Forensic accounting and fraud mitigation in the manufacturing industry in Nigeria

OSUNWOLE, OLATUNJI OLUDAYO
Department of Accountancy, Faculty of Financial Studies,
Osun State Polytechnic, Iree. Nigeria.
E-mail: osunwoletunji@gmail.com +2348035081689

ADEYEMI, OLA ADEWALE
Department of Banking and Finance, Faculty of Financial Studies,
Osun State Polytechnic, Iree. Nigeria.
E-mail: adeyemi246@yahoo.com +2348167360267

DUNSIN, ABIMBOLA TOLULOPE
Department of Accountancy, Faculty of Financial Studies,
Osun State Polytechnic, Iree. Nigeria.
E-mail: abimboladusin9@gmail.com +2348064839840

ABSTRACT
This study examined the influence of forensic accounting practices and reduction of fraud in manufacturing industry in Nigeria. Descriptive survey design was utilized to conduct the study. The target population for this study was all the manufacturing firms listed on the floor of Nigerian Stock Exchange (NSE) market as at 31st December, 2019. Purposive sampling technique was used to select five (5) firms which emerged as the sample of the study. Primary data was used for the study and questionnaires were used as data collection tool. One hundred seventy five (175) copies of structured questionnaires were distributed to forensic accountants and auditors of the selected listed manufacturing companies in which all were retrieved and analyzed. The study results established that forensic accounting had positive and significant effect on financial fraud reduction and improvement of internal control system of manufacturing companies respectively. The study concluded that forensic accounting practices such as; fraud investigation and fraud litigation are very important for the reduction of financial fraud in manufacturing companies. The study recommends that the inclusion of forensic accounting in the code of corporate governance practices will drastically reduce financial fraud in manufacturing industry and that manufacturing companies in Nigeria step up their forensic accounting practices in order to deter fraud. This they can achieve by making forensic auditing of financial records a regular and routine activity.

Keywords: Forensic Accounting, Fraud, Financial fraud, Listed Manufacturing Firms, Nigeria

1. Introduction
The first decade of the twenty-first century experienced a large number of reported corporate scandals, frauds, and failures (McKitrick, 2009). According to Keshi (2010) the nature of such fraud rendered traditional auditing and investigation inefficient and ineffective in fraud detection and prevention. Statutory audit appears to have shown a lack of concern and reflective attitude towards fraud fighting, thereby failing to offer the public desirable assurance to handle corruption and fraud (Dada & Okwu, 2013). The scandals contributed to loss of confidence by financial statements users on the ability of traditional auditing and investigation to contribute viable solutions (Joshua, Antunes, Thereza & Henrique 2013). Fraud includes all the multifarious means human ingenuity can devise, that are resorted to by individuals to get an advantage over another by false suggestions or suppression of the truth. It includes surprises, tricks, cunning or dissembling, and any unfair way by which another is cheated (Howard & Sheetz, 2006). The manufacturing industry is responsible for providing goods and as well involved in building of infrastructure and distribution of water and power. They also serve as source of job, and also a segment of the economy where significant portion of nation wealth is derived. These reasons have made the manufacturing industry the backbone of the development of any country. Thus, the regulatory authorities in the Nigerian manufacturing industry have continually formulated and implemented policies and reforms that will remove systemic and financial crises, reduce fraud as well as strengthen the industry but despite being controlled and regulated, the industry has witnessed financial crimes such as embezzlement, bribery, bankruptcy, security fraud, among others with internal audit and auditors in operation (Gbegi & Adebisi, 2014).

