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FORENSIC INVESTIGATION TECHNIQUES AND ASSETS MISAPPROPRIATION OF SELECTED MANUFACTURING FIRMS IN NIGERIA

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Key words: *Benchmarking Forensic Technique, Data Matching Techniques, Exception Reporting Technique, Financial Reporting Fraud, Forensic Investigation, Risk Assessment Technique.*

ABSTRACT

In recent years, forensic accounting has emerged as a crucial area of interest to academics and researchers in several nations all over the world. The demand for forensic accountants evolved as a result of the failure of organizational external and internal audit systems to identify specific flaws in the managerial and administrative systems. This study examined the effect of forensic investigative techniques on asset misappropriation in Nigeria. The study used sampled listed manufacturing companies in Nigeria namely; Ozalla Plastics Enterprises Ltd, Comfort Triumphant Company Ltd, Millenium Manufacturing Ltd, Juhel Manufacturing Ltd, Jezco Oil Nigeria Ltd. Data for the study were collected through the use of the questionnaire. The technique of data analysis used in the study is the multiple linear regression technique. The software utilized the E-views statistical software version 11. The major findings of the study show that the benchmarking technique has a significant effect on asset misappropriation in manufacturing firms in Nigeria, the exception reporting technique has a significant effect on asset misappropriation in manufacturing firms in Nigeria, the risk assessment technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria and data matching technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria. This study recommends that firms should employ forensic accounting techniques to ensure high financial reporting quality.

1. INTRODUCTION

Forensic accounting is a scientific accounting method of uncovering, resolving, analyzing, and presenting fraud and related matters in a manner that is acceptable in a court of law (Oyedokun, 2019). The integration of accounting, auditing, and investigative skills yields the specialty known as forensic accounting. The forensic investigation thus provides an accounting analysis that is suitable to the court and will form the basis for discussion, debate,

and ultimately dispute resolution. The use of forensic investigation, like a camera with a pinhole lens, to uncover dishonest financial practices and frauds in both public and private organizations around the world has garnered a lot of attention over the years. This was made possible by the frightening rise in unethical behaviour and shady tactics, mainly in government-owned businesses. Issues of fraud and corruption are also widespread in the Nigerian private sector, for example, between Q2 2021 and Q2 2022, 52 bank staff members were sacked for fraud-related issues. However, between Q3 2022 and Q2 2023, 58 bank staff members were sacked for the same reason. Also, within the period under review, the sacked staff members were involved in a total of 967 fraud cases. undermining good governance, fundamentally distorting private sector optimality in business, causing resource misappropriation, harming the development of the private sector, and especially harming the poor (David, et al. 2020). The failure of the major corporate governance mechanism to reduce financial fraud and the increasing numbers of financial fraud has posed a serious threat to investors, the government, and the general public. The failures of many business organizations, which hurt the firm's stakeholders, have been attributed to fraud. Investors suffer losses on their investments and become uneasy about investing in other profitable ventures as a result of their excessive caution, while employees lose their jobs. As a result of the increasing rate of financial reporting fraud globally, forensic accounting investigation emerged as one of the strategies to detect, correct, and control fraud. Given this development, the attention of many accountants, researchers, financial experts, and academics was drawn to the concept of forensic accounting investigation and financial reporting fraud.

From a global perspective, there have been rising cases of financial reporting fraud and detection. For instance, in the last eight years, through forensic accounting investigation, there has been a detection of financial reporting fraud. The magnitude of financial reporting fraud verified through detections from the forensic investigation has been enormous and calls for macroeconomic concern (Statista, 2023). Globally, there have been cases of financial reporting fraud that have resulted in the loss of billions of dollars. For instance, in 2016, the financial reporting fraud detected was valued at $41.37 billion, $16.62 billion in 2017, $19.5 billion in 2018, $24 billion in 2019, $28.8 billion in 2020, $34.6 billion, $41.59 billion and $63.5 billion dollars in 2021, 2022 and 2023 respectively (Statista, 2023). This clearly shows that financial reporting fraud is indeed a global problem.

