



Forensic Auditing and Fraud Management: A Study of Pabod Breweries Limited, Port Harcourt, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This paper scrutinized the nexus between forensic auditing and fraud management using Pabod Breweries, Port Harcourt, Nigeria as a case study. The primary data employed in the study were sourced from staff of the Pabod Breweries using questionnaires. Percentage and Pearson correlation were the techniques of analysis used in the study. The results of the study showed a significant positive relationship between forensic auditing and detection of fraud in the private sector. Also, the results showed that there is the existence of a significant positive relationship between forensic auditing and fraud prevention in the private sector. Thus, the study concluded that forensic auditing does significantly detect and prevent the occurrence of fraud cases in the private sector. Therefore, the paper recommended that the management of companies should ensure that forensic audits are carried out in their establishments at least once in a year, even if it is not statutorily required, in order to detect fraudulent practices in their organisation. In addition, forensic audit report should be implemented accordingly by the audited organisation in order to prevent fraud and avert white-collar crime in the organisation.

Keywords: *Forensic auditing; fraud detection; fraud prevention; Nigeria.*

1. INTRODUCTION

Forensic auditing involves a probe into the financial situation of an organisation and oftentimes, it is associated with the investigations of alleged fraudulent activities. Apart from fraudulent situations, forensic auditing could also apply in non-fraud situations, such as resolution of monetary disputes. The forensic auditing procedure includes preparation/designing, assembling evidence(s) / facts, review, preparation of report and submission/communication of the report to the client. In the case of an alleged fraud, the purpose of the investigation would be to discover if a fraud had actually been perpetrated (with evidence(s)); to find out how long the fraud has been committed; to ascertain how the fraud was conducted and concealed by the perpetrators; to identify the perpetrators; to quantify the monetary value of the fraud and to ultimately present findings to the client.

The advent of forensic auditing has resulted in questions aimed at ascertaining whether forensic auditing has really facilitated the achievement of accountability and prevention of fraud, particularly, as it concerns the private sector of the Nigerian economy. "Despite the several legislations put in place to reduce and if possible eliminate the occurrence of fraud, it is worrisome that incidences of fraud have become so widespread that it is fast assuming an epidemic proportion in Nigeria" [1]. Most of the business entities, in recent time, failed to recognise that fraud as a phenomenon could be more devastating compared to other problems like armed robbery or other physical attacks on assets which may only affect them in the short-term, without any long-run implications on the operations of the companies.

However, any fraudulent act perpetrated in a firm, does not only affect its financial stability but could have serious implications on the reputation of the firm, thereby causing investor's loss of confidence. In most cases, the directors of the affected companies concede losses of fraud as bad debt and failed to acknowledge its failure to exercise or implement proper safeguards in the system of internal checks and control. Such managerial negligence in exercising proper supervision on the business could increase the risk the funds and other assets of the firm [2,3]. In an attempt to detect and stop/prevent the perpetration of such frauds, forensic auditing was introduced.

Zysman [4] explained that "forensic auditing utilizes accounting, auditing and investigative skills. Strict ethical conducts must be applied by an auditor in order to carry out forensic auditing successfully. An auditor must be fully independent and must be aware of the tricks of management staff and employees in perpetrating fraud in an organization." "Also, the possession of enhanced skills aids the forensic accountant in discharging his duties" [5].

Recently, series of fraud have been committed both in public and private sectors of the economy. These in no doubt are mostly perpetrated amid the existence of stringent internal control measures. However, the independence of the internal auditor is not guaranteed as he works as an employee of the government or a private organization. Auditing failures to detect fraud and other unethical scandals have become a common phenomenon as fraud is still continuing inexorably in many organisations. It has caused a lot of damages and in some cases crumbled business organisations despite the engagements of external auditing. The problem of the internal control system not being able to combat fraud in the private sector gave way to an alternative, called forensic auditing, which is believed to be more effective in fraud detection and prevention. It is on this premise that this study intends to establish the relationship between forensic auditing and fraud management using Pabod Breweries, Port Harcourt as a case study.

The primary objective of the study is to analyse the nexus between forensic auditing and fraud management. The specific objectives are as follows:

- i. To examine the nexus between forensic auditing and fraud detection in the private sector;
- ii. To assess the nexus between forensic auditing and fraud prevention in the private sector.