In Nigeria, the occurrence of fraud in the manufacturing industry is becoming rampant and this can be shown in large number of reported cases of bribery, corruption, embezzlement, money laundering, racketeering, fraudulent financial reporting, tax evasion, forgery and other means through which both financial and economic dishonesty are being perpetrated (Oyedokun, Enyi & Dada, 2018). Fraud has been blamed for the failure of a good number of business organizations in Nigeria causing hardship for the firms’ stakeholders. In such cases, investors lose their investments, jobs are lost and investors become jittery about committing funds in other viable business as they become overly
The level of fraud in the manufacturing industry demands proactive measure by the accounting profession in order to save the industry from total collapse thus, the need to counter, stop and prevent the perpetration of frauds in modern organizations led to the development of forensic accounting, which touches almost all disciplines especially, accounting, auditing, investigation, law and psychology (Enofe, Mgbame, Ayodele & Okunbo, 2013). Forensic accounting is currently said to be the panacea to fraud as the traditional audit seems to have failed in the wake of major scandals globally (Ogutu & Ngahu, 2016). The general expectation is that forensic accounting will bridge this gap by preventing and detecting frauds as well as gather sufficient evidence to prosecute those behind this financial misfeasance that has characterized all sectors of the economy (Agbaje & Adeniran, 2017). It has now become pertinent that forensic accounting be introduced and practice in manufacturing firms since the auditors are not required to and do not have the required training to be able to tackle modern fraud like white collar crimes such as security fraud, embezzlement, bankruptcies, contract disputes and possible criminal financial transactions.

Several authors have confirmed fraud in the manufacturing industry and also state the extent to which forensic accounting services detect these frauds (Bassey, & Ahonkhai 2017; Adebis, Okike, & Yoko, 2016; Enofe, Olorunnuho, & Okporua, 2016; Gbegi & Adebsi, 2014). However, one major question that remained unanswered is whether forensic accounting services reduce fraud in the Nigerian manufacturing industry. Efforts has also been made by scholars in assessing the importance of the services of forensic accountants to business organizations especially in improving the quality of financial statements and uncovering fraud. However, most of these research efforts have been focused on fraud and forensic accounting activities in banks and other financial institutions. This study has identified these lacunae in forensic accounting research especially in the manufacturing sector where very little research has been done on the subject matter.

This study therefore, seeks to investigate the relationship between forensic accounting practices and fraud prevention in the Nigerian manufacturing industry.

2. Objective of the Study

The general objective of this study is to investigate forensic accounting and fraud mitigation in the Nigerian manufacturing industry.

The specific objectives of the study are to:

i. examine the effectiveness of forensic accounting in reducing financial fraud in Nigerian manufacturing industry

ii. determine whether forensic accounting improves manufacturing companies’ internal control system.

Research Hypotheses

The following research hypotheses were tested in this study

H₀: Forensic accounting does not significantly reduce financial fraud in Nigerian manufacturing Industry.

H₁: Forensic accounting does not significantly improve internal control system in Nigerian manufacturing Industry.

Literature Review

Conceptual Review

Forensic Accounting

Forensic accounting is the practice of utilizing accounting auditing and investigative skills to assist in legal matters and the application of specialized body of knowledge to the evidence of economic transaction and reporting that is suitable for the purpose of establishing accountability or valuation of administrative proceeding. It provides an accounting analysis that is suitable to the organization which will help in resolving the disputes that arise in the organization. Forensic accountants utilize accounting, auditing and investigation skills while conducting an investigation.

Forensic accountants are trained to look into the dispute in a number of ways. Forensic accountants are often retained to analyze, interpret, summarize and present complex financial and business in a manner, which is both understandable and properly supported by evidence (Ahwood and Stein, 1986). They are also involved in various activities such as investigating and analyzing financial evidence developing computerized models, exhibiting documents and presenting the evidence obtained. This new area of accounting has three main areas which according to Nigrini (2011) are investigative accounting, litigation support services and investigation and dispute resolution.

The former represents the factual presentation of economic issues related to existing litigation. In this capacity, the forensic accounting sustained by parties involved in the legal disputes and can assist in resolving dispute. If dispute reaches the courtroom, the forensic accountant may be called on to testify as an expert witness on the other hand the latter is the act of determining, whether criminal matters such as securities fraud which include financial settlement, identify theft and insurance fraud. In such complex cases forensic accountants make some recommendations/actions that can be taken to minimize future risk or loss (Malamed, 2008). The forensic accountant is time and again involved in the investigating and analyzing financial evidence, development of computerized applications to assist in the analysis and presentation of financial evidence communicating their finding in the firm of reports exhibits and collection of document and assisting in legal proceedings, including testifying in court as all expert witness and preparing visual aids to support trial evidence (Adewumi & Toluoyemi, 2000).

