

EFFECTS OF FORENSIC ACCOUNTING ON FRAUD DETECTION AND PREVENTION IN BUSINESS ORGANISATIONS IN NIGERIA

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Abstract

There has been an upward surge in financial fraud worldwide over the past decade. Uncovering these frauds is therefore a major concern of forensic accountant to carry out the effective investigation as well as the performance of the individuals related with the criminal activities. This study examined the role of the forensic accountant in the prevention and detection of fraud in business organisations in Nigeria. The study used a survey design using questionnaire to obtain data from 328 accountant involved in audit firms (AF), Deposit Money Banks (DBM), and small and medium size enterprises (SMEs). Data were analyzed using SPSS 24 and results were considered significant at $p < 0.05$. Results revealed that majority of business organisations perform better in fraud control with a mean value of $3.52 \pm 1.25SD$. Moreover, there was a significant relationship between internal control and forensic accounting ($P = 0.021$) though only operating efficiency is positively related to forensic accounting. The result of the model summary of the regression analysis for the operational efficiency model shows R-squared value of 0.406, indicating that about 40.6% of variations in operational efficiency is explained by forensic accounting. The ANOVA result of the model shows that F-statistic value of 126.522 with significance value of 0.000 which indicates that F-statistic is significance ($p < 0.05$). Forensic accounting was found to be statistically significant in affecting the information and communication technology of business organisations in Nigeria. Findings revealed that forensic accounting play an essential role in the detection and prevention of fraud in business organisations in Nigeria.

Keywords: *Forensic Accounting, Fraud, Business Organisation, Information and Communication Technology*

Introduction

Fraud is gradually becoming a normal way of life in both public and private sectors in most African countries, from the presidential cabinets, down to the political officer, through middle management cadre and to lower managers in Nigeria (Gbegi & Adebisi, 2014). The unrelenting series of embarrassing audit failures over the last 52 years has prompted a paradigm shift in accounting. Interestingly, in the mid-20th century, when the flight from fraud detection was at its height, a few observers predicted that in the future there will be acceptance of the general responsibility of the auditor to perform tests to detect material defalcations and errors if they exist (Brown, 1962). Forensic accounting is perceived to have evolved in response to certain emerging fraud related cases. The scandals that recently rocked the corporate world with classical examples being the often-cited Enron and

WorldCom cases have also brought the field of forensic accounting to the forefront. Forensic accounting is seen as encapsulating all other investigation related areas in uncovering financial fraud. The increasing sophistication of financial fraud requires that forensic accounting be added to the tools necessary to bring about the successful investigation and presentation of those individuals involved in criminal activities (Moduga & Anyaduba, 2013). The general expectation is that forensic accounting may offer some respite to the seemingly vulnerability of conventional accounting and audit systems to financial fraud.

The primary objective of financial reporting is to provide high-quality financial reporting information concerning economic entities, primarily financial in nature, useful for economic entities to achieve useful economic decision making (FASB, 1999; IASB, 2008). Providing qualitative financial reports is important because it will positively influence capital providers and other stakeholders in making investments, credit and similar resource allocation decision thereby enhancing overall market efficiency (IASB, 2008). According to Warshavsky (2012).

Financial Reporting Quality relates to the ability of a company's reported performance to best symbolize its true earnings. He further argues that analysts, investors and management have deployed dozens of forensic indices that aid the forensic accountant in assessing the probability of performance index manipulation by a suspect company. Warshavsky (2012), observed that because the financial statement are the responsibility of company's management, transactions can be structured to best achieve a desired accounting result by reporting key financial transactions to the company's advantage. He stresses that the quality of a company's earnings is one facet of an investigation that is often overlooked in the financial forensic process.

The place of Forensic Accounting in entrenchment of quality assurance of financial statement cannot be overemphasized. The issue of quality is very critical to the usefulness that financial reports could serve and Forensic Accounting which looks beyond mere adherence of financial reports to policies and principles but goes further to verify the underlying facts that could be tendered as evidence even in the courts has been veritable in the strengthening of quality of reports being issued by accountants. Financial reporting quality which encompasses the earnings quality, is a broader concept that not only refers to financial information but also to disclosures and other non-financial information useful for decision making included in the report(Beest, Braam & Boelens, 2009).

Accountants by their training are expected to demonstrate sufficient professional conduct in the discharge of their functions either as practicing accountants or as employees of organization. These professional conducts are governed by ethics which dictate professional behavior. Accountants constitute major

custodians of organization resources. It is important to reflect a protective disposition in daily assignments alongside the requirements of ethical practices. In this perspective, controls to safeguard resources and reduce fraudulent practices will be enhanced. Though, strategies to control/minimize fraud could range from adequate remuneration and motivation of workforce, demonstration of exemplary leadership by management staff to implementation of relevant legislations (Abiola & Oyewole, 2013), accountants on whom managers, owners, and potential investors rely to make economic decisions based on information supplied by them (Stoniciuviene & Naujokaitiene, 2013) are expected to be courageous and demonstrate high-level professional competencies and ethical conduct.