The following research questions will be answered in the course of this study:

- i. To what extent does forensic auditing relate with the detection of fraud in the private sector?
- ii. What is the extent of the link between forensic auditing and fraud prevention in the private sector?

The following hypotheses stated in their null form will be tested:

- H0₁: There is no significant nexus between forensic auditing and fraud detection in the private sector.
- H0₂: There is no significant nexus between forensic auditing and fraud prevention in the private sector.

The scope of the study covers Pabod Breweries Limited (the case study) which is a Port-Harcourt based brewery that produces Grand Lager beer, Grand Malt, Castle Milk Stout, among others. Established in 1982, Pabod Breweries was originally owned by the Rivers State Government. As at the time of establishment, it produced Grand Lager, Grand Malt, Grand Soda and later Bond Super Lager Beer, a special beer made with local raw materials. However, in 1986, it faced some difficulties due to the Structural Adjustment Programme (SAP), which hindered brewers from importing raw materials for production, resulting in the winding up of many breweries. Notwithstanding, there were issues of poor management and corruption which culminated in the closure of the brewery in 1996. Pabod bounced back to operation when a German company, Brewtech, in a joint-venture partnership with the state government resumed production. However, Nigerian Breweries Plc. sued Pabod for allegedly copying the shape of its Star Lager brand bottle. Pabod prevailed in court, but Nigerian Breweries appealed, and the issue is still continuing. However, in 2008, SABMiller Plc. secured a contract with the Rivers State government that allowed it to buy the bulk of Pabod Breweries' shares and take over shares previously owned by Brewtech and those held by the Rivers State government.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Forensic auditing and the concept of fraud

Forensic implies the application of scientific knowledge to legal problems in order to produce evidence usable in a court of law. Forensic auditing and forensic accounting are used interchangeably in literature. In the views of Razee, Crumbley and Elmore [6], "forensic accounting is simply a specialty field in accounting that deals with the identification of financial fraud, and reporting in a way that it

would be suitable for use in a court of law. Howard and Sheetz [7] explain forensic accounting as the process of interpreting, summarizing and presenting complex financial issues clearly, succinctly and factually often in a court of law as an expert witness/evidence."

"Forensic accounting as a discipline and a profession is fast growing in demand. The needs of governments, regulatory authorities, corporate bodies and courts for high level of expertise for the analysis of intricately devised frauds underlie the importance of forensic accounting (Ramaswamy, 2005). Forensic accountants render services in the areas of accounting, auditing investigation, damages claims, analysis, valuation and general consultation and also play critical roles in divorce, insurance claims, fraud claims, construction, auditing of publication right and in detecting terrorism by using financial precedence" [8].

"Forensic auditing is a tool that can be used in fraud management through the detection and reduction or prevention of fraud. Forensic audit involves summarizing and application of investigative auditing, criminology, litigation services, and financial services skills to unveil fraud" [9]. "Fraud is difficult to be noticed, but the symptoms can be noticed easily, thus, forensic audit assist firms with the necessary tools to detect and prevent fraudulent activities" [10]. Dada, Owolabi and Okwu [11] and Modugu and Anyaduba [12] found "a positive relationship between forensic auditing and fraud reduction. Therefore, forensic audit is an important tool in fraud detection and reduction. The rising complications in fraudulent activities necessitate the inclusion of forensic auditing as part of the tools required to properly probe and prosecute fraud cases including those involved in the fraudulent practices" [13].

"Recently, the need for forensic audit service is becoming overwhelming due to the growing fraudulent activities in businesses and government agencies around the world. Listed in the fraud scandals that almost ruined the corporate world are cases of Enron, Arthur Anderson, and WorldCom which have brought forensic auditing to limelight" [9]. Furthermore, the failure of statutory audit to detect, prevent, or minimize the fraudulent use of an institution's financial and non-financial assets, as well as the rise in corporate crime, have boosted the demand for forensic audit.

