Application of Forensic Accounting Skills and Detection of Financial Crimes in Nigeria : A Study of Quoted Manufacturing Firms

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Abstract

Financial crimes have endangered the businesses of individuals, groups, institutions and even governments as a huge amount of money is lost as a result of these crimes. This had created a problem for the survival and successful operations in business organizations, which necessitates this study to examine the application of forensic accounting skills in the detection of financial crimes of quoted manufacturing firms in Nigeria. Data were collected from primary sources through the administering of forty-five (45) structured questionnaires to the staff within the accounting department of fifteen (15) manufacturing firms operating in Kano State. Multiple regression analyses were employed for analysis. The findings revealed that forensic level of skills by accountants and forensic financial crime investigation has a positive and significant relationship with the detection of financial crimes of quoted manufacturing firms in Nigeria. This suggests that an increase in the forensic level of skills by accountants and forensic financial crime investigation would lead to an increase in the detection of financial crimes. Similarly, there is insignificant association between forensic expert consultants and detection of financial crimes, implying outsourcing of forensic experts did not influence the detection of financial crimes of quoted manufacturing firms in Nigeria. Therefore, the study recommended among others that the management of the manufacturing firms in Nigeria should employ more forensic accountants who have the requisite knowledge, skills, competence, capability, experience and experts in forensic financial crimes investigation. This will go a long way in maintaining, minimizing and enhancing the detection of financial crimes of quoted manufacturing firms in Nigeria.

Keywords: Forensic Accounting; Financial crime Investigation; and Financial Crime Detection**.**

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1 Introduction

Business organizations have been threatened globally including Nigeria with the incident or occurrence of financial crime due to the failure of the proper recording keeping process of the financial transactions. That has resulted in an unprecedented increase in fraud and fraudulent practices in a most business environments. Financial crime has grown to a point where its perpetration poses a threat not only to the concerned organization but also the entire economy (Okoye & Ndah, 2019). Financial crime is generally believed to be a fundamental problem in manufacturing firms as it has hindered the economic growth and development of manufacturing firms in Nigeria. Financial crimes, such as embezzlement, bribery, bankruptcy, security fraud, among others (EFCC, 2004), have taken the centre stage in public discourse and is assuming a position of preeminence in the scale of the governmental preference. The inability of the statutory auditor constrained by the relevant statutes and standards, to deal with the issues of financial crimes is also quite disturbing (Oworojori & Asaolu, 2009). Detecting financial crime, therefore, requires the deal with smart forgers to find the evidence needed to approve the fraud cases. This, however, requires specialized forensic accounting skills, such as investigative and litigate skills to detect and prove most of the fraud cases. The investigative skill uses forensic accountant's skills in a possible courtroom testimony, while litigations skill recognized the role of an accountant as an expert consultant (Okoye & Gbegi, 2013).

Forensic accounting depends on different pillars. These pillars include the character of an accountant, experience and tools required, and the knowledge of law (Hamdan, 2018). The character of an accountant is concerned with the experience of the accountant, Independence, creativity, and investigation capabilities. This investigation capability requires a forensic accountant to have basic accounting skills, such as level of education, writing communication level, verbal communication level, computer literate level, investigation and litigation level, among others (Abu & Okpe, 2021). Education level is one of the personal traits that determine the professionalism of a forensic accountant. The performances of the forensic accountant depend on the level of educational experience gained as undergraduate levels of accounting will not find high demand to practice forensic accounting compared to graduate levels. Graduate education levels will find high demand compared to other levels. Similarly, writing communication skills is another skill the forensic accountant should possess. In a business, writing is the final tool used to communicate the report to the management, shareholders, owners, and court of different

cases that took place in an organization, including other skills that are required that had been mentioned earlier.

Manufacturing firms in Nigeria have been confronted with the menace of financial crime due to the inappropriate recording keeping process of their financial transactions (Olatunji, 2021). Most often, financial crime takes place in the process of acquiring raw materials, conveying the materials to the company's premises, engaging field workers and other inputs necessary to change the raw materials into finished goods. This process, however, in recent times has recorded an unprecedented increase in fraud and fraudulent practices as a result of greater size and complexities in the manufacturing firms (Okoye & Ndah 2019). These had drawn the attention of several researchers to make an effort in assessing the importance of the services of forensic accountants to business organizations especially in improving the quality of financial statements and uncovering fraud cases. However, most of these research efforts have been focused on fraud and forensic accounting activities in banks and other financial institutions. Therefore, this study examines the application of forensic accounting skills and the detection of financial crimes in Nigerian manufacturing firms.

