Forensic Accounting and Incidence of Fraud Detection: Evidence from Nigeria

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Abstract

The study described and explained forensic accounting and the incidence of fraud detection in Nigeria. The objectives of this study were to identify personal skills requirements and, assess the types of investigative techniques used in forensic accounting. A literature review was conducted to set up the conceptual and theoretical framework for the study. A quantitative approach was used by administering a structured questionnaire. A total of 101 investigators from Economic and Financial Crimes Commission (EFCC) were used as sample for the study. We employed Jarque Bera statistics to conduct the analysis using the E views software. There is a significant relationship between forensic accounting personal skills; investigative techniques and fraud detection in Nigeria. The scope of the study was only in Nigeria and all samples were drawn from the Economic and Financial Crimes Commission (EFCC). The study concluded despite all fraudulent activities, forensic accounting is proffering solutions for fraud prevention and detection in Nigeria. It was recommended for practitioners to engage in further training on forensic accounting personal skills and techniques.

Keywords: Forensic Accounting; Fraud detection; Fraud prevention; Personal skills; Forensic accounting techniques

JEL Classifications: M410

Introduction

Forensic accounting is a rapidly growing practice in the accounting profession, forensic accounting investigates incidents of fraud through rigorous data collection and analysis in certain areas. These specific areas are litigation support consulting, expert witnessing, and fraud investigation. Forensic accounting may be viewed as the use of technology and science to expose fraudulent activities in accounting, finance, and management (Rezaee et al., 2016). Association of Certified Fraud Examiners (ACFE) estimates a global scale of fraud as \$4 trillion and this may not be an adequate estimate due to some limitations (ACFE, 2018). The ACFE annual report to the Nations (2018) stated that fraud remains a threat to Organisations of all types and sizes, all over the world. The various types of fraud that these organisations may encounter are numerous which the most likely and prevalent threat is occupational fraud. Occupational fraud is committed from within an organisation and against the organisation by its employees, officers, or directors. It is perpetrated against the Organisation from within by the employees entrusted to protect and manage assets and resources. Like in most developing economies, the ACFE survey report in 2018 indicated that African sub-Saharan Occupational Fraud has caused a median loss of US\$ 90,000 and lasted for a median of 12 months before they were uncovered or detected.

The inappropriate behaviour of advance fee fraud practices had for a long time had a negative consequence for Nigeria leading to the branding of some crimes with the name of Nigeria and West Africa internationally claiming fraudulent emails emanate from the West African sub-region (Longe & Osofisan, 2011).

The rate of corporate failures due to fraud have brought greater responsibility and action on financial experts to possess the necessary skills to identify and investigate indicators of poor corporate governance, mismanagement, frauds along with other wrongdoings (Okunbor and Obaretin 2010). Considering recent trends and developments of fraudulent activities in Nigeria, Azih & Okoli (2015) observed the perpetrators in each case of reported incidences are usually the people at the leadership of organisations.

It is now necessary for Forensic Accounting skills and techniques to be used for prevention and detection or investigation of fraud occurrence. Auditors do not possess the required skills to enable them to tackle complex modern frauds, for example, Organised crime or White-collar crimes; securities fraud, embezzlement, bankruptcy, commercial disputes and illicit financial transaction, money laundering by organised criminal groups and terrorist financing (Gbegi & Adebisi, 2014).

Azih & Okoli, (2015) stated that fraudulent activities involving asset misappropriation, embezzlement by employees of the organisation, false billing, and other problems are in the procurement process of a government contract in Nigeria; this is becoming highly worrisome. There needs to be a focus on the activities of the Economic and Financial Crimes Commission (EFCC), being the federal agency that engages in Forensic Accounting in their fraud detection activities.

This study aims to carry out an assessment of Forensic Accounting and how it influences fraud detection in Nigeria. Specifically, the objectives are to:

- a) Identify personal skills required in Forensic accounting for fraud detection.
- b) Assess types of investigative techniques used in Forensic Accounting to detect fraud.

The other sections of the article proceed with the literature review which discusses the conceptual framework, the importance and challenges of forensic accounting, theoretical framework, and empirical review of previous research. The methodology section is next followed by results and discussion sections. Finally, the conclusion; the findings showed there is a significant relationship between forensic accounting personal skills; investigative techniques, and fraud detection in Nigeria. This has led to a conclusion that the most efficient and effective personal skills and techniques used in forensic accounting practice can be identified.