Given the drawn attention as identified above, numerous studies have been conducted to determine the value of forensic accounting investigation services to business organizations,

particularly in enhancing the accuracy of financial statements and detecting fraud. The majority of these research initiatives, however, have been concentrated on forensic investigation and fraud activities in banks and other financial institutions. For example; Rhoda (2017), Gregory (2019), etc carried out an empirical analysis of the relationship between forensic investigation and fraud activities in selected deposit money banks. This paper has identified this gap in forensic analytics research, particularly in the manufacturing industry where there has been very little or no study on the topic. Secondly, from the literature reviewed, it is observed that most researchers used aggregated measures of forensic investigation to study the relationship between forensic accounting investigation and financial reporting fraud. Forensic investigation consists of specific techniques that need specific policy interventions. Hence, there is an overwhelming need to disaggregate it into its major dimensions to derive specific policy recommendations that will fast-track their effectiveness and applications. The third identified gap is that this study will make use of a multivariate regression technique unlike the methodology adopted by the previous researchers.

1.1 Objectives

The general aim of this study is to ascertain the effect of forensic investigation on asset misappropriation in the manufacturing industry in Nigeria. This, therefore, actualizes the following specific objectives.

1. ascertain the effect of bench marking forensic techniques on asset misappropriation in manufacturing firms in Nigeria.
2. evaluate the effect of exception reporting techniques on asset misappropriation in manufacturing firms in Nigeria.
3. assess the effect of risk assessment techniques on asset misappropriation in manufacturing firms in Nigeria.
4. determine the effect of data matching techniques on asset misappropriation in manufacturing firms in Nigeria.

1.2 Hypotheses

The following hypotheses, in the null form, were envisaged:

Ho_1: Bench marking technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria.

Ho_2: Exception reporting technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria.

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Ho_3: The risk assessment technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria.

Ho_4: The data matching technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Forensic Investigation

Forensic accounting, which is likewise called investigative accounting or extortion review, is a merger of criminology science and accounting. Legal science as per Crumbley (2018) "might be characterized as utilization of the laws of nature to the laws of man" and alludes to measurable researchers as analysts and mediators of proof and realities in lawful cases and offers specialists' feelings with respect to their discoveries in the courtroom. The science being referred to here is accounting science, implying that the examination and understanding will be of monetary data. Zysman (2012) puts scientific accounting as the joining of accounting, inspecting, and investigative abilities. Forensic accounting is accounting that is reasonable for a lawful survey, offering the most abnormal amount of confirmation and including the now by and large acknowledged meaning of having been touched base at in a logical manner (Crumbley 2016).

2.1.2 Benchmarking Investigative Technique

The process of benchmarking forensic techniques involves comparing internal corporate financial procedures to those of other companies as part of a forensic inquiry. Comparison calls for a fundamental line of parallels. Only items that are comparable to one another can be compared. As a result, it's important to understand one's methods and procedures (Agu, 2019). This forensic method is employed to ascertain whether a crime has occurred, whether it is likely that one has, and the degree of purpose with which it might have occurred. Theft committed by workers of a firm, as well as security and insurance fraud, are a few examples of crimes that forensic accounting professionals may be looking into (Huber, 2017). Interfering with financial data to get access to steal is another possible offense. Due to its complexity, forensic accounting is typically used in serious or high-profile crimes. Crimes with a high-stakes financial component (Rehman & Hashim, 2019).

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2.1.3 Exception Reporting Technique

Exception reporting technique is the use of specialized software to search for anomalies, trends, and correlations in datasets to anticipate outcomes. It makes it easier to extract hidden predictive information from massive databases and can help companies spot patterns, abnormalities, and other odd actions, allowing businesses to make proactive knowledge-driven decisions. Exception reporting technique software, which has scripting capabilities and can scan businesses' datasets for abnormalities and suspicious patterns that are indications of fraud, is particularly useful in identifying fraud (Ugo, 2020). This technique depends on trying to mine a large amount of data in search of any new hidden or unexpected patterns or information, and this technique is implemented through computer programs designed for this purpose (David and Chandler, 2019).