Fraud and fraudulent accounting practices affect many organizations, regardless of size, location, or industry (Amahalu, Ezechukwu & Obi, 2017). Supporting the view, Enofe, Olorunnuho and Okporua (2016) noted the alarming increase in frauds and fraudulent practices both in public and private organizations in Nigeria. Kasum (2009) discovers that the continuation of financial irregularities is becoming the speciality of both private and public sectors in Nigeria as individual perpetrates fraud and corrupt practice according to the capacity of their office. Similarly, Izedonmi and Mgbame (2011) observe that there is an increasing incidence of fraud and fraudulent activities in Nigeria and they argued that in Nigeria, financial fraud is gradually becoming a normal way of life.

Numerous research effort has been made in assessing the importance of the services of forensic accountants to business organizations especially in improving the quality of financial statements and uncovering fraud. Many manufacturing firms in Nigeria had disappeared or closed shops from the trading schedule of the Nigerian Stock Exchange listing due to bankruptcy as a result of fraud and fraudulent accounting practices. Manufacturing firms like Benue cement company, which was later sold to Dangote Group of Companies, Aba textile mills, African paints (Nigeria) plc, Asaba textile mills, First Aluminium Nigeria plc, Ceramics manufacturing company, Footwear manufacturing company, and many other companies in Nigeria were delisted from the trading schedule of

the Nigerian Stock Exchange due to different financial crimes, such as bankruptcy, fraud, kickback, bribery, embezzlement, misappropriation, among others. These financial crimes affected the manufacturing firms in one way or the other and could not meet up with the Nigerian Stock Exchange requirements. This resulted in some manufacturing firms tagged voluntary withdrawal, while others regulatory withdrawal. But, the bottom-line was fraud and fraudulent accounting practices that resulted in the disappearing or delisting. Therefore, forensic accounting has what it take to stern the tide of financial malfeasance witnessed in most sectors of the Nigerian economy, especially the manufacturing sector. It is against this background that this study examines the effect of the application of forensic accounting skills and the detection of financial crimes of quoted manufacturing firms in Nigeria.

The broad objective of this study is to investigate the effect of the application of forensic accounting skills in the detection of financial crimes in manufacturing firms in Nigeria. The specific objectives are: Examine the influence of the level of skill by accountants in the detection of financial crimes in manufacturing firms in Nigeria; Evaluate the effect of the nature of the forensic investigation in the detection of financial crimes in manufacturing firms in Nigeria; and Determine the impact of the number of experts consulted in the detection of financial crimes in manufacturing firms in Nigeria.

In line with the specific objectives of the study, the following null hypotheses are formulated and shall be tested: $H0_1$: The level of accountants' skills had no positive and significant effect on the detection of financial crimes of quoted manufacturing firms in Nigeria; $H0_2$: The nature of forensic investigation had no positive and significant influence on the detection of financial crimes of quoted manufacturing firms in Nigeria; $H0_3$: The number of experts consulted had no positive and significant effect on the detection of financial crimes of quoted manufacturing firms in Nigeria.

2 Review of related Literature

Forensic Accounting Conceptual Review: The forensic accounting concept was first discovered and practised in Ancient Egypt in the year 3000 B.C (Ekundayo, 2020). At that time, its application, importance, usefulness and acceptability was not popular due to the inability of the arbitrators, courts, and as well as inadequate and unskilled personnel employed as forensic accountants to investigate crimes related to economics and finance. In ancient Egypt, a forensic accountant was referred to as a watchdog to the king Pharaoh, who served and watch overstocks of gold, grain, and assets, such as land, plant and machinery, among others (Ekundayo, 2020). That suggests forensic accountants as at that time was skilful, intelligent, creative, innovative, initiative, trustworthy, responsible and

influential. However, this specialized accounting profession was not popular until the 1980s (Karabayir, 2019). That implies the profession, forensic accounting is one of the oldest professions like any other, but it was not known like auditing and other professions. However, due to the failure or inability of auditors to unravel fraud or material misstatement in the financial statement make forensic accounting gradually gained popularity globally including in Nigeria.

The word "forensic" is defined by Black's Law Dictionary as "used in or suitable to courts of law or public debate. That suggests the fundamental principle of forensic accounting is litigation support involving accounting. According to Bhasin (2007), the integration of accounting, auditing and investigative skills create the speciality known as forensic accounting. This integration has brought some level of diminution in financial crimes. The diminution of financial crimes enables the forensic accountant to use accounting, auditing, and investigative skills to conduct investigations into theft, fraud and several other economic and financial crimes. Hence, forensic accounting is basic knowledge that encompasses the understanding of accounting, auditing, investigation, legal, psychology, computer and criminology in providing the evidence needed in a litigation process. This also, suggests that forensic accounting is the practice of utilizing accounting, auditing and investigative skills to assist in legal matters and the application of a specialized body of knowledge to the evidence of economic transaction and reporting suitable for establishing accountability or valuation of an administrative proceeding.

Owolabi, Dada and Olaoye (2013) stated that forensic accounting provides an accounting analysis that is suitable to the court which will form the basis for discussion, debate and ultimately dispute resolution. That suggests forensic accounting encompasses litigation support, expert witnessing and investigative accounting. According to Enofe, Agbonpolour, and Edebiri (2015), Forensic accounting is the application of expert knowledge and definite expertise to stumble upon the proof of economic transactions. This can only be achieved when the forensic accountant is versed in accounting, auditing, economics and law as a course of study. The Association of Certified Fraud Examiners (ACFE, 2007) defined forensic accounting as the use of professional accounting skills in matters involving potential or actual civil or criminal litigation, including, but not limited to, generally accepted accounting and audit principles. That suggests the determination of lost profits, income, assets, or damages; evaluation of internal controls; fraud; and any other matter involving accounting expertise in the legal system constitute forensic accounting.

Enofe et al. (2016) studied the association between forensic accounting and fraudulent financial reporting in Nigeria. The study population consisted of 150 Professional Accountants and employees selected from the 10 banks in Edo State with 87 firm-year observations for the year 2015. Forensic accounting was the dependent variable measured by the respondent's responses. The fraudulent financial reporting was the independent variables proxies by the role of forensic accounting, financial performance, the relevance of the financial statement, and true and fair view of the audited financial statement. Primary data was collected from the respondents through the administration of a questionnaire. Multiple regression was employed for data analysis. The result revealed a positive and insignificant association between the role of forensic accounting, financial performance (FEC) and detection of financial crimes. Oseni (2017) examined the effect of forensic accounting services on fraud and financial crime detection and prevention in Nigeria. Four ministries or departments were sampled (Auchi Polytechnic, Edo State Ministry of Finance, Audit Firms and Federal Inland Revenue Services) for the study with 160 respondents. The chi-square statistical techniques were employed to analyze the data. The results revealed a negative effect on crime detection and prevention in Nigeria.

Clement and Comfort (2018) examined the Impact of Forensic Accounting and Investigation on Corporate Governance in Nigeria. The population of the study consists of all forensic accountants and practitioners in Ekiti State. The primary sources of data were employed with a well-structured questionnaire administered to 100 forensic accountants and practitioners in the State. The returned questionnaires were coded and analyzed using binary logistic regression techniques. The results showed that forensic accounting investigation contributed significantly to fraud detection and the internal control system of corporate governance. Sunardi and Nuryatno (2018) studied the application of fraud diamond and detection of fraud in the financial statements in Indonesia. The study population consists of 12 listed manufacturing companies on the Indonesia Stock Exchange for the period 2012-2015 with 60 firm-year observations. The fraud diamond was the independent variables proxies by rationalization, pressure and financial stability. The dependent variable was fraud detention. Multiple linear regression was employed for data analysis. The results showed a negative and significant effect of fraud diamond on financial statements.

Olaoye and Adebayo (2019) examined the impact of forensic accounting on fraud prevention and detection in deposit money banks in Nigeria. The study population covered 12 deposit money banks in Ekiti State. The primary sources of data were utilized The study

adopted a well-structured questionnaire to 44 respondents. The simple linear regression was used for data analyses. The study outcome revealed a positive and significant impact of forensic accounting on the detection and prevention of fraud in deposit money banks in Nigeria. Imagbe, Abiloro and Saheed (2019) examined the determinants of financial crimes in Nigerian banks using fraud diamond elements. The survey research design was adopted for the study, while the population of the study was made up of all finance experts, such as directors and managers, branch managers, operation managers, compliance officers and customer service unit out of which a sample of 84 staff was selected using a purposive sampling technique. Primary data was collected from the respondents through a structured questionnaire and analyzed using OLS regression. The results revealed that rationalization, capacity, opportunity and pressure have a positive and significant effect on financial crimes as an increase in all the variables leads to an increase in financial crimes. However, the knowledge and expertise of the respondent in terms of fraudulent financial reporting was not taken into consideration as not all branch managers, operation managers, compliance officers and customer service managers have expertise on fraudulent financial reporting.

Okoye and Ndah (2019) examined the relationship between forensic accounting practices and fraud prevention in manufacturing companies in Nigeria. The study population consists of 10 manufacturing firms in Nigeria. The forensic accounting practice was the independent variable proxies by fraud investigation and fraud litigation, while fraud prevention was the dependent variable. Data was collected through primary sources by administering a questionnaire to fifty (50) accounting staff of ten (10) manufacturing companies. The Ordinary Least Square (OLS) statistical techniques were employed for data analyses. The findings revealed that there is a positive and significant relationship between fraud investigation practices and fraud prevention in manufacturing firms in Nigeria. Further findings also revealed a positive and significant relationship between fraud litigation practices and fraud prevention of fraud in manufacturing firms. Adegbie, Dada, Owoeye and Siyanbola (2020) researched the application of forensic accounting techniques as an antidote for curbing fraud in Nigeria budget implementation. The population consisted of 195 staff of federal government establishments connected with the budgetary system and fiscal policy. The study utilized a primary source of data by administering a questionnaire to 195 respondents with a retrieval rate of 150 copies (77%). The study employed a survey cross-sectional research design while adopting descriptive and inferential statistics to analyze the data. The finding revealed that the application of forensic accounting techniques

has a positive and significant effect on curbing fraud in budget implementation in Nigeria budgetary system.

Two theories underpin this study are; the fraud triangle and the fraud diamond. These two theories, for financial crimes to take place in an entity, specified necessary or basic ingredients, which are opportunity, pressure/incentive, rationalization, and capability/attitude. These (opportunity, pressure, rationalization and capabilities) constitute four core elements or concepts that create a situation ripe for fraud. Adebisi, Okike and Yoko (2016) opined that forensic accountant and investigator relies heavily on the fraud triangle and diamond to identify weak points in the business systems and to identify possible suspects in cases of fraud occurrence. According to Wolfe and Hermanson (2004), fraud would not have taken place without the right person with the capabilities of the details information and access to funds to which he/she uses to commit the fraud. That suggests for financial fraud to occur in any organization, the perpetrator must have a detail or be privy to the information and accessibility to the funds with the capability of committing the crime.

3 Methodology

The study employed the descriptive survey research design. The descriptive survey design method was adopted due to the desirability of the researcher getting the feedback from the respondents without any inducement. This method (descriptive survey design) of research approach enables the audience to give information freely without surpassing, influencing or promising for something. The study employed a primary source of data collection through the administration of a questionnaire. The questionnaire was divided into two sections. Section A deals with the demographic characteristics of the respondents, while section B deals with the research subject matter titled: Application of forensic accounting skills and detection of financial crimes of the quoted manufacturing firms in Nigeria.

The questionnaire was closed-ended with Strongly Disagree, Disagree, Undecided, Agree and Strongly Agree, while the responses are weighted on a 5-point Likert scale where the values of 1, 2, 3, 4 and 5 were allocated to the various responses. The population for the study consisted of 45 respondents(3 accounting staff) in fifteen (15) manufacturing firms with their head offices, branches/subsidiaries in Kano State and its environs, out of the 71 quoted manufacturing firms in Nigeria. The justification of choosing fifteen (15) manufacturing firms whose head offices, branches/subsidiaries in Kano state was based on the fact that Kano State is one of the commercial states in Nigeria, which house or accommodated most manufacturing firms head offices or branches/subsidiaries in Nigeria. Also, the fifteen (15) manufacturing firms based on the company law in Nigeria has

features that are common to almost all the companies quoted on the Nigerian Stock Exchange. Therefore, the view or opinion of these accounting staff in each of these firms would be regarded as adequate or solid for generalization and recommendation regarding the research subject matter. The model specification for the study was = Financial Crime Detection = f(Forensic Accounting Skills)……(1)

Where Forensic Accounting Skills is proxies as Forensic Level of Skills by Accountants (FLSAs); Forensic Financial Crime Investigation (FFCINV); and Forensic Expert Consultation (FEC), equation 1 is restated as:

FCDECT = B0 + B1FLSAs +B2FFCINV +B3FEC + U …… (2)

Where:

FCDECT = Financial Crime Detection
FLSAs = Forensic Level of Skills by Accountants
FFCINV = Forensic Financial Crime Investigation
FEC = Forensic Expert Consultation
B0 = Constant Terms
B1, B2, B3 = Coefficients of the Independent Variables
U = Error Term

4 Results and Discussion

Descriptive Statistics ***Table 1***

Var	N	Minimum	Maximum	Mean	Std. Deviation
Forensic Level of Skills by Accountants	38	2.00	4.50	3.382	.5805
Forensic Financial Crime Investigation	38	2.25	4.75	3.684	.6332
Forensic Expert Consultation	38	2.40	4.40	3.353	.5082
FCDECT	38	2.25	5.00	3.382	.6360
Valid N (listwise)	38				

Sources: SPSS 20 Output Results

Table1 presents the descriptive statistics of the data collected for the research variables. Table 1 demonstrates the independent variable Forensic Level of Skills by Accountants (FLSAs) of quoted manufacturing firms in Nigeria, which has an average value of 3.382 with a standard deviation of 0.5805, and a minimum value of 2.00 and 4.50 as the

maximum value. The mean value indicates that the sampled manufacturing firms have an average value of 338.2% and the standard deviation of 0.0.5805 implies that the deviation from the mean value, from both sides is 58.05%, suggesting that the data is widely dispersed from the mean because the standard deviation is lower compared to the mean value. The mean value of 338.2% implies that the level of forensic skills acquired by forensic accountants when put to work would assist in detecting financial crimes in Nigerian manufacturing firms. Table1 also shows that one of the measures of application of forensic accounting skills and detection of financial crimes of quoted manufacturing firms in Nigeria, forensic financial crime investigation (FFCINV) has an average value of 3.684 with a standard deviation of 0.6332, and a minimum value of 2.25 and 4.75 as the maximum value. The mean value indicates that the sampled manufacturing firms during the period of the study have an average forensic financial crime investigation of 368.4%, and the standard deviation of 0.6332 implies that the deviation from the mean value, from both sides is 63.32%, implying that there is a wide dispersion of the data from the mean because the standard deviation is lower than the mean value. The high average value indicates that the knowledge, understanding and expertise gained from forensic financial crime investigation, when put to practice would reduce the occurrence of financial crime in the Nigerian manufacturing firms

Table1 shows that the forensic expert consultation (FEC) has an average value of 3.353 with a standard deviation of 0.5082, and minimum and maximum values of 2.40 and 4.40. The mean value indicates that the sampled manufacturing firms during the period of the study have an average forensic expert consultation of 335.3%, and the standard deviation of 0.5082 implies that the deviation from the mean value, from both sides is 50.82%, implying that there is a wide dispersion of the data from the mean because the standard deviation is lower than the mean value. The mean value of 335.3% suggests that the skills, technical know-how, and requisite knowledge gaining would help the forensic investigator to detect financial crimes in the Nigerian manufacturing firms. Furthermore, Table1 shows the dependent variable Financial Crime Detection (FCDECT) has an average value of 3.382 with a standard deviation of 0.6360, and minimum and maximum values of 2.25 and 5.00. The mean value indicates that the sampled manufacturing firms have an average financial crime detection of 338.2%, and the standard deviation of 0.6360 implies that the deviation from the mean value, from both sides is 63.60%, implying that the data is widely dispersed from the mean because the standard deviation is lower compared to the mean value. That

suggests. the standard deviation value implies a moderate variation in the financial crime detection

Table 2 ***Correlation Matrix***

		Forensic Level of Skills by Accountants	Forensic Financial Crime Investigation	Forensic Expert Consultation	FCDECT
Forensic Level of Skills by Accountants	Pearson Correlation	1	.040	.150	.231
	Sig. (2-tailed)		.811	.369	.016
	N	38	38	38	38
Forensic Financial Crime Investigation	Pearson Correlation	.040	1	.091	.244
	Sig. (2-tailed)	.811		.588	.014
	N	38	38	38	38
Forensic Expert Consultation	Pearson Correlation	.150	.091	1	.049
	Sig. (2-tailed)	.369	.588		.037
	N	38	38	38	38
FCDECT	Pearson Correlation	.231	.244	.049	1
	Sig. (2-tailed)	.016	.014	.037	
	N	38	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Sources: SPSS Correlation Result

The correlation matrix in Table 2 is used to ascertain the relationship between dependent and independent variables and between explanatory variables themselves The purpose was to explain the strength of the relationship between the variables, and as such Pearson's coefficient of correlation was used. The correlation analysis was conducted by obtaining the average responses on each of the variables used in this study. The table shows a positive correlation between the dependent variable which is financial crime detection and all independent variables.