In order for forensic accountants to be able to identify fraud indicators, they must be trained in the areas of investigation, detection, and various specialized auditing techniques. Many times the forensic investigator will be an experienced auditor and/or accountant. Harris and Brown (2000) suggested that a forensic accountant should be able to
demonstrate specialized skills in rules of evidence and the law, analytical and investigative skills, identification of patterns of abuse, excellent interpersonal and communication skills, and outstanding organizational skills. Malamed (2008) indicate that not only would excellent communication skills be important, but the forensic investigator should also be asking the right questions and he or she may not know to ask the right questions if not well versed in accounting information system.

Bhasin (2007) noted that the objectives of forensic accounting include: assessment of damages caused by an auditor’s negligence, fact finding to see whether an embezzlement has taken place, in what amount, and whether criminal proceedings are to be initiated; collection of evidence in a criminal proceedings; and computation of asset values in a divorce proceedings. Manning (2005) noted earlier that the services of forensic accounting are utilized in areas such as accounting, antitrust, damages, analysis, valuation, and general consulting. Forensic accountants’ services can also be needed in royalty audits, personal injury claims, insurance claims, divorces, bankruptcy, fraudulent claims, construction, royalty audits, and tracking terrorism by investigating financial records.

Fraud

Okafor and Agbiogwu (2016) 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 Bassey and Ahonkhai (2017), fraud is an act or course of deception, deliberately practiced to gain unlawful or unfair advantage; at the detriment of another. Moreover, financial fraud is an intentional act by a criminal-minded people to falsify facts or figures with the so aim of cheating or rather defrauding a company or an individual.

Financial statement fraud is an intentional attempt by business organization to misinform or mislead investors, creditors and other users of financial statements, by preparing and disseminating materially misstated financial statements (Rezacee, 2005). It is deliberate misrepresentation, misstatement or omission of financial statement data for the purpose of misleading the reader and creating a false impression of an organization's financial strength. Public and private businesses commit financial statement fraud to secure investor interest or obtain bank approvals for financing, as justification for bonuses or increased salaries or to meet expectations of shareholders. Upper management is usually at the center of financial statement fraud because financial statements are created at the management level (Ozili, 2015). Wang, Liao, Tsai and Hung (2006) see fraud as a planned process or device undertaken by a person or group with the full intention of cheating another organization to gain ill-gotten benefits. A most common occurrence of financial fraud is when losses are underplayed or deliberately hidden by organizations.

Financial statement fraud comprises deliberate misstatements or omissions of amounts or disclosures of financial statements to deceive financial statement users, particularly investors and creditors, outright falsification, alteration, or manipulation of material financial records, supporting documents, or business transactions, material intentional omissions or misrepresentations of events, transactions, accounts, or other significant information. From which financial statements are prepared, deliberate misapplication of accounting principles, policies, and procedures used to measure, recognize, report, and disclose economic events and business transactions and also intentional omissions of disclosures or presentation of inadequate disclosures regarding accounting principles and policies and related financial amounts. There are massive issues that emanate from financial statement fraud. Financial statement fraud undermines the reliability, quality, transparency, and integrity of the financial reporting process and jeopardizes the integrity and objectivity of the auditing profession, especially auditors and auditing firms. Financial statement fraud diminishes the confidence of the capital markets, as well as market participants, in the reliability of financial information and as a consequence makes the capital markets less efficient. Ultimately, fraud undermines the credibility of the reporting organization and may lead to liquidation. Thus, the severity of the likely consequences fraud makes it very important that firms battle the menace headlong.

Fraud Mitigation

Fraud mitigation / prevention according to Ogutu and Ngahu, (2016) involves the anticipation, recognition, and appraisal of a crime risk and the initiation of action to remove or reduce it. It is applied specifically to efforts made by governments and other concerned authority to reduce crime, enforce the law, and maintains criminal justice. It is an attempt to reduce and deter crime and criminals from creating a misjudgment or maintain an existing misjudgment to induce somebody to make a contract (Adedisi, Okike & Yoko, 2016).

Preventive role of forensic accounting can be represented as identification of fraud before its occurrence (Enofe, Ekpulu & Ajala, 2015). Forensic accounting possesses skills and capability to improve mechanism of corporate governance which includes, board of directors, audit and risk committee, governance and compliance committee and internal audit department (Hermanson & Rama, 2016). However according to Vinluan, (2015) improvement can only be possible if forensic accounting is considered for its preventive role and considered as part of governance management and also as unavoidable part of codes of corporate governance. Forensic accounting not only provides preventive measures but also provide cost savings when compared with amount of fraud and amount spent for legal and litigations (Vinluan, 2015).