2.1.4 Risk Assessment Technique

As a forensic investigative approach, risk assessment analysis is performed to evaluate data on a historical, industry, or benchmark basis. It detects fraud by studying data patterns to identify potentially deceptive transactions. Risk analysis is the process of determining the links between various financial statement items as well as these items and non-financial data. Vertical analysis compares aspects of a financial statement to a common base item, whereas horizontal analysis is used to analyze the ratio of change in distinct financial statement items over a specific period (James, 2017).

2.1.5 Data Matching Technique

The data matching technique is one of the most significant forensic investigative approaches for detecting fraud. The emphasis is on unusual transactions. Certain transactions may be difficult to recognize from current data, but when the transactions' current records are compared to last year's data entries, they can readily be identified as fraudulent (Williams, 2018). It is simple to determine if the level of sales rises at the same pace as the level of bad debt increases in a business by comparing sales and bad debt data over time. In such a case, it is reasonable to believe that such bad debts are the result of fraudulent sales transactions or manipulations made into the system to improve turnover. Such fraudulent changes could not be detected without the use of trend analysis during a certain period (Chris, 2016).

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2.1.6 Financial Reporting Fraud

A fraudulent financial report has a myriad of definitions, but the common thread is that fraudulent financial report involves intentionally misleading or omitting disclosures in financial reports in an attempt to deceive financial report users, most especially external stakeholders. Talking of fraud in the context of financial reporting, we are probably describing wrongdoings that would not ordinarily be seen as fraudulent in the strict legal sense. However, to be a fraud, the wrongdoing must be intentional. It usually involves falsification, alteration, or manipulation of material financial information contained in the records; 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; or, intentional omissions of disclosures or presentation of inadequate disclosures regarding accounting principles and policies and related financial amounts (Jeremy, 2019).

2.2 Theoretical Framework

This work derived theoretical support from Fraud Triangle Theory.

2.2.1 Fraud Triangle Theory

The Fraud Triangle Theory was propounded by Donald Cressey in 1950. Donald Cressey, a criminologist, started the study of fraud by arguing that there must be a reason behind everything people do. The fundamental observation of Donald Cressey (1919-1987), in the Fraud Triangle Theory was that fraud is likely to occur given a combination of three factors. This theory was made of a triangle of different fraud aspects that include perceived opportunities, perceived pressures, and rationalizations (Chiezey and Onu, 2013). Ngalyuka (2013) maintains that the term perceived is vital in the context that the pressures, rationalizations, and opportunities may not necessarily be real. Chiezey and Onu, (2013) put forth that financial and non-financial pressures present the first temptation to commit fraud. Ngalyuka (2013) stated that 95% of the committed frauds are due to financial pressures such as debts, vices such as drug abuse, and work-related pressures such as showing good sales performance amongst others. The second factor is perceived opportunity. According to Wanyama, (2012), the perceived opportunity is the ability of the potential fraudster to believe that they can get away with the fraud or the consequences of being caught are manageable. Chiezey and Onu (2013) stated that the opportunity to commit fraud in the bank is characterized by employee access to assets and information that presents them with the dual

advantage of committing and concealing fraud. Kanu and Okorafor, (2013) buttressed that these opportunities are presented through weak control measures, lack of control measures enforcement, lack of sufficient punishment measures to act as a deterrence, and inadequate infrastructure. The last factor contributing to fraud is the concept of perceived rationalization. This involves rationalization or justification of the fraud aspect as acceptable (Njenga and Osiemo, 2013). While Ngalyuka (2013) opined that rationalization refers to the justification that unethical behavior is something other than criminal activity.

2.3 Empirical Review

Studies that are related to the subject under investigation are reviewed and discussed, and gaps are identified here. These empirical studies were guided by the specific objectives of the study.