Nwaze [14] explained “fraud as a predetermined as well as planned tricky process or device usually initiated by a person or group of persons with the intention of cheating another person or organization to achieve ill-gotten advantage which would not have accrued in the absence of such deceptive procedure.” In the setting of government, the Economic and Financial Crimes Commission (2004) described fraud as a nonviolent criminal and illegal activity committed with the goal of illegally earning wealth, either individually or in a group in an organized manner, thereby violating existing laws governing government and its administration's economic activities. The major categories of fraud include:

- i. Asset misappropriations: This involves the theft or misuse of an organization's assets. Examples of asset misappropriation include skimming revenues, stealing inventory, and payroll fraud.
- ii. Corruption: Corruption entails the unlawful or wrongful use of influence in a business transaction or public dealings to procure personal benefit, contrary to one's duty to his or her employer or the rights of another. Examples of corruption include accepting kickbacks and engaging in conflicts of interest.
- iii. Financial statement fraud and other fraudulent statements: This involves the intentional misrepresentation of financial or non-financial information to mislead others who are relying on it to make economic decisions. Examples include overstating revenues, understating liabilities or expenses, improper asset valuation and making false promises regarding the safety and prospects of an investment.

2.1.2 Forensic audit in fraud detection and prevention

“Fraud is a type of criminal conduct that involves the use of dishonest or deceitful means to obtain some unjust advantage or gain over another” [15]. When fraud is unraveled in an organisation, people query how it occurred and the reason the internal auditor could not detect and prevent the fraud. The consequences of fraud to business organizations in recent time is increasing and it is of serious concern to stakeholders. Thus, forensic audit plays a very important role in the business organizations, as it facilitates the probe, detection and prevention of fraud and other economic crimes in organizations and the economy in general.

Modugu and Anyaduba [12] explained that “one of the effective techniques employed by forensic auditors in fraud detection is the net worth method. The net-worth is the suitable method in calculating the income of the suspect by using financial analysis in ascertaining the increase in his or her wealth. This is normally done by showing the year to year increase in the wealth of the suspect. By using the net worth method, funds embezzled by fraudsters, money launderers, and corrupt bank officials can be traced to their income.” Another technique of fraud detection is transaction monitoring which is used by forensic auditors to assist institutions and law enforcement agencies to detect and prevent fraudulent practices.

Apart from the net worth method and transaction monitoring, other techniques of forensic auditing includes:

- i. Data Mining: Data mining refers to the processing of information in a view to identifying patterns and trends to aid decision making. Data mining can either be used to describe a particular occurrence of fraud/other phenomenon or used to predict the unknown and future occurrences of fraud and other incidents. The techniques of mining as stated by Oyedokun [16] include:
 - a. Regression (Predictive)
 - b. Association Rule Discovery (Descriptive)
 - c. Classification (Predictive)
 - d. Clustering (Descriptive)
- ii. Data Matching: This involves finding corresponding or identical records that relate to the same subject. This could be used to spot duplicated records of a particular transaction.
- iii. Relative Size Factor: “Relative size factor detects unusual data, which may be due to either simple errors or frauds, based on the basic concept that each field in any transaction has a normal range and any data falling outside the range is unusual (outlier) and needs to be further investigated” [17].
- iv. Ratio Analysis: Ratio analysis is the use of financial ratios to evaluate financial statements of an enterprise in order to ascertain the financial position of the organization. It is a reliable method of discovering financial statement fraud. Comparative ratio analysis could be used

to detect discrepancies in a company's financial statement. It could also be used to compare the financial performance of two or more firms.

- v. Benford Law: This involves the use of numbers (the first digit) to check for conformity in a data series. "Benford's law, also called first-digit law, is an observation about the frequency distribution of leading digits in many real-life sets of numerical data" [16]. When a set of numbers expected to conform to the distribution does not, it could be a sign that the data is wrong or tampered with.
- vi. Computer Assisted Audit Technique: This is the use of computer software/programme to process data in order to identify irregularities and errors in the data set. It is a reliable audit tool and suitable for large data.

2.2 Theoretical Framework

This research work is based on white-collar crime theory by Sutherland (1949) as cited in Michael [18].

The term white-collar crime dates back to 1939. Sutherland (1949) as cited in Michael [18] was the first to coin the term. The theory explains that white-collar criminals have different characteristics and motives compared to typical street criminals. Sutherland originally presented his theory in an address to the American Sociological Society in an attempt to study crime and the society. He defined white-collar crime as a crime perpetrated by highly placed persons in the society while doing their job (Sutherland 1949, cited in Michael [18]). Sutherland noted that in his time, less than two percent of the persons jailed in a year belong to the upper class. His goal was to prove the relationship between money, social status, and likelihood of going to jail for a white-collar crime, compared to more visible, typical crimes (blue-collar crimes) in the society.

