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RESEARCH ARTICLE

Forensic Accounting as a Tool for Fraud Detection and Prevention in Business Organizations

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ABSTR

The study examined forensic accounting as a tool for fraud detection and prevention in business organizations in Nigeria. The data adopted were gotten from 15 Nigerian companies chosen based on their proficiency in forensic accounting. A simple random selection of 15 specialists from each firm, consisting of auditors and accountants from the 15 firms in Nigeria, was used to choose the sample size of (150) responses. The white-collar crime theory was used in this study and a structured questionnaire with questions and a Likert scale was given to respondents in order to collect data from the chosen firms for this study. Out of 170 administered questionnaires, 150 were returned and were determined to be useable for a return rate of 94%. The statistical tool used are exploratory data analysis (respondent demographic statistics) and chi-square. The result of the study indicates that forensic accounting could help detect and prevent fraud in the organizations being studied. The study proposes that the services of forensic accountants should be employed in companies so as to detect fraud and reduce financial crime rate in Nigeria.

Keywords: *Fraud Prevention, Fraud Detection, Forensic Accounting, Business Organizations*

Introduction

All around the world, in both the public and commercial sectors, fraud is becoming more prevalent. Since fraud is an international issue, every country faces it. Although the most suffering is experienced by emerging countries and their varied states. A rapidly expanding area of accounting known as "forensic accounting" deals with engagements that arise out of real or potential disputes or legal actions. Forensic means suitable for use in a court of law, and it is to that standard Forensic Accountants generally work. According to Oliver (2004), as the complexity and scope of commerce has expanded throughout the world, the need to track money and financial information has grown. There has been a corresponding increase in illegal financial activity, according to separate surveys by the U.S department of justice, price water coopers, and the Association of certified fraud Examiners (ACFE). Ironically, illegal businesses and perpetrators of financial crimes also need to keep track of their cashflow and manage their operational performance to generate profits, fund activities and avoid detection and seizure of their assets. An understanding of effective fraud and forensic accounting techniques can assist professional Forensic Accountants in identifying illegal activity and discovering and preserving evidence (Houck, 2006).

Hence, it is important to understand that the role of a forensic accountant is different from that of regular auditor. According to Onodi, Okafor, and Onyali (2015), the prevalence of financial crimes such as fraud and misappropriation of funds in recent times has posed a threat to traditional auditing as a branch of the accounting profession. To uncover and establish the occurrence of such crimes, forensic investigative skills are necessary. The Centre for Forensic Studies (2010) in Nigeria reports that forensic auditing, if well applied, can reverse the leakages that cause corporate failures. This is because proactive forensic accounting practices aim to detect errors, operational vagaries, and deviant transactions before they escalate into fraud.

According to Okoye et al. (2019), forensic and litigation services committee, forensic accounting may involve the application of special skills in accounting, auditing, finance, quantitative skill to collect, analyze, and evaluate financial evidence, as well as the ability to interpret and communicate findings. (Okoye, 2013) observed that the use of forensic Accounting will significantly reduce the occurrence of fraud cases in the public sector, and that there is significance difference between professional Forensic Accountants and Traditional External Auditors and therefore the use of Forensic Accountants can help better in detecting and preventing fraud cases in the public sector organizations. (Krell, 2002) says forensic accounting often involves an exhaustive, detailed effort to penetrate concealment tactics. Eze (2015), wave of financial fraud in the world today has manifested on various ways including financial fraud has bedeviled the world globally and the resultant spate of failures and the liability of public sector and private sector organization to fulfil their responsibilities placed greater function on accountants to equip themselves with the skills to identify and act upon financial fraud and irregularities. The increase in the rate of public and private fraud embezzlement has caused a serious concern to investors, general public and owners of business. There is consequently a common expectation that forensic accounting may be able to stop the flood of financial mismanagement. Financial statement frauds, which are the category of fraud committed in the majority of corporate settings and by managers, are significant because they result in the greatest amount of losses at the corporate level and attempt to distort the financial truth in order to gain an advantage or conceal potential losses or poor performance.