Benjamin (2019) carried out an empirical analysis of the effect of benchmarking forensics on fraud reporting in selected deposit money banks in Ghana covering the period 1989-2018. Date for the study was generated through well-structured questionnaires. The respondents constituted the staff and management of the selected deposit money banks. The information generated was analyzed with a Pearson correlation matrix. The result revealed that the benchmarking forensic technique has no significant effect on financial fraud reporting for the period under analysis. The researcher concluded that forensic benchmarking is not an effective forensic technique for the detection of financial reporting fraud in Ghana. The relationship between the reviewed and present study is that they are both conducted to ascertain the effect of forensic investigation on financial fraud reporting. The difference is that the reviewed study was carried out in Ghana while the present study will be carried out in Nigeria. Secondly, the reviewed study was analyzed using the Pearson correlation matrix while the present study will be estimated with the use of regression analysis. The reviewed study was also focused on benchmarking as a method of forensic investigation while the present study is a compendium of the four dimensions of forensic investigation techniques.

Henry and David (2020) investigated the relationship between benchmarking forensic investigation and organizational performance of selected telecommunications in Sri Lanka. The study used the survey research design where the data for the study was extracted through the distribution of well-structured questionnaires to the internal auditors of the telecommunication companies. The study utilized a self-administered structured questionnaire, which was refined after a pilot study. A content validity index of 0.78 was

obtained; this was judged to be acceptable, as it is more than the 0.70 value recommended minimum. Findings from the study show benchmarking technique has a positive relation to the organizational performance of the selected telecommunications companies in Sri Lanka. The relationship between the reviewed and present study is that they are both conducted to ascertain the effect of forensic investigation on financial fraud reporting. The difference is that the reviewed study was carried out in Sri Lanka while the present study will be carried out in Nigeria. The reviewed study made use of factor analysis to show the relationship between the dependent and independent variables in the study while the present study will make use of linear regression as its method of data analysis.

Eziamaka (2021) examined the effectiveness of exception-reporting forensic investigation in strengthening the internal control of business organizations in Nigeria. The study employed survey design and purposive sampling was used to select five companies. Data were collected using questionnaires and all the hypotheses were tested using regression analysis. The results of the empirical findings show that exception-reporting techniques play a significant role in controlling fraud in business organizations. It is recommended that internal control should be undertaken with effective continuous monitoring of the controls and companies should be stricter with compliance to control procedures. The dependent variable of the reviewed study is internal control while it is financial reporting fraud for the present study. The case study for the reviewed study as seen in the previous study is the banking sector while it is the manufacturing sector for the present study.

Adam (2022) examined the effects of exception-reporting forensic techniques on the performance of commercial banks in Nigeria. The sampling frame of twenty-one commercial banks was taken. A sample of sixty-one respondents was used which was spread proportionately across 6 strata. The study used primary data that was collected through self-administered questionnaires and analyzed using regression analysis. The findings indicated that exception reporting forensic investigation and forensic litigation was statistically significant in explaining changes in the financial performance of commercial banks. The study recommended that the majority of commercial banks in a developing economy ought to adopt forensic accounting to mitigate financial irregularities. The reviewed study is on the performance of banks while the present study is on forensic investigation and financial reporting fraud. The reviewed study is also on the banking sector while the present study is on manufacturing firms.

Wilson and Chandler (2019) investigated the relationship between risk assessment forensic investigation and the financial performance of selected deposit money banks in Kenya covering the period 2017 – 2018. The study adopted a mixed methods research design. Proportional stratified random sampling was used to sample the respondents. Questionnaires were administered to lower-staff management, while top management was interviewed. The findings of the study showed that risk assessment forensic investigation has a positive relationship with the financial performance of selected deposit money banks in Kenya covering the period 2017 – 2018. The relationship between the reviewed study and the present study is that they both are investigating the forensic investigation but they differ in their dependent variables. The dependent variable of the reviewed study is on financial performance while that of the present study is on financial reporting fraud. The difference lies in the country where the research was carried out. The reviewed study was carried out in Kenya while the present study was carried out in Nigeria. The former study used a mixed methods research design while the present study used a descriptive survey research design. The former study used a proportional stratified random sampling technique but the present study used a simple random sampling technique.

