 0.38 unit increase in profitability, holding FDI constant. P-value (0.000) confirms statistical significance. Standardized beta (0.450) shows that ICRA also significantly contributes to bank profitability. Confidence Intervals: Both independent variables have confidence intervals that do not include zero, further confirming their positive effect on profitability.

Discussion of Findings

The descriptive statistics revealed that respondents strongly agreed that their banks implement forensic accounting practices, particularly in the areas of fraud detection and investigation (Mean = 3.70) and internal control & risk assessment (Mean = 3.75). Similarly, profitability indicators Return on Assets (ROA = 3.68) and Net Profit Margin (NPM = 3.71) were rated moderately high. This suggests that banks in Rivers State have adopted robust forensic accounting practices, which are perceived to contribute positively to profitability. The low standard deviations (0.58–0.62) indicate consistency in responses across respondents, implying that these practices are widely implemented across different banks. Slight negative skewness values imply that most respondents

rated above-average adoption of forensic accounting practices, aligning with trends observed in previous studies (Ogbaini et al, 2024).

Regression Analysis Findings

The multiple regression analysis examined the effect of forensic accounting practices on profitability, and the model was statistically significant: $R = 0.812$ indicates a strong positive relationship between forensic accounting practices and bank profitability. $R^2 = 0.659$ shows that 65.9% of the variation in profitability is explained by fraud detection & investigation and internal control & risk assessment. F-statistic = 123.45, $p < 0.001$ confirms that the model is statistically significant. Durbin-Watson = 1.89 suggests no autocorrelation in residuals, enhancing the reliability of the model. The results indicate that forensic accounting practices significantly predict profitability, corroborating the findings of Ewa(2020). Banks that implement effective fraud detection mechanisms and internal control systems are better able to protect assets, reduce financial losses, and maximize returns.

Coefficient Analysis

The regression coefficients show that Fraud Detection & Investigation ($B = 0.42$, $p = 0.000$), a unit increase in fraud detection is associated with a 0.42 unit increase in profitability, holding other factors constant. This emphasizes the critical role of fraud detection and investigative measures in safeguarding bank resources and enhancing financial performance. Internal Control & Risk Assessment ($B = 0.38$, $p = 0.000$), a unit increase in internal control and risk assessment corresponds to a 0.38 unit increase in profitability. Internal control mechanisms



ensure compliance, reduce errors, and minimize operational risks, ultimately boosting profit margins. Both dimensions of forensic accounting practices have positive and significant effects on profitability, though fraud detection has a slightly higher influence than internal control. These findings align with Eniola and Popoola, (2024), and Adam et al, (2024) who reported that proactive forensic accounting practices, are critical for financial sustainability in banks.

Conclusion and Recommendations

The study examined the effect of forensic accounting practices on the profitability of banks in Rivers State, Nigeria, focusing on two main dimensions: fraud detection & investigation and internal control & risk assessment. Using a combination of survey data and secondary financial data, the study revealed the following key findings: Forensic Accounting Practices are Strongly Implemented: Banks in Rivers State have adopted structured forensic accounting mechanisms, including regular fraud detection, risk assessment, and internal control measures. Both dimensions of forensic accounting practices positively and significantly influence profitability, measured by Return on Assets (ROA) and Net Profit Margin (NPM). Fraud detection & investigation had a slightly higher effect than internal control & risk assessment. The study concludes that forensic accounting practices significantly enhance profitability in Rivers State banks. Banks that invest in fraud detection, investigative procedures, internal controls, and risk assessment frameworks are more likely to experience improved financial performance. Therefore, forensic accounting is not just a compliance tool it is a strategic instrument for achieving sustainable profitability in the banking sector. Based on the findings, the following recommendations are proposed:

1. Strengthen Fraud Detection Systems: Banks should invest in advanced fraud detection technologies, including data analytics and forensic software, to identify irregularities promptly. Establish dedicated fraud investigation units to handle suspicious transactions efficiently.

2. Enhance Internal Control and Risk Assessment Mechanisms: Implement robust internal control procedures, including segregation of duties, compliance audits, and approval hierarchies. Conduct regular risk assessments to identify emerging threats and proactively address potential financial risks.
3. Staff Training and Capacity Building: Continuous training of accounting, audit, and compliance staff on forensic accounting techniques should be prioritized. Staff should be made aware of ethical standards, fraud detection protocols, and reporting channels.
4. Policy and Regulatory Support: Regulators such as the Central Bank of Nigeria should encourage banks to adopt mandatory forensic auditing practices. Policies should be formulated to integrate forensic accounting into banking risk management frameworks.
5. Encourage a Whistleblowing Culture: Banks should establish confidential reporting mechanisms that allow employees to report suspicious activities without fear of retaliation. Incentives for ethical reporting can enhance early fraud detection and operational efficiency.

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Questionnaire

Tick the option that best reflects your opinion.

Use the scale: 5 – Strongly Agree (SA), 4 – Agree (A), 3 – Neutral (N), 2 – Disagree (D) 1 – Strongly Disagree (SD)

Fraud Detection and Investigation

S/N	Statement	SA	A	N	D	SD
1	The bank regularly conducts forensic audits to detect fraudulent activities.					
2	Suspicious transactions are promptly investigated to prevent financial losses.					



3	Advanced tools (e.g., data analytics, software) are used to detect irregularities.					
4	Employees are encouraged to report suspicious financial activities.					

Internal Control and Risk Assessment

S/N	Statement	SA	A	N	D	SD
5	The bank has well-defined internal control procedures to prevent fraud.					
6	Risk assessment is regularly conducted to identify potential financial threats.					
7	There is effective segregation of duties to reduce opportunities for fraud.					
8	Compliance audits are conducted to ensure adherence to policies and regulations.					

S/N	Statement	SA	A	N	D	SD
9	Forensic accounting practices have helped improve the bank's return on assets.					
10	The bank's assets are efficiently managed due to effective fraud detection and internal controls.					

Net Profit Margin (NPM)

S/N	Statement	SA	A	N	D	SD
11	The bank's net profit margin has improved due to proactive forensic accounting practices.					
12	Effective internal control and risk assessment reduce financial losses, enhancing profitability.					