There is a positive and significant relationship between Forensic Level of Skills by Accountant (FLSAs) and the Detection of Financial Crime in Nigerian manufacturing firms. The positive statistical correlation between financial crime detection and forensic level of skills by accountants with a correlation coefficient of 0.231 which is significant at

5% (p-value 0.016). This means that as the level of forensic accountant skills increases, it leads to an increase in financial crime detection. There appears also a positive and significant association between Forensic Financial Crime Investigation (FFCINV) and the Detection of Financial Crime in Nigeria Manufacturing Firms. This was evidenced by the coefficient of 0.244 which is significant at 5% (0.014). This is an indication that forensic financial crime investigation, leads to an increase in financial crime detection. Similarly, Forensic Expert Consultation (FEC) is positively related to the Detection of Financial Crime in Nigeria Manufacturing Firms. The Pearson regression result shows that the Application of Forensic Accounting Skills has a positive significant relationship with the Detection of Financial Crime in Nigeria Manufacturing Firms.

Table 3. *Regression Results and other tests*

Variable	FCDECT		
	Coeff	T-Value	P-value
CONS	1.022	3.060	0.000
FLSAs	0.231	1.414	0.043
FFCINV	0.229	1.412	0.037
FEC	0.063	0.383	0.704
R^2	0.213		
Adj-R^2	0.134		

Sources: SPSS 20 Output Results

Table 3 reports the summarized computed regression results. The table displays that the coefficient of the intercept (CONST) is 1.022. This coefficient of the intercept ascertains the value of FCDECT when there is an increase, or decrease in any of the explanatory variables by 1 unit, while all others are held constant. The T-value of the CONST is 0.000, which is statistically significant at 5% level of significance. FLSAs has a coefficient of 0.231 at the t-value of 1.414 and p-value of 0.043. That suggests that FLSAs is positively significant and affect FCDECT at 0.043 - 95% confidence level. That means that an increase in FLSAs will increase FCDECT of the quoted manufacturing firms in Nigeria. Also, FFCINV has a coefficient of 0.229, a t-value of 1.412 and a p-value of 0.037. That indicates FFCINV is positive and, significantly affects FCDECT at 0.035 - 95% level of significance. That implies that an increase in FFCINV will significantly increase FCDECT of quoted manufacturing firms in Nigeria. Also, FEC is insignificantly and positively affect FCDECT with a coefficient value of 0.063, t-value of 0.383 and p-value of 0.704. That implies that increasing the FEC of the quoted manufacturing firms in Nigeria will lead to an insignificant increase in FCDECT.

Furthermore, the R2 (0.213) in table 5 which is the multiple coefficients of determination gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variable jointly. Hence, it signifies 21.3% of the total variation in audit financial crime detection of Nigerian quoted manufacturing firms caused by their FLSAs, FFCINV and FEC. The Adjusted R-square shows that even after adjusting for the degree of freedom the model could only explain about 13.4% of the total systematic variations in financial crime detection. This suggests that other factors account for variation in financial crime detection of quoted manufacturing firms in Nigeria which has been captured by the stochastic disturbance term in the model.

Table 4. *ANOVA Results*

Model	Sum of squares	df	Mean squares	F	Sig
Regression	1.686	3	0.562	1.439	0.000
Residual	13.281	34	0.391		
Total	14.967	37			

Sources: SPSS 20 Output Results

The F-statistics and its probability show that the regression equation is well-formulated explaining that the correlation between the variables combined to forensic accounting skills and detection of financial crimes of quoted manufacturing firms in Nigeria are statistically significant at 5% (F-stat = 1.439; F-prob. = 0.0000). This significant explanatory power of the component of forensic accounting skills in respect of FCDECT implies a significant statistical effect between the dependent and independent variables.

4. Hypothesis Testing

H01: States that the level of skills by accountants has no significant relationship in the detection of financial crimes of quoted manufacturing firms in Nigeria. Based on the result of the regression shown in Table 4 above, the result reveals that the level of skills by accountants has a positive and significant relationship in the detection of financial crime in Nigerian manufacturing firms during the study period. That provides us with evidence of rejecting the null hypothesis and accepting the alternative that the forensic level of skills by accountants has a significant relationship with the detection of financial crimes of the sampled manufacturing firms in Nigeria. This finding is in agreement with the findings of Olaoye and Adebayo (2019); Okoye and Ndah (2019) who find that the level of forensic skills by accountants is significantly positively related to financial crimes detection. However, this finding disagrees with that of Sunardi and Nuryatno (2018), who find a negative association between the level of forensic skills by accountants and detection of financial crimes.

H02: States that the nature of forensic financial crime investigation does not correlate with the detection of financial crimes of quoted manufacturing firms in Nigeria. The result as displayed in Table 4 demonstrated that the forensic financial crime investigation has a positive significant correlation with the detection of financial crimes in Nigerian manufacturing firms during the study period. That provides us with evidence of rejecting the null hypothesis and accepting the alternative that FFCINV has a significant correlation with the detection of financial crimes of the quoted manufacturing firms in Nigeria. This finding is consistent with Adegbie et al. (2020); Clement and Comfort (2018), who find a positive significant correlation between forensic financial crime investigation and detection of financial crimes but contradicts that of Oseni (2017) whose findings show a negative and significant correlation between forensic financial crime investigation and detection of financial crimes.

H03:States that the number of experts consulted have no significant association with the detection of financial crimes of quoted manufacturing firms in Nigeria. Forensic expert consultants have a positive and insignificant association with the detection of financial crimes. Thus, a unit increase in forensic expert consultants insignificantly increases detection of financial crimes and vice versa. This provides us with evidence of accepting the null hypothesis and rejecting the alternative that the forensic expert consultants have no significant association with the detection of financial crimes of quoted manufacturing firms in Nigeria. This finding conforms with Enofe et al. (2016), who find no significant association between the forensic expert consultants and detection of financial crimes. The finding is contrary to the finding of Imagbe et al. (2019), who find a positive and significant association between the forensic accounting experts and detection of crimes.

5 Conclusion and Recommendations

From the findings based on the analysis carried out, the study makes the following conclusions:

Forensic level of skills by accountants has a positive significant relationship with the detection of financial crime in Nigerian manufacturing firms. This means an increase in forensic level of skills by accountants would lead to an increase in the detection of financial crime of quoted manufacturing firms in Nigeria;

Forensic financial crime investigation has a positive significant association with the detection of financial crime in Nigerian manufacturing firms. This means a rise in forensic financial crime investigation would lead to an increase in the detection of financial crime in Nigerian manufacturing firms; and

Forensic expert consultation has a positive insignificant correlation with the detection of financial crime in Nigerian manufacturing firms. This indicates that forensic expert consultation has no significant influence on the determination of the detection of financial crime in Nigerian manufacturing firms.

Given these conclusions, the following recommendations are put forward based on the findings:

First, the management of manufacturing firms in Nigeria should encourage their employees, who are forensic accountants with the requisite knowledge, skills, technical know-how, creativity and innovation in financial crimes for all the manufacturing companies operating in Nigeria as it is seen to improve the detection of financial crimes of quoted manufacturing firms in Nigeria. Doing so will maintain, minimize and enhance the detection of financial crimes.

Second, the management of manufacturing firms in Nigeria should encourage their employees, who have the requisite knowledge, understanding, ability, skills, experience and expertise in a forensic financial investigation as it is seen to improve the detection of financial crimes of quoted manufacturing firms in Nigeria. Doing so will assist the forensic investigators to maintain the tempo and enhancing the detection of financial crimes.

Third, the management of manufacturing firms in Nigeria should be discouraged from sourcing forensic experts from outside in the form of consultants for all the manufacturing companies operating in Nigeria as they are seen to reduce the detection of financial crimes of quoted manufacturing firms in Nigeria. Doing so will motivate the internal staff who are forensic accountants to improve their performance leading to the detection of financial crimes.

Finally, the manufacturing sector should collaborate with the Nigerian Stock Exchange Commission and other regulatory bodies to come up with policies that will encourage and allow forensic accountants of the manufacturing firms to attend and participate fully in seminars, conferences or workshops from time to time. The policy should make it compulsory for all manufacturing firms operating in Nigeria irrespective of their size. This will go a long way to improve their skills, competence, capability and intelligence in handling and detecting financial crimes in Nigeria.

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APPENDIXES

APPENDIX A: QUESTIONNAIRE

Tick appropriate one from the options given below:

S/N	ITEMS	SA	AG	UN	DA	SD
A	**FORENSIC LEVEL OF SKILLS BY ACCOUNTANTS**					
5	The firm has a forensic accounting laboratory where investigations are carried out					
6	The laboratory is well equipped					
7	The laboratory is put to used when the need arises					
8	All forensic accountants are highly skilled					
9	Forensic investigators all have professional qualification					
B	**FORENSIC FINANCIAL CRIME INVESTIGATION**					
10	The firm has financial forensic investigators on its payroll					
11	Forensic accountants are involved in all categories of financial crime in the firm					
12	Where employees of the firm are involved in financial crime, the firm's forensic accountants ae capable of detecting the fraudster					
13	Where loss is substantial as a result of the misuse of non-financial resources, the firm's forensic accountants are involved in detecting and prosecuting the fraudster					
C	**FORENSIC EXPERT CONSULTATION**					
14	The firm has a well-structuredlitigation support unit within the accounting and legal departments					
15	The firm incurs substantial expense on external forensic accountants on fraud litigations involving the firm					
16	Fraudulent activities uncovered in the firm are properly investigated by the firm's forensic investigators and where necessary litigation processes					

	started
17	The firm's forensic accountants are often involved in reviewing the opposing expert's reports on financial crimes the firm is involved in
18	Several external forensic accountants are consulted in the detection of financial crimes
D	**FINANCIAL CRIME DETECTION**
19	The implementation of forensic accounting measures have drastically reduced financial crimes in the firm
20	Whistle-blowing when there is a suspected case is prohibited
21	Employees of the firm are noticeably apprehensive whenever forensic accountants are called in
22	Recommendation on fraud detection strategies proposed by the firm's accountants have led to red flagging of some fraudulent behavior by staff

APPENDIX B: Descriptive Statistic

Table 4.6 ***Descriptive Statistics***

	N	Minimum	Maximum	Mean	Std. Deviation
Forensic Level of Skills by Accountants	38	2.00	4.50	3.3816	.58047
Forensic Financial Crime Investigation	38	2.25	4.75	3.6842	.63321
Forensic Expert Consultation	38	2.40	4.40	3.3526	.50817
FCDECT	38	2.25	5.00	3.3816	.63602
Valid N (listwise)	38				

Pearson Correlation

Table 4.7 ***Pearson Correlations Result***

		Forensic Level of Skills by Accountants	Forensic Financial Crime Investigation	Forensic Expert Consultation	FCDECT
Forensic Level of Skills by Accountants	Pearson Correlation	1	.040	.150	.231
	Sig. (2-tailed)		.811	.369	.016
	N	38	38	38	38
Forensic Financial Crime Investigation	Pearson Correlation	.040	1	.091	.244
	Sig. (2-tailed)	.811		.588	.014
	N	38	38	38	38
Forensic Expert Consultation	Pearson Correlation	.150	.091	1	.049
	Sig. (2-tailed)	.369	.588		.037
	N	38	38	38	38

FCDECT	Pearson Correlation	.231	.244	.049	1
	Sig. (2-tailed)	.016	.014	.037	
	N	38	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Forensic Expert Consultation, Forensic Financial Crime Investigation, Forensic Level of Skills by Accountants[b]	.	Enter

a. Dependent Variable: FCDECT
b. All requested variables entered.

Table 4.8 ***Model Summary***

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.336[a]	.213	.134	.62500

a. Predictors: (Constant), Forensic Expert Consultation, Forensic Financial Crime Investigation, Forensic Level of Skills by Accountants
b. Dependent Variable: Detection of Financial Crime

Table 4.9 ***ANOVA Table***

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.686	3	.562	1.439	.000[b]
	Residual	13.281	34	.391		
	Total	14.967	37			

a. Dependent Variable: FCDECT
b. Predictors: (Constant), Forensic Expert Consultation, Forensic Financial Crime Investigation, Forensic Level of Skills by Accountants