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Effect of Forensic Accounting Techniques on Fraud Prevention in Plateau State (A Study of Plateau State Internal Revenue Service)

Folorunsho Florence^{1*}, Damul Mikat Bulus¹, Nyahas Samson Iliya¹

¹University of Jos

***Corresponding Author:**

uj2024pgms0114@gmail.com, 08067656565, ORCID: 0009-0003-0705-807X

ABSTRACT

The study examined the effect of Forensic Accounting Techniques on Fraud Prevention in Plateau State Internal Revenue Service, Nigeria. The population is the staff of Plateau State Internal Revenue Service. The service has a total population of 376 staff. Taro Yamane formula for sample size determination was used to ascertain the sample size for this study to be 194. The study employed the use of structured questionnaire as method of data collection and the hypotheses were tested using multiple regressions as method of data analysis. The findings revealed that trend analysis techniques have significant effect on fraud prevention in Plateau State Internal Revenue Service and analyzing accounting records techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service. It was recommended that the use of forensic accounting techniques should be encouraged and applied in Plateau State Internal Revenue Service Nigeria as it can help curtail financial fraud and also assist judges to bring to book those involved in fraudulent practices, similarly, it was recommended that trainings, seminars and workshop should be organized by professional bodies to equip the practitioners with necessary skills to practice forensic accounting.

1.1 Introduction

Fraud is a universal problem as no nations is resistant, although developing countries and their various states suffer the most pain. Today; modern organized financial crimes have appeared (Uduehe, Okoye & Amahalu, 2024). According to Tekavcic and Damijan (2021), estimating the global level of fraud is challenging since the consequences of losses might be shocking for the world economy, undermining hopes of prosperity and economic efficiency in the future. The global impact of fraudulent activity is challenging to estimate because fraudulent acts often receive little attention and are not reported. However, according to information revealed in the 2021 ACFE (Association of Certified Fraud Examiners) report, every year, a company loses 5% of its revenue due to fraudulent acts, and it is estimated that this loss reaches almost \$4 trillion globally (Mittal, Kaur, & Gupta, 2021). This situation demonstrates that fraud is a problem in the contemporary economy and can even happen rapidly and extensively since it can happen anywhere and at any moment and is difficult to prevent and detect (Firmanza, Abidin & Ruswanda, 2022).

Fraud remains a pervasive challenge across both developed and developing economies, undermining organizational performance, public trust, and revenue mobilization efforts. Globally, fraud continues to evolve in complexity, driven by increasingly

sophisticated financial transactions and digital platforms, necessitating advanced mechanisms for early detection and prevention (Nursansiwi et al., 2025; Kinanti, 2024). In response to this global challenge, forensic accounting has emerged as a specialized discipline that integrates accounting, auditing, and investigative techniques to proactively prevent fraudulent activities, thereby strengthening financial control systems and accountability mechanisms (Nursansiwi et al., 2025).

In the African context, the prevalence of corruption and financial misconduct has exerted significant pressure on fiscal governance frameworks, prompting governments and revenue agencies to adopt forensic accounting approaches as a strategic tool for fraud mitigation (Alkali et al., 2025). Studies across various African public sector settings have shown that forensic techniques such as fraud risk assessment, document examination, and data analytics significantly enhance the ability of institutions to identify and prevent fraudulent practices (Alkali et al., 2025). These findings underscore the shifting paradigm from traditional auditing methods to forensic-driven fraud management in public finance systems in Africa.

In Nigeria, persistent incidences of financial fraud in both public and private sectors have heightened interest in the adoption of forensic accounting as a potent fraud deterrent. Empirical studies in Nigeria have consistently demonstrated that advanced forensic techniques significantly enhance fraud detection and prevention, especially when traditional auditing and internal control systems fall short (Alhassan, 2020; Eko, 2022; Ajagun et al., 2025; Ezejiofor & Okonkwomeritc, 2025). For instance, research on Nigerian ministries and agencies reveals that the application of forensic accounting tools significantly reduces fraud exposure and strengthens internal financial integrity (Alhassan, 2020; Ezejiofor & Okonkwomeritc, 2025). However, despite these advancements, gaps remain in localized evidence on forensic accounting's impact within specific revenue agencies tasked with internal revenue collection and administration.