Sutherland described the blue-collar street crimes to include arson, burglary, theft, assault, rape and vandalism which are often blamed on psychological, associational and structural factors. On the other hand, the work specified the white-collar crimes to involve taking advantage of circumstances to accumulate financial gain, embezzlement/misappropriation of funds and changing figures to fraudulently siphon money. The perpetrators of the white-collar crimes are

educated, intelligent and affluent individuals who are qualified enough to get jobs that allow them access to large amount of money.

However, the federal Bureau of Investigation (FBI) asserts that white-collar crime refers to illegal acts which are characterized by deceit, concealment, or violation of trust and which are not dependent upon the application or threat of physical force or violence. On the other hand, the blue-collar crime often involves the use physical force. Fredrichs (2007) stated that "the only way one crime differs from another is in the backgrounds and characteristics of its perpetrators. It is alleged that a great deal of white-collar crimes is undetected or if detected, it is not reported. Due to the high status of the perpetrators of these crimes, highly trained and experienced forensic accountants are needed to prevent the occurrence of such high profile frauds. Also, the failure of the traditional audit system in curtailing the menace of official corruption and white-collar crimes necessitates the application of forensic auditing techniques."

2.3 Empirical Review

Alhassan [19] evaluated "the relationship between forensic accounting and fraud detection and prevention in the Nigerian ministries using a sample of fifty (50) respondents consisting of auditors and accountants in ten (10) ministries in the Federal Capital Territory, Abuja. Analysis of Variance (ANOVA) was adopted to test the hypothesis at 5% level of significance. The findings of the study revealed that the use of forensic accounting in the Nigerian ministries helps in discovering fraud. The results of the study further revealed a correlation between forensic accounting and legal actions in Nigerian courts."

Mukoro, Yamusa and Faboyede [20] studied "the role of forensic accountant in fraud detection and national security. The population used in the research consists of the staff of Federal Inland Revenue Service (FIRS). The study employed survey research method and the primary data sourced were analysed using regression technique. The result showed that forensic accountants are relevant in investigating crime and corruption in the public sector." Modugu and Anyaduba [12] "sought to determine if there is a significant agreement amongst stakeholders on the effectiveness of forensic accounting in financial fraud control, financial reporting and

internal control quality. The study used survey research design and a sample size of 143 comprising of accountants, management staffs, practicing auditors and shareholders was used. The binomial test employed indicated that there is a significant agreement amongst stakeholders on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality.”

Ehioghiren and Atu [21] assessed “the influence of forensic accounting on fraud management in Nigeria using primary data sourced from 572 respondents using questionnaires. F-Statistics was the method of analysis employed. The results of the study showed that forensic accounting significantly influences fraud detection and control. Also, the results revealed that there is a significant difference between the duties of professional forensic accountants and that of traditional external auditors.” Similarly, Osunwole, Adeleke and Henry (2014) examined “the influence of forensic accounting on fraud detection and prevention in deposit money banks in Nigeria using primary data. The method of analysis was Linear Regression. The result of the analysis indicated that forensic accounting has a positive and significant influence on fraud detection and prevention which implies that forensic accounting is an antidote to fraud in public and private sectors.”

Okafor and Agbiogwu [5] studied “the effects of forensic accounting skills on management of bank fraud in Nigeria. Data were gathered from primary sources. The statistical tool used to test hypotheses was Analysis of Variance (ANOVA) and the result of the analysis showed that possession of enhanced skills aid the forensic accountant in discharging his duties.” Bassey [17] examined “forensic accounting as it affects the management of fraud in microfinance institutions in Cross River State. Both primary and secondary sources of data were used and analyzed using the ordinary least square technique. Results of the analysis showed a negative effect of forensic accounting on fraud. The implication of these signs was that the active engagement of forensic investigation and litigation reduces fraud in the selected microfinance banks in Calabar. The study further revealed that audit failures over decades have prompted a paradigm shift in accounting and thus concluded that forensic accounting play a significant roles in the prevention of crimes and corruption.”

