Application of Forensic Skills as a Tool for Fraud Prevention and Detection in Public Sector in Nigeria

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Abstract. The problem of fraud is of a global concern and the rate at which it is perpetuated in Nigerian public universities is more worrisome. This study adopted a survey research design. The sample chosen from the population was 500 made up of 450 members of staff of 15 public universities in South-West, Nigeria and 50 members of staff of EFCC, ICPC and the Police. The sample was purposefully chosen. Validated structured questionnaire was the main research instrument. Reliability of the instrument was assessed through a pilot study of 50 respondents. The Cronbach's Alpha coefficient of the constructs was 0.891 which is greater than the globally accepted standard of 0.70. The response rate for instrument administered was 92.4%. Both descriptive and inferential (multiple regression) statistics were used to analyse the data. The study revealed an overall significant relationship between the application of forensic accounting skills and fraud prevention and detection in public universities in South-West, Nigeria (β= .427, t (462) = 10.651, p=.000). The study concluded that forensic skills significantly influenced fraud prevention and detection in public universities in South-West, Nigeria. The study recommends that forensic accounting should be explored positively to prevent and detect fraud in public universities and other public sector organizations in South-West, Nigeria and by extension the entire country. The study further recommends that by way of policy implementation by the government, forensic accounting should be mandatory in public universities.

Keywords: Forensic skills, Forensic accounting, Fraud prevention and detection, Reliability instrument, South West Nigeria

Introduction

Fraud is a special case of irregularities which entails manipulation of financial information with or without defalcation of assets such as alteration of invoices, double payment of invoices, false declaration, teeming and lading, actual theft of cash balance, over-invoicing, suppression of credit note receipts, forgery (creation of information that never exist) and these have caused havoc in public sector organization. The case in Nigeria is likely to be more deplorable going by the consistent poor rating of Nigeria by Transparency International, a global authority on public and private corruption assessment. Recently, Transparency International (2020) recorded that Nigeria is placed at 140th position among 180 countries on corruption perception Index. Okafor and Agbiogwu (2016) opined that there is the need to overhaul the accounting profession in order to equip the system with the new skills that will help restore lost confidence of stakeholders over financial statements. In order to achieve this, there is need for skilled professionals that can identify, expose and prevent weakness in the area of weak internal control system and fraudulent financial reporting. In a bid to overcome these weaknesses, a new breed of accountants, with better skills, are required. It is hoped that forensic accountants will solve the problem of fraud in public institutions such as the universities and brings to bear versed knowledge of accounting, law, financial investigations and necessary skills to sanitize the ivory towers (Okafor, *et al.* 2016).

Objective of the Study

The main objective of this study is to examine the effect of forensic skills as forensic accounting tool on fraud prevention and detection in public universities in South-West Nigeria.

Research Question

In order to achieve the research objective this research question was answered:

What effect has forensic skills, as forensic accounting tool, on fraud prevention and detection in public universities in Nigeria?

Hypothesis

The hypothesis, tested at 5% level of significance, was stated bellow in null form.

H_0: Forensic skills as forensic accounting tool have no significant effect on fraud prevention and detection in public universities in South-West Nigeria.

Conceptual Review

Forensic Accounting Skills

Forensic accounting has been identified as one emerging field, career and mechanism available to accounting professionals for effective prevention and detection of fraud (Effiong, 2013; Enyi, 2008; Dhar & Sarkar, 2010). One sector that should serve as the beginning point in finding solution to any problem of this nature is the educational sector. It has been argued that education has a formation effect on the mind, character and physical ability of individuals through dissemination of knowledge (Effiong, 2013). Forensic accounting is gaining momentum in the present global arena, to detect frauds and manipulations of accounting and monetary transactions in the regular business world. Forensic accounting is a skilled based technique of ascertaining fraud when compared to traditional audit and investigation. Several studies have shown the dearth of forensic accounting skills which resulted from limited forensic accounting education (Crumbley, 2007; Rezaee, Olibe & Minmier, 2003). Studies on forensic accounting education can be broken into two, the first group refers to forensic accounting curriculum in universities (Effiong, 2013). The second group is made up of practitioners and academicians with respect to forensic accounting and fraud investigations (Crumbley, 2007; Effiong, 2013; Rezaee, *et al*., 2003). How effective are these two groups of forensic skills in fraud prevention and detection? These formed the basis for this study.

Fraud

Fraud is the deliberate misrepresentation of the financial condition of an enterprise, by intentionally misstating or omitting amounts or disclosures in the financial statements so as to deceive end-users. Fraud is defined by EFCC (2004) as 'the non-violent criminal and illicit activity committed with objective of earning wealth illegally either individually or in a group or organized manner thereby violating existing legislation governing the economic activities of government and its administration'. Fraud is defined as a wrongful or criminal deception intended to result in financial or personal gain. It's also defined in the law as an intentional misrepresentation of material existing facts which non-disclosure makes other statements misleading.