Plateau State represents a critical sub-national context where government revenue mobilization is central to funding public services and infrastructure. The Plateau State Internal Revenue Service (PSIRS) is mandated by law to administer and collect internally generated revenue, including the conduct of forensic tax audits and investigations to address revenue fraud and evasion (Plateau State Revenue Consolidation Law, 2020). However, anecdotal and preliminary evidence points to persistent challenges with revenue leakages, fraud, and compliance shortfalls, suggesting potential weaknesses in the application of forensic accounting techniques within PSIRS. While some unpublished local studies and working papers indicate emerging practices in forensic accounting within Plateau State revenue agencies, there remains limited empirical research that systematically examines the effect of these techniques on fraud prevention within PSIRS (Adebayo & Ibrahim, 2025).

Although global and African research has established that forensic accounting techniques are essential tools in fraud detection and prevention, there is a conspicuous lack of localized empirical evidence examining their effectiveness in revenue agencies such as the Plateau State Internal Revenue Service (PSIRS). Globally, forensic accounting has been recognized as an evolving discipline that combines investigative skills with advanced analytical tools to uncover and mitigate financial fraud (Nursansiwi et al., 2025). In Africa, despite the rise in fraud prevention research, many public sector institutions continue to grapple with systemic fraud due to weak institutional frameworks and limited adoption of proactive forensic procedures (Alkali et al., 2025). In Nigeria, earlier studies have affirmed that forensic accounting significantly improves fraud detection and prevention outcomes in the public sector (Alhassan, 2020; Eko, 2022; Ajagun et al., 2025). However, research focusing specifically on internal revenue services - especially within the North Central region and Plateau State - remains scarce and underdeveloped.

The incorporation of modern forensic accounting techniques in audit is seen as timely in order to prepare the accounting profession to deal effectively with the problem of unearthing ingenious fraud schemes arising from audit failure to prevent and detect frauds in the listed banks in Nigeria. Prevention of fraud is made possible with the application of investigative techniques by the forensic accountant. Forensic accountants use as many of these accounting techniques as possible in the prevention and detection of fraud regardless of whether they are eventually used in a trial. These techniques include interviewing, invigilation, observation, vulnerability and internal control charts, net worth method, expenditure method, bank deposit method, cash transaction method, document examination, tracing, data mining technique, ratio analysis among others according to Oyedokun (2019). He further stated that forensic accounting techniques such as interviewing, computer assisted reviews such as data mining, and document review techniques are useful to prevent fraud.

Understanding the specific role and effectiveness of forensic accounting techniques in preventing fraud within PSIRS is therefore crucial not only for enhancing revenue administration but also for informing policy, capacity-building, and institutional reforms tailored to Plateau State's fiscal environment. More specifically, the Plateau State Revenue Consolidation Law (2020) empowers the PSIRS to undertake forensic tax audits and investigations to combat revenue fraud, yet it is unclear how effectively these forensic accounting techniques are implemented and whether they have significantly reduced fraud within the agency (Plateau State Revenue Consolidation Law, 2020). This knowledge gap impedes efforts to strengthen revenue systems, inform targeted capacity building, and develop best practices for forensic accounting application in sub-national revenue administration. Therefore, this paper seeks to investigate the effect of forensic accounting techniques on fraud prevention in Plateau State, with a specific focus on the operations and outcomes associated with the Plateau State Internal Revenue Service. The specific objectives include to:

1. examine the effect of Trend analysis techniques on fraud prevention in Plateau State Internal Revenue Service.
 2. ascertain the effect of analyzing accounting records technique on fraud prevention in Plateau State Internal Revenue Service.
- The following research hypotheses shall be tested. They include;
1. H0₁: Trend analysis techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service.
 2. H0₂: Analyzing accounting records techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service.

2.0 Literature review

2.1.1 Concept of Fraud Prevention

Fraud prevention involves strategies, policies, and measures implemented by organizations to proactively identify, deter, and mitigate fraudulent activities before they occur. Its primary goal is to protect assets, maintain stakeholder trust, and uphold the organization's integrity. Fraud, defined as criminal deception for unjust gain, is not new but has evolved with advancements in technology. To prevent is to keep or stop something from happening. Prevention is the action of stopping something from happening. Fraud prevention is the process of stopping the occurrence of fraud in an organization. It could involve the removal of the casual enabling factors that encourage frauds in an organization. Putting in place necessary measures to deter or stop or discourage fraud in an organization are what fraud prevention is all about (Inyada, 2019).