Literature Review

This study is hinged on how Forensic Accounting influences fraud detection practice; some vital characteristics of Forensic Accounting Practice to be used in understanding fraud detection in the system are discussed. Fraud is any deliberate misrepresentation or concealment of truth through manipulation and negligence in any transaction or statement at the expense of anyone for personal gain (Abdullahi & Mansor, 2015). Fraud Detection or Fraud Examination is the process of solving a fraud issue from inception to disposition usually conducted by anti-fraud professionals; the process includes uncovering the fraud, evidence gathering, reporting, testifying in Court and carrying out a fraud risk assessment for prevention purpose; and detection of fraud (ACFE, 2017).

According to Van Akkeren et al., (2013) and Bhasin, (2016), Forensic Accounting is described as the process of applying financial investigative procedures to resolve issues, it is carried out using evidence with its guiding rules. It is a new practice, encompassing financial expertise, knowledge of fraud, knowledge of business processes, and legal system. This suggests Forensic Accountants must have excellent communication skills to precisely forward their findings or report of investigation and analysis to the users of such information (Oyedokun, 2016). Clarity is paramount since the report can be used for decision-making purposes. In addition to specialised knowledge, Forensic Accounting analysts are required to possess an analytical mindset and tolerant since they have to look beyond the numbers, diligent research, possess creative thinking, business sense, knowledge of computer proficiency, communication skills, a sixth sense, a photographic memory, composure, observation, listening skills and finally, insensitivity to attacks on professional credibility (Bhasin, 2013, & 2016).

Oyedokun, (2016), (as cited in Bronner, 2014) showed forensic accounting techniques that are useful in fraud detection are interviewing, computer-assisted reviews, data mining, and document review. Forensic accounting provides several services to clients which may include using some of these techniques; Computer forensics, Electronic discovery, Bankruptcy, Insolvencies and reorganisations, Employee fraud or workplace investigations, Economic loss calculations, Business valuations and Professional Negligence (ACFE, 2017).

Effective forensic accounting helps to eliminate, and at least minimise fraud in the conduct of business transactions, corporate bankruptcy/insolvency and also restore business confidence in the economic development of any nation. As a multi-disciplinary approach that needs support from other professionals, financial fraud or finance-related crimes require appropriate techniques like financial investigation and financial data analysis (Herbert, et al., 2017). Forensic accounting through Accountants or Non-Accountants resolves complex fraud activities that fraud examiners find more difficult or challenging to handle.

Due to fraud complexities, increasing fraud, and corporate collapses in recent times, fraud detection is an emerging area of importance for industry and academia. Failures of traditional auditors in cases like ENRON, the inability of auditors to apply full independence in carrying out their assignments and weaknesses in the corporate governance codes are some of the factors involved. Other issues are the admissibility of evidence in court and inadequacies in the provisions of enabling laws to deal with current and sophisticated cases. More so, the services of forensic accountants are expensive to procure and few practitioners are available due to rigour of specialisation (Ehioghien & Atu, 2016).

The fraud triangle theory as explained by Donald Cressey, (1940) who conducted a study about the reasons why people commit fraud and what drives them to violate trust. In his submission, he found three factors that must be present for the offense to happen; pressure, opportunity, and rationalisation (Abdullahi & Mansor, 2015). However, Wolf and Hermanson (2004) explained that fraud diamond is an advanced theory that wants to replace the existing fraud triangle. This suggests the new fraud diamond gives a holistic view of characteristics of fraud or specific factors that leads to fraud. The variable of capacity was added to the existing pressure, opportunity, and rationalisation of Donald Cressey's Fraud Triangle. The capacity from the perspective of the capabilities of the fraudster shows that fraudsters must-have the capability to commit fraud through the use of the necessary traits, skill sets, abilities, or be in a position of authority to perpetrate a crime (Gbegi, & Adebisi, 2014). Evidence for the use of these theories can be found in Oyedokun, (2016) study titled Forensic accounting investigation techniques: Any rationalisation? Used content analysis method and

findings showed forensic accounting techniques to be the most important techniques in the deterrence of fraudulent activities and corrupt practices. These two paradigms are used to underpin this study because in fraud detection the issues of pressure, opportunity, and rationalisation must be understood and the fraudsters capacity must also be put into consideration by the forensic accountant before resolving any case.