Aigienohuwa, Okoye, and Uniamikogbo [22] examined “the effectiveness of forensic accounting and fraud mitigation in the Nigerian banking industry. The primary source of data was adopted using the 5-point Likert scale questionnaires as the research instrument for sourcing data from respondents. The findings of the study indicated that forensic accounting, apart from significantly reducing fraud in the banking industry, has helped to improve the internal control system of banks.” Raymond, Nkiru, and Jane (2016) studied “the impact of forensic auditing in combating fraudulent activities in order to ensure good corporate governance practice in Nigerian banking sector. The survey method of research was adopted and data were collected through the use of questionnaires administered to fifty five (55) respondents from commercial banks in Awka, Anambra State. The study employed the t-test statistical technique of analysis with the aid of SPSS version 20.0. The study revealed that forensic accounting is an effective tool for addressing financial crimes in the banking system. The study further reported that forensic audit is required in ensuring corporate governance in corporate organisations.”

Okoye and Ndah [23] assessed “the relationship between forensic accounting practices and the prevention of fraud in manufacturing companies in Nigeria using Ordinary Least Square technique of regression analysis. Primary data collected through the administration of questionnaires were used. The results of the study demonstrated that there is a positive and statistically significant relationship between fraud investigation practices and the prevention of fraud in manufacturing companies. The findings also showed that there is a positive and statistically significant relationship between fraud litigation practices and the prevention of fraud in manufacturing companies.”

Using primary data from a sample of 190, Okoye, Adeniyi and James [1] evaluated “the effect of forensic accounting on fraud management of selected firms in Nigeria. Questionnaires were used for data collection. Descriptive statistics and multiple regression analysis were employed. The results of the analyses revealed that forensic accounting significantly influence fraud detection and prevention. The results also showed that forensic litigation has no significant effect on the recovery of funds lost to fraud.”

Ogutu and Ngahu [24] examined “the application of forensic auditing skills in the mitigation of fraud in accounting firms in Nakuru County, Kenya. The study adopted survey research design. The sample size of the study consists of 25 respondents from 25 accounting firms and questionnaires were administered to generate primary data. The OLS regression technique was used in analyzing the data collected. The results of the study showed that forensic accountants should have auditing skills, investigative skills, fraud skills and knowledge of the law.”

Enofe, Omagbon, and Ehigiator [9] assessed “the impact of forensic audit on corporate fraud in Nigeria. The study employed the survey research method and used questionnaires which were judgmentally distributed to persons knowledgeable in the field of accounting and auditing with a view to harvesting data. Data gathered were analyzed using the Ordinary Least Square (OLS) regression technique. The results of the study showed that forensic audit is an efficient and effective tool against corporate fraud. Also, using forensic audit services regularly would significantly help in the detection, prevention and reduction of incidences of fraud in businesses. The study suggested that forensic audit be made statutory for business organizations.”

Akenbor and Oghoghomeh [25] examined “forensic auditing and financial crime in Nigerian banks. The population of the study consists of twenty-three (23) employees from the recapitalized banks in Port-Harcourt, Rivers state. A 5-point Likert-Scale questionnaire was the major instrument used for data collection. Data generated were analyzed using frequencies and percentages. The Pearson Correlation was the technique of analysis adopted. The results of the study indicated that the proactive approach to forensic auditing helps in minimizing the risk of financial crimes in Nigerian banks. The study recommends that forensic audit department should be created in Nigerian banks to initiate internal measures for fighting financial crimes; forensic auditing courses should be introduced in Nigerian higher institutions of learning to provide the necessary skills and knowledge on forensic auditing; forensic audit reports of banks should be made public.”

Bassey [17] studied “the effect of forensic accounting on the management of fraud in microfinance institutions in Cross River State. The study used primary data sourced through the administration of questionnaires and analysed using ordinary least square regression technique. The results of the study showed that the active engagement of forensic investigation and litigation reduces fraud in the selected microfinance banks in Calabar, Cross River State, Nigeria.”

3. METHODOLOGY

This study adopted the survey research design. Thus, the researchers used questionnaires to collect data from thirty (30) staff of Pabod Breweries Limited who have good knowledge of accounting and auditing.

For validity, the developed questionnaire was presented to a renowned researcher in the field of accounting and finance who meticulously made relevant adjustments to ensure its suitability for the subject of the study. Reliability of the instrument was also tested using Cronbach Alpha and the result was 0.89 which implies that the instrument was reliable.