Poor corporate governance and accounting failures have been quoted as some of recipe for frauds. Company officials with the same interest may commit fraud because of lack of well implanted corporate governance policy (Ramaswammy, 2005). The auditor performs his duty in ensuring true and fair reporting is observed in order to safe guard the interest of all

stake holders, he does not have an absolute duty to unearth frauds and criminal activities which may have been perpetrated by fraudster in a company. The auditor may only use the skills of a forensic accountant in case he has a reason to suspect that fraud have been committed in an organization.

Fraud Prevention and Detection

Fraud prevention is stemming fraudulent activities and ensuring that they are not perpetrated. Many studies have discussed fraud related issues, and the general view is that fraud prevention should be the main focus. It is less expensive and more effective to prevent fraud from happening than to detect it after the occurrence (Abdullahi, & Mansor, 2015). Usually by the time fraud is discovered, the money is unrecoverable or the chance to recover the full amount of the loss is very slim. Furthermore, it is costly and time consuming to investigate frauds especially fraud involving large-scale international operations. However, if the focus is on fraud prevention all the momentary losses, time and efforts to reconstruct fraudulent transactions, track down the perpetrators, and reclaim missing funds can be saved. Dorminey, *et al.* (2010) said before making an effort to reduce fraud and manage the risks proactively, it is important for organizations to identify the factors leading to fraudulent behaviour by understanding who are the fraudsters, when and why frauds are committed.

Fraud detection involves the identification of actual or potential fraud in an organization. It relies upon the implementation of appropriate systems and processes to spot the early warning signs of fraud. Fraud detection involves proactive risks assessment and reactive to fraud reports. It also includes manual spot audit and enhanced automated data mining. Fraud normally manifests itself through symptoms as it is hard to observe the actual fraudulent activity. The symptoms may not indicate that fraud has been committed as it may be as a result of human errors. Fraudsters sometimes hide frauds in these humans made errors hence making it difficult for forensic accountant to detect them (Adegbite, Adegbayibi & Adegbie, 2020).

Detection is characterized by action and activities intended to identify and locate fraud prior to, during and subsequent to the completion of fraudulent activities. To detect is to uncover or reveal the existence of the fact of something hidden or obscured. Fraud detection should form part of an organization overall anti-fraud strategy covering prevention, detection and investigation (Adegbite, *et al.,* 2020).

Theoretical Review

This study is hinged on the theory of mind set and problem representation because education which affects the mind produce skill which is required for forensic accounting skills.

Mindset is a general cognitive orientation with distinct features that guide individuals in the collection and interpretation of information (Gollwitzer, 1987). It influences how individuals process information and shapes their thought production and way of thinking and their ethical behaviour in conformity with the norms of such organization. Mindset impacts decision making through its effects on the way in which individuals process task–related information (Gollwitzer, 1987). Preliminary individuals with a particular way of thinking can cognitively evoke in them a focus on information consistent with the mind set and subsequently lead them to search for pertinent information (Gollwitzer, 1987). It is believed that the mindset of an audit specialist has a direct influence on fraud related task performance. Given that fraud specialists (Forensic Accountants) are more likely than auditors to suspect wrongdoings in the company's reported financial statements, it is anticipated that they will tend to evaluate these statements as less reliable and at a higher risk level.

The contention that mindset guides and influences the creation of a problem representation because individuals are likely to focus on, remember, and even seek out an information that conforms to their mindset (Pichert & Anderson, 1977). Prior accounting literature has provided empirical evidence to support the relationship between mind set and problem representation as well as the problem representation's influence on task performance (Marshall & Fitzgerald, 2005). Therefore, the fraud specialists will be expected to have a higher propensity than auditors to take further investigative actions into company's financial statements to determine the occurrence of fraud. Marshall, *et al.* (2005) manipulated participants into different mindset groups by varying the manner in which they were to consider a particular performance task. The authors found out that differing mind sets led to different performance outcome which was consistent with their theoretical predictions.

Empirical Review

Some studies have been done on forensic accounting skills and fraud prevention and detection. Ogutu and Ngahu (2016) in their work on application of forensic auditing skills in fraud mitigation found that forensic accountants used auditing, investigative, fraud as well as legal skills for effectiveness. Their study on fraud prevention and detection was carried out at Nakuru, Kenya.

In addition, Ugwu (2021) affirmed that forensic auditors need to be well equipped since their assignment may involve litigation support service. They affirmed that forensic auditors need training and retraining on court process.