Gbegi & Adebisi, (2014) in an empirical study titled "Forensic Accounting skills and techniques in fraud investigation in the Nigerian public sector" using the methodology of Analysis of variance (ANOVA) and time series analysis. It found Forensic Accounting skills and techniques have a significant effect on uncovering and reducing fraud in the Nigerian public sector. The study concluded at the end that forensic accounting skills and techniques are used in unraveling complex cases; these techniques have been in use by EFCC and ICPC. However, these sets of skills and techniques were not specified in the study, and the recommendation for a recovery account is a provision that the Federal Government of Nigeria had resolved since 2004 in the Establishment Act of the EFCC 2004.

Ehioghien & Atu, (2016) in their study based on data generated from 572 questionnaires administered found that "Forensic Accounting significantly influences fraud detection and control". There are differences in the duties of traditional auditors and that of emerging Forensic Accountants. It was concluded by stating potential fraud and other illegal activities may be part of the requirements for Accountants while performing their traditional duties; they can assist in preventing, investigating, and solving such occurrence. The study had a general focus and did not look at specialised organisations or agencies saddled with such responsibilities.

In view of the findings from the literature review further empirical research is required to identify all the necessary forensic accounting personal skills and forensic accounting investigation techniques used in fraud detection. Achieving this will require a sample from a population of practitioners in the area of forensic accounting.

The choice of proxies for forensic accounting personal skills was based on the literature review. These personal skills are deductive analysis, critical thinking, unstructured problem solving, investigative flexibility, analytical proficiency, oral communication, written communication, and composure (Bhasin, 2013; Azih & Okoli, 2015; Bhasin, 2016).

H01: Forensic Accounting personal skills have no significant effect on fraud detection.

Forensic accounting investigation technique proxies were also assessed and selected based on the literature review and the following techniques were considered; Fraud detection, interviewing, conflict negotiation and resolution, research, calculation of economic damage, bankruptcy or insolvency, guiding reorganisation, securities fraud, business valuation and money laundering investigation (Bhasin, 2013; Azih & Okoli, 2015; Bhasin, 2016).

H02: Forensic Accounting investigative techniques have no significant effect on fraud detection.

Methodology

The study employed a quantitative research method to answer questions about relationships among measured variables (Leedy & Ormrod, 2005). Primary data was sourced using a structured interview questionnaire and the response by the participants was analysed using a data analysis software or tool. A population of 135 investigators was taken from the Economic and Financial Crimes Commission office. The sample size was determined using the Taro Yamane (1967) statistical equation (as cited in Gbegi & Adebisi, 2014).

Generally, the structured questionnaire was designed for the participants to understand, it was administered face to face; It measured the variables of the study. A subject matter expert was consulted for the structure and content validity of the instrument or questionnaire. However, the questionnaire was adapted from the empirical research of Azih, & Okoli, (2015) and Bhasin (2013, 2016) where the same variables were used in their studies. A pilot study was conducted to ensure that the questionnaire was measuring variables as required. The primary data was sourced from the questionnaire and data normalised using Microsoft excel before it was transferred to E-Views software for analysis using Jarque Bera statistics. These findings were presented and interpreted through discussions.

The literature reviewed has shown consistent usage of survey design through the use of questionnaires to gather data from respondents for assessment of forensic accounting skills and forensic accounting techniques (Bhasin, 2013; Azih & Okoli, 2015; Ehioghien & Atu, 2016).

Results and Discussion

Data was sourced from a target population of 135 investigators from the EFCC operations department. However, using Taro Yamane, (1967) a sample size of 101 was determined. The 101 represents the respondents used for this study; a Questionnaire was distributed and used to gather primary data from respondents. See the summary depicted in the following table 1.

Table 1: Showing breakdown of Sample

S/N	Investigators	Sample
1	Junior Staff	15
2	Senior Staff	86
TOTAL		101

Source: Authors Computation, (2019)

Question one dealt with the personal skills required for using forensic accounting to detect fraud with 8 sub statements on 5-point Likert scale listing important forensic accounting skills required in fraud detection like deductive analysis, critical thinking, unstructured problem solving, investigative flexibility, analytical proficiency, oral communication, written communication, and composure. The analysed responses produced the following results below.