Theoretical Framework

The theory upon which this work is based is ''white-collar crime theory'' (Sutherland, 1949) as cited in Michael (2004). The term white-collar crime dates back to 1939. Sutherland (1949) as cited in Michael (2004) was the first to coin the term, and hypothesis white-collar criminals, attributed different characteristics and motives than typical street criminals. Sutherland originally presented his theory in an address to the American Sociological Society in attempt to study two field, crime and high society which had no previous empirical correlation. He defined his idea as "crime committed by a person respectability and high social status in the course of his occupation (Sutherland 1949, cited in Michael 2004). Sutherland noted that in his time, less than two (2) percent of the persons committed to prison in a year belong to the upper class." His goal was to prove a relation between money, social status, and likelihood of going to jail for a white-collar crime, compared to more visible, typical crimes, although, the percentage is a bit higher today. Instead, white-collar criminals are opportunists, who over time learn they can take advantage of their circumstances to accumulated financial gain. Fredrichs (2007) stated that the only way one crime differs

from another is in the backgrounds and characteristics of its perpetrators. Most, if not all white- collar offenders are distinguished by lives of privilege, much of it with origins in class inequality. It is estimated 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, a highly trained and experienced examiner or investigator like the Professional Forensic Accountant is needed to forestall the occurrence of such high-profile fraud.

Empirical Reviews

Enofe et al. (2015) conducted a study on the perception of forensic accounting and fraud investigation among accountants. The study targeted accounting staff in commercial banks, as well as academic accountants operating in Nigeria. The researchers utilized a quota sampling technique and collected primary data from 200 professional accountants, including practicing accountants in firms, mid-level employees, senior accountants, and academic accountants in Edo state. The primary data was collected through the administration of questionnaires and analyzed using mean scores, while hypotheses were tested using the Chi-test. The study revealed a general consensus among accountants for the need of forensic accounting services in Nigeria's economy, particularly for addressing fraud and corruption issues.

Okoye (2013) conducted research on the effectiveness of forensic accounting as a tool for detecting and preventing fraud in the public sector, with a particular focus on Kogi State. Both primary and secondary sources of data were used in the study. The researcher administered 370 questionnaires to staff from five selected ministries, and the data was analyzed using tables and simple percentages. The statistical tool used to test hypotheses was Analysis of Variance (ANOVA). The study concluded that the use of forensic accounting significantly reduces the occurrence of fraud cases in the public sector. Additionally, the research found significant differences between professional forensic accountants and traditional external auditors, suggesting that the use of forensic accountants is more effective in detecting and preventing fraud in public sector organizations.

Oladipo and Olurotimi (2021) investigated the effectiveness of forensic accounting as a tool for fraud prevention in Nigeria. The researchers employed a primary source of data collection through the use of questionnaires spanning a period of 10 years from 2010. A cross-sectional survey design was used, and data was collected from staff members of the Integrated Personnel Payroll Information System and the Office of the Accountant General of the Federation. The study utilized descriptive statistics, including mean and standard deviation, and regression analysis to test hypotheses. The results showed that forensic accounting has a significant impact on fraud detection and prevention. However, it was found that forensic litigation did not have a significant positive effect on the recovery of funds lost due to fraud.

Adebisi (2016) conducted a survey to investigate the impact of forensic accounting on fraud detection and prevention in Nigeria. The study utilized primary data collected through a questionnaire administered to 92 professional accountants working in the public sector in Nigeria. The data collected was analyzed using chi-square. The study's findings suggest that forensic accounting plays a significant role in fraud detection and prevention in Nigeria. The study recommended an increase in the involvement of forensic accountants in detecting and preventing financial crimes in Nigeria to reduce the rate of financial crime.

Obiora et al. (2022) conducted a study to examine the extent to which the use of forensic accounting services impacts the incidence of fraud in healthcare firms in Nigeria. The study utilized Kendall's coefficient of concordance for statistical testing of parameter estimates and adopted a survey design approach based on the white-collar crime theory. Questionnaire surveys were administered to relevant accounting sections of healthcare firms in Nigeria to collect data. The empirical analysis of the study showed that the use of forensic accounting services has led to a reduction in the incidence of fraud and a significant level of fraud prevention at 1%. The study concluded that the application of forensic accounting services is effective in preventing fraud in healthcare firms in Nigeria.