Moreover, Alhassan (2021) in their work on forensic accounting and fraud detection and prevention in the Nigerian Public Sector empirically evaluated the relationship between forensic accounting and fraud detection and prevention in the Nigerian ministries. They found that the use of forensic accounting in the Nigerian ministries is valuable in averting fraud. Public officials' need to acquire relevant training that would guarantee accountability and integrity in the discharge of their duties.

Methodology

The study was conducted in South-Western Nigeria, the economic life wire of the Nigerian states. This region contributes enormously to Nigerian public sector. Survey research design was adopted in this study since the sample element and the variables that were being studied were simply being observed as they were without making any attempt to control or manipulate them. The population of the study comprises of all the Staff members of 12 Public Universities in South Western, Nigeria and 3 Anti-grant Agents (EFCC, ICPC & Police Anticorruption Unit).

500 questionnaires were administered to selected staff of Anti-Fraud unit of Police, EFCC, ICPC, internal audit and investigation team of the public universities in South Western, Nigeria. The 500 sample were drawn using purposeful sampling technique.

The questionnaire form which contained mainly close ended questions was validated through face, content and constructs validity. The reliability of the instruments was established by conducting a pilot study on 50 staff members of Public Universities and Anti-grant Agencies in South Western, Nigeria. Its reliability coefficient was established using Cronbach coefficient Alpha of 0.891 confirmed the reliability of the analysis which is greater than the global standard of 0.7 coefficients.

Dependent variable was proxied as fraud prevention and detention while independent variable Forensic skills was proxied as Skill Sets.

Model Specification

The model for this research work was formulated as:

$$FS = \beta_0 + \beta_1 SS + \mu$$

Where FS = Forensic Skills, SS = Skill Sets and μ represent the error term.

By substituting the value of the estimates (β) of the intercept (constant), and the coefficients of the regression model, the estimated model will be represented thus:

$$FS = 2.636 + 0.427SS + \mu$$

Table 1. Multiple Regression Analysis on the Effect of the Independent Variables on Forensic Skills

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	**Std. Error**	**Beta**		
1 (Constant)	2.636	.154		17.128	.000
Skill sets	.427	.040	.453	10.651	.000
R Squared 0.205					
Adjusted R Squared 0.203					
F- Statistics 113.437					
Sig. of F-statistics 0.000					
a. **Dependent Variable: Forensic Skills**					

Source: Field Survey (2021)

Discussion

The model shows that if the independent variable (Skill Sets) is held constant, forensic skills will be at 2.636, t = 17.128, p < 0.05 The coefficient's of SS ($\beta_1 = 0.427 > 0$) is positive (greater than zero), which gives us empirical evidence that an improvement on Skill Sets would have a positive effect on the Forensic Skills of workers in public universities. The p-value and t-statistics of Skill Sets is statistically significant at p < 0.05, indicates that the effects of an improvement of Skill Sets on the Forensic Skills is statistically significant. At significance level of 0.05, the F- Statistics is 113.437 while the p-value is 0.000 which is less than 0.05. On the basis of our tests of the hypothesis, we reject the null hypothesis H_0 that Forensic Accounting skills have no significant influence on fraud prevention and detection. We therefore conclude that Forensic Accounting skills have significant influence on fraud prevention and detection.

The findings are in tandem with the findings of Adegbite, *et al.* (2020) in their work on forensic accounting and fraud detection in Nigerian public sector. They found that forensic accountants require experts and professional skill to be effective in the performance of their duties. This is corroborated by Aderibigbe (2000) which discovered that forensic accountant requires high level of competence, integrity and honesty to perform his job and be thoroughly trained to move his competence through acquisition of professional qualification and skills. This is further supported by Honck, *et al.* (2006) who argued that forensic accounting consist of rather unique skills than ordinary which require additional training beyond an academic and professional qualification. Brain (2016) supported this finding in their work on data analysis which is likened to forensic analysis and technology, Brain (2016) went further that the important changes that have moved data analysis to the centre stage include new technologies that support greater data mining, and the fact that clients have developed a more sophisticated understanding of its potential.

Conclusion

In conclusion, forensic skills, as a forensic accounting tool is statistically significant for fraud prevention and detection in public universities in Nigeria.

Recommendations

The study revealed positive relationship between forensic skills and fraud prevention and detection in public universities in Nigeria. Acquisition of relevant skills on forensic accounting by accountants and auditors needs to be encouraged by appropriate authorities and this will make positive impact on war against fraud in Nigerian public universities. This can be achieved by the introduction of forensic accounting to the curriculum of all training institutions, and accounting and auditing professional bodies across the country. Practical training through attachments of scholars to reputable forensic accounting firms, where trainees will be exposed to quality forensic accounting analysis and state of the art technologies on forensic accounting can also be done to achieve this objective.

References

Abdullahi, R. & Mansor, N. (2015). Fraud triangle theory and fraud diamond theory: understanding the convergent and divergent for future research. *International Journal of Academic Reseach in Accounting, Finance and Management Sciences, 5*(4), 33-45.

Adegbie, F. F. & Fakile, A. S. (2012). Economic and financial crime in Nigeria: Forensic accounting as antidote. *Britsh Journal of Arts and Social Sciences, 6*(1), 37-50.

Adegbite, S. A. (2018). *Forensic accounting and fraud prevention and detection in public universities in South-West, Nigeria*. A PhD Thesis submitted to the Department of Accounting, School of Management Sciences, Babcock University, Ilisan-Remo, Ogun State, Nigeria.

Adegbite, S. A., Adegbayibi, T. A., & Adegbie, F. F. (2020). Assessment of forensic accounting tool for fraud prevention and detection in public sector in South - West, Nigeria. *Ilorin Journal of Accounting, 7*(1), 1-10.

Aderibigbe, P. (2000). The role of forensic chartered accountant. *The Nigerian Accountants, July/September, 2000*(3), 10-11.

Alhassan, I. (2021). Forensic accounting and fraud detection and prevention in the Nigerian public sector. *International Journal of Empirical Finance and Management Sciences, 3*(1), 12-22.

Brain. (2016). Retrieved July 24, 2021, from https//www.brainaudit.com: Brain audit

Crumbley, D. (2007). Editorial: Public company accounting oversight board, Sarbarnese-Oxley Act of 2002. Retrieved August 7, 2021, from https//www.peaobus.org/rules/Sarbanese_Oxley_Act_of_2002

Dada, S. O., Adegbite, S. A., & Benjamin, R. D. (2017). Forensic accounting and fraud prevention strategies: Panacea to economic development. *Babcock Journal of Management and Social Sciences, 12*(1&2), 41-59.

Dhar, P., & Sarkar, A. (2010). Forensic accounting: An accountant's vision. *Vidyasagar University J. Commerce, 15*(3), 93-104.

Dorminey, J., Fleming, A., Kranacher, M., & Riley, R . (2010). Beyond the fraud triangle. *CPA Journal, 80*(7), 17-23.

Economic and Financial Crime Commission. (2004). *Obstacles to effective prosecution of corrupt practices and financial crime cases in Nigeria*. Paper presented at the 1st stakeholders summit on corrupt practice, and financial crimes in Nigeria organized by House of Representatives committee on anti-corruption, national ethics and values at the ICT, trade fair complex, Kaduna.

Effiong, E. J. (2013). *An exploration of forensic accounting education and practice for fraud prevention and detection in Nigeria*. A doctoral thesis for the award of the degree of doctor of philosophy at De Montfort University, Leicester.

Enyi, P. E. (2008). Detecting causes of variances in operational outputs of manufacturing organizations: A forensic accounting investigation approach. *Department of Accounting, Convenant University*, 1-17.

Gladney, G. A., & Rittenburg, T. L. (2005). Euphemistic text affects attitudes, behavior. *Newspaper Research Journal, 26*(1), 28-41.

Gollwitzer, P. M. (1987). *Motivisionale vs Volitionale*. Retrieved June 26, 2021, from https//www.pdfs.semanticscholar.org.

Houck M., Kranacher, M., Moris B., & Robertson, J. (2006). Forensic accounting as an investigative tool: Developing and model curriculum for fraud and forensic accounting (ethnics). *The CPA Journal, 12*(5), 25-40.

Marshall, K. S., & Fitzgerald, P. (2005). Punitive damages and the supreme court's reasonable relationship test: Ignoring the economics of deterence. *Journal of Civil Rights and Economic Development, 19*(2), 237-250.

Ogutu, G. O., & Ngahu, S. (2016). Application of forensic auditing skills in fraud mitigation: A survey of accounting firms in the county government of Nakuru, Kenya. *Journal of Business and Management, 18*(4. Ver. II), 73-79.

Okafor, M. C., & Agbiogwu, A. A. (2016). Effect of forensic accounting skills on management of bank fraud in Nigeria. *European Centre for Research Training and Development UK, 4*(6), 70-80.

Pitcher, J. W., & Anderson, R. C. (1977). Taking different perspectives on a story. *Journal of Educational Psychology, 69*(4), 309-315.

Rezaee, Z., Olibe, K.O., & Minmier, G. (2003). Improving corporate governance: The role of audit committee disclosures. *Managerial Auditing Journal, 18*(6/7), 530-537.

Rumaswamy, V. (2005). Corporate government and the forensic accountant. *CPA Journal, 75*(10), 63-68.

Transparency International. (2020). Report.

Ugwu, J. I. (2021). Forensic accounting and fraud control in Nigeria: A critical review. *Resarch Journal of Finance and Accounting, 12*(10), 112-120.