Table 2: Results of influence of Forensic Accounting personal skills on Fraud Detection

	DDA	CRT	UPS	IVF	ANP	OCC	WCC	CMP
Mean	4.01980	4.21782	3.35643	4.22772	4.41584	3.63366	3.85148	3.99009
	2	2	6	3	2	3	5	9
Median	4	4	3	4	5	4	4	4
Maximum	5	5	5	5	5	5	5	5
Minimum	1	1	1	1	2	1	1	1
Std. Dev.	0.94847	0.83191	1.03522	0.79851	0.72480	1.13774	1.02358	0.89994
	5	3	1	3	8	1	3	5
Skewness	-1.02878	-1.26147	-0.37294	-1.13996	-0.9713	-0.43518	-0.82455	-1.05611
Kurtosis	3.90261	4.99835	2.63271	4.90625	3.13575	2.04638	3.24620	4.34092
	7	3	5	7	2	6	2	
Jarque-Bera	21.2447	43.5927	2.90892	37.1673	15.9584	7.01482	11.6997	26.3422
	2	2	4	8	7	2	7	1
Probability	0.00002	0	0.23352	0	0.00034	0.02997	0.00288	0.00000
	4		6		3	4		2
Sum	406	426	339	427	446	367	389	403
Sum Sq. Dev.	89.9604	69.2079	107.168	63.7623	52.5346	129.445	104.772	80.9901
		2	3	8	5	5	3	
Observations	101	101	101	101	101	101	101	101

Source: Authors Computation, (2019)

Table 2 reveals a descriptive result of the influence of Forensic Accounting personal skills on Fraud Detection. A critical inspection of the result also shows that Forensic accounting personal skills affect Fraud Detection. This invariably implies an improvement in the Forensic accounting personal skill will bring a corresponding improvement on Fraud Detection. The Jarque-Bera statistics revealed that Forensic accounting personal skills are most significant at 0.00, which implies the parameter of measurement is most significant. Table 3 below is a summary of the test of hypotheses.

Table 3: Summary for Test of Hypotheses

S/N	HYPOTHESIS	STATUS	P-VALUES
1	Deductive Analysis DDA	Rejected	0.000024
2	Critical Thinking CRT	Rejected	0
3	Unstructured Problem Solving UPS	Accepted	0.233526
4	Investigative Flexibility IVF	Rejected	0
5	Analytical Proficiency ANP	Rejected	0.000343
6	Oral Communication OCC	Grey	0.029974
7	Written Communication WCC	Rejected	0.00288
8	Composure CMP	Rejected	0.000002

Source: Authors Computation, (2019)

The first hypothesis Ho1 was rejected, the results as shown in Table 2 and Table 3 indicated that forensic accounting personal skills have a significant effect on fraud detection. The descriptive statistics generally showed almost all forensic accounting personal skills listed with exception to unstructured problem-solving influence fraud detection in Nigeria. This is in line with the findings of Hegazy, et al., (2017) in the UK showing the most critical skills to be communication skills, analytical skills, problem-solving and investigative skills and this is also similar to findings in the US.

Question two dealt with investigative techniques used in detecting fraud; with 10 sub statements on a 5-point Likert scale. The investigation techniques were listed in the following sequence; fraud detection, interviewing, conflict negotiation and resolution, research, calculation of economic damage, bankruptcy or insolvency, guiding reorganisation, securities fraud, business valuation, and money laundering investigation. The analysed responses produced the following results.

Table 4: Results of influence of Forensic Accounting Techniques on Fraud Detection

	FRD	ITV	CFR	RSC	CED	BOI	GRO	SFR	BNV	MLI
Mean	4.0990	3.3366	2.6039	3.8613	3.7425	3.6831	3.3861	3.7524	3.8217	4.0396
	1	34	6	86	74	68	39	75	82	04
Median	4	4	2	4	4	4	3	4	4	4
	5	5	5	5	5	5	5	5	5	5
Maximum										
Minimum	1	1	1	1	1	1	1	1	2	1
Std. Dev.	0.9539	1.1070	1.0107	0.9168	0.9450	0.9892	0.8714	0.9100	0.8763	0.9583
	91	43	34	39	23	49	39	1	11	4
	-	-	0.5027	-	-	-	-	-	-	-
Skewness	1.3789	0.2934	15	0.6621	0.5395	0.4543	0.0119	0.6931	0.4535	0.9011
	6	9		2	1	9	3	2	7	1
Kurtosis	4.9972	2.2239	2.8374	3.0891	2.7529	2.7058	2.6976	3.4568	2.5967	3.2526
	94	76	86	73	55	42	16	74	22	11
Jarque-Bera	48.796	3.9842	4.3653	7.4132	5.1565	3.8397	0.3871	8.9654	4.1475	13.937
	85	58	03	35	78	47	92	9	1	24
Probabiliy	0	0.1364	0.1127	0.0245	0.0759	0.1466	0.8239	0.0113	0.1257	0.0009
		05	42	6	04	26	91	02	13	41
Sum	414	337	263	390	378	372	342	379	386	408
Sum Sq. Dev.	91.009	122.55	102.15	84.059	89.306	97.861	75.940	82.811	76.792	91.841
	9	45	84	41	93	39	59	88	08	58
Observations	101	101	101	101	101	101	101	101	101	101