Pearson correlation was employed to estimate the relationship between forensic auditing and fraud management. This was carried out using a two-tailed test at 5% level of significance. The study used primary data gathered through the distribution of 30 copies of questionnaire to respondents in Pabod Breweries Limited. The study recorded a 100% response rate. The primary data collected were presented using tables and percentage.

4. DATA PRESENTATION, RESULT OF ANALYSES AND DISCUSSION

4.1 Data Presentation and Results of Analyses

Table 1 shows the responses of respondents (in percentage) on the need for every organization to have a forensic audit carried out at least once a year. It shows that 2 respondents which represent 7% were undecided; 2 respondents which represent 7% disagreed; while a total of 26 respondents which represent 86% of the total respondents agreed. Therefore, the analysis shows that every organization needs a forensic audit carried out at least yearly to detect and prevent fraud.

Table 2 shows the percentage of respondents' responses on forensic auditing being the main tool for combating fraud in the private sector. A breakdown of the result shows that 4 respondents which represent 13% neither agreed nor disagreed; whereas 2 respondents representing 7% disagreed; while a total of 24 respondents which represent 80% agreed. Therefore, the result indicated that forensic auditing is the main tool for combating fraud in the private sector.

Table 3 shows the responses of respondents on forensic auditors helping in detecting fraud in the private sector. The result shows that 1 respondent which represents 3% of the total respondents was ambivalent. However, a total of 4 respondents which represent 14% disagreed; while a total of 25 respondents representing 83% of the respondents agreed with the statement. Therefore, the result pointed to the fact that forensic auditors help greatly in detecting fraud in the private sector.

Table 1. Responses of respondents on the need of every organization to have a forensic audit carried out at least yearly

Variables	No. of Respondents	Percentage
Undecided	2	7%
Strongly Disagreed	0	0
Disagreed	2	7%
Agreed	16	53%
Strongly Agreed	10	33%
Total	30	100%

Source: Field Work, 2021

Table 2. Respondents' responses on forensic auditing being the main tool for combating fraud in the private sector

Variables	No. of Respondents	Percentage
Undecided	4	13%
Strongly disagreed	0	0
Disagreed	2	7%
Agreed	18	60%
Strongly agreed	6	20%
Total	30	100%

Source: Field Work, 2021

Table 3. Responses of respondent on forensic auditors helping in detecting fraud in the private sector

Variables	No. of Respondents	Percentage
Undecided	1	3%
Strongly disagreed	2	7%
Disagreed	2	7%
Agreed	18	60%
Strongly agreed	7	23%
Total	30	100%

Source: Field Work, 2021

Table 4. Response of respondents to the statement that all organizations should have a forensic audit department for the detection of fraud

Variables	No. of Respondents	Percentage
Undecided	3	10%
Strongly disagreed	0	0
Disagreed	3	10%
Agreed	18	60%
Strongly agreed	6	20%
Total	30	100%

Source: Field Work, 2021

Table 4 shows the percentage of respondents responding to the statement that all organizations should have a forensic audit department for the detection of fraud. It shows that 3 respondents which represent 10% were unsure; while 3 respondents which represent another 10% disagreed. On the other hand, 24 respondents representing 80% agreed with the statement. Therefore, the analysis indicated that all organizations should have a forensic audit department for the detection of fraud.

Table 5 shows the responses of respondents to whether the standard of forensic auditing should be given prior attention in the private sector in order to effectively prevent fraud. The analysis shows that 4 respondents representing 13% were undecided. Nevertheless, no respondent disagreed with the statement, even as a total of 26 respondents representing 87% agreed. Therefore, the result indicated that the standard of forensic auditing needs to be given prior attention in the private sector in order to effectively prevent fraud.

Table 6 shows the response of respondents to the possibility that forensic auditing will prevent the increased occurrence of fraud in the business organization. The Table shows that 13% of the respondents were undecided. While no respondent disagreed; 87% of the respondents agreed. From the analysis, it was deduced that there is high possibility that forensic auditing will prevent the increased occurrence of fraud cases in the business organization.

4.2 Test of Hypothesis

Hypothesis One:

H₀: There is no significant nexus between forensic auditing and fraud detection in the private sector.

H₁: There is a significant nexus between forensic auditing and fraud detection in the private sector.