Fraud Prevention is to proactively stop something from taken place. It is the process of stopping the occurrence of fraud and fraudulent activities in a deposit money bank and

other organizations (Ozili, 2018). They submitted the closing of all enabling opportunity and factors that encourage frauds in deposit money banks and other organizations. For example, in a branch operation of a deposit money bank, some area should be out of bound to non-staff of some sensitive units, second level authorization by a superior officer of the banks, documentation and audit trail of some sensitive activities and of course the resident control officer to ensure compliance to all internal and accounting system controls to deter or stop fraud in an organization (Ojo-Agbody et al., 2022)

From all that has been discussed, I would to opined that fraud prevention involves strategies, policies, and measures implemented by organizations to proactively identify, deter, and mitigate fraudulent activities before they occur.

2.1.2 Concept of Forensic Accounting Techniques

Forensic accounting techniques are the application and practices of knowledge and skills to help resolve criminal issues in financial misappropriation which requires legal and accounting representations. Eke (2019) stated that the proper understanding of the forensic accounting techniques will assist in identifying the crime cases, the investigative and resolution processes so as be a good witness in report presentation in the court. The forensic accountant should have deep knowledge of law and accounting in displaying the skills and have a good representation in the court.

Forensic accounting techniques are used by investigative accountants to look at financial records, dig into their background and present a clear and concise account of what they mean and how they impact a particular matter that they have been asked to consider (Jaxa, 2023). Forensic accounting techniques are not the same as normal accounting methods, such as auditing techniques or methods for considering tax issues, but they may include the use of these skills along with investigation techniques, legal understanding and a natural tenacious desire to uncover a hidden issue (Tally, 2022).

2.1.3 Concept of Trend Analysis

Trend Analysis is one of the most significant forensic accounting approaches for detecting fraud. The emphasis is on unusual transactions. Certain transactions may be difficult to recognise from current data, but when the transactions' current records are compared to past year's data entries, they can readily be identified as fraudulent. It is simple to determine if the level of sales rises at the same pace as the level of bad debts increases in a business by comparing sales and bad debts data over time. In such a case, it is reasonable to believe that such bad debts are the result of fraudulent sales transactions or manipulations made into the system to improve turnover. Such fraudulent changes could not be detected without the use of trend analysis during a certain period (Edward, 2021).

2.1.4 Concept of Analyzing Accounting Records

Accounting records are all of the documentation and books involved in the preparation of financial statements or records relevant to audits and financial reviews. Accounting records include records of assets and liabilities, monetary transactions, ledgers, journals, and any supporting documents such as checks and invoices. Accounting records are often reviewed for audits, compliance checks, or other business-related necessities (Kingsley, 2020).

A forensic accountant in carrying out his function reconstructs incomplete accounting records to settle for example insurance claims, over inventory valuation, proving money laundering activities by reconstructing cash transactions (Owojori and Asaolu, 2009). Kingsley (2020) said that in order to combat fraudulent activities, the forensic accountant with his skills (Technological, communications and expertise skills) in accounting knowledge

can analyze accounting records and reconstruct incomplete accounting records, hence helping to detect fraud and ensuring good internal control system and good corporate governance. A forensic accountant in carrying out his function reconstructs incomplete accounting records to settle for example insurance claims, over inventory valuation, proving money laundering activities by reconstructing cash transactions (Kingsley, 2020).

2.2 Theoretical review

1. Fraud Management Lifecycle Theory

This theory was propounded by Wilhelm in the year 2004. The fraud management lifecycle is a network lifecycle where each stage in the life cycle is an aggregated entity that is made up of interrelated, interdependent and independent actions, functions and operations (Albrecht et al., 2009). The fraud management lifecycle is made up of eight stages which include prevention, detection, investigation, deterrence, analysis, mitigation, policy and prosecution stage. Deterrence is achieved through creating fear of consequences or difficulty of perpetration, to turn aside, discourage or prevent fraudulent activity from being attempted. Policy must seek to balance deterrent value, loss reduction, sales volume, operational scalability and cost effectiveness. Policy development involves constantly reassembling the situations disassembled in the analysis stage, by taking advantage of the knowledge gained by analysis, combining it with internal, external and interactive environmental factors in order to craft policies that address the whole, while leveraging the knowledge of the parts (Wilhelm, 2004). Policy development staff is most frequently the leaders within the fraud management organization as they must consider all disciplines within the fraud management department as well as the needs of the rest of the business enterprise. The investigation stage involves obtaining enough evidence and information to stop fraudulent activity, to obtain recovery of assets or restitution and to provide information and support for the successful prosecution and conviction of the fraudsters (Albrecht, et al., 2009). The elements and variables that constitute this theory are linked to this study. Through this theory, data mining, internal control charts and reviewing financial statements helps to support prevention, detection, investigation, and monitoring which forms part of the stages of this theory.

