

FORENSIC ACCOUNTING AS AN INSTRUMENT FOR FRAUD DETECTION AND PREVENTION IN THE PUBLIC SECTOR: MODERATING ON MINISTRIES, DEPARTMENTS AND AGENCIES IN NIGERIA

Niyi Oladipo Olaniyan ✉, Ayodele Temitope Ekundayo, Oladimeji Emmanuel Oluwadare, Theresa Omolade Bamisaye

Federal University Ekiti, Nigeria

ABSTRACT

The study examined forensic accounting as an instrument of detection and prevention of fraud in Nigeria. It specifically examined the influence of forensic accounting on detection and prevention of fraud in Ministries, Departments and Agencies in Nigeria. The study is predicated on policeman theory, white collar theory, fraud diamond theory. Primary sources of data were employed which covered the period of ten (10) years spanning from 2010 to 2020. A cross sectional Survey design was adopted. A Questionnaire was used in data collection from the staff of Integrated Personnel Payroll Information System and Office of the Account General of Federation. Seventy-five (75) questionnaires were used as the sample size. The study adopts descriptive statistics while regression analysis was used to test the stated hypotheses. The result of the findings showed that forensic accounting has positive and significant influence on fraud prevention, but foreign account has no total control on fraud detection. It was also revealed that forensic litigation has no significant positive influence on recovery of funds lost to fraud. The study recommends that forensic accounting systems should be allowed as a procedure for internal control systems so as to prevent or reduce the level of income leakages, mismanagement of funds and budget padding.

Key words: foreign accounting, fraud detection, fraud prevention, public sector, Nigeria

JEL codes: M41, M48, M49

INTRODUCTION

The high level of corruption through financial misappropriation, income leakages, budget padding, and money laundering, which are all components of fraud and other corrupt practices in business governance and government parastatals, has necessitated the application and practice of forensic or investigative accounting. Forensic or investigative accounting is the branch of accounting that reports any fraudulent activ-

ity, money laundering and any other related fraudulent actions that may occur in an institution. Once there is any suspicious fraud or fraud is perceived or detected, a professional set of people – the forensic accountants – are called upon to help discover the fraud and provide management with enough evidence to be submitted in the court of jurisprudence, when pursuing the suspects involved in the hoax. The term forensic, which refers to evidence or documents to be used in court, has been incorporated into accounting and finance due to the

Niyi Oladipo Olaniyan <https://orcid.org/0000-0002-8535-6991>; Ayodele Temitope Ekundayo <https://orcid.org/0000-0001-7789-934X>; Oladimeji Emmanuel Oluwadare <https://orcid.org/0000-0001-5554-6260>

✉dr.dipoolaniyan@gmail.com

high level of financial crimes [Mazunder 2011]. Mazunder noted that security forces in recent years have become more aware of financial crimes, but lack the expertise and training to stem such crimes.

Zysman [2004] states that forensic accounting includes accounting, auditing and investigative skills. Enyi [2012] also asserted that it requires an accountant to catch a corrupt or fraudulent accountant, as humanity is expected to recognize the magic of a monkey in order to capture it. Strict ethical behaviors must be implemented by an auditor in order to successfully perform forensic accounting. An auditor must be completely independent and aware of the tricks that management personnel and employees use to commit fraud in an organization.

The growing demand for forensic accounting is a familiar feature of most businesses around the world. Forensic accounting is based on the effect and cause of fraud and technical error committed by people. Forensic accounting is fairly new in Nigeria, as companies have realized that the services of forensic accountants are needed, as cases of fraud have greatly increased in number. Forensic accounting is the application of financial expertise and investigative mentality to unresolved issues, conducted within the context of the rules of evidence [Koh et al. 2009].

It has been said that, “Government spending has always been a big concern, but it has become so massive today that the public through its legislators is demanding to recognize whether the huge outlays of money are being spent wisely or whether they should be spent at all”. Public servants and employees who manage public sector activities are expected to be adequately accountable to the public for their activities [Ribadu 2005]. The incidence of fraud continues to increase in the public sector system and across nations through budget padding, financial misappropriation, income leakages in all tiers of government, money laundering by the top government officials to their foreign accounts. Fraud is a universal problem and no nations are immune, although developing countries and their various states suffer the most pain because this money is supposed to be used to increase their standard of living in order to improve their well being.