Christopher (2020) explored the use of risk assessment forensic investigation in the control of tax fraud and tax evasion. Using an exploratory research design, the study concluded that traditional auditing has failed in curbing tax fraud and tax evasion and that forensic accounting would expose, control, and deter fraudulent practices on tax revenue. In a similar study, Adesina, Erin, Ajetunmobi, Ilogho, and Asiriuwa (2020) sought to ascertain whether risk assessment forensic audit influences fraud control in Nigeria with evidence from Nigeria Deposit Money Banks (DMBs). A survey research design was adopted for the study. Ordinary Least Square analysis of data collected revealed that the involvement of qualified and experienced forensic auditors would not only help in ameliorating frauds in DMBs but would also lead to sanity in the banking sector. The above-reviewed studies deviate from the present study in the sense that the present study focuses on forensic investigation and financial reporting fraud in manufacturing firms.

Tamas and Andras (2020) carried out an empirical analysis of the effect of data-matching techniques on fraud detection in selected financial institutions in Hungary. Twelve (12) financial institutions were selected from the capital of Hungary; Budapest which is located in the North-Central part of the country, on the Danube River. Data for the study were extracted from the respondents through the distribution of well-structured questionnaires. Information

extracted from the questionnaire was analyzed with the use of frequency tables and percentages and the hypotheses stated were tested with the use of F-statistics. The analysis conducted revealed that the data matching technique has a negative and significant effect on fraud detection. The relationship between the reviewed study and the present study is shown in their subject matter and sample. The two studies are all centered on forensic investigation and fraud. The reviewed study differs from the present study in location. The reviewed study was conducted far away in Hungary while the present study will be conducted in Nigeria. The review also differed from the present study in terms of the method of data analysis. The reviewed study used F-statistics while the present study will make use of multiple linear regression.

Benson and Fred (2021) conducted a study on the effect of data-matching techniques on financial reporting fraud in manufacturing companies in Ethiopia. Information for the study was extracted from the respondents through the use of questionnaires and oral interviews. Data were analyzed with regression technique. The study revealed that there is a data matching technique has a positive and significant effect on financial reporting fraud of manufacturing companies in Ethiopia. The subject matter is what relates to the reviewed and present studies as both of them are focused on forensic techniques and financial reporting fraud. However, the reviewed study focused on just the data matching technique as a forensic investigation method while the present study will disaggregate the four dimensions of forensic matching techniques. The reviewed study was conducted in Ethiopia while the present study was carried out in Nigeria.

3. MATERIAL AND METHOD

The study adopted a descriptive survey design. The method ensured that the researcher collected his data at a particular period from the selected sample to describe a large population at that particular point in time. The method was employed because it enabled the researcher to use the sample drawn to represent the diverse elements of the population under study.

The population of this study consists of the accounting staff of the selected manufacturing firms in Awka South LGA. Table 1 below is a display of the total population distribution of the study.

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Table 1: Population size

Manufacturing Firm	Accounting Staff Size
Ozalla Plastics Enterprises Ltd	18
Comfort Triumphant Company Ltd	14
Millenium Manufacturing Ltd	16
Juhel Manufacturing Ltd	15
Jezco Oil Nigeria Ltd	10
Grand Total	73

Source: Field Survey, 2024.

For this research, the sample size was derived using the Cochran sample size formula. This is given as:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}} \quad \text{.....Eqn 1.}$$

Where:

n_o = Representative sample for proportions

n = Sample Size

N = Population Size

e = Allowable sampling error taken at 5% = 0.05

p = Proportion of success in the population from pilot survey = 0.50

q = proportion of failure in the population from pilot survey = 0.50

However:

$$n_0 = \frac{Z^2 pq}{e^2} \quad \text{.....Eqn 2.}$$

Where; Z^2 is the abscissa of the normal curve (1.96), q is 1-p and e is the allowable sample error (0.05). Substituting these values into equation 3.2, we have:

$$n_0 = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 385 \quad \text{.....Eqn 3.}$$