Okoye and Mbanugo (2020) conducted an analysis to investigate how the use of forensic accounting can reduce fraud cases in public tertiary institutions in Southeast Nigeria. The study utilized a descriptive survey design and the population included 470 accounting staff in 7 public tertiary institutions in the region. The statistical tool used to test the hypothesis was analysis of variance (ANOVA). The findings indicated that forensic accounting significantly

reduces the occurrence of fraud cases in the tertiary institutions in Southeast Nigeria. Therefore, the study suggests that the adoption of forensic accounting practices can be effective in preventing and detecting fraud in public tertiary institutions in the region.

Methodology

In order to explore fraud detection and prevention in business organizations in Nigeria utilizing forensic accounting as a tool, a survey methodology was used in this study. 15 Nigerian companies were chosen based on their proficiency in forensic accounting. A simple random selection of 15 specialists from each firm, consisting of auditors and accountants from the (15) firms in Nigeria, was used to choose the sample size of (150) responses. A structured questionnaire with questions on a yes-or-no basis and a Likert scale with values of (SA=5; A=4; UD=3; SD=4; D=5) was given to respondents in order to collect data from the chosen firms for this study.

Data Presentation and Analysis

In accordance with the established objectives, data gathered through questionnaire use from the sampled population of the 15 enterprises in Nigeria is analyzed and presented. 150 of the 170 administered questionnaires were returned and were determined to be useable, for a return rate of 94%. The goals of this study are expected to be accomplished through the analysis of the collected data. Both statistical and economic techniques are used in the study to offer a thorough background for the investigation. The statistical tools used are exploratory data analysis (respondent demographic statistics) and Chi-square. The goal of econometric analysis is to extend statistical analysis by performing an empirical analysis and obtaining estimated coefficients that are valid enough to test the desired hypothesis. Demographic statistics provide analytical information on the demographics of the respondents, whereas econometric analysis extends statistical analysis. SPSS 28.0 was used for the analysis.

Demographic Data on the Respondents

The demographic data are shown below along with their gender, marital status, age, level of education, and career category.

Table 1: Demographic Profile of the Respondents (n = 150)

Characteristics	Frequency	Percentage
Gender		
Male	81	54%
Female	69	46%
Marital Status		
Single	65	43%
Married	85	57%
Age (Years)		
20 -29 years old	34	23%
30-39 years old	55	37%
40-49 years old	23	15%
50-59 years old	17	11%
60 years and above	21	14%
Educational Qualification		
B.sc/HND	71	47%
Masters	37	25%
PhD	19	13%
Others	23	15%
Career category		
Practicing accountant	35	23%
Practicing auditors	30	20%
Senior staff	31	21%

Junior staff	54	36&

As shown in Table 1, for gender, 54% of the respondents are male, and 46% are female. Most of the respondents are married, which is 57% and single are 43%. In terms of age group, highest age group consists of "30 to 39years" which is 37% followed by "20 to 29 years" which is 23%, "40 to 49 years" 15%, "50 to 59 years" 11% and 60 years and above is 14%%. For educational qualification, majority of the respondents are bachelor and master's degree holder, which are 47% and 25% respectively, while PhD and Others recorded the least response with 13% and15% respectively. While looking into the Career category of the respondents, most of them are practicing accountants with 23% response rate, followed by practicing auditors which is 20%, junior staff is 36% and senior staff is 21%.

Model Estimation and Interpretations

Hypothesis Testing 1

$H_0$1: Forensic accounting is not significantly effective in detecting fraud in business organizations

Table 2: Observed and expected frequency table

	Observed Frequency				***Expected Frequency***			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Yes	115	104	98	121	135	135	135	135
No	35	46	52	29	14.2	14.2	14.2	14.2
Total	150	150	150	150				

Source: Field Work 2022

Table 3: Chi-Square Analysis of Hypothesis

	Observed Freq (O_f)	***Expected Freq (E_f)***	***(O_f-E_f)***	***(O_f-E_f)^2***	***(O_f-E_f)^2/E_F***
Yes	115	135	-20	400	2.963
No	35	14.2	20.8	432.64	30.467
Yes	104	135	-31	961	7.1185
No	46	14.2	31.8	1011.24	71.214
Yes	98	135	-37	1369	10.141
No	52	14.2	37.8	1428.84	100.62
Yes	121	135	-14	196	1.4519
No	150	14.2	14.8	219.04	15.425
(X^2)					**238.9214**