Source: Authors Computation, (2019)

Table 4 reveals a descriptive result of the influence of Forensic Accounting techniques on Fraud Detection. A critical inspection of the result also shows that Forensic accounting techniques have an effect on Fraud Detection. This implies an improvement in the Forensic accounting techniques will bring a corresponding improvement in Fraud Detection. The Jarque-Bera statistics revealed that Forensic accounting techniques are most significant at 0.00, which implies the parameter of measurement is most significant. This is summarised in table 5.

Table 5: Summary for Test of Hypotheses

S/N	HYPOTHESIS	STATUS	P-VALUES
1	Fraud detection FRD	Rejected	0
2	Interviewing ITV	Accepted	0.136405
3	Conflict negotiation and resolution CFR	Accepted	0.112742
4	Research RSC	Grey	0.02456
5	Calculation of economic damage CED	Grey	0.075904

6	Bankruptcy or Insolvency investigation	Accepted	0.146626
	BOI		
7	Guiding Reorganisation	Accepted	0.823991
	GRO		
8	Securities Fraud investigation	Grey	0.011302
	SFR		
9	Business Valuation	Accepted	0.125713
	BNV		
10	Money Laundering investigation	Rejected	0.000941
	MLI		

Source: Authors Computation, (2019)

The second hypothesis H02 was rejected and the alternative accepted after considering all the rejected and grey areas among the techniques, forensic accounting investigation techniques have a significant effect on fraud detection. Meaning an increase in forensic accounting techniques will lead to an increase in fraud detection see Table 4 and Table 5. However, Forensic accounting techniques such as interviewing, conflict negotiations and resolution, bankruptcy or insolvency investigations, guiding reorganisation, and business valuation were rejected on the basis that these techniques are not used by EFCC operatives. However, forensic accounting still remains a multi-disciplinary area where people from different backgrounds come together to carry out tasks; hence, no single group can apply all techniques at once (Hegazy et al., 2017).

Conclusion

The current global situations about fraud and financial crimes have been at the front burner in recent times due to corporate failures and crisis. However, forensic accounting is proffering solutions to prevent fraud and detect fraud to ensure the health of organisations. This research made attempts to understand forensic accounting and incidence of fraud detection in Abuja, FCT, Nigeria; showing how forensic accounting influences fraud detection using proxies of Forensic accounting personal skills, and forensic accounting investigation techniques. The study showed a significant relationship between forensic accounting personal skills; investigative techniques and fraud detection in Nigeria in line with findings of (Gbegi & Adebisi, 2014; Ehioghien & Atu, 2016; Hegazy, et al., 2017).

The study filled in gap or contributed to existing knowledge by identifying the personal skills required in forensic accounting practice to detect fraud, and assessing the investigative techniques required in forensic accounting to detect fraud through the sample drawn from Investigators and forensic accounting practitioners of EFCC in Abuja, Nigeria. This has led to better investigative capacities, detection, prevention, eventual prosecution of crime, and recovery of lost assets. It guides forensic accounting practitioners on financial investigations, the agencies saddled with the responsibility, and even policymakers to evaluate and bring up new policies to enhance the system.

It has created avenues for further research in the future. Given the findings and conclusions of this study, these recommendations are proffered for consideration in improving forensic accounting practice and fraud detection in the country. Practitioners in the field of forensic accounting need to get themselves acquainted with all the personal skills necessary or required to successfully detect fraud because these skills are not the same as what traditional accountants use. This could be achieved through training in the offices or continuous education for those that belong to professional bodies. Further research is also needed in the area of personal skill requirements. Accountants and investigators involved in forensic accounting as it relates to fraud detection are not aware of the modern techniques available to carry out such assignments. It has been shown in this study that only individuals with vast experience and qualifications recognise these techniques. The curriculum of schools and professional bodies need to be adjusted to include these techniques.

Future research in Forensic accounting and fraud detection are encouraged to use a larger sample size;

- i. Possibly involve other agencies that utilise forensic accounting techniques in different geographic locations.
- ii. Grants if available will enhance the outcome of the research.
- iii. Other research methods are recommended so that results using different methods can be compared to assess the consistency of findings in this area.
- iv. Other variables that can affect the practice of forensic accounting in fraud detection can also be included in future research.

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