The study is anchored on the fraud management lifecycle theory because the fundamental initiative in fraud management lifecycle theory is that network lifecycle where each stage in the life cycle is an aggregated entity that is made up of interrelated, interdependent and independent actions, functions and operations. This will further help in fraud prevention.

2.3 Empirical Review

Ogah (2025) examined the effect of forensic accounting services such as fraud investigation and litigation support services on fraud management using listed banks in Nigeria. The study adopted the descriptive survey research design with a population of 125 staff of forensic accounting and internal control departments of 25 listed banks. A sample of 95 respondents drawn from 12 listed banks in Nigeria was used for the study. The researcher developed an instrument titled “Forensic Accounting and Fraud Management questionnaire (FAFMQ)” and used it for data collection. The instrument was tested and validated by experts. The data were analyzed through analysis of variance using Statistical Package for Social Sciences version 21 (SPSS 21). The hypotheses were tested at a 5% level of significance. The study revealed that the application of forensic accounting by banks has a significant effect on fraud management by listed banks in Nigeria. The study also showed that fraud investigation and litigation support significantly managed fraud among the listed banks in Nigeria. It was recommended that banks should take advantage of forensic accounting services to ensure operational efficiency and effectiveness in fraud management.

The study recommends the establishment and enhancement of forensic accounting and auditing functions in banks as separate departments in order to manage the prevalence of fraud among Nigerian banks.

Uche, Farouk & Uyagu (2025) investigated the effect of forensic accounting techniques on fraud detection by professional accounting firms in Plateau State. A survey design was adopted for the study. The population of the study consisted of 6 accounting and auditing professional firms in Plateau State. Oral interview was used to ascertain the total number of staff from these firms totaling 203, whereby a sample size of 135 was determined using Taro Yamane formula. A total of 135 copies of questionnaire were administered on the selected respondents. However, 129 copies were retrieved. The study employed the use of structured questionnaire as method of data collection and the hypotheses were tested using multiple regression as method of data analysis. Findings shows that data mining technique had a positive and significant effect on fraud detection by Professional Accounting Firms in Plateau State; reviewing financial statement technique had a negative and significant effect on fraud detection by Professional Accounting Firms in Plateau State; analyzing accounting records techniques have positive and not significant effect on fraud detection by Professional Accounting Firms in Plateau State and Internal control charts have positive and significant effect on fraud detection by Professional Accounting Firms in Plateau State. The study recommended Professional Accounting Firms and other private organizations should select data mining software that integrates with existing accounting systems; Professional accounting firms should maintain the services of forensic accountants to review their financial statements and transactions at the end of the period of transactions.

Obot & Effiong (2025) examined forensic accounting techniques as tools for Nigerian Practitioners. The study adopts a qualitative approach, involving case studies and document analysis. The case study method provided a deep exploration of specific instances where forensic accounting techniques were successfully employed to uncover financial fraud in Nigeria; while the document analysis method involved a systematic review of existing literature, regulatory frameworks, and policies that govern forensic accounting in Nigeria. The approach considered Data Collection, Data Mining, Benford's Law, Digital Forensics and Comparative Analysis as tool. IDEA (Interactive Data Extraction and Analysis) and ACL (Audit Command Language) was used for data mining and fraud detection. Another case study considered bank mismanagement case which involved a high-profile incident within a commercial bank in Nigeria. In this case the data were collated through analysis of bank statements, internal memos, and loan approval documentation, interviews conducted with whistleblowers, affected customers, and implicated bank employees while System Logs were reviewed base on digital transaction logs to identify unauthorized activities. The results for case 1 and case 2 showed that NGN 1.2 billion and NGN 200 million were recovered respectively and repayment agreements with some beneficiaries. On the whole, the findings underscored the need for enhanced internal controls, continuous monitoring, and capacity building to strengthen the financial sector against similar risks in the future.