The failure of statutory audit to prevent and reduce mis-appropriation of corporate fund and an increase in corporate crime has put pressure on the professional accountant and legal practitioner to find a better way of exposing fraud in business world. The accounting profession has in the recent past been challenged with entrenching quality in the financials reports which is perceived as the hallmark of the profession. Recent developments tend to establish the contrary. The banking sector in Nigeria has had several reasons to be overhauled in the recent past, the basic reasons being that they do not worth what they claim (Sanusi,2010). The case of Enron and WorldCom as earlier cited also lay credence to this assertion and brought to the fore the extent of damage that poor quality financial reports can do. This study therefore seeks to establish the extent to which Forensic Accounting as an aspect of accounting can help in achieving qualitative financial statements that could aid stakeholders in making better investment decisions.

Many researchers have measured the quality of financial reporting indirectly by focusing on attributes that are believed to influence quality of financial reports such as earnings management, financial restatements and timeliness (Barth, Beaver and Lang, 2008; Schipper and Vincent, 2003; Cohen, Krishnamorthy & Wright, 2004). Despite, a considerable interest in the effectiveness of accounting standards on the quality of financial reporting, empirical literature emerged that offers contradictory findings about the questions to what extent accounting standards contribute to the decision usefulness of financial reporting information (Beest, et al. 2009). The enhancement of financial investigation will not only unveil the untoward acts of criminals, lead to recoveries but this may only be achievable if auditors who have been conversant with the tricks involved in the manipulations of figures are involved in financial investigations and make necessary impact to improve on quality assurance on financial statements which are the basic records presented (Ahamad, Zayyad & Rasak,2013). Their study however reveal that conducting an independent audit and incorporating it into periodic audit will most likely not enhance financial crime investigation especially in the aspect of early detection and confirmation of fraud. The incorporation of forensic accounting skills

into conventional may actualize timely detection and confirmation of manipulations of financial reports as forensic accounting is based on the premise of looking for indicators of abnormal occurrences in the accounting and financial reporting system, McKittrick (2009).

From the foregoing, it is evident that researches have been done on the impact of forensic accounting on prevention of financial frauds while little or no extant study has been on the need to employing forensic accounting to enhance quality assurance of financial statements and hence the justification for this study. The study is also further necessitated by the divergent views of scholars on the effectiveness of forensic accounting on quality assurance of financial statements while many anchor theirs on earning quality. This study specifically seeks to x-ray the potency of forensic accounting in entrenching qualitative financial reporting in Nigeria. The researcher noted the following objectives to guide the study.

1. To examine the effects of forensic accounting on operational efficiency in business Organisation in Nigeria.
2. To evaluate the effects of forensic accounting on fraud control in business Organisation in Nigeria.
3. To examine the impact of forensic accounting on Information and Communication Technology (ICT) in business Organisation in Nigeria.

Predicated on these objectives the researcher, formulated the following Hypotheses in their null forms to guide the investigation of the study:

H₀₁: Forensic accounting does not have significant effects on operational efficiency in business organisations in Nigeria.

H₀₂: Forensic accounting does not have significant effects on fraud control in business organisations in Nigeria.

H₀₃: Forensic accounting does not have significant effects on ICT in business organisations in Nigeria.

The paper is organised as follows' the next section reviews relevant literature with regards to context justification and provide a theoretical background for the study, respectively. Next describes the sample data and empirical methodology. The last section summaries the main results, offers conclusion and recommendations.

Review of related Literature

Conceptual Reviews

a) The Concept of Fraud

Accounting figures are heavily exposed to fraud due to their influence on numerous crucial decisions that affect various key social actors with far reaching implications. Okafor (2004) reported that fraud is a generic term and embraces all the multifarious means which human ingenuity can devise, and resorted to by an individual to get advantage over another in false representation. According to Anyanwu (1993), fraud is an act or course of deception, deliberately practiced to gain unlawful or unfair advantage; at the detriment of another. Karwai, (2002); Ajie and Ezi, (2002); Anyanwu, (1993); Okafor, (2004) and Adeniji, (2004) Summarize the types of fraud on the basis of methods of perpetration which includes the following but not exhaustive: defalcation, suppression, outright theft and embezzlement, tampering with reserves, inside abuses and forgeries, fraudulent substitutions, unauthorized lendings, lending to ghost borrowers, kite flying and cross firing, unofficial borrowing, impersonation, fake payment, fraudulent use of the firms documents, fictitious accounts, false proceeds of collection, manipulation of vouchers, dry posting, over invoicing, inflation of statistical data, ledger accounts manipulation, fictitious contracts, duplication cheque books, computer fraud, misuse of suspense accounts, false declaration of cash shortages etc. It has been analysed that three components come to bear when committing fraud. These components which are pressure, opportunity and justification constitute the fraud triangle. Pressure factors could be categorized into three groups: pressures with financial content, pressures steaming from bad habits and pressures related with job.