According to Akani and Oladutire (2013), the procedures adopted to help reduce the risk of fraudulent activity occurring within an organization involves the establishment of a positive internal control environment. A genuine interest and concern related to implementing sound internal controls in an organization should be conveyed to all personnel, and the major tenets of an internal control system which include: separation of duties; physical safeguards over assets; proper documentation; proper authorizations; adequate supervision; and independent validation of transaction accuracy must be put in place by organizations. Furthermore, the management of an organization is saddled
with the prevention and control of all forms of fraudulent activities by instituting a sound internal control system manned by an internal auditor (Ogutu, & Ngahu, 2016). The reality is that both the management and audit have roles to play in the prevention of fraud and according to Akani and Oladutire (2013), the best scenario is the situation where management, employees, internal and external auditors work together to prevent fraud. Furthermore, internal controls alone are not sufficient in preventing / mitigating fraudulent activities in an organization. The corporate culture, attitudes of senior management and all employees, must be such that the company is fraud resistant (Bassey & Ahonkhai, 2017). Unfortunately, many auditors feel that corporate culture is beyond their sphere of influence. However, audit can take steps to ensure that senior management is aware of the risk and materiality of fraud and that all instances of fraud are made known to all employees. Also auditor can also encourage management to develop fraud awareness training and a fraud policy to help mitigate and combat fraud. Furthermore, according to Bassey and Ahonkhai (2017) audit can review and comment on organizational goals and objectives to reduce the existence of unrealistic performance measures, as this can also help to create a fraud resistant corporate culture.

**Theoretical Framework**

The fraud triangle has been put forward to explain the prevalence of fraud in organizations. According to Adebisi, Okike and Yoko (2016), forensic accounting relies on the fraud triangle to identify weak points in the business systems and to identify possible suspects in cases of fraud. It consists of three core concepts which together create a situation ripe for fraud: incentive, opportunity, and rationalization. People must have the incentive and opportunity to commit financial fraud, as well as the ability to justify it. Golden, Skalak and Clayton (2006) asserted that within each of the broad risk categories in the fraud triangle, many different and specific potential red flags may be visible within an organization. They identified the risk categories as: incentive and pressure; opportunity; justification/rationalization and attitude. Thus, it would be in the interest of the forensic accountant to acquire good knowledge of these factors to better understand how to prevent fraud.

Nigrini (2011) posit that the first reason employees get involved in fraud is pressure. He enumerates the pressure factors to include: pressures with financial content, pressures stemming from habits and pressures related with the job. As noted by Olukowade and Balogun (2015), the harsh economic environment in Nigeria has more than anything else pressured employees into financial malpractice in order to take care of financial obligations. Opportunity is another important 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. Since the business could greatly influence opportunity factor, this point should receive particular attention for fraud prevention. For example, Mukoro, Ogijo, and Faboyede (2013) asserted that weak internal control systems make it overly easy for employees to pass over certain fraudulent activities.

Finally is the attempt or effort by the fraudster to justify or rationalize their nefarious activity. Some individuals are more prone than others to commit fraud. Other things being equal, the propensity to commit fraud depends on people’s ethical values as well as on their personal circumstances. Ethical behavior is motivated both by a person’s character and by external factors (Golden, Skalak and Clayton 2006). Depending on ethical values, the fraudster is likely to put forward justification for his/her crime.

**Empirical Review**

Amahalu, Ezechukwu and Obi (2017) researched on the effect of forensic accounting application on the detection of financial crime in deposit money banks. Using the survey approach and testing the collected data with t-test statistics, the findings showed that forensic accounting is effective in reducing financial crimes. The study thus recommended that auditors be required to introduce some elements of forensic accounting techniques into the average financial statement audit to increase the effectiveness of the audit. In addition, certain standard methodology and procedures to guide forensic accounting assignments be implemented to act as a reference for practice reviews especially in cases of dispute with client.

Olukowade and Balogun (2015) investigated the roles of forensic accountants in combating fraudulent activities, differences between a forensic accountant and traditional accountant, features of a forensic accountant and the impact of forensic accountants to detect and prevent fraud. From the research, it was found out amongst others that their services will assist audit committee members in carrying out their oversight functions by providing them assurance on internal audit report. The study recommended that government should ameliorate the cost of hiring the services of forensic accountants and to treat culprits equally without any favoritism.

Adebisi, Okike and Yoko (2016) investigated how forensic accounting has aided the detection and prevention of fraud in Nigeria using the survey research method. Primary data collected was with the aid of questionnaire administered to a sample of 92 professional accountants in the Nigerian public sector analyzed using chi-square. The findings of the study suggest that forensic accounting have a significant role to play in fraud detection and prevention in Nigeria. It was therefore recommended that there should be more forensic accountants’ involvement in fraud detection in order to reduce the rate of financial crime in Nigeria.

Bassey and Ahonkhai (2017) found that forensic accounting and litigation supports do not have significant effect on fraud detection in Nigerian companies (banks).

Enofe, Mgbame, Ayodele and Okunbo (2013) in Forensic Accounting: A Tool for Detecting Fraud in Nigeria Business Environment while adopting the descriptive survey, distributed 50 questionnaire based on 5-Scale Likert Scale, 3 research hypothesis formulated and used SPSS to analyse data. The findings show that forensic accounting services are required in Nigeria; forensic accounting is an effective tool for detecting fraud in Nigeria business environment.
3. Methodology

The study adopted the quantitative and descriptive survey research. Research design adopted ensures that data were collected from sample with the aim of testing the relationship or interactions among variables. That is, the investigation of opinion of large number of people and inferences drawn from it thereon.

The population of the study comprises of all manufacturing firms listed on the floor of Nigerian Stock Exchange (NSE) as at 31st December, 2019. However, purposive sampling technique was used to select five (5) firms located in Oyo and Ogun states of Nigeria which emerged as the sample of the study.

The study made use of primary data and questionnaires were utilized to collect data for this study. The questionnaire was sectionalized to reflect demographic information, independent variables and dependent variables. Responses were rated using the five-point Likert scale. Internal consistency (reliability test) was carried out on the research instrument; using Cronbach Alpha reliability. The result of the test shows coefficients range between 0.76 and 0.97 among the constructs. Given these results, it is concluded that the instrument is reliable and capable of producing consistent results. One hundred seventy five (175) copies of the questionnaire were distributed to forensic accountants and auditors of the selected listed manufacturing companies. All were correctly filled and returned, showing a return rate of 100%. Data analysis was done using Statistical Package for Social Sciences (SPSS) version 22. Inferential and descriptive data analysis techniques were considered in the analysis. Descriptive statistics was done using tables, percentages, and frequency distributions. These were utilized to facilitate a description of various collected data. Inferential statistics was done using regression analysis, which assisted in determining the effects of forensic accounting on fraud mitigation.

The model of the regression is illustrated below;

Fraud mitigation = f (Forensic Accounting)

\[ Y = f(X) \]
\[ Y = y_1, y_2, \]
\[ X = X \]
\[ Y = \beta_0 + \beta_1X + \epsilon \] \hspace{1cm} i
\[ y_1 = \beta_0 + \beta_1X + \epsilon \] \hspace{1cm} ii
\[ y_2 = \beta_0 + \beta_1X + \epsilon \] \hspace{1cm} iii

Where,
\[ X = \text{Forensic Accounting} \]
\[ Y = \text{Fraud mitigation} \]
\[ y_1 = \text{Fraud reduction} \]
\[ y_2 = \text{Internal control system improvement} \]
\[ \beta_0 = \text{Constant} \]
\[ \beta_1 = \text{Regression coefficients relating to the Forensic accounting} \]
\[ \epsilon = \text{Error term} \]

Data Presentation and Analysis

In analyzing data 175 questionnaires were administered and retrieved from the respondents and are presented in the order of questions raised in the study.

| Table 1: Socio Demographic Characteristics of the Respondents |
|-------------------------------------------------------------|
| Category | Frequency (N= 154) | Percentage (%) |
|-----------|-------------------|----------------|
| Sex       |                   |                |
| Male      | 120               | 68.57          |
| Female    | 55                | 31.43          |
| Total     | 175               | 100.00         |
| Age       |                   |                |
| Below 25 years | 16            | 9.14          |
| 26 – 35 years | 39           | 22.28         |
| 36 – 45 years | 74           | 42.29         |
| 46 years and above | 46    | 26.29         |
| Total     | 175               | 100.0          |
| Qualification |           |                |
| HND       | 60                | 34.29          |
| B.Sc      | 71                | 40.57          |
| M.Sc      | 26                | 14.86          |
| Ph.D      | -                 | -              |
| Others    | 18                | 10.28          |
| Total     | 175               | 100.0          |
| Work Experience |       |                |
| 1 – 5 years | 15             | 8.57           |
| 6 – 10 years | 53            | 30.29          |
| 11-15 years | 36            | 20.57          |
| 16 years and above | 71   | 40.57          |
| Total     | 175               | 100.0          |

Source: Field survey, (2020)

Table 1 revealed that male has the highest response of 68.57% while the female response is 31.43%. This indicates that
the majority of the respondents under study are male. In addition, the table also showed that the majority of the respondents are within the age range of 36 – 45 years with 42.29%. The result indicates that 34.29% of the respondents are with HND, 40.57% are with B.Sc, 14.86% are with M.Sc and non has a Ph.D degree, while 10.28% of the respondents are with various types of professional qualifications in the field of accounting. Analysis also indicates that 40.57% of the respondents have 16 or more years working experience.

Inferential data analysis was done using OLS regression techniques. The result of the analysis is presented below:

### Table 2: Forensic accounting and financial fraud reduction

| Model 1     | R = .878  | R² = .770 | Adj.R² = .768 | Std. Error estimation = 2.961 | Durbin-Watson = 1.716 |
|-------------|-----------|-----------|---------------|-------------------------------|-----------------------|
| Regression  | Sum of Square | Df | Mean Square | F | Sig. |
| Residual    | 4343.999 | 1 | 4343.999 | 495.500 | .000² |
| Total       | 1297.501 | 173 | 8.767 | |
|             | 5641.500 | 174 | | |

#### Constant

| Forensic Accounting | Unstandardized Coefficients | Standardized Coefficients | T | Sig. |
|---------------------|-----------------------------|----------------------------|---|------|
|                     | B | Std. Error | Beta |       |     |
| -7.716              | 2.019 | 0.11 | .878 | -3.822 | .000 |
| .239                | | | | 22.260 | .000 |

Source: Author’s Data Analysis, 2020

Table 2 indicates that forensic accounting (β = 0.239, t = 22.260, P = .000) contributes positively and significantly to the reduction of financial fraud in manufacturing companies in Nigeria. The P value of 0.000 is less than significant level of 0.05. This shows that forensic accounting has a significant positive effect on financial fraud reduction. Therefore H₀₁ is rejected. Result further reveals that forensic accounting has 77% decisive influence on financial fraud reduction.

The Durbin Watson (DW) statistics was generally high and satisfactory indicating non-existence of autocorrelation problem in the model.

This result is materially in consonance with the findings of Modugu and Anyaduba (2013) and Kamal and Tanim (2016).

### Table 3: Forensic accounting and Internal control system

| Model 2     | R = .835  | R² = .697 | Adj.R² = .695 | Std. Error estimation = 4.835 | Durbin-Watson = 1.729 |
|-------------|-----------|-----------|---------------|-------------------------------|-----------------------|
| Regression  | Sum of Square | Df | Mean Square | F | Sig. |
| Residual    | 7973.074 | 1 | 7973.074 | 341.005 | .000³ |
| Total       | 3460.400 | 173 | 23.381 | |
|             | 11433.473 | 174 | | |

#### Constant

| Forensic Accounting | Unstandardized Coefficients | Standardized Coefficients | T | Sig. |
|---------------------|-----------------------------|----------------------------|---|------|
|                     | B | Std. Error | Beta |       |     |
| 2.622               | 2.818 | .512 | .835 | .930 | .354 |
| 9.461               | | | | 18.466 | .000 |

Source: Author’s Data Analysis, 2020

Table 3 indicates that forensic accounting (β = 9.461, t = 18.466, P = .000) has positive and significant effect on internal control improvement in manufacturing companies in Nigeria. The P value of 0.000 is less than significant level of 0.05. This shows that forensic accounting has a significant positive effect on the internal control improvement in manufacturing companies in Nigeria. Therefore H₀₂ is rejected and objective 2 is achieved. Result further reveals that forensic accounting has 69.7% decisive influence on the internal control improvement in manufacturing companies in Nigeria.

The Durbin Watson (DW) statistics was generally high and satisfactory indicating non-existence of autocorrelation problem in the model.

The study is in agreement with previous studies of Aigienohuwa, Okoye and Uniamikogbo (2017), Modugu and Anyaduba (2013) and Kamal and Tanim (2016) with a general consensus that forensic accounting is capable of improving internal control systems.
4. Conclusion and Recommendations

This study investigated the influence of forensic accounting and fraud mitigation in the manufacturing industry in Nigeria using descriptive and inferential statistics. The result shows significant influence of the effectiveness of forensic accounting on financial fraud reduction in the Nigerian manufacturing Industry. Similarly, the research also found that there is significant positive effect of forensic accounting in improving internal control in the manufacturing companies in Nigeria.

On the basis of the findings, the study concludes fraud investigation practices are very important for the reduction of financial fraud in manufacturing companies. The following recommendations were provided in the study after taking into consideration the study findings:

i. That the inclusion of forensic accounting in the code of corporate governance practices will drastically reduce financial fraud in manufacturing industry.

ii. That manufacturing companies in Nigeria step up their forensic accounting practices in order to deter financial fraud. This they can achieve by making forensic auditing of financial records a regular and routine activity.

iii. The positive relationship between forensic accounting and internal control system improvement suggest that the engagement of competent forensic accountants will improve the internal control system of manufacturing companies in Nigeria.

iv. Manufacturing companies should also ensure that any staff involved in fraud is promptly investigated and prosecuted and doing so in full glare of the public to serve as a deterrence to others in the future.

v. Finally, manufacturing companies should retain the services of qualified forensic accountants who are versed in the use of appropriate fraud deterrence methods in order to prevent fraud before it occurs.

References

1. Adebisi, J. F., Okike, B. M. & Yoko, V. E. (2016). The impact of forensic accounting in fraud detection and prevention: evidence from Nigerian public sector, International Journal of Business Marketing and Management, 1(5), 34-41

2. Adewumi, B. & Toluyemi, T. (2000). Auditing and corporate transparency, Evans Publishers Nigeria.

3. Ahwood, F. A. and stein, N. D. (1986). Auditing, 17th Edition. London Pitman Publishing Limited

4. Agbaje, W. H., & Adeniran, B. G. (2017). Effect of forensic accounting services on fraud reduction in the Nigerian banking industry. Advances in Social Sciences Research Journal, 4, 53-64.

5. Akani, N. F. & Oladutire, E. O. (2013). Fraud prevention, mitigation and management practices in Nigerian firms. Journal of Business and Management, (11) 3, 07-14

6. Bassey, B. E., & Ahonkhai, O. E. (2017). Effect of forensic accounting and litigation support on fraud detection of banks in Nigeria. IOSR Journal of Business and Management, 19(6), 56-60.

7. Bhasin, M. L. (2007). Forensic accounting: A new paradigm for niche consulting. Journal of Chartered Accountant,1000-1010.

8. Dada, S. O, & Okwu, A. T. (2013). Forensic accounting a panacea to alleviation of fraudulent practices in Nigeria; International Journal of Business Management and Economic Research 4(5), 787-792.

9. Ehioghira, E. E & Atu, O.O. (2016). Forensic accounting and fraud management: evidence from Nigeria. Igbinedion University Journal of Accounting, 2(4), 84-103.

10. Enofe, A., Ekpu, G., & Ajala, T. O. (2015). Forensic accounting and corporate crime mitigation. European Scientific Journal, 11(7), 167-185.

11. Enofe, A. O., Olorunnuho, M. S., & Okporu, A. D. (2016). Forensic accounting and fraudulent financial reporting in Nigeria. Journal of Accounting and Financial Management, 2(1), 21-34.

12. Enofe, A.O., Mgbame, C.O., Ayodele, F.O & Okunbo, O. (2013). Forensic accounting: a tool for detecting fraud in Nigeria business environment. ESUT Journal of Accountancy, 4(1) 194-199.

13. Gbegi, D. O., & Adebisi, J. F. (2014). Forensic accounting skills and techniques in fraud investigation in the Nigerian public sector: Mediterranean Journal of Social Sciences (MCser), 5(3), 20-41.