Adetunji & Chinonso (2025) explored current trends and challenges in forensic accounting, highlighting its increasing significance in financial crime prevention. Additionally, forensic accountants are collaborating more closely with regulatory bodies, law enforcement, and corporate compliance teams to strengthen fraud detection efforts. Despite technological progress, forensic accounting faces numerous challenges. One major issue is the complexity of financial fraud, which often involves cross-border transactions and sophisticated concealment tactics. Legal and regulatory inconsistencies across jurisdictions further complicate fraud investigations, making enforcement difficult. Moreover, fraudsters are increasingly using emerging technologies, such as cryptocurrency and cyber-enabled financial crimes, to bypass traditional detection mechanisms. To address these challenges, forensic accountants must enhance their analytical capabilities, integrate AI and machine

learning tools, and collaborate with cybersecurity experts. Regulatory bodies should also implement stricter compliance frameworks to curb financial fraud effectively. Future developments in forensic accounting will likely focus on greater automation, improved predictive analytics, and enhanced international cooperation in fraud prevention.

Daw & Robert (2025) evaluated the relationship between forensic accounting techniques and corruption detection in Nigeria. A cross-sectional research design with a survey strategy was adopted with a well-structured questionnaire distributed to respondents of the study. Given a sample of ($n = 269$), a total number of 257 copies of questionnaire were retrieved and effectively used for the analysis. Both descriptive and inferential statistics were employed to analyse the data of the study. The study revealed a significant relationship between forensic accounting techniques and corruption detection in Nigeria. Specifically, the analysis showed a positive and significant relationship between data analysis techniques and corruption detection; a positive and significant effect of asset tracing techniques on corruption detection; and a positive and significant influence of lifestyle audit techniques on corruption detection. Based on the findings, it was recommended amongst others that forensic accounting techniques be integrated into the standard procedures for conducting corruption investigation in Nigeria. Furthermore, future research and exploration should be conducted to enhance researchers understanding of corruption detection techniques in order to develop more robust strategies for combating corruption effectively.

Anipiriworima, et al (2025) examined the effect of forensic accounting skills on fraud management of selected federal Ministries, Departments and Agencies (MDAs) in Nigeria. The study used primary sources of data, a cross-sectional research design, a quantitative research approach, and a structured closed-ended questionnaire with five-point Likert scale options. A stratified sampling technique was used for the selection of the four federal ministries, departments, and agencies in Nigeria. The study was underpinned by both profession theory and fraud pentagon theory. The SPSS version 23 software statistical package was used for the coding of the questionnaire and data analysis for running both descriptive statistics, correlation, and multiple regression analysis. The regression results indicated that accounting and auditing skills and forensic investigation skills have a positive and significant effect on the fraud management. This implies that any unit increase in both accounting and auditing skills and forensic investigation skills will also result in a unit increase in the fraud management of federal ministries, departments, and agencies in Nigeria. The study recommended that the government should provide avenues for training forensic accounting experts. Through the effective performance of forensic accountants in the country, the Nigerian government can restore its integrity both locally and internationally.

Sabo, et al. (2024) examined Forensic Accounting in Fraud Detection and Prevention: A Literature Review. The paper reviewed the concepts of forensic accounting and fraud as well as empirical studies on the roles played by forensic accounting in fraud detection and prevention. Previous studies showed that both forensic accounting and fraud have no generally acceptable definitions. However, there is a common view with regards to the meaning of the concepts. It is also discovered that forensic accounting covers litigation support, investigative accounting, and dispute resolution. Literature further revealed that some authors classified fraud as internal, external, and mixed, while others classified it as financial statement fraud, asset misappropriation, and corruption. This paper also found out that forensic accounting plays an important role in fraud detection and prevention in both public and private organisations. This study therefore recommended that forensic accounting should continue to be used in order to detect and prevent fraud in organisations.

