



## Empirical Evidence of Auditors' Perception on the Effectiveness of Forensic Accounting Procedures in North-Central Nigeria

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### Abstract

*The consequence of increasing rate of financial fraud such as individual and social economic losses has led to business failure and emotional problem experienced by victims of fraudsters. These have also led to loss of confidence by the stakeholders on the clean reports on financial statements certified by the auditors which called for suitable methods for detecting and preventing fraud. This study therefore examined the auditors' perception on the effectiveness of forensic accounting procedures in north-central of Nigeria. Ordered logistic regression was used on 178 copies of questionnaire administered on auditors in auditing firms, internal auditors and accountants of banks, industries and Public Sectors in the study area. The study reveals that forensic accounting procedures have significant relationship on financial reporting fraud and misappropriation. The study also explicitly revealed forensic accounting effectiveness for fraud detection on each of the above components of fraud. The study recommends that forensic accountants be employed by all the anticorruption agencies to be effective and efficient in fishing out fraudulent activities in the economy and that various standards board's should make it a policy for the independent auditors to employ forensic accountants in their independent audits.*

**Keywords:** Forensic Accounting, Misappropriation, Fraud and Fraud Detection

### 1.0 Introduction

Reports of financial statements, formed a basis upon which stakeholders take financial decisions. The shareholders, investors, government agencies such as Federal Inland Revenue Services, suppliers of goods and services and a host of others relied on the reports of the financial statements in their rational decisions. This implies that the quality of the financial statements matters to all the stakeholders. The clean reports by the external auditors on the financial statements presume it free from misstatements, manipulations and wrong doings which imposed confidence on the stakeholders to take positive decisions by using such financial statements as a basis because of the perceptions of independence, integrity, fairness and objectivity the stakeholders have on the auditing profession.

The increasing corporate failures in the world in general and in Nigeria in particular as well as the pace at which fraud is affecting every spheres of life; economy, political, social and businesses irrespective of any sector of government called for special attention for preventing and detecting the cause. Fraud has created fears in the minds of business owners, directors and other stakeholders in small, medium and large scale companies to the extent that stringent clauses are included in their policies of employment of staff. Kasum (2009) asserted that the perpetuation of financial irregularities are becoming the specialty of both private and public sector in Nigeria as individual perpetrates fraud and corrupt practice according to the capacity of their office.

The increasing wave of financial fraud has informed different techniques by countries of the world both developed and developing to curb fraudulent activities in companies and public sectors to protect users of financial statement, closely to no avail. Augustine and RoseMary (2014) stressed that the spate of world-wide corporate scandals has shown the failure of traditional audit techniques in unravelling corporate fraud and have rejuvenated interest in forensic accounting.

In the view of Owojori and Asaolu (2009) the failure of statutory audit to prevent and reduce misappropriation of corporate fraud and increase in corporate crime has put pressure on the professional accountants and legal practitioners to find a better way of exposing fraud in business world. Aside from the existence of research findings that linked corporate failure to auditors negligence, lack of professional scepticism and lack of due diligence which bring about loss of investors' trust and confidence in the capital market, there is very few research dedicated on reforming the profession in the hub of these challenges.

Several regulatory initiatives and anti-corruption agencies have been put in place to restore stakeholders' confidence in financial reporting. Benford's law has been employed as a tool of fraud detection. The USA's Sarbanes Oxley Act, Public Company Accounting Oversight Board (PCAOB), and Nigerian Independence Corrupt Practices and other related offences Commission (ICPC), Economic and Financial Crimes Commission



FCC) and Code of Conduct Bureau (CCB) are some of the machinery employed to detect and prevent fraudulent activities but all proved ineffective to curb the menace. The study of Enofe, Okpako and Atube (2013) and Gbegi and Adebisi (2014) provided a substantial contribution in this area. The studies stressed that various anti-corruption agencies should be restructured by the government for better performance and code of conduct should be put in place and properly monitored. The previous studies were not specific about the type of fraud examined along with forensic accounting techniques. There are different types of fraud such as securities and commodities fraud, mortgaged fraud, identity theft, insurance fraud, credit card fraud, mass marketing fraud, financial reporting fraud, misappropriation and embezzlement and each fraud has peculiar features and characteristics. Adamu (2012) argued that detailed evidence to be collected and gathered, the investigator must understand the specific type of fraud that has been carried out and how the fraud has been committed. Therefore, this study focuses on financial reporting fraud and misappropriation and relating it with forensic accounting procedures for fraud investigation and fraud detection and auditors' perception on the effectiveness of forensic accounting procedures in North-Central zone of Nigeria, are sought.