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Substituting n_o = 385 from equation 3 into equation 1, we have:

$$n = \frac{385}{1 + \frac{(385-1)}{73}}$$

$$n = \frac{385}{1 + 5.260273972602739}$$

$$n = \frac{385}{6.260273972602739} = 61$$

Having applied the Cochran sample size derivation statistic, the value derived was sixty-one (61). The researcher in the course of conducting this study used simple random sampling techniques. Simple random sampling was used as the sampling technique for the reason that the method ensures an equal chance of selection among the respondents but also, the method avoids, and minimizes bias hence enhancing validity and reliability. However, different numbers of copies of the questionnaire was shared with the respondents using the following method:

$$\frac{n}{N} \times \frac{Nh}{1}$$

Where:

n = Collective sample size for all the sampled manufacturing companies

N = Total population of the sampled manufacturing companies

Nh = Total population of the manufacturing companies

Therefore,

For Ozalla Plastics Enterprises Ltd

n = 61

N = 73

Nh = 18

Thus: $\frac{61}{73} \times \frac{18}{1} = 15$

For Comfort Triumphant Company Ltd

n = 61

N = 73

Nh = 14

Thus: $\frac{61}{73} \times \frac{14}{1} = 12$

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For Miilenium Manufacturing Ltd

n = 61

N = 73

Nh = 16

Thus: $\frac{61}{73} \times \frac{16}{1} = 13$

For Juhel Manufacturing Ltd

n = 61

N = 73

Nh = 15

Thus: $\frac{61}{73} \times \frac{15}{1} = 13$

For Jezco Oil Nigeria Ltd

n = 61

N = 73

Nh = 10

Thus: $\frac{61}{73} \times \frac{10}{1} = 8$

For the purpose of this study, primary data was employed. The data were collected with the aid of a questionnaire that was properly drafted using the 5-point Likert scale for the questionnaire. The questionnaire was adopted because it has the following advantages:
(a) It allows for a large number of information to be collected from a large number of people in a short time,
(b) The outcome of the questionnaire can be quickly and easily quantified by the researcher,
(c) It can be analyzed scientifically and when the data has been quantified, it can be used to compare and contrast other research.

A reliability test was conducted on the instrument to determine how consistent the responses were. The researcher utilized the test/retest method of reliability testing whereby the questionnaire was administered at two different times to the same group of respondents. The Cronbach Alpha reliability test was utilized to conduct the reliability test. A Cronbach alpha coefficient of 0.50 or more will be considered acceptable. The research instrument was certified by the researcher's supervisor and experts in statistics, measurement, and evaluation to ensure the validity of the questionnaire items. This was subjected to expert opinion to test the face and content validity. However, Average Variance Extracted (AVE) > 0.5 was treated as additional evidence of convergent validity, the construct validity of all variables involved

in the study will also be ascertained. Discriminant validity was also assessed by comparing the AVE with the squared correlations between the two constructs. The data was presented in tables and the corresponding values were expressed in percentages, mean, and standard deviation. The hypotheses were tested with simple linear regression (SLR) using the E-views statistical software version 11. Simple linear regression (SLR), also known as multiple regressions, is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. Simple regression is an extension of linear (OLS) regression that uses just one explanatory variable. The chosen method of data analysis for the research is multiple linear regression with the application of the Ordinary Least Squares (OLS) technique. There are multiple reasons why the application of this method is justified in this study. First, this method is compatible with the Effect of analysis. It is a method that estimates the effect of a set of independent variables on a dependent variable with reliable coefficients. This study estimates the effect of forensic accounting investigation parameters on forensic reporting fraud. Second, in addition to secondary data analysis, this study has an algorithm to handle primary data (Data extracted through questionnaires or interviews). Third, the multiple linear regression estimates linear models and this study is estimated on the grounds of linearity.

The four models that were estimated in this study are:

$FRF = bo + b_1BMT + \mu$ ……Eqn 4.

$FRF = bo + b_2ERT + \mu$ ……Eqn 5.

$FRF = bo + b_3RAT + \mu$ ……Eqn 6.

$FRF = bo + b_4DMT + \mu$ ……Eqn 7.