14. Golden, T. G., Skalak, S. L., & Clayton, M. M. (2006). Guide to forensic accounting investigation, John Wiley & Sons, Inc., New Jersey.

15. Harris, C.K., and Brown, A.M. (2000). The qualities of a forensic accountant. Pennsylvania CPA Journal, (71), p. 2-3

16. Hermanson, H. M., & Rama, D. B. (2016). Pressure on internal auditors to alter findings, Journal of Forensic & Investigative Accounting, 8(3), 428-443.

17. Howard, S. & Sheetz, M. (2006). Forensic accounting and fraud investigation for non-experts, New Jersey, John Wiley and sons Inc.

18. Joshua N. K., Antunes, B. K., Thereza, Y. O. & Henrique, H. M. (2013). Understanding juror perception of forensic evidence: investigating the impact of case context on perception of forensic evidence strength, Journal of Forensic Sciences, 56(2), 409-415.

19. Igweonyia, O. V. (2016). Forensic accounting as a panacea to alleviation of fraudulent practices in Nigeria public sector organizations (A study of some selected ministries in Enugu State). International Journal of
20. Kamal, H., & Tanim, U. (2016). Investigating the effectiveness of forensic accounting as a tool for detecting fraud and corruption in selected public sector banks in Bangladesh. *Journal of Business Research, 1*(2), 191-208.

21. Kasum, A.S. (2009). *The Relevance of forensic accounting to financial crime in private and public sectors of 3rd world economies: A study from Nigeria*: Proceedings of the 1st International Conference on Governance, Fraud, Ethics and Social Responsibility. Retrieved from http://ssrn.com/abstract=1384242

22. Keshi, N.O. (2010). Forensic accounting issues in accountancy and audit practice. *ICAN Students’ Journal, 14*(1), 8-12.

23. Malamed, D. (2008). *The role of forensic accountants*, Crest Publishing, Ontario, Canada.

24. McKittrick, C. (2009). Forensic Accounting: It’s broader than you might think and it can help your organization. Retrieved from Millichamp, A.H. and Taylor, J.R. (2008). *Auditing: United Kingdom.*

25. Mukoro, D., Ogijo, Y. & Faboyede, S. (2013). Role of forensic accountants in fraud detection and national security in Nigeria, *Change and Leadership, 1*(17).

26. Modugu, K. P & Anyaduba, J.O. (2013). Forensic accounting and financial fraud in Nigeria: An empirical approach: *International Journal of Business and Social Science, 4*(7) 1-10.

27. Nigrini, M. (2011). *Forensic analytics: methods and techniques for forensic accounting investigations*. Hoboken, NJ: John Wiley & Sons Inc. ISBN 978-0-470-89046-2

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

29. Okafor, M. C. & Agbiogwu, A. A. (2016). Effects of forensic accounting skills on the management of bank fraud in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 4*(6), 70-80

30. Okoye, E.I. & Akamobi, N.L (2009): The role of forensic accounting in fraud investigation and litigation support. *Nigerian Academic Forum, 17*(1).

31. Olukowade E. & Balogun, E. (2015). Relevance of forensic accounting in the detection and prevention of fraud in Nigeria. *International Journal of Accounting Research, 2*(7).

32. Owojori, A. A. & Asaolu, T.O. (2009). The role of forensic accounting in solving the vexed problem of corporate world. *European Journal of Scientific Research, 29*(2).

33. Oyedokun, G. E., Enyi, P. E. & Dada, S. O. (2018). Forensic accounting techniques and integrity of financial statements: An investigative approach. *Journal of African Interdisciplinary Studies (JAIS) 2*(3), 23-47

34. Ozili, P. K. (2015). Forensic accounting and fraud: a review of literature and policy implications, *International Journal of Accounting and Economics Studies, 3*(1), 63-68

35. Rezaee, Z. (2005). Causes, consequences, and deterrence of financial statement fraud, *Critical Perspectives on Accounting, 16*(3), 277-298.

36. Vinluan, F. (2015). Finding growth in forensic and valuation services. *Journal of Accountancy, 33*-49.

37. Wang, J.; Liao, Y.; Tsai, T.; & Hung, G. (2006). Technology-based financial frauds in Taiwan: issue and approaches, *IEEE Conference at Taiwan on: Systems, Man and Cyberspace, 1120–1124.*