Opportunity factor is the second component of the fraud triangle. It directly involves top management and owners of the business in particular. Providing the opportunity to commit fraud is one of the most important factors arising from frauds. The third component of the fraud triangle is fraudster's developing defence mechanisms in order to justify their action (Enofe, Okpako, & Atube, 2013). Over time, increase in the events of fraudulent acts has led to great importance attached to the initial detection of fraud (Enofe, Okpako & Atube, 2013). There are two main ways to detect frauds: (a) detection by chance and (b) conducting a proactive research and encouraging initial identification of symptoms, (Enofe, Okpako, & Atube, 2013). Fraud is costly as an estimated \$3.5 trillion worldwide has been lost due to fraudulent financial statements, asset misappropriation, and corruption (ACFE, 2012). As a result, accounting standard setters have increased the steps auditors are expected to take in order to detect fraud which ultimately should restore public trust in the audit profession. However, identifying the occurrence of the cases of fraud is very difficult (Karwai, 2002). According to (Karwai, 2002), frauds perpetrated by organizations in modern day usually involve complex web of conspiracy and deception that often mask the actual cause. Fraud in

whatever nature and guise, has to be detected first, since detection of fraud is an important pre-requisite of rooting out its occurrence. It is agreeable that an auditor does not have the absolute duty to uncover fraud, but is expected to practice fair and true reporting to ensure that the interests of the public as well as the employees are protected (Enofe, Okpako, & Atube, 2013). Companies should look towards new approaches rather than follow the traditional approach as forensic accounting may be the next best alternative in resolving financial problems (Enofe, Okpako, & Atube, 2013). Earlier research (Rezaee 2002; Crumbley 2003 and 2009; Peterson and Reider 1999, 2001; Rezaee, Reinstein, and Lander 1996; Rezaee and Burton 1997) reviews the literature on forensic accounting practices, certifications, and education.

These studies also provide evidence indicating that forensic accounting education has evolved from being limited, to continuing professional education sessions for practicing accountants, to a current state of being offered as a credit course by several universities (Enofe, Okpako and Atube, 2013). (Buckhoff and Schrader, 2000) observed that the inclusion of forensic accounting as a course to the accounting curriculum can greatly benefit the three major stakeholders in accounting education namely, the academic institutions, students, and employers of accounting graduates. Empirical evidence from a study by Boritz, Kotchetova and Robinson (2008) confirms that forensic accountants could detect significantly higher number of fraud than auditors. Srivastava, Mock and Turner (2003) in their study found that forensic audit procedures significantly lowered fraud risks. Furthermore, research has also proven that proactive forensic data analysis using computer based sophisticated analytical tests can detect fraud that may remain unnoticed for years (Brown, Aiken, & Visser, 2007). According to the US General Accounting Office (GAO) (1996), there is now a strong emphasis on fraud prevention and detection during statutory audits. The United States and international standards setters have increased the responsibility of auditors to consider the risks of fraud while conducting audits of financial statements. A study by Bierstaker, Brody and Pacini (2006) revealed the perception of accountants regarding fraud detection and prevention methods. The findings revealed that organizational use of forensic accountants was the least often resorted to but had the highest effectiveness ratings. This is similar to the findings of Ernst and Young (2003) worldwide fraud survey, which states that only 20% of organizations employed forensic accountants although the satisfaction level for their service was rated at 88% as against the use of statutory auditors. There is however a greater call for auditors to acquire forensic skills in the discharge of their duty. This call has been corroborated by Enyi (2009) who submits that all normal statutory audits should contain some elements of forensic enquiry as the evidence of fraudulent activities can be easily discovered if a thorough evaluation of the adequacy and compliance of the internal control mechanism is made. All these are

aimed at fraud prevention and detection. This may not be achieved by an auditor without some understanding of forensic accounting methods (Effiong, 2012)

Concept of Forensic Accounting

This section reviews the meaning and concept of forensic accounting, origin of forensic accounting, and focus of forensic accounting. It attempts to discuss the differences between traditional accounting and forensic accounting. It further reviews the importance of forensic accounting, skills required by forensic accountants. Forensic accounting comprises two words – forensic and accounting. The term accounting itself has been defined by the American Institute of Certified Public Accountants (AICPA) as the art of recording, classifying, and summarising in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character, and interpreting the results thereof (AICPA Committee on Terminology). It is thousands of years old. The earliest accounting records, which date back more than 7,000 years, were found in the Middle East. The people of that time relied on primitive accounting methods to record the growth of crops and herds. Accounting evolved, improving over the years and advancing as business advanced (Friedlob & Plewa 1996). Early accounts served mainly to assist the memory of the businessperson. The account was for the proprietor or record keeper alone. Cruder forms of accounting were inadequate for the problems created by a business entity involving multiple investors. Double-entry bookkeeping first emerged in northern Italy in the 14th century, where trading ventures began to require more capital than a single individual was able to invest. The development of joint stock companies created wider audiences for accounts, as investors without firsthand knowledge of their operations relied on accounts to provide the requisite information (Carruthers & Espeland 1991). This development resulted in a split of accounting systems for internal (i.e. management accounting) and external (i.e. financial accounting) purposes, and subsequently also in accounting and disclosure regulations and a growing need for independent attestation of external accounts by auditors (Lauwers & Willekens 1994).

Today, accounting is called the language of business because it is the vehicle for reporting financial information about a business entity to many different groups of people. There are different branches of accounting. The branch of accounting that concentrates on reporting to people inside the business entity is called management accounting. It is used to provide information to employees, managers, owner-managers and auditors. Management accounting is concerned primarily with providing a basis for making management or operating decisions. Accounting that provides information to people outside the business entity is called financial accounting. It provides information to present and potential shareholders, creditors such as banks or vendors, financial analysts, economists, and government agencies. Because these users have different needs, the presentation of financial accounts is

very structured and subject to many more rules than management accounting. The body of rules that governs financial accounting is called Generally Accepted Accounting Principles (GAAP) (Friedlob & Plewa 1996). Forensic accounting also called investigative accounting or fraud audit is a merger of forensic science and accounting (Kasum, 2009). Forensic science, as Crumbley (2003) put it may be defined as application of laws of nature to the laws of man. A forensic scientist is one who examines and interprets evidence and facts in legal cases and also offers experts opinions regarding their findings in the court of law. In the present context, the science is accounting, hence the examination and interpretation will be of economic information.

Role of Forensic Accounting

From the foregoing, the importance of forensic accounting cannot be over emphasized. Writing on the role of forensic accounting in solving the vexed problems of corporate world, Owojori and Asaolu (2009) noted the failure of statutory audit to prevent and reduce misappropriation of corporate fund. This increase in corporate crime has put pressure on the professional accountant and legal practitioner to find a better way of exposing fraud in the business world. The importance of forensic accounting can be clearly understood from the context of failure in statutory audits to detect and prevent fraud has been summarized by Owojori and Asaolu (2009).

Moreover, occupational fraud committed by employees usually involves the theft of assets and embezzlement. Others are the involvement of employees in kickback schemes or conversion of corporate assets for personnel use. The forensic accountant can intervene and observe the assets, by examination, invigilation, inspection of documents and interview of those involved to control such practices. Experience and these types of engagement enable the forensic accountant to offer suggestions as to internal controls that owners could implement to reduce the likelihood of fraud.

Besides, the forensic accountant will also engage himself in criminal investigation on behalf of police force (Eiya and Otor, 2013), where his report is prepared with the objectives of presenting evidence in a professional and concise manner. These assumptions often involve a detailed analysis of numerous years of accounting records to quantify the issues in dispute. He does need an understanding of legal issue of business activities. The forensic accountant can thus be of assistance in various ways that include investigation accounting, review of the factual situation and provision of suggestion, regarding possible courses of actions, assisting with the professional and recovery of assets and co-ordination of other experts, viz. private investigators, forensic document examiners, consulting engineers Detailed below are various areas in which a Forensic Accountant will often become involved (Mehta and Mathur 2007; Ghosh and Banerjee 2011; Eiya and Otor, 2013)

Forensic Accounting and Information Communication and Technology (ICT)

Forensic accounting is a new trend particularly in developing economies. Hence, professional accountants with adequate skill and technical know-how on forensic issues are hardly available (Ehioghiren & Atu, 2016). It is an integral part of the accounting profession which has the sole aim of unearthing fraudulent activities within and outside an organization so far as the third party's action is in any way reflective on the activities of that organization (Modugu and Anyaduba, 2013). Forensic accounting is the science that deals with the relation and application of financial accounting, tax and auditing knowledge to analyze, investigate, inquire, test and examine matters in civic law and criminal law (Lohana, 2013).

Augustine and Uagbale (2014) investigated on the growing relevance of forensic accounting as a tool for combating fraud and corruption with focus on Nigeria experience using descriptive statistics methodology and exploratory design their study revealed that forensic accounting in Nigeria is still in its infancy stage and most Nigerians seemed to assume that there is no difference between forensic accounting and auditing. Similarly, Omar et al. (2013) examined „The relevance of IT application and forensic accounting“ and they came out with the fact that, the ICT has been practically an important instrument for halting corruption. It enhances true transparent responsibility and accountability of government administration. Okunbor and Osaretin (2010) reported that the spates of corporate failures have placed responsibility on accountants to develop themselves with the skills to identify and act upon indicators of frauds, mismanagement and other wrong doing

Methodology

The study used a survey design using questionnaire to obtain data from 328 accountant involved in audit firms (AF), Deposit Money Banks (DBM), and small and medium size enterprises (SMEs).

The population for this study was 1822 which comprises of all the accountants in Abuja that work with audit firms, Deposit Money Banks (DMBs) and Small and Medium Enterprises (SMEs). The sample size selected for the study was 328 which was selected from audit firms, Deposit Money Banks (DMBs) and Small and Medium Enterprises (SMEs) in Abuja using Yamane (1967) statistical formulae for determination of sample size.

The instrument of data collection for this study is mainly questionnaire. Using the four Likert Scale method, the responses are scored as Strongly Agree (SA)=4, Agree (A)=3, Disagree (D)=2, Strongly Disagree (SD)=1.

Model Specification

FA= f (FC, OE, FR, ICT)

FA= Forensic Accounting FC= Fraud Control OE= Operational Efficiency, ICT= Information Communication and Technology.

The proposed model of the relationship among the variables for the analysis is as following:

$$Y = BO + B1X1 + B2X2 + E$$

BO= Constant term B1 and B2= Coefficients of the independent's variables

Method of Data Analysis

The data collected was analyzed using SPSS 24 and results were considered significant at $p < 0.05$. Descriptive statistics which involve the use of mean and standard deviation while regression analysis was adopted to test the stated hypotheses. The regression analysis was conducted to show the effects of the independent variables on the response variable. For the ordered estimation conducted in this study, the main statistics of interest are the coefficient estimates and their corresponding significance

Data Analysis and Result

Responses on Forensic Accounting and Internal Control

In order to examine the responses to the influence of forensic accounting on internal control by the sampled business organizations. Table 4. 1 presents a summary in respect to responses on the extent to which forensic accounting is effective on various aspect of internal control of business organizations which include fraud control, financial reporting, operating efficiency, and information and communication technology. The table shows that in relation to other internal control, majority of business organisations perform better in fraud control as the mean point of most of its items are above 3 (i.e. above undecided and moving close to agree and strongly agree). The only exception is the item on the extent of disclosure of information on corporate governance issues which has its mean point below 3. Business organisations also perform better in information and communications aspect of internal control as only one out of four items is below a mean point of 3. This exception as to do with finding easy solutions to fraudulent practices. Next in performance regarding internal control of business organisations is financial reporting which has two of its five items having mean points below 3. These are related providing annual reports that reflects true picture of organisations and providing annual reports that are specific and industry-based. The least in the performance of business organisations regarding internal control is their operating efficiency. The mean point of most of its four items are below 3. The only exception is improving profits of the organisations. Operating efficiency such as the improvement in overall performance, the control and relationships among departments, and the methodology of carrying out activities in a cost-effective manner have mean point below 3. This simply indicates that business organisations

in Nigeria are falling short in the effectiveness of forensic accounting in bringing about an improvement in these items of the different aspects of internal control.

Table 4. 1: Extent to which Forensic Accounting is Effective on Internal Control

	Mean	Std. Dev.
Forensic Accounting (FA) disclosed that auditors is qualified or not	3.74	1.203
FA can identify misappropriated assets and identify reversible insider transactions	4.21	1.084
FA can be used to uncover diverted fraudulent practices	4.34	0.704
FA is effective as a fraud detection tool	3.88	1.141
FA is a to prevent suspicious or fraudulent transactions	4.15	0.684
FA will extensively disclosed information on corporate governance issues	2.87	1.350
FA enhances the quality of financial reporting	3.04	1.702
FA improves stakeholders trust and confidence in financial statement	3.46	1.541
FA helps to produce annual reports that will reflects the true picture of the organisations	2.37	1.381
FA will helps to produce annual reports with good feedback information	3.25	1.557
FA will aid to produce annual reports that will be specific and industry based	1.87	1.122
FA helps to improves the performance of business organisations	1.87	1.122
FA helps to improves the profit of the business	3.52	1.259
FA helps to improves the control and relationships of all the departments	2.11	1.388
FA helps to improves the methodology of carrying out activities in a cost effective manner	2.02	1.181
ICT helps in effective delivery of FA to business organisations	4.45	0.664
The skills of FA requires effective knowledge of ICT	3.61	1.185
The knowledge of ICT helps forensic accountants to discharge their duties effectively with regards to fraud control	4.35	0.941
ICT skills in FA makes their job simpler and easy to find solutions to fraudulent practices in business organisations FA	2.02	1.181

Source: Author's Computation, 2018.

Correlation Analysis

The results presented in Table 4.2 indicate that each of the internal control is statistically significant in relating with forensic accounting but only operating efficiency is positively related to forensic accounting. Among all these relationships with forensic accounting, that of operational efficiency is the strongest relationship with a Pearson correlation coefficient of 0.637. The result indicates that all relationships between each of the internal controls and forensic accounting are statistically significant at least at 5% level of significance. This implies that on one hand, higher levels of the use of forensic accounting is associated with higher levels

of operational efficiency on business organisations in Nigeria while on the other hand, higher levels of the use of forensic accounting is associated with lower levels of fraud control, financial reporting, and information and communication technology in business organisations in Nigeria.

Table 4. 2: Pearson Correlation Matrix

		1	2	3	4	5
Forensic accounting	Pearson correlation	1	-.650**	-.201**	.637**	-.224**
	Sig.		.000	.006	.000	.002
	N	187	187	187	187	187
Fraud control	Pearson correlation	-.650**	1	.205**	-.278**	.256**
	Sig.	.000		.005	.000	.000
	N	187	187	187	187	187
Financial reporting	Pearson correlation	-.201**	.205**	1	-.478**	.001
	Sig.	.006	.005		.000	.988
	N	187	187	187	187	187
Operational efficiency	Pearson correlation	.637**	-.278**	-.478**	1	-.291**
	Sig.	.000	.000	.000		.000
	N	187	187	187	187	187
ICT	Pearson correlation	-.224**	.256**	.001	-.291**	1
	Sig.	.002	.000	.988	.000	
	N	187	187	187	187	187

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

The regression analysis presented in this study is to examine the effect of forensic accounting on each of the internal control measures namely, operational efficiency, financial reporting, fraud control, and information and communication technology of business organisations in Nigeria. Four models are specified where each of these four measures of internal control are dependent variables forensic accounting is the independent variable in each model. The result presented in Table 3 shows the model summary of the regression analysis for the operational efficiency model. It shows R-squared value of 0.406, indicating that about 40.6% of variations in operational efficiency is explained by forensic accounting.

Table 4. 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637	.406	.403	22.440

Source: Author's Computation, 2018.

Table 4.4 presents the ANOVA result of the model. The result shows F-statistic value of 126.522 with significance value of 0.000 which indicates the F-statistic is

significance since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the operational efficiency of business organisations in Nigeria.

Table 4.4: ANOVA Table

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	63713.040	1	63713.040	126.522	.000
Residual	93161.131	185	503.574		
Total	156874.171	186			

Table 4.5 presents the coefficients of forensic accounting and its impact on operational efficiency of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is positive, indicating that forensic accounting positively influence operating efficiency of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant positive standardized coefficient value of forensic accounting (0.637) indicates that increase in forensic accounting will lead to increase in operational efficiency of business organisations in Nigeria by about 63.7 percent. In other words, improvements in the use of forensic accounting is important for improvements in internal control of business organisations that as to do with their operational efficiency.

Table 4. 5: Coefficients Table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	33.493	2.711		12.356	.000
Forensic accounting	.806	.072	.637	11.248	.000

Source: Author's Computation, 2018.

Financial Reporting

The result presented in Table 4.6 shows the model summary of the regression analysis for the financial reporting model. It shows R-squared value of 0.479, indicating that about 47.9% of variations in operational efficiency is explained by forensic accounting.

Table 4. 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.692	.479	.452	10.322
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Source: Author's Computation, 2018.

Table 4.7 presents the ANOVA result of the model. The result shows F-statistic value of 169.829 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the financial reporting of business organisations in Nigeria.

Table 4.7: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9833.970	1	9833.970	169.829	.006
	Residual	10712.437	185	57.905		
	Total	20546.406	186			

Table 4. 8 presents the coefficient of forensic accounting and its impact on financial reporting of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence financial reporting of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.401) indicates that increase in forensic accounting will lead to a decline in financial reporting of business organisations in Nigeria by about 40.1 percent. In other words, the use of forensic accounting is detrimental to the level of financial reporting of business organisations in Nigeria.

Table 4. 8: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.124	1.247		18.546	.000
	Forensic accounting	-.292	.103	-.401	-2.835	.006

Fraud Control

The result presented in Table 4. 9 shows the model summary of the regression analysis for the fraud control model. It shows R-squared value of 0.422, indicating that about 42.2% of variations in fraud control is explained by forensic accounting.

Table 4. 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.650	.422	.419	10.614
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Table 4. 10 presents the ANOVA result of the model. The result shows F-statistic value of 135.145 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the fraud control of business organisations in Nigeria.

Table 4. 10: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15224.704	1	15224.704	135.145	.000
	Residual	20841.072	185	112.654		
	Total	36065.775	186			

Table 4. 11 presents the coefficient of forensic accounting and its impact on fraud control of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence fraud control of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.650) indicates that increase in forensic accounting will lead to a decline in fraud control of business organisations in Nigeria by about 65.0 percent. In other words, the use of forensic accounting is also detrimental to the level of fraud control of business organisations in Nigeria.

Table 4. 11: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	31.525	1.282		24.590	.000
	Forensic accounting	-.394	.034	-.650	-11.625	.000

Information and Communication Technology

The result presented in Table 4.12 shows the model summary of the regression analysis for the information and communication technology model. It shows R-squared value of 0.416, indicating that about 41.6% of variations in information and communication technology is explained by forensic accounting.

Table 4. 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.645	.416	.405	16.763
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The value of 0.000 which indicates the F-statistic is significance since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the information and communication technology of business organisations in Nigeria.

Table 4.13: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22746.376	1	22746.376	131.576	.000
	Residual	31982.031	185	172.876		
	Total	54728.406	186			

Table 4. 14 presents the coefficient of forensic accounting and its impact on information and communication technology of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence information and communication technology of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.324) indicates that increase in forensic accounting will lead to a decline in information and communication technology of business organisations in Nigeria by about 32.4 percent. In other words, the use of forensic accounting is also detrimental to the level of ICT of business organisations in Nigeria.

Table 4.14: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	42.327	2.025		20.905	.000
	Forensic accounting	-.267	.124	-.324	-2.153	.012

Discussion of Findings

In order to examine the responses to the influence of forensic accounting on internal control by the sampled business organizations. Table 4. 2 presents a summary in respect to responses on the extent to which forensic accounting is effective on various aspect of internal control of business organizations which include fraud control, financial reporting, operating efficiency, and information and communication technology. The table shows that in relation to other internal control, majority of business organisations perform better in fraud control as the mean point

of most of its items are above 3 (i.e. above undecided and moving close to agree and strongly agree). The only exception is the item on the extent of disclosure of information on corporate governance issues which has its mean point below 3. Business organisations also perform better in information and communications aspect of internal control as only one out of four items is below a mean point of 3. This exception is as to do with finding easy solutions to fraudulent practices. Next in performance regarding internal control of business organisations is financial reporting which has two of its five items having mean points below 3. These are related providing annual reports that reflects true picture of organisations and providing annual reports that are specific and industry-based. The least in the performance of business organisations regarding internal control is their operating efficiency. The mean point of most of its four items are below 3. The only exception is improving profits of the organisations. Operating efficiency such as the improvement in overall performance, the control and relationships among departments, and the methodology of carrying out activities in a cost effective manner have mean point below 3. This simply indicates that business organisations in Nigeria are falling short in the effectiveness of forensic accounting in bringing about an improvement in these items of the different aspects of internal control.

The results presented in Table 4.2 indicate that each of the internal control is statistically significant in relating with forensic accounting but only operating efficiency is positively related to forensic accounting. Among all these relationships with forensic accounting, that of operational efficiency is the strongest relationship with a Pearson correlation coefficient of 0.637. The result indicates that all relationships between each of the internal controls and forensic accounting are statistically significant at least at 5% level of significance. This implies that on one hand, higher levels of the use of forensic accounting is associated with higher levels of operational efficiency on business organisations in Nigeria while on the other hand, higher levels of the use of forensic accounting is associated with lower levels of fraud control, financial reporting, and information and communication technology in business organisations in Nigeria.

The regression analysis presented in this study is to examine the effect of forensic accounting on each of the internal control measures namely, operational efficiency, financial reporting, fraud control, and information and communication technology of business organisations in Nigeria. Four models are specified where each of these four measures of internal control are dependent variables forensic accounting is the independent variable in each model.

The result presented in Table 3 shows the model summary of the regression analysis for the operational efficiency model. It shows R-squared value of 0.406, indicating

that about 40.6% of variations in operational efficiency is explained by forensic accounting.

Table 4.4 presents the ANOVA result of the model. The result shows F-statistic value of 126.522 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the operational efficiency of business organisations in Nigeria.

Table 4.5 presents the coefficients of forensic accounting and its impact on operational efficiency of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is positive, indicating that forensic accounting positively influence operating efficiency of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant positive standardized coefficient value of forensic accounting (0.637) indicates that increase in forensic accounting will lead to increase in operational efficiency of business organisations in Nigeria by about 63.7 percent. In other words, improvements in the use of forensic accounting is important for improvements in internal control of business organisations that as to do with their operational efficiency.

The result presented in Table 4.6 shows the model summary of the regression analysis for the financial reporting model. It shows R-squared value of 0.479, indicating that about 47.9% of variations in operational efficiency is explained by forensic accounting.

Table 4.7 presents the ANOVA result of the model. The result shows F-statistic value of 169.829 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the financial reporting of business organisations in Nigeria.

Table 4.8 presents the coefficient of forensic accounting and its impact on financial reporting of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence financial reporting of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.401) indicates that increase in forensic accounting will lead to a decline in financial reporting of business organisations in Nigeria by about 40.1 percent. In other words, the use of forensic accounting is detrimental to the level of financial reporting of business organisations in Nigeria.

The result presented in Table 4. 9 shows the model summary of the regression analysis for the fraud control model. It shows R-squared value of 0.422, indicating that about 42.2% of variations in fraud control is explained by forensic accounting.

Table 4. 10 presents the ANOVA result of the model. The result shows F-statistic value of 135.145 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the fraud control of business organisations in Nigeria.

Table 4. 11 presents the coefficient of forensic accounting and its impact on fraud control of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence fraud control of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.650) indicates that increase in forensic accounting will lead to a decline in fraud control of business organisations in Nigeria by about 65.0 percent. In other words, the use of forensic accounting is also detrimental to the level of fraud control of business organisations in Nigeria.

The result presented in Table 4.12 shows the model summary of the regression analysis for the information and communication technology model. It shows R-squared value of 0.416, indicating that about 41.6% of variations in information and communication technology is explained by forensic accounting.

Table 4. 13 presents the ANOVA result of the model. The result shows F-statistic value of 131.576 with significance value of 0.000 which indicates the F-statistic is significant since its significance value is less than 0.05. This indicates that the overall model is statistically significant, hence, forensic accounting is statistically significant in affecting the information and communication technology of business organisations in Nigeria.

Table 4. 14 presents the coefficient of forensic accounting and its impact on information and communication technology of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence information and communication technology of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.324) indicates that increase in forensic accounting will lead to a decline in information and communication technology of business organisations in Nigeria by about 32.4

percent. In other words, the use of forensic accounting is also detrimental to the level of ICT of business organisations in Nigeria.

Conclusion

Professional ethics from the perspective of accountants has the capacity to ameliorate fraud taking into consideration the national value system. In addition, fraud control measures may be unproductive without an improvement in the eroded national value system. This study is therefore significant as it has contributed to literature on fraud from the dimension of accountants ethics, highlighting the value system factor in Nigeria. Organisations should be circumspect in staff recruitment to properly expose their characteristics before engagement. This will reduce the risk of employee fraud. In the same vein, staff should be adequately motivated (in terms of the condition of service) to guide against management fraud and possible connivance with third parties external to the organization. Though, attention was focused on accountants' ethics, behavioral patterns and philosophy of institutions (private and public) greatly explain variations in fraud control. In our environment where elected and political office holders are the highest paid group, more, from the taxpayers' resources, is fraudulent, unethical and discourages productivity. Unless this trend is reversed, good corporate governance will continuously elude the people.

Forensic accounting is the best ever growing areas accounting that enables in enhancing the chances Success in day to day life of corporate firm by surmounting all the vexing and critical problems of corporate field as panacea. Thus various agencies fighting corruption worldwide will need to engage the service of forensic accounting to compliment efforts of other professional in reducing fraudulent activities an installing fraud proof internal control system in corporate organization. So it's beyond doubt that the role of forensic accountant will become very major in corporate field; public accounting and in all awareness of government in the days to come.

Forensic accounting positively influence operating efficiency of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant positive standardized coefficient value of forensic accounting (0.637) indicates that increase in forensic accounting will lead to increase in operational efficiency of business organisations in Nigeria by about 63.7 percent. In other words, improvements in the use of forensic accounting is important for improvements in internal control of business organisations that as to do with their operational efficiency.

Forensic accounting is statistically significant in affecting the financial reporting of business organisations in Nigeria. The result shows that the coefficient of forensic

accounting is negative, indicating that forensic accounting negatively influence financial reporting of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.401) indicates that increase in forensic accounting will lead to a decline in financial reporting of business organisations in Nigeria by about 40.1 percent. In other words, the use of forensic accounting is detrimental to the level of financial reporting of business organisations in Nigeria.

Forensic accounting is statistically significant in affecting the fraud control of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence fraud control of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.650) indicates that increase in forensic accounting will lead to a decline in fraud control of business organisations in Nigeria by about 65.0 percent. In other words, the use of forensic accounting is also detrimental to the level of fraud control of business organisations in Nigeria.

Forensic accounting is statistically significant in affecting the information and communication technology of business organisations in Nigeria. The result shows that the coefficient of forensic accounting is negative, indicating that forensic accounting negatively influence information and communication technology of business organisations in Nigeria. This effect is also found to be statistically significant (judging from its probability value being less than 0.05). The significant negative standardized coefficient value of forensic accounting (-0.324) indicates that increase in forensic accounting will lead to a decline in information and communication technology of business organisations in Nigeria by about 32.4 percent. In other words, the use of forensic accounting is also detrimental to the level of ICT of business organisations in Nigeria.

Recommendations

Based on the above, it is recommended that accountant in business organisations in Nigeria should acquire training in forensics to enable them carry out this investigative aspect and be in a position to offer advises that could unravel those issues which has mitigated quality assurance of financial statements. Moreover, forensic accountants should be employed to fortify the internal control of various organisations while reports are benchmarked against the fundamental and enhancing qualitative attributes in order to appreciate organisations that have adhered to the requirements. Accounting Regulators in Nigeria such as the Financial Reporting Council and other relevant accounting bodies should develop programmes to ensure certification of accountants in this area of accounting.

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