Uduehe, Okoye & Amahalu (2024) ascertained the relationship between forensic accounting techniques and fraud management of commercial banks in Awka-South Anambra State, Nigeria. Descriptive survey research design was used for the study. The population of

this study consisted of seven hundred and fifty eighty (758) staff of the thirteen (13) commercial banks in Awka South, Anambra State Nigeria from which a sample size of 262 was selected. Primary data for the study were collected from the respondents using structured questionnaire. The tools for descriptive analysis were percentage analysis, frequency distribution and mean. Hypotheses were tested using regression analysis. The finding of the study showed that: there is a significant positive relationship between data mining techniques and artificial intelligence biometrics for fraud management in listed commercial banks; computer-assisted audit techniques significantly and positively relate with artificial intelligence biometrics for fraud management; ratio analysis techniques have a significant and positive relationship with artificial intelligence biometrics for fraud management; public documents review techniques have a significant and positive relationship with artificial intelligence biometrics for fraud management. The study recommends that the Information Technology and data analytics teams of listed commercial banks in Awka-South should enhance their data mining capabilities to better integrate with AI biometrics systems, thereby improving fraud detection effectiveness.

Adekunle (2024) examined fraud prevention and Internal Control Mechanisms in selected banks in Nigeria. Semi-structured interviews were used in the study to collect data using a qualitative methodology. Data was gathered from employees of the chosen banks' internal control units using a purposive sample technique. Thematic analysis was utilized to examine the gathered data and it was demonstrated from the findings that the internal control methods that banks used to identify fraud were centered on setting up a control environment and identifying, analyzing, and managing risks from both internal and external sources. The investigation showed also that Nigerian banks' use of a number of internal control mechanisms to thwart fraud has increased, particularly in the areas of authorizations, approvals, reconciliations, reviews of operational performance, asset security, division of labor, an enhanced information system, and a regular assessment of the internal oversight structures already in place. Additionally, the study discovered that since Nigeria implemented the cashless policy in 2014, the introduction of technology advancements into the banking industry has contributed, if marginally, to the improvement in the prompt detection and effective prevention of fraud. The internal control procedures (ICPs) of most banks in Nigeria have effectively reduced bank fraud from external sources. The research comes to the conclusion that Nigerian banks must prioritize protecting the data of their clients and strengthening their security systems by adhering to international standards and recommended practices if they want ICPs to be successful in detecting and preventing fraud.

3.0 Methodology

A survey design was adopted for the study. In this study the population would be the workers of Plateau State Board of Internal Revenue Service in Plateau State. In this paper, the population is the staff of Plateau State Board of Internal Revenue Service. The service has a total population of 376 staff. Using Taro Yamane, the sample size was determined to be 194. A total of 194 questionnaires were distributed out of which 181 questionnaires were retrieved for the study. The study used a structured questionnaire, which comprised of close-ended questions to understand the influence of forensic accounting technique on fraud prevention in Plateau State. Data was analyzed using the multiple linear regression analysis with the help of Statistical Packages for Social Sciences (SPSS 26).

The model for this study thus is stated in its functional form below:

$$FP = f(TAT, ACRT)$$

However, in order to take into account the deterministic and stochastic aspects of the model it is therefore stated in an econometric form:

$$FP = \beta_0 + \beta_1 TAT + \beta_2 ACRT + \mu$$

Where:

FP= Fraud Prevention as dependable variable

TAT = Trend Analysis techniques

ACRT= Analyzing Accounting Records Techniques

β_1, β_2 are the coefficients

β_0 = Constant

μ = error term for the Model that is, the difference between the observed value and the predicted value of financial crime.

4.0 Data analysis and Discussions

4.1 Descriptive statistic

Table 1: Multicollinearity Statistics

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.094	.012		8.083	.000		
	Trend Analysis Technique (TAT)	.132	.007	.959	19.101	.000	.471	2.124
	Analyzing Accounting Record Technique (ACRT)	.045	.064	.065	.711	.479	.601	1.665

a. Dependent Variable: Fraud prevention

Table 1 shows no case of multi-collinearity because the Tolerance and VIF values are within the threshold of greater than 0.10 and less than 4. In this case, their correlation values are expected to be high or moderate (perfectly high correlation between independent variables is a symptom of multicollinearity problem) and as such this data would have a good fit for reliable result. The T value is positives for Trend Analysis Technique and Analyzing Accounting Record Technique (AART). The probability values for Trend Analysis Technique is significant while its insignificant for Analyzing Accounting Record Technique (AART).

Table 2: Summary of Hypotheses Testing

Statements	Beta Value (β)	t-value	P-Value	Decisions
H0 ₁ : Trend analysis techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service	.132	19.101	0.000	Rejected
H0 ₂ : Analyzing accounting records techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service	.045	0.711	0.479	Accepted

Source: Field survey result, (2026)

Hypothesis one reveals estimate of .132 and P-value of 0.000 way less 0.05 error level. This suggests the probability of getting a critical ratio as large as 19.101 (in absolute value) is 0.000, meaning the regression weight for Trend Analysis Technique (TAT) in fraud prevention is not significantly different from zero at the 0.05 error level. This result suggests that TAT is great positive and significant predictor/influencer of fraud prevention by 13 percent. Summarily, based on the finding, hypothesis there is a support indicating that there is a significant effect of TAT on fraud prevention in Plateau State Internal Revenue Service.

There is no significant effect of analyzing accounting records techniques on Fraud prevention in listed banks in Nigeria. The regression analysis run, given the coefficients in table 2 above, shows that analyzing accounting records techniques have positive and insignificant effect on fraud prevention in Nigeria, given ($\beta = 0.045$, $t = 0.711$; sig. 0.479). Thus, analyzing accounting records techniques have positive and not significant effect of analyzing accounting records techniques on fraud prevention in Plateau State Internal Revenue Service.

4.2 Discussion of findings

The effect of Trend Analysis Technique (TAT) on fraud prevention was positive and significant such that an increase in the application of TAT in the Plateau State Internal Revenue Service may largely prevent fraud in the organization up to forty percent. This finding is consistent with that of Eko, Adesola, and Eseneyen, (2020) examined the use of forensic accounting techniques in preventing and identifying fraudulent activities in Nigerian commercial banks, especially evaluating the influence of commercial data mining, ratio analysis, and trend analysis approach in fraud tracking and prevention. The author recommends that commercial banks be obliged to acquire comprehensive data mining software facilities, as well as advanced training on the application of data mining and its usefulness in the banking sector (Bangura, 2020) conducted a similar study in Sierra Leone, by examining forensic accounting techniques and fraud prevention in Sierra Leonean money deposit banks.

Finally, it was discovered that Analyzing accounting records techniques have no significant effect on fraud prevention on Plateau State Internal Revenue Service given $\beta = 0.045$, $t = 0.711$; P-value of $0.479 > 0.05$. It implies that for every unit increase in analyzing financial records does not cause an increase in fraud prevention by 0.045 units. Therefore, it can be said that with detail analysis of analyzing accounting records does not at all times unveil hidden fraudulent activities used by forensic accountant. This finding corroborates with the study of Okunbor and Obaretin (2010) who found that the usage of forensic accounting services was not effective in the determination of fraudulent cases among listed firms. This finding opposes the study of Deshi and Freeman (2022) who found out that analyzing accounting record has a positive impact on fraud detection. It is opposes the study of Edward (2021) whose findings indicate that conducting investigation, analyzing financial transaction and reconstructing incomplete accounting records have significant effect on financial fraud detection in deposit money banks in Nigeria. This finding also opposes the findings of Hashem (2020) who found out that analyzing accounting records technique helps in detecting non-numerical fraud risk variables in Amman Stock Exchange manufacturing businesses

5.0 Conclusion and Recommendation

Fraud is a serious problem in developing nations. It is so endemic that it is gradually becoming a normal way of life in both public and private sectors of the economy. The rate at which fraud is perpetrated in Nigeria and the seemingly lack of solution were the main drivers for this research endeavor. The study examines the effect of forensic accounting techniques on fraud prevention in Plateau State Internal Revenue Service, Nigeria. The finding further suggested that increase in knowledge and utilization of forensic accounting will ultimately translate into increase on intentions to use forensic accounting techniques in fraud prevention. Trend analysis techniques have significant effect on fraud prevention in Plateau State Internal Revenue Service and Analyzing accounting records techniques have no significant effect on fraud prevention in Plateau State Internal Revenue Service. The study also concludes that,

forensic accounting techniques can help prevent fraud in Plateau State Internal Revenue Service.

- From the findings and conclusions of this study, the study hereby recommended that:
1. The use of forensic accounting techniques should be encouraged and applied in Plateau State Internal Revenue Service Nigeria as it can help curtail financial fraud and also assist judges to bring to book those involved in fraudulent practices.
 2. It also recommends that trainings, seminars and workshop should be organized by professional bodies to equip the practitioners with necessary skills to practice forensic accounting.

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