Forensic accounting considerably improves the quality of fraud detection and prevention. This study therefore aims at investigating forensic accounting as

a fraud detection and prevention tool among the selected Ministries, Departments and Agencies in Nigeria from 2010 to 2020.

This article is structured as follows: section one presents the introduction of this analysis; section two offers a literature review of pertinent forensic accounting; the third section shows the methods used in this study; section four demonstrates the data analysis and results; finally section five presents the conclusion of the current study.

Review of Related Literature, Conceptual Review, Concept of Forensic Accounting

Manning [2002] postulated forensic accounting as the diligent way to combine financial accounting and investigative skills in a standard accepted way to address issues and uncover any fraudulent financial activities. Coenen [2005] described forensic accounting as involving the use of accounting concepts and techniques to legal issues. It requires reporting when accountability for fraud is established and the report is tendered as evidence which will be used against the culprit [Joshi 2003]. This is a clear explanation that forensic accounting is an organ of accounting information which specializes in the provision of information that it is meant to be used against the offender for prosecution purposes. The specialists in this area are referred to as ‘forensic accountants,’ specialized in carrying out investigation on fraudulent financial documents and white-collar crimes such as misappropriation of funds, budget padding and mismanagement of funds and any other fraudulent transaction. Such litigation services are provided to corporations, prosecutors and any other relevant agencies including government [Coenen 2005]. Zysman [2001], states that the commitments of the forensic accountant are to establish the audit trail of this money, where the money disappears to, how it was moved from the system and the person responsible for the crime. Wood and Sangster [2005], defined forensic accounting as a way of detecting, recovering and reporting of financial information so that users can judge and make informed decisions about it [Wood and Sangster 2005].

Concept of Accounting Fraud

Fraud is a decisive act, internationally carried out to gain unlawful or unfair possession of another person’s property which will put the other person at loss

[Anyanwu 1993]. Agreeing with Black's Law Dictionary (1979), fraud includes all the means humans can put up to deceive another person to obtain undue advantage or take advantage of another person through false manipulation of the truth. It involves fear, cunning, lies, tricks, or concealment of actions of hiding something and any means of cheating another person. Dandago [1997], asserts that fraud is the willful misinterpretation of financial information within management, staff or even customers. This is using criminal deceit to gain an unfair or illegal advantage. This is deliberate deceit for taking undue advantage. Fraud differs from mistake or erroneous posting, through "inaccuracies or involuntary omissions of amounts or information from an entity's accounting records or financial statements" [Onochie 2005]. Reporting fraud is a deliberate act of falsifying accounting records, such as falsifying sales records, in order to give a window dressing balance through sales figures; accounting fraud is illegal and can cause a company and its administrators to become involved in civil lawsuits [Koh et al. 2009].

Fraud, Prevention and Detection

Fraud is a worldwide problem that has existed for a long time. Describing fraud as an act of using dishonest methods to win something of value, there is no precise definition of fraud, as it includes clever, surprising, cunning, and prejudicial ways of deceiving a person. Nwankwo [2004] observed that fraud is an already designed act that inflicts psychological harm on an entity, often loss of monetary values. According to Howard and Sheetz [2006], fraud means an intentional act or rather a determined misleading of fact, in order to trick or deceive people, a group of people or an establishment. Moreover, financial fraud is a purposeful act by vicious-minded people to mislead facts or figures with the aim of making someone think something that is not true in order to find something for yourself or rather defrauding a company or an individual. Fraud is an activity of unjustified or criminal deception that occurs in all walks of life and has a negative influence on the economy, businesses and personalities. It is an opportunistic infection that focuses on financial or personal gain [Owojori and Asaolu 2009]. Okoye and Gbengi [2013], define fraud as an intentional deceptive action designed to provide the perpetrator with an illicit gain or to benefit or to deny a right to a dupe.

Fraud in the public sector affects all levels of government and the integrity of people in the helms of affairs in the regime of the state. It greatly affects government projects because the finances that are assigned for infrastructural development and other social amenities to enhance the national standard of living are being misappropriated by political office holders, which cut across all the Ministries, Departments and Agencies. The issue of fraud in the public sector is no more a new thing, it is now 'business as usual' in the public sectors, and this has created untold hardship to the general populace.

Detection is the act or process of identifying the presence of something hidden and also of finding or catching (a person) in the performance of certain acts. This means the action or process of detecting the presence of something concealed [Howard and Sheetz 2006]. Prevention also means saving something from what is going on or preventing someone from doing something [David 2009]. As described above, fraud is a legal term that refers to the intentional misrepresentation of the truth for the purpose of manipulating or misleading a business or individual [Coenen 2005]. This means that the purpose of the fraud is to create an error in judgment or to maintain an existing error in judgment to entice someone to enter into a contract. Fraud prevention is the implementation of a strategy aimed at detecting fraudulent transactions or banking transactions and preventing them from damaging the reputation of the client or financial institution. It is an effort to prevent and discourage crime and criminals. Fraud prevention refers to the anticipation, recognition and assessment of a risk of crime and the implementation of measures to eliminate or reduce that risk [Koh et al. 2009]. It is specifically applicable to the efforts of governments and other relevant authorities to reduce crime, enforce the law and maintain criminal justice.

Overview of Public Sector

The public sector is the combination of ministries, departments and agencies owned and controlled by the government. This involves federal, state and local governments. Ibhahulu [2012] described the public sector as that sector which is established, managed and controlled by the government and its agencies, different from the private sector, and coordinated

for the benefit of the whole citizen. The private sector aims at profit-making while the public sector is not purposely centered as profit-oriented – it is more service delivery to ensure the welfare of the entire general populace and also to maintain government infrastructural facilities to attract foreign investors. Moreover, countries follow a set of standardized accounting principles strictly for public sectors called International Public Sector Accounting Standard (IPSAS). It is under the control of the International Public Sector Accounting Standard Board (IPSASB), which is an organ of the International Financial Accounting Committee (IFAC). Public sector rules are different from private sector accounting rules. IPSAS countries follow their rules to prepare and submit their financial reports.

In Nigeria, the Ministry of Finance and the Budget Office at the federal level are saddled with the responsibility of managing the federation account through IPISA, while each of the thirty-six States of the Federation run their financial affairs through the Treasury Single Account for prudence and proper accountability as a centralized accounting control system. The three tiers maintain individual budgets that are run by separate appropriation laws for preparation, approval, implementation of the government budgets. They are governed on an individual basis by distinct officials. They also continue to prepare public sector financial reports for individual verification and publication.

Nigeria as an emerging economy facing different challenges, with dwindling growth and stability of its economy. Speedy failure in the government as a result of high levels of corruption is the major issue deterring the country from maintaining sustainable economic growth and stability, which consequently is slowing down the development of Nigeria. The Nigerian public sector is an inbuilt component of its economy for stable and sound development and plays a critical part in bringing prosperity in the lifetime of a citizen of the state.

Nigeria is one of the developing countries and an emerging economy most affected by the greatest challenges of effective resource allocation and economic stability. A flawless factor in the effective management of public funds and control of the government's treasury resources is achieved through a unified government banking structure. Such banking arrangements

should be designed in a manner which minimizes the cost of government borrowing and maximizes the opportunity cost of cash resources.

The Impact of Forensic Accounting on Fraud Prevention and Detection

Various scholars have analyzed the influence of forensic accounting on fraud reduction and have suggested that forensic accounting can have positive and significant influence on fraud reduction [Bhasin 2007, Enofe et al. 2013, Agbioqwu 2016]. It has also been proven that forensic accounting (including system, equipment, process and employees) have positively helped in fraud reduction in the banking sector [Kosmas et al. 2009]. However, contrary studies are showing no link between the effectiveness of forensic accounting and fraud detection in the context of Nigeria, where rigorous training is needed in order for forensic accounting to be effective and function well [Curtis 2008]. There are also researchers who see a neutral result when it comes to the connection between forensic and fraud detection [Gbegi and Adebisi 2013, Imam et al. 2015]. Forensic accounting is expected to generate favorable results for firms by improving customer confidence, reducing high levels of fraud and exposing any irregularities which might lead to fraudulent activities as this will collectively improve profitability and customer confidence. A recent study using a linear model indicates that forensic accounting and fraud prevention do not have a positive relationship with the non-linear model of forensic accounting and fraud detection [Shabbir and Keife 2004].

Theoretical Framework

A contractual agreement between parties typically requires that forensic accounting be universally accepted to facilitate fraud detection and prevention. A brief analysis of the theories advocating the need for forensic accounting giving rise to contractual arrangement under: (a) Policeman Theory; (b) White Collar Theory; (c) Fraud Diamond Theory.

(a) Policeman Theory

This was the most common theory about audit and investigation up to the 1940s [Haye and Anyaduba 1999]. The theory is that forensic accountants act as police officers by focusing on arithmetic accuracy and

fraud prevention and detection. However, due to its inability to explain the shift of forensic accounting from prevention of fraud to the fairness of the financial statements, the theory seems to have lost much of its explanatory power.

(b) White Collar Theory

The term “white-collar crime” was propounded by Sutherland (1949) who expounded a hypothesis about white-collar criminals and attributed different characteristics and motives than typical street criminals. Sutherland originally presented his theory in an address to the American Sociological Society in an attempt to study two fields, crime and high society, which had had no previous empirical correlation. He defined his idea as “crime committed by a person of respectability and high social status in the course of his occupation [Izedonmi and Ibadin 2012]. Sutherland noted that in his time, less than 2% of the persons committed to prison in a year belong to the upper class. His motive was to showcase the linkage between social status and financial leverage with the likelihood for a white collar crime, which is incomparable to any visible crime, to result in someone going to jail.

(c) Fraud Diamond Theory

The fraud diamond theory was introduced by Wolf and Hermanson, where they provided different perspective on the diamond theory. This theory reflects the fourth variable, “skills”, to the three-components of fraud triangle. Wolf and Hermanson believed that many frauds would not occur without the right person who has the skills to implement the details of the fraud. Opportunity opens the door for fraud and inducement.

EMPIRICAL REVIEW

Going through the existing literature, it is crystal clear that forensic accounting is universally accepted to enhance the detection and prevention of fraud. In Brazil, the researchers Imoniana, Antunes, and Formigoni studied the features of Forensic Accounting services carried out by accounting firms, using an exploratory approach. The outcome of their findings revealed that knowledge of forensic accounting techniques and expertise increased the productivity of auditors in fraud detection and prevention. At the same time, Bressler

[2011] examined the perception of lawyers and judges in the court system about what might help to understand the role of forensic accountants in fraud investigations. His conceptual analysis revealed that forensic accountants need good training on evidentiary rules, financial data, accounting information systems, software and communication skills.

In Bhasin [2007] examined the profession of forensic accounting and the reduction of corruption in the banking industry. The study was a descriptive search for a type of survey and a questionnaire was used to collect the required data which was then analyzed using a simple percentage and simple regression. The result confirmed that accountants used forensic accounting skills in the detection of fraud. In the same vein, Eiya and Otalor [2013] reviewed a study to determine whether applying forensic accounting could be used as a tool to increase trust in the auditor’s report. In the analysis of data, descriptive statistics were employed in the field. He administered 400 questionnaires on audit, legal and information technology firms. It concluded that the application of forensic verification could make it possible to detect fraud using fingerprints and signatures in a meaningful manner. Clearly, these studies are similar to this study however they used only descriptive statistics while this study used inferential statistics from simple linear regression.

In the regional front, various works have been revealed on Forensic Accounting and detection and prevention of fraud. For example, Kosmas, Thulani, and Mashanye [2009] studied the strength of forensic auditing in detecting and preventing bank fraud in Harare, Zimbabwe. This was a descriptive search of one type of survey and the data was collected through questionnaires and interviews with thirteen commercial banks, four audit firms and four construction companies. The analysis carried out through frequency and percentage revealed that forensic accounting is faced with many problems, hence; it has not been useful in the detection and prevention of fraud in Zimbabwe. This means that hiring forensic accountants without sufficient material resources would produce no desired outcome. This review is similar to the current review. However, some distinction was made because the current study used inferential statistics of simple linear regression, whereas the previous study used descriptive statistics of frequency and percentage.

Enofe et al. (2013) initiated a study to look at the impact of forensic accounting on fraud detection. The overall objective was to determine the link between fraud detection and forensics. The study adopted a survey search design and a well-structured questionnaire was used to obtain the required data from the sample respondents. The data collected that was analyzed through descriptive statistics of frequency and percentage and inferential statistics of simple linear regression and Chi-square revealed that both forensic accounting and fraud detection moved in the same direction, indicating that the application of Forensic Accounting affects the fraudulent activities. This article extends the study of Enofe, Okpako and Atube with the inclusion of fraud prevention. This study was designed to ascertain the impact of Forensic Accounting on fraud detection and prevention in commercial banks in Ekiti State.

With the purpose of studying the influence of Forensic Accounting in the management of fraud in banks, Okafor and Agbiogwu [2016] studied the effect of Forensic Accounting Skills on the management of bank fraud in Imo State. The study was a survey type and both secondary and primary data were gathered in a bid to know the effect of Forensic Accounting on the management of fraud in Nigeria. The data collected and analyzed as part of the Anova showed that forensic accounting skills significantly reduce the number of frauds in the banking sector. The study was confined to Imo State and other states in the federation were set aside. In order to generalize their conclusions that forensic accounting reduces financial fraud, it is important or necessary to conduct the same study in other states. This will invariably address the gaps in this study.

Similarly, Enofe, Agbonpolour and Edebiri [2015] conducted research in forensic accounting and financial fraud. It was a descriptive search for a type of survey and the data needed for the study were obtained using a well-structured Likert-scale questionnaire; the data collected were analyzed using a nonparametric statistical technique. The most significant of their discoveries was that forensic accounting skills are essential to tackle financial crimes in the banking section in Nigeria. Rather than a nonparametric statistical technique, a simple linear regression is used in this study. Similarly, there was no theoretical basis for the previous study and the present study was based on the theory of diamond fraud.

Further evidence has shown that forensic accounting skills help reduce financial crime not only in the banking sector, but also in the public sector in Nigeria. This study was conducted in a number of Ministries, Departments and Agencies in Nigeria.

RESEARCH METHOD

Research Design

The study explored cross-sectional survey method due to use of primary data. For this purpose the random sampling technique was used. The research work assumed the role of qualitative information through the questionnaire obtained, while OLS and regression with descriptive statistics were employed to examine the theories.

Target Population

The target population of this study centered on the senior staff of the Integrated Personnel Payroll Information System and the Federation's General Account Office in Nigeria.

Sample Size and Technique

Sampling size and technique was explored for selection of sample respondents from Integrated Personnel Payroll Information System and Office of the Account General Federation as representative of the total population of all MDAs which serves as the panacea of all the funds disbursing to all the MDAs. Hence, the sampling of the study includes 37 members from Integrated Personnel Payroll Information System and Office of the Account General Federation in Likert format are distributed in the field.

Research Instrument

Data were extracted through questionnaires administered to Integrated Personnel Payroll Information System and Office of the Account General of Federation. Seventy-five questionnaire items were distributed for the study and only 73 were returned.

Data Analyses Techniques

Descriptive research method was explored to carry out this research through the aids of Ordinary Least Square (OLS) and the data were obtained through the use of questionnaire to narrate the Ordinary Least Square.

Model Specification

This economic model was developed to analyze the link between the dependent and explanatory variables of this research study (Table 1):

$$FA = f(FP, FD)$$

$$FA = \beta_0 + \beta_1 FP + \beta_2 FD + \Sigma$$

where:

FA – Financial Accounting,

FP – Fraud Prevention,

FD – Fraud Detection,

Σ – Stochastic Error Term,

β_0 – Intercept,

$\beta_1, \beta_2, \beta_3 > 0$, represent the parameters sign of the independent variables.

A-priori Expectation Criteria

Forensic accounting is expected to exert a positive relationship with fraud prevention and fraud detection.

Discussion of the Result

The presentation explained the description of the respondent through variables of interest. The dependent variable established in the model is Forensic Accounting (FA) while two explanatory variables established in the model are Fraud Prevention (FP) and Fraud Detection (FD). The sample of the analysis established were extracted through the response from the questionnaire (i.e., Integrated Personnel Payroll Information System and Office of the Account General of Federation).

Interpretation of Results

The test is established by examining if the sign and sizes of the result is in tandem with the theory demonstrated in the study. The theory demonstrated in the study stated that the coefficient will have a positive and significant relationship with the dependent variable. This means an increase in the dependent variable will lead to a decrease in the explanatory variables and *vice-versa*.

Table 1. Descriptive Statistic

Variables	Coefficient	Minimum	Maximum	Mean	SD
FA	73	2	5	4.16	687
FP	73	2	5	3.90	785
FD	73	1	5	3.89	966

Source: Authors' computation.

Table 2. Ordinary Least Square Result

Predictor: Financial Accounting (FA)				
Method: Ordinary Least Square				
Included Observation: 73				
Variable	Coefficient	Standard Err	T-statistic	Probabilities
Intercept	3.154	0.412	7.649	0.000
FP	-0.021	0.109	-0.193	0.0847
FD	0.281	0.089	3.168	0.002

$R^2 = 0.147$, $R^2 \text{ bar} = 0.123$, F.Stat (2.70) = 6.047. Durbin-Watson-Stat = 1.381

*5% level of significance

The result of the variables exhibited through the a-priori sign and expectation has been summarized in the Table 3 which will be guided by these criteria.

When $\beta > 0$, it depicts Positive Relationship
 When $\beta < 0$, it depicts Negative Relationship

$$FA = 3.15 - 0.021FP + 0.281FD + \epsilon \text{ S.e (0.41) (0.11)} \\ (0.09) \text{ T-Stat } \{7.65\} \{-0.19\} \quad \{3.17\}$$

The value of the intercept revealed 3.15 (Table 2), which was a clear indication that forensic accounting (FA) has a positive and high significant impact on fraud prevention (FP) and fraud detection (FD). A unit increase of 0.021 units in forensic accounting delineates the impact of fraud. The positive level of the coefficient indicates that forensic accounting (FA) has a positive impact on fraud prevention (FP) and fraud detection (FD). A unit decrease in the level of forensic accounting can create loopholes for fraud, which is why total compliance with fraud accounting can also prevent the highest level of fraud in the public sector. However, it was not substantial enough to justify forensic accounting and its effect on fraud detection in MDAs. The T . calculated result 0.193 is less than T . critical value result 1.667, which means it cannot through forensic accounting show a serious result in fraud prevention. It is highly significant using the combination rule of thumb and t test statistic together, for forensic accounting to prevent fraud in MDAs in Nigeria.

Table 3. *A priori* Expectation Table

Variables	Expected Sign	Estimated	Remarks
FP	(+)	$B_1 > 0$	conform
FD	(+)	$B_2 < 0$	not conform

Source: Authors' computation.

Table 4. (H_{01}): Forensic Accounting has no significant impact on fraud prevention in Nigeria

Factor	Coefficient	T -Stat	P -value	Significant Level	Inference
Fraud Prevention	0.021	0.193	0.085	5%	Accept H_A , Reject H_0

Source: Author's Computation.

Multiple Determinant Coefficient R^2

The R^2 revealed the explanatory variable follows the model which can be seen as 0.147, which is a clear indication that 14.7% of change in forensic accounting can be explained by all the explanatory variable changes. This is why the R^2 adjusted has the predictive power to show the predictive ability of the model and this can be seen as 12.3%, which means change in forensic accounting can be predicted by the explanatory variables in the model.

Conclusively the F-statistic revealed the quality of the model for goodness of fit by comparing f calculated to f critical. In order to explain the impact of explanation variables this has been reviewed by looking at it from the angle of 0.01 and 0.05 level of significance, which are 4.79 and 3.07, which is less than 6.047 (4.79 and 3.07 less than 6.047 calculated respectively.)

Econometrics Criteria (second order test) Test for Autocorrelation

Ordinary least square regression technique is that the value of the variable is randomly independent based on the analysis which showed that the error term has no serial correlation with one and another as dictated by Durbin-Watson.

Summary of the Hypothesis

In order to confirm the impact of forensic accounting on fraud prevention, Hypotheses (H_{01}) was formulated. Hypotheses (H_{01}) is in tandem with the research ques-

Table 5. (H_{02}): Forensic accounting has no significant impact on fraud detection in Nigeria

Factor	Coefficient	T-Stat	P-value	Significant Level	Inference
Fraud Detection	0.0281	3.168	0.002	5%	Accept H_A , Reject H_0

Source: Author's Computation.

tion. The measurement scale of the data collected from the field was co-integrated. To establish whether or not forensic accounting has significant impact on fraud prevention, ordinary least square results were relied upon in testing the research hypotheses of this study which was used (Table 2) above. Based on the test which states the *T* Stat is 0.193, *p*-value of 0.0.847 with 5% level of significance. It thus implies that there was no significant impact of forensic accounting on fraud prevention which indicates that the model gives a very significant improvement over the baseline intercept-only model. Therefore, the Hypotheses (H_{01}) which states that there is no significant relationship between forensic accounting and fraud prevention is rejected.

In order to confirm the impact of forensic accounting on fraud detection, Hypotheses (H_{02}) was formulated. Hypotheses (H_{02}) which is in tandem with the research question. The measurement scale of the data collected from the field was co-integrated. To establish whether or not forensic accounting has significant impact on fraud prevention. Ordinary least square results were relied upon in testing the research hypotheses of this study which was used (Table 2) above. Based on the test which states the *T* Stat is 3.168, *p*-value of 0.002 with 5% level of significance. It thus implies that there was no significant impact of forensic accounting on fraud detection which indicates that the model gives a very significant improvement over the baseline intercept-only model. Therefore, the Hypotheses (H_{02}) which states that there is no significant relationship between forensic accounting and fraud detection is rejected.

CONCLUSION

This research study investigated the nexus between forensic accounting and fraud prevention and detection. The study covers two parastatals saddled with the re-

sponsibilities of finance in Nigeria: the Integrated Personnel Payroll Information System and the Office of the Account General of the Federation. Data was used from the Integrated Personnel Payroll Information System, Office of the Account General of Federation and also any parastatal in Nigeria. Forensic accounting has a positive impact on fraud detection and prevention. The positive relationship indicates that forensic accounting has a reasonable level of control on fraud prevention. The more there is sanity in curbing fraud and cybercrime fraud prevention, the healthier and more dependable forensic accounting will become. This study concluded that forensic accounting has positively and significantly influences fraud detection and prevention. Though Fraud can never be totally eradicated from the system but with the forensic accounting it will be reduced to the nearest minimum. In view of the above stated conclusion, the following recommendation should be implemented: forensic accounting should be encouraged in every system for internal control procedures to curb the menace of income leakages, mismanagement of funds and budget padding.

REFERENCES

- Agbiogwu, A.A., Ihendinihu, J., Okafor M. (2016). Impact of Environmental and Social Costs on Performance of Nigerian Manufacturing Companies. *International Journal of Economics and Finance*, 8 (9), 173.
- Bhasin, M. (2007). *Forensic Accounting: A New Paradigm for Niche Consulting*. Retrived from https://www.researchgate.net/publication/286711517_Forensic_Accounting_A_New_Paradigm_For_Niche_Consulting [accessed 20.08.2020].
- Bressler, L. (2011). The Role of Forensic Accounting in Fraud Investigations: Importance of Attorney and Judge's Perceptions, *Journal of Finance and Accountancy*, 4 (3), 78–89

- Coenen, T.L. (2005). Fraud in Government: Wisconsin Law Journal Article Posted by asafamar Sundip.
- Curtis, G.E. (2008). Legal and Regulatory Environments and Ethics: Essential Components of Fraud and Forensic Accounting Curriculum. *Issues in Accounting Education*, 23 (4), 535–543.
- David, N.B. (2009). Forensic Accounting: Public Acceptance towards Occurrence of Fraud Detection. *International Journal of Business and Management*, 145–160.
- Eiye, O., Otolor, J.I. (2013). Forensic Accounting as a Tool for Fighting Financial Crime in Nigeria. *Research Journal of Finance and Accounting*, 4 (6), 18–25.
- Enofe, A.O., Agbonkpolour, O.R., Edebiri, O.J. (2015). Forensic Accounting and Financial Fraud. *International Journal of Multidisciplinary Research and Development*, 2 (10), 305–312.
- Enofe, A.O., Okpako, P.O., Atube, E.N. (2013). The Impact of Forensic Accounting on Fraud Detection. *European Journal of Business and Management*, 5 (26), 61–72.
- Gbegi, D.D., Adebisi, J. (2013). The New Fraud Diamond Model-How can it help forensic Accountants in fraud investigation in Nigeria? *European Journal of Accounting Auditing and Finance Research*, 1 (4), 129138.
- Haye, K.P., Anyaduba, J.O. (1999). Forensic Accounting and Financial Fraud: an Empirical approach. *International Journal of Business and Social Science* 4 (7), 281–289.
- Howard, S., Sheetz, M. (2006). Forensic accounting and fraud investigation for non-experts. John Wiley and Sons Inc., New Jersey.
- Ibhahulu, A.S. (2012). The effect of credit risk management on the financial performance of the Jordanian commercial banks. *Investment Management and Financial Innovations*, 12 (1–2), 338–345.
- Imam, A., Kumshe, A.M., Jajere, M.S. (2015). Applicability of Forensic Accounting Services for Financial Fraud Detection and Prevention in the Public Sector of Nigeria. *International Journal of Information Technology and Business Management*, 40 (1), 136–152.
- Koh, A.N., Arokiasamy, L., Lee, C. (2009). Forensic Accounting: Public Acceptance towards Occurrence of Fraud Detection. *International Journal of Business and Management*, 4 (11), 145–160.
- Kosmas, N., Thulani, D., Mashanye, E. (2009). The Effectiveness of Forensic Auditing in Detecting, Investigating and Preventing Bank Frauds. *Journal of Sustainable Development in Africa*, 10 (4), 405–425.
- Imoman, Antunesal, Formigoni (2013). Fishbowl the Forensic Accountant: A Closer Look at the Skills Forensic Accounting Education Should Emphasize. *The Forensic Examiner*, 18 (2), 77–79.
- Imoniana, J.O, Antunes, M.T, Formigoni, H. (2013). The forensic accounting and corporate fraud. *Journal of Information Systems and Technology Management*, 10 (1), 119–144.
- Izedonmi, F., Ibadin, P.O. (2012). Forensic Accounting and Financial Crimes: Adopting the Inference, Relevance and Logic Solution Approach. *African Research Review*, 6 (4), 125–139.
- Manning, G.A. (2002). *Financial Investigation and Forensic Accounting*. CRC Press, New York.
- Nwankwo, A.T. (2004). The Expanding Role of the Forensic Accountant. *The Forensic Examiner*, 14 (3), 39–43.
- Okafor, M.C., Agbiogwu, A.A. (2016). Effects of Forensic Accounting Skills on the Management of Bank Fraud in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 4 (6), 70–80.
- Okoye, E. I., Gbegi, D.O. (2013). Forensic Accounting: A Tool for Fraud Detection and Prevention in the Public Sector. (A study of selected ministries in Kogi state). *International Journal of Academic Research in Business and Social Sciences*, 3 (3), 19–34.
- Owojori, A.A., Asaolu, T.O. (2009). The role of forensic accounting in solving the vexed problem of corporate world. *European Journal of Scientific Research*, 29 (2), 183–187.
- Shabbir, R.E, Kiefer, G. (2004). Does productivity and ownership matter for growth? Evidence from Indian banks. *International Journal of Emerging Markets*, 11 (4).
- Wolfe, D.T., Hermanson, D.R. (2004). The Fraud Diamond: Considering the Four Elements of Fraud. *The CPA Journal*, 74 (12), 38–42.
- Wood, F., Sangster, A. (2005). *Frank Wood's Business Accounting*. Pearson Education, London.

RACHUNKOWOŚĆ KRYMINALISTYCZNA JAKO INSTRUMENT WYKRYWANIA I ZAPOBIEGANIA NADUŻYCIOM W SEKTORZE PUBLICZNYM: BADANIE MINISTERSTW, DEPARTAMENTÓW I AGENCJI NIGERII

STRESZCZENIE

W badaniu przeanalizowano rachunkowość kryminalistyczną jako instrument wykrywania i zapobiegania oszustwom w Nigerii. W szczególności zbadano wpływ rachunkowości kryminalistycznej na wykrywanie oszustw i zapobieganie im w ministerstwach, departamentach i agencjach w Nigerii. Badanie opierało się na „teorii policjanta”, „teorii białych kołnierzyków”, „teorii diamentu oszustwa”. Podstawowym źródłem danych był okres 10 lat od 2010 do 2020 roku. Przyjęto projekt badania przekrojowego. Kwestionariusz został wykorzystany do zbierania danych od pracowników zintegrowanego systemu kadrowo-płacowego i biura generalnego konta federacji. Jako wielkość próby określono 75 kwestionariuszy. W badaniu przyjęto statystykę opisową, a do testowania postawionych hipotez wykorzystano analizę regresji. Wynik ustalenia wykazał, że rachunkowość kryminalistyczna ma pozytywny i znaczący wpływ na zapobieganie oszustwom, ale rachunek zagraniczny nie ma całkowitej kontroli nad ich wykrywaniem. Okazało się również, że postępowanie sądowe nie ma istotnego pozytywnego wpływu na odzyskanie środków utraconych w wyniku oszustwa. W studium zaleca się dopuszczenie systemu rachunkowości kryminalistycznej jako procedury dla systemów kontroli wewnętrznej, aby zapobiegać lub zmniejszać poziom wycieków dochodów, niewłaściwego zarządzania funduszami i dopełnienia budżetu.

Słowa kluczowe: rachunkowość zagraniczna, wykrywanie oszustw, zapobieganie oszustwom, sektor publiczny