Source: Field Work 2022

The Chi-Square calculated value was 238.9214, which is significantly greater than the significance criterion of 0.05 for the 9.488 table value. Consequently, the alternative hypothesis is accepted while the null hypothesis is rejected. Therefore, it is concluded that forensic accounting has a significant effect on fraud detection in business organizations (Given that X^2 =238.9214 table = 9.488, df = 4).

Hypothesis Testing 2

$H_0$2: Forensic accounting is not significantly effective in preventing fraud in business organizations

Table 4: Observed and Expected Frequency Table

Likert Scale	*Q1*	*Total*
SA	89	150
A	35	
UD	9	
SD	10	
D	07	

Source: Field Work 2022

Table 5: Chi-Square Analysis of Hypothesis

Likert Scale	*Observed Freq (O_f)*	*Expected Freq (E_f)*	*(O_f-E_f)*	*(O_f-E_f)²*	*(O_f-E_f)²/E_F*
SA	89	58	31	961	16.569
A	35	36	-1	1	0.0278
UD	9	21.2	-12.2	148.84	7.0208
SD	10	17	-7	49	2.8824
D	07	17.8	-10.8	116.64	6.5528
Total (X^2)					**33.0528**

Source: Field Work 2022

The Chi-Square calculated value 33.0528, 2 degrees of freedom which is significantly higher than 5.991 table value 0.05 level of significance. Consequently, the alternative hypothesis is accepted while the null is rejected. We conclude that forensic accounting is statistically and significantly effective in preventing fraud in business organizations (Given that. X^2 = 112.890 table = 33.0528, df = 2).

Discussion and Implication of Findings

The study examined forensic accounting as a tool for fraud detection and prevention in business organizations in Nigeria. The result indicated that forensic accounting could help detect and prevent fraud in the organizations being studied. These results were obtained using the respondent's response. The result of the Chi-square test (X^2) for both hypotheses are (238.9214 and 33.0528) with a probability value <0.05 accordingly. This is an indication of acceptance of the alternative hypothesis for both cases.

The finding that forensic accounting has a significant effect on fraud detection in business organizations has several implications. Firstly, it suggests that businesses should consider incorporating forensic accounting practices in their internal control systems to prevent and detect fraud. This could include hiring forensic accountants, implementing fraud risk assessments, and conducting regular forensic audits. Secondly, it highlights the importance of investing in the professional development of forensic accountants to enhance their skills and expertise in fraud detection and prevention. This could involve providing training opportunities and encouraging certification in forensic accounting. Thirdly, the finding emphasizes the need for collaboration between forensic accountants and traditional external auditors to strengthen the overall effectiveness of financial audits. By working together, they can provide a more comprehensive assessment of the financial statements and identify potential fraud risks.

The finding that forensic accounting is statistically and significantly effective in preventing fraud in business organizations has important implications. Organizations can use forensic accounting to proactively detect and prevent fraudulent activities, which can ultimately save them significant financial losses and reputational damage. This finding highlights the need for organizations to invest in forensic accounting as a tool for fraud prevention, and to ensure that they have trained professionals with the necessary skills and knowledge to effectively use forensic accounting techniques. Additionally, regulators and policymakers should consider promoting the use of forensic accounting in organizations as a means to prevent fraud and improve the overall integrity of the business environment.

Overall, the implication of this finding is that forensic accounting is a valuable tool in the fight against fraud, and its adoption can lead to increased financial transparency and accountability in business organizations.

Conclusion

The focus of this study examined the impact of forensic accounting as a tool for fraud detection and prevention. Data acquired through administration of questionnaires to respondents gotten from 15 Nigerian firms chosen based on their proficiency in forensic accounting. The findings imply that forensic accounting could help detect and prevent fraud in the organizations being studied. As a result of this, the study recommends that companies should be encouraged to use forensic accounting in carrying out their accounting duties for more efficient results.

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