The following research questions are raised for the purpose of this study:

- i.) What is the relationship between forensic accounting procedures and financial reporting fraud detection?
- ii.) In what way could forensic accounting be used to uncover misappropriation?

The main objective of this study is to empirically examine the perception of auditors' on forensic accounting and fraud detection.

The study tested the following null hypotheses in order to provide answers to the research questions of this study.

H<sub>01</sub>: There is no significant relationship between Forensic accounting and financial reporting Fraud detection.

H<sub>02</sub>: There is no significant relationship between Forensic accounting and misappropriation detection.

## **2.0 Literature Review**

### **2.1 Conceptual Literature**

Thoughts and conception of various scholars and professionals including professional bodies on forensic accounting, concept of fraud and fraud detection, types of fraud and forensic accounting procedures for detecting fraud shall be examined in this section.

#### **2.1.1 Forensic Accounting Concept**

Arokiasamy and Cristal-le (2009) opine that forensic accounting is the application of financial skills and investigative mentality to unsettled issues, conducted within the context of the rules of evidence. The term "forensic accounting" was first used by Maurice E. Peloubet in 1946 in New York. He wrote about the use of accounting in courtroom proceedings as a part of testimony. One of the skills of forensic accountants is investigative mentality. While a normal accountant acts like a watchdog, a forensic accountant must be trained to act like a bloodhound. Forensic means suitable for use in a court of law while forensic accounting is the practice of utilizing accounting, auditing and investigative skill to assist in legal matters (Joshi, 2003).

According to America Institute of Certified Public Accountants (AICPA) (2008) forensic Accounting services generally involve application of special skills in auditing, accounting, quantitative methods, finance, specific areas of the law, information and computer technologies research and investigative skills to collate, analyse, and evaluate evidential matter which in the forensic area is called the evidence. Singleton and Singleton (2004), says that the "eyes and ears" of the king was a person who basically served as a forensic accountant for pharaoh, watchful over inventories of grain, gold and other assets. This indicates that forensic accounting has been in vogue for a long time.

Ramaswamy (2005) believed that forensic accountants are distinctively positioned to be able to uncover financial deceptions, their prominent skills being an in-depth knowledge of financial statements, the ability to critically analyse them, and a thorough understanding of fraud schemes. Therefore, a number of studies revealed the increasing demand for accountants to conduct forensic accounting activities and the need to broadening definition of forensic accounting away from a narrow fraud detection definition (Cohen, Crain, and Sanders, 1996; Baron, 2006; Wells, 2003 and Rezaee, Crumley, & Elmore, 2004).

According to Kasum (2009) forensic accountant not only involved in investigating, analysing financial evidence, communicating their findings and assisting in legal proceedings, including testifying in court but also, sometimes, engages in developing computerised applications to assist in the analysis and presentation of financial evidence and preparing visual aids to support trial evidence. Moreover, Forensic Accounting is simply a specialty field in Accounting that deals with the identification of financial fraud, and reports in a way that it would be suitable for use in a court of law.





Howard and Sheetz (2006) defines Forensic accounting as simply the process of interpreting summarizing and presenting complex financial issues clearly, succinctly and factually often in a court of law as an expert witness. The critical social value that forensic accountants possess is the symbolic capacity by which the translation is realized (Okunbor and Obaretin, 2010).

### **2.1.3 Types of Fraud**

Bozkurt (2003) opined that there are two types of fraud committed in business: Personal use of business resources and drawing up financial statements of the business falsely. Altman and Hotchikiss (2006) identified the following type of fraud: manipulation, falsification (including forgery), or alteration of accounting records or supporting documentation from which the financial statements are prepared.

Singleton and Singleton (2006) in their study categorised fraud investigated by the forensic accountant into corruption, asset misappropriation and financial statement fraud. The study explained further that corruption fraud can further be split to conflict of interest, bribery and extortion.

In the same vain the joint report by the Institute of Internal Auditors (IIA), American Institute of Certified Public Accountants (AICPA) and Association of Certified Fraud Examiners in 2008 offered the sample fraud risk exposure taxonomy as follows:

- i) Financial Reporting Fraud.
- ii) Misappropriation of tangible assets, intangible assets or proprietary business opportunities.
- iii) Corruption industry bribery, gratuities, money laundering and embezzlement.

### **2.1.4 Fraud Detection**

Detection of fraud begins with the notification of red flags which indicates that something is wrong (Ozkul and Pamuke, 2012). Enofe, et al (2013) identified two main ways to detect frauds: (a) Detection by chance and (b) Conducting a proactive research and encouraging initial identification of symptoms. Zare (2013) stated that reviewing operational transactions for compliance with standard operating procedures and approvals, completing analysis of financial disbursement transactions in the accounting system to determine if they are normal or outside company policy and, thus, possibly fraudulent, reviewing general ledger and financial reporting system transactions for possible improper classification or manipulation of data or accounts and its impact on the resulting financial reporting, examining warranty claims or returns for patterns of fraud or abuse, helping estimate the economic damages and the resulting insurance claims that stem from calamities such as fire or other natural disasters and evaluating or confirming business valuation in mergers and acquisitions are forensic accounting techniques for detecting fraud.

Evidences for the fraud alert are gathered by forensic accountants through the above procedures to identify the type of fraud and how it is committed. The identity of the fraudster must be proved by the evidence collected and amount of financial loss suffered.

## **2.2 Theoretical Literature**

### **2.2.1 White Collar Crime Theory**

The white collar crime theory by Sutherland (1949) defined his ideal as crime committed by a person respectability and high social status in the course of his occupation. The proponent of white collar crime theory differentiate blue collar street crimes such as arson, burglary, theft, assault, rape and vandalism which are more often use physical force from white collar crime which are committed by opportunists who takes advantage of their office, position and circumstances to accumulate financial gain through the use deceit, concealment or violation of trust which are contrary to the use of physical force or violence.

### **2.2.2 Fraud Diamond Theory**

The theory of fraud diamond by Wolf and Hermanson (2004) is an extension of theory of fraud Triangle by Cressey which recognises opportunity, pressure and rationalisation as key elements that underpinning fraud. They argued that diamond offers a better view of the factors leading to fraud. Fourth variable, 'capacity' is added to the Cressey work of fraud triangle which they justified by stating that perpetrator of fraud must have the necessary traits, abilities or positional authority to pull off his crime. They also believed many frauds would not have occurred without the right person with the right capabilities implementing the details of the fraud. Four observation traits for committing fraud are suggested; First, authoritative position or function within the organization, Second, capacity to understand and exploit accounting systems and internal control weakness, Third, confidence that he/she will not be detected or if caught he/she will get out of it easily, Fourth, capability to deal with the stress created within and otherwise good person when he or she commits bad acts (Gbegi and Adebisi, 2014).







### **2.3 Empirical Literature**

In the study of Sampson, Boadu and Owusu (2014) on Forensic Accounting: A Multifaceted Standard for Cleaner Stewardship in Weak Regulatory Environments. The study examined the relationship between the degree of satisfaction with traditional statutory audit and expectation of users of audit information using primary data inform of questionnaires distributed to the businessmen, accounting tutors, practicing chartered accountants, students and financial journalists. The findings report that forensic accounting has positive potential to handle financial crimes in weak regulatory environments.

Boritz, Kotchetova and Robinson (2008) study reveals that forensic accountants could detect significantly higher number of fraud than auditors. Enofe, Okpako and Atube (2013), in their study of the impact of forensic accounting on fraud detection, where primary data were collected through the use of well-structured questionnaires and analysed with descriptive statistics using ordinary least square (OLS) regression and Chi-square. The study reveals that the application of forensic accounting services on firms affects the level of fraudulent activities.

The study of Kenedy and Anyaduba (2013) on forensic accounting and financial fraud in Nigeria: An empirical approach, wherein the survey design was employed in the study with a sample size of 143 consisting of accountants, management staffs, practicing auditors and shareholders. The simple random technique was utilized in selecting the sample size, while the binomial test was employed in the data analysis. The findings of the study indicate that there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality.

Onuorah and Appah (2012) assessed the effect of forensic accounting services on the curbing fraudulent activities of banks in Nigeria. Data was collected from primary and secondary sources and the result show that forensic accounting services provide banks with the necessary tools to deter fraudulent activities.

Gbegi and Adebisi (2014) analysed forensic accounting skills and techniques in fraud investigating in the Nigerian public sector. 129 senior staff of the three anti-corruption agencies in Nigeria (EFCC, ICPC and CCB) were the target population. The study used both primary and secondary sources of data collection, the study revealed that forensic accounting skills and techniques have significant effect on uncovering and reducing fraud in the Nigerian public sector.

This study is based on the white collar crime theory and fraud diamond theory. White collar crime theory is relevant to this study because it will be employed as a tool for fraud investigation and fraud detection while the fraud diamond theory will be an efficient tool for fraud prevention.

Therefore, studies on forensic accounting have been carried out by various scholars and researchers such as Sampson, et al (2014), Boritz, et al (2008), Enofe, et al (2013), Kenedy and Anyaduba (2013) and Gbegi and Adebisi (2014). It is informative to note that there is indistinctness regarding the appropriate variables that might be employed to measure fraud detection. Most of the studies do not provide a precise forensic accounting approach for fraud detection. Therefore, the present study is attempting to fill this gap by identify fraud components (financial reporting fraud, misappropriation and embezzlement) to measure fraud detection and forensic accounting procedures (techniques) for fraud investigation and detection to measure forensic accounting and therefore examine the relationship between them.

### **3.0 Materials and Method**

#### **3.1 Research Design**

This paper adopted a field survey research design because it is suitable for the quantitative research pattern adopted for this research. Survey research design strategy was considered suitable because of its capability to observe in detail the major questions raised in this study.

#### **3.2 Sources of Data**

This study used primary data to obtain information from the targeted respondents regarding auditor perception of the relationship between forensic accounting and fraud detection through a carefully constructed questionnaire.

#### **3.3 Population of the Study**

Since this study is investigating perception of auditors in North-Central, geopolitical zone of Nigeria, the study population is defined as auditors in auditing firms, internal auditors and accountants of Banks, Industries and Public Sectors in the zone. There are 21 banks in Nigeria and all of them have branches in North-Central. We have 47 auditing firms, 48 functional industries and the number of federal Government and state establishment is 71, (48 at Federal level and 23 at State level).



### 3.4 Sampling and Sample Size

The method of sampling technique used for the purpose of this study is purposive sampling techniques and there are four respondent categories as stated in the population of study. Seventy five copies of questionnaire were sent to each of the respondent category to give a fair chance of each respondent category that made up the population of the study. This represents 300 copies of questionnaire that were sent out for administration on the respondents.

### 3.5 Method of Data Collection

Primary data was employed to obtain information from the targeted respondents regarding their perception of the relationship between forensic accounting and fraud. The questionnaire was designed to capture the demographic data of the respondents and their opinions with respect to the research questions. The questionnaire was divided into two sections. Section one sought to obtain information on demographic details of respondents while Section two consisted of items measuring the perception of respondent groups on relationship between forensic accounting techniques and fraud detection. The questionnaire was constructed using a five-point likert scale and internal consistency method called Cronbach's Alpha test was employed for the research instrument.

### 3.6 Method of Data Analysis

As a result of the nature of the variables which are quantitative in nature, Ordered Logistic model is employed for the data analysis. Therefore five-point likert scale was used to obtain information from respondents, ranked thus: strongly agreed, agreed, strongly disagreed, disagreed and undecided.

### 3.7 Variable Measurement

Dependent variable is the fraud detection and this is measured by the components of fraud, that is financial reporting fraud and misappropriation while the independent variable, forensic accounting is measured by forensic accounting procedures for investigating and detecting fraud. Therefore, likert scale is used which is coded thus: 4, 3, 2, 1 and 0.

### The Model Specification

The model adopted and modified for this study is consistent with the study of Onuorah and Appah (2012). This was stated thus:  $Y = F(X)$  where Y represents deterrence in fraudulent activities and X represents Forensic accounting Services

### Empirical Model

The above model is therefore modified thus:

$$FD = f(FA)$$

FD represents fraud detection while FA represents forensic accounting.

To measure fraud detection, Financial Reporting Fraud (FRF) detection and Misappropriation (MA) detection are used as proxy. Zare (2013) forensic accounting techniques for fraud investigation and detection are used as proxy to measure forensic accounting, thus: reviewing operating transactions for compliance with standard operating procedures and approvals, (ROTC), completing analysis of financial disbursement transactions in the accounting system to determine if they are normal or outside company policy and, thus, possibly fraudulent, (CAFDT), reviewing general ledger and financial reporting system transactions for possible improper classification or manipulation of data or accounts and its impact on the resulting financial reporting, (RGLFRS), examining warranty claims or returns for patterns of fraud or abuse, (EWC), helping estimate the economic damages and the resulting insurance claims that stem from calamities such as fire or other natural disasters, (HEED) and evaluating or confirming business valuation in mergers and acquisitions, (EBVMA).

$$FD = F(FA) \text{ -----(i)}$$

$$FRF = \beta_0 + \beta_1 ROTC + \beta_2 CAFDT + \beta_3 RGLFRS + \beta_4 EWC + \beta_5 HEED + \beta_6 EBVMA +$$

$$U_i \text{ -----(ii)}$$

$$MA = \alpha_0 + \alpha_1 ROTC + \alpha_2 CAFDT + \alpha_3 RGLFRS + \alpha_4 EWC + \alpha_5 HEED + \alpha_6 EBVMA +$$

$$!_i \text{ -----(iii)}$$

$\beta_1$  to  $\beta_6$  and  $\alpha_1$  to  $\alpha_6$  = Parameter Estimate also  $\beta_1$  and  $\alpha_1$  represent intercept while  $\beta_2$  to  $\beta_6$  and  $\alpha_2$  to  $\alpha_6$  are slope coefficient while  $U_i$  &  $!_i$  = Error Term

The a-priori expectation or the expected behaviour of the independent variables ( ROTC, CAFDT, RGLFRS, EWC, HEED, AND EBVMA) on the dependent variable (FRF and MA) of the model is that  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 > 0$  and  $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6 > 0$  and P-value < 0.05 an indication of effectiveness of forensic accounting



procedures for detecting all kinds of fraud and existence of significant relationship between independent variables and dependent variables. Therefore, each of the slope coefficients is the magnitude of the impact of each independent variable on the dependent variable.

#### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

**Table 4.1.1 Demographic Details of Respondents**

		Frequency	Percentage	Cumulative %
Academic Qualification	NCE/OND	8	4	4
	Bsc/HND	133	75	79
	Msc/MBA	37	21	100
Total Respondents		<b>178</b>		
Professional Qualification	ICAN/ACCA/ANAN	160	90	90
	CIBN	18	10	100
Total Respondents		<b>178</b>		
Respondents Category	External Auditor	67	37.64	37.64
	Industry Auditor	48	26.97	64.61
	Banks' Auditor	35	19.67	84.27
	Public sector Auditor	28	15.73	100
Total Respondents		<b>178</b>		

Source: Authors' Survey, 2015

Table 4.1.1 shows the breakdown of respondents by Academic, professional qualifications and respondent category. The academic and professional qualifications of respondents show that 75% of the respondents were graduate, 21% were postgraduate while only 4 were below the graduate level and out of these respondents 90% are qualified accountants while 10% represents qualified bankers. This implies that most of the respondents are learned individuals and that they were not ignorance of the subject matter 'forensic accounting'. The respondent category revealed that 38% respondents were external auditor, 27% of industry auditor, 20 % of banks' auditor and while only 16% of the public sector auditor responded to the questionnaire. This shows the level of commitment of respondent category to fraud detection.

**Table 4.1.2a: Ordered Logistic Regression Results for Model 1**

Dependent Variable: Financial Reporting Fraud (FRF)

Numbers of Observation: 178      LR Chi 2= 148.48						
Prob>Chi2 = 0.0000 Log Likelihood = -185.41773						
Pseudo R, MI; 2 = 0.2859						
	Coefficient	Standard Error	Z	P>Z	(95% Conf	Interval
ROTC	-0.5326577	0.1523173	-3.5	0.000	-0.831194	-0.2341214
CAFDT	-0.8677022	0.224484	-3.87	0.000	-1.30768	-0.4277217
RGLFRS	-0.7045926	0.2115063	-3.33	0.001	-1.119137	-0.2900478
EWC	3.524611	0.4290881	8.21	0.000	2.683614	4.365608
HEED	-0.3780637	0.1257435	-3.01	0.003	-0.624517	-0.1316109
EBVMA	-1.844122	0.2907269	-6.34	0.000	-2.413936	-1.274308

Source: Authors' Survey, 2015

As presented in Table 4.1.2a, the Prob>Chi2 which is equal to 0.0000 signifies that the model is appropriate and fit for the estimation. Also, the coefficient of the regression above indicates that the more reviewing of operating transactions for compliance with standard operating procedures and approvals (ROTC), the more completing analysis of financial disbursement transactions in the accounting system to determine if they are normal or







outside company policy (CAFDT) and the more of reviewing general ledger and financial reporting system transactions for possible improper classification or manipulation of data or accounts and its impact on the resulting financial reporting (RGLFRS) the less likelihood of financial reporting fraud. Also, the more of helping estimate the economic damages and the resulting insurance claims that stem from calamities such as fire or other natural disasters (HEED) and the more of evaluating or confirming business valuation in mergers and acquisitions (EBVMA) the less likelihood of financial reporting fraud while the more of examining warranty claims or returns for patterns of fraud or abuse (EWC) the more likelihood of financial reporting fraud.

**Table 4.1.2b: MARGINAL EFFECTS**

(Ordered Logistic Regression Results for Model 1)

Dependent Variable: Financial Reporting Fraud (FRF);  $Y = .39107558$  Effects after  $\text{ologit} = \text{Pr}(\text{FRF}=4)$  (Predict)

Variable	dy/dx	Err	Z	P>z	95%	C.I	X
ROTC	-0.126845	0.03771	-3.36	0.001	-0.20076	-0.052935	2.44944
CAFDT	-0.206631	0.05398	-3.83	0.000	-0.31243	-0.100834	2.98315
RGLFRS	-0.167789	0.0492	-3.41	0.001	-0.26421	-0.071366	2.16292
EWC	0.8393349	0.11526	7.28	0.000	0.613425	1.06525	3.08989
HEED	-0.09003	0.02998	-3	0.003	-0.14879	-0.031267	2.38764
EBVMA	-0.439151	0.08015	-5.48	0.000	-0.59624	-0.282062	3.22472

Source: Authors' Survey, 2015

Marginal effect as presented in table 4.1.2b shows that the probability of ROTC, CAFDT, RGLFRS, HEED and EBVMA increasing financial reporting fraud reduce by 13%, 20%, 1%, 9% and 44% respectively while the probability of EWC reducing financial reporting fraud increase by 84%.

**Table 4.1.3a: Ordered Logistic Regression Results for Model 2**

Dependent Variable: Misappropriation (MA) Numbers of Observation: 178

LR Chi 2(5) = 212.66

Prob>Chi2 = 0.0000

Log Likelihood = -124.67986

Pseudo R<sup>2</sup> = 0.4603

	Coefficient	Standard Error	Z	P>Z	(95% Conf	Interval
ROTC	0.4366904	0.1669406	2.62	0.009	0.1094928	0.763888
CAFDT	0.630296	0.2405546	2.62	0.009	0.1588176	1.101774
RGLFRS	-1.803499	0.2829974	-6.37	0.000	-2.358164	-1.248834
EWC	4.056613	0.6314094	6.42	0.000	2.819073	5.294153
HEED	1.449716	0.2022085	7.17	0.000	1.053395	1.846038
EBVMA	-0.349667	0.1614087	-2.17	0.030	-0.666023	-0.033312

Source: Authors' Survey, 2015

The coefficient of the regression in table 4.1.3a shows that the more of reviewing of operating transactions for compliance with standard operating procedures and approvals (ROTC), completing analysis of financial disbursement transactions in the accounting system to determine if they are normal or outside company policy (CAFDT), helping estimate the economic damages, examining warranty claims or returns for patterns of fraud or abuse (EWC) and helping estimate the economic damages and the resulting insurance claims that stem from calamities such as fire or other natural disasters (HEED), the more likelihood misappropriation whereas the more of reviewing general ledger and financial reporting system transactions for possible improper classification or manipulation of data or accounts and its impact on the resulting financial reporting (RGLFRS) and evaluating or confirming business valuation in mergers and acquisitions (EBVMA) the less likelihood misappropriation.



**Table 4.1.3b: MARGINAL EFFECTS**  
(Ordered Logistic Regression Results for Model 1)

**Dependent Variable:** Misappropriation (MA)

$Y = .01236523$  Effects after  $\text{ologit} = \text{Pr}(\text{FRF}=4)$  (Predict)

Variable	dy/dx	Err	Z	P>z	95%	C.I	X
ROTC	0.005333	.00311 1	0.72	0.086	-0.00075	0.011419	2.44944
CAFDT	0.0076974	.00413 1	0.86	0.062	-0.0004	0.015795	2.98315
RGLFRS	-0.022025	0.009	-2.45	0.014	-0.03966	-0.004392	2.16292
EWC	0.0495407	0.01947	2.54	0.011	0.011378	0.087704	3.08989
HEED	0.0177044	0.00754	2.35	0.019	0.002922	0.032487	2.38764
EBVMA	-0.00427	0.00263	-1.62	0.105	-0.00943	0.000892	3.22472

Source: Authors' Survey, 2015

In Table 4.1.3b, the marginal effect of the ordered logistic regression results indicate that the probability of ROTC, CAFDT, EWC and HEED reducing misappropriation increases by 0.5333%, 0.76974%, 4.95407% and 1.77044% respectively while the probability of RGLFRS, and EBVMA increasing misappropriation reduces by 2.20249% and 0.42703% respectively.

#### 4.2 Discussion of Results

The p-value for all the models is less than 0.05 which is in line with apriori expectation and reflects that there is significant relationship between forensic accounting procedures and financial reporting fraud and misappropriation. Therefore, forensic accounting techniques, steps or procedures have a significant relationship between forensic accounting and fraud detection.

This study is consistent with the findings of the studies of Enofe, et al. (2013), Gbegi and Adebisi (2014), Sampson, et al. (2014), Boritz, et al. (2008) and Onuorah and Appah (2012), but explicitly revealed forensic accounting effectiveness for fraud detection on each of the components of fraud. Also, the study shows that detection of fraud go beyond forensic accounting procedures but also requires examination of the employees personality traits and skill. This is in accord with White Collar Crime Theory as well as Fraud Diamond Theory. There is need to focus on the personality traits and skills of Senior and middle managers responsible for high risk areas along with forensic accounting procedures in the course of fraud detection.

#### Conclusion and Recommendations

This study examined the relationship between forensic accounting and fraud detection by focused on the forensic accounting procedures for detecting fraud and components of fraud. The study finds out that forensic accounting procedures for detecting fraud are appropriate for financial reporting fraud (falsification of accounting records, omission of transactions in the financial statement, misapplication of financial reporting standards, concealing liabilities in the financial statement, fraudulent transactions, etc.) and asset misappropriation (fraudulent disbursement, cash theft, inventory frauds, misuse of assets, etc.) but specified appropriate forensic accounting procedures to be employed in carrying out specific fraud investigation. The study is able to identify the personality traits and skills of fraudsters and certain features that may decoy them into it.

In accordance with our findings, it is therefore recommend as follows:

- That forensic accountants be employed and be part of the team of fraud investigation and fraud detection in all the anticorruption agencies to be effective and efficient in fishing out fraudulent activities in the economy. Also, there is need for principal staff of these agencies to be vast in forensic accounting techniques and skills.
- The International Federation of Accountants, together with national accounting bodies of each country and along with the international financial reporting standards board together with the national financial reporting standards board should make it a policy for the independent auditors to employ forensic accountants in their independent audits.
- Forensic accountants be engaged to give testimony in the court against any person or group of people found wanting.
- That further studies should be carried out on:
  - Impact of cost of fraud detection and prevention on business performance.
  - Relationship between forensic accounting techniques and mortgage fraud, securities and commodities fraud and healthcare fraud.







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