This hypothesis was tested using the Pearson correlation coefficient. The result of the correlation analysis is presented in Table 7.

From the result presented in Table 7, the relationship between forensic auditing and fraud detection is positive with a coefficient of 0.958, statistically significant at 1% level.

In view of the result as shown in Table 7, the null hypothesis is therefore rejected while the alternative hypothesis which states that there is a significant nexus between forensic auditing and fraud detection in the private sector, is therefore accepted.

Hypothesis Two:

H₀: There is no significant nexus between forensic auditing and fraud prevention in the private sector.

H₁: There is a significant nexus between forensic auditing and fraud prevention in the private sector.

In order to test Hypothesis Two, the Pearson correlation coefficient was used for the assessment of the relationship between forensic auditing and fraud prevention. The result of the analysis is presented in Table 8.

As shown in Table 8, the relationship between forensic auditing and fraud prevention is statistically significant at 1% level. The correlation coefficient of 0.966 is very high depicting a strong positive relationship between the variables.

We therefore reject the null hypothesis and accept the alternative hypothesis which states that there is a significant nexus between forensic auditing and fraud prevention in the private sector.

Table 5. Respondents' Response to Whether the Standard of Forensic Auditing Should be Given Prior Attention in the Private Sector in Order to Effectively Prevent Fraud

Variables	No. of Respondents	Percentage
Undecided	4	13%
Strongly disagreed	0	0
Disagreed	0	0
Agreed	21	70%
Strongly agreed	5	17%
Total	30	100%

Source: field work, 2021

Table 6. Respondents' Responses to the Possibility that Forensic Auditing will Prevent the Increased Occurrence of Fraud in the Business Organization

Variables	No. of Respondents	Percentage
Undecided	4	13%
Strongly disagreed	0	0
Disagreed	0	0
Agreed	20	67%
Strongly agreed	6	20%
Total	30	100%

Source: field work, 2021

Table 7. Result of Pearson correlation between forensic auditing and fraud detection

		Forensic Auditing	Fraud Detection
Forensic Auditing	Pearson Correlation	1	.958**
	Sig. (2-tailed)		.000
	N	30	30
Fraud Detection	Pearson Correlation	.958**	1
	Sig. (2-tailed)	.000	
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed)

Source: SPSS 20

Table 8. Result of Pearson correlation between forensic auditing and fraud prevention

		Forensic Auditing	Fraud Prevention
Forensic Auditing	Pearson Correlation	1	.966**
	Sig. (2-tailed)		.000
	N	30	30
Fraud Prevention	Pearson Correlation	.966**	1
	Sig. (2-tailed)	.000	
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2021

4.3 Discussion of Findings

The results of the study revealed that there is a significant positive nexus between forensic auditing and the detection of fraud in the private sector. Thus, the result of this study implies that forensic auditing could be used to detect white-collar crime in the society. This finding agrees with the studies of Osunwole, Adeleke and Henry (2014) who established that forensic accounting has a positive and significant influence on fraud detection and prevention.

The findings of the study also show that there is a significant positive nexus between forensic auditing and prevention of fraud in the private sector. This result is vividly in support of the fact that where there is a wide range of investigation into the financial affairs of an entity, even when it

is not statutorily required, the perpetrators are compelled to have a rethink and possibly desist from involvement in fraud. Therefore, forensic auditing could be used to prevent white-collar crime. The result is in line with the findings of Bassey [17] which indicated that forensic accounting play a significant role in the prevention of fraud.

5. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

The findings of the study have shown that:

- i. A significant positive nexus exists between forensic auditing and detection of fraud in the private sector.

- ii. A significant positive nexus exists between forensic auditing and fraud prevention in the private sector.

In conclusion, forensic auditing does significantly detect and prevent the occurrence of fraud cases in the private sector. Thus, forensic auditing is an effective tool in revealing fraudulent practices (such as, misappropriated assets, fraudulent insider transactions, et cetera) and preventing the occurrence of fraud in order to save the business organization from ruin.

Thus, the following recommendations were given:

- i. Companies should ensure that forensic audits are carried out in their establishments at least once in a year, even if it is not statutorily required, in order to detect fraudulent practices in the organization.
- ii. Forensic audit report should be implemented accordingly by the audited organisation in order to prevent fraud and avert white-collar crime in the organization.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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