Where;

FRF = Financial Reporting Fraud

BMT = Benchmarking Technique

RAT = Risk Assessment Technique

DMT = Data Matching Technique

b's = Structural Parameters

μ = Stochastic Error Term

Decision Rule: In testing hypotheses, the calculated value of the test statistic will be compared with the critical or table value of the statistic. The critical or table value serves as a benchmark for accepting or not accepting the null hypotheses. In the study, the 95% confidence level will be applied. Therefore, the decision rule that will guide the research will

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be to accept the alternate if the calculated value is ≤ 5% (0.05) significance level, otherwise do not accept.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The Sixty-one (61) copies of the questionnaire were administered to respondents in accordance with the sample size determined earlier, and 57 copies were returned (that is a 93% response rate). This was derived through the following formula: QR/QD X 100 = 57/61 x 100 = 93%. Where QR is the questionnaire returned and QD represents the questionnaire distributed. The demographic characteristics of the respondents were carried out in this section with the application of tabled frequencies and percentages.

Table 2: Gender Distribution of the Respondents

Gender	Frequency	Percentage
Male	31	54
Female	26	46
Total	57	100

Source: *Field Survey, 2024.*

Table 2 reveals that 31 which represent 54% of the respondents are male while 46% of the respondents are female. This implies that given the respondents for this study, there are more males compared to female staff.

Table 3: Age Distribution of the Respondent

Age (In Years)	Frequency	Percentage
20-30	18	32
31-40	27	47
41-50	9	16
51 and above	3	5
Total	57	100

Source: *Field Survey, 2024.*

Table 3 clearly shows that respondents within the age range of 20 – 30 years of age constitute 32% of the entire respondents, 31 – 40 are 47%, 41 – 50 are 16%, and 51 years and above are just 5%. This clearly shows that the majority of the respondents are between 31 to 40 years of age.

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Table 4: Employs benchmarking forensic technique to dictate financial reporting fraud

Item	Frequency	Percentage
Strongly Agree	38	67
Agree	10	18
Undecided	-	-
Disagree	5	9
Strongly Disagree	4	7
Total	57	100

Source: *Field Survey, 2024.*

The respondents were asked if their company employs benchmarking forensic technique to dictate financial reporting fraud and from table 4, it can be clearly seen that 67% strongly agree, 18% agree, 9% disagree and 7% strongly disagree. This entails that majority of the respondents on average agree that their company employs benchmarking forensic technique to dictate financial reporting fraud.

Table 5: Utilizes other forensic methods aside benchmarking technique

Item	Frequency	Percentage
Strongly Agree	33	58
Agree	18	32
Undecided	1	2
Disagree	5	9
Strongly Disagree	-	-
Total	57	100

Source: *Field Survey, 2024.*

Table 5 displays that 33 of the respondents which represents 58% strongly agree that their company utilizes other forensic methods aside from benchmarking techniques. The table also shows that 32% agree, 2% of the respondents are undecided and 9% disagree that the company utilizes other forensic methods aside from benchmarking technique. The average conclusion is that the majority of the respondents agree that their company utilizes other forensic methods aside from benchmarking technique.

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Table 6 forensic technique is effective in detecting fraudulent financial reports

Item	Frequency	Percentage
Strongly Agree	31	54
Agree	19	33
Undecided	-	-
Disagree	4	7
Strongly Disagree	3	5
Total	57	100

Source: *Field Survey, 2024.*

From table 6, it can be clearly seen that out of the 57 respondents sampled, 31 of the respondents which represents 54% of respondents strongly agree that benchmarking forensic technique is effective in detecting fraudulent financial reports, 33% agree that benchmarking forensic technique is effective in detecting fraudulent financial reports, 7% disagree and 5% strongly disagree.

Table 7: Forensic method detects other fraudulent practices in our organization

Item	Frequency	Percentage
Strongly Agree	29	51
Agree	18	32
Undecided	3	5
Disagree	5	9
Strongly Disagree	2	4
Total	57	100

Source: *Field Survey, 2024.*

From table 7, it can be deduced that 51% of the respondents strongly agree that the benchmarking forensic method detects other fraudulent practices in our organization, 32% agree, 5% are undecided, 9% disagree and 4% strongly disagree. It can be concluded that the majority of the respondents agree that benchmarking forensic method detects other fraudulent practices in our organization.

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Table 8: Utilizes an exception reporting technique in evaluating the prevalence of fraudulent financial reporting

Item	Frequency	Percentage
Strongly Agree	33	58
Agree	17	30
Undecided	-	-
Disagree	6	11
Strongly Disagree	1	2
Total	57	100

Source: *Field Survey, 2024.*

From table 8, it can be seen that 58% of the respondents strongly agree that the company utilizes exception reporting technique in evaluating the prevalence of fraudulent financial reporting, 30% of the respondents agree, 11% disagree and 2% strongly disagree. This entails that on average, the respondents agree that the company utilizes exception reporting technique in evaluating the prevalence of fraudulent financial reporting.

Table 9: uses other forensic methods aside preventive exception reporting technique

Item	Frequency	Percentage
Strongly Agree	38	67
Agree	10	18
Undecided	-	-
Disagree	5	9
Strongly Disagree	4	7
Total	57	100

Source: *Field Survey, 2024.*

The respondents were asked if their company makes use of other forensic methods aside from preventive exception reporting technique and from table 9, it can be clearly seen that 67% strongly agree, 18% agree, 9% disagree and 7% strongly disagree. This entails that the majority of the respondents on average agree that their company makes use of other forensic methods aside from preventive exception reporting technique.

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Table 10: Exception reporting technique is effective in detecting financial reporting fraud

Item	Frequency	Percentage
Strongly Agree	26	47
Agree	18	32
Undecided	4	7
Disagree	6	11
Strongly Disagree	3	5
Total	57	100

Source: *Field Survey, 2024.*

The respondents were asked if the exception reporting technique is effective in detecting financial reporting fraud in their company and from the information in table 10, it can be clearly seen that 47% strongly agree, 32% agree, 7% are undecided, 11% disagree and 5% strongly disagree. This entails that more than 50% of the respondents agree that the exception reporting technique is effective in detecting financial reporting fraud in their company.

Table 11: Exception reporting technique detects other fraudulent practices

Item	Frequency	Percentage
Strongly Agree	30	53
Agree	25	44
Undecided	2	4
Disagree	-	-
Strongly Disagree	-	-
Total	**57**	**100**

Source: *Field Survey, 2024.*

The respondents were asked if the exception reporting technique detects other fraudulent practices in their company and from table 11, it can be clearly seen that 53% of the respondents strongly agree that the exception reporting technique detects other fraudulent practices in their company, 44% agree and just 4% are undecided. It can be deduced from this analyses that the majority of the respondents agree that the exception reporting technique detects other fraudulent practices in their company.

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Table 12: Uses risk assessment technique in evaluating the existence of fraudulent reporting fraud

Item	Frequency	Percentage
Strongly Agree	6	11
Agree	5	9
Undecided	-	-
Disagree	30	53
Strongly Disagree	16	28
Total	**57**	**100**

Source: *Field Survey, 2024.*

Table 12 shows that just 11% of the respondents strongly agree that this company uses risk assessment technique in evaluating the existence of fraudulent reporting fraud in their company, 9% agree, 53% disagree and 28% strongly disagree. The analysis clearly shows that on average, the companies do not use risk assessment techniques in evaluating the existence of fraudulent reporting fraud in their company.

Table 13: Data-matching technique in fraud detection activities in our company

Item	Frequency	Percentage
Strongly Agree	9	16
Agree	5	9
Undecided	-	-
Disagree	29	51
Strongly Disagree	14	25
Total	57	100

Source: *Field Survey, 2024.*

From able 13, it is clearly seen that 16% of the respondents strongly agree that their company utilizes data-matching techniques in fraud detection activities in their company, 9% agree, 51% disagree and 25% disagree. This entails that on average, most of the respondents agree that their company does not utilize data-matching techniques in fraud detection activities.

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4.2 Test of Hypotheses

In this section of the study, the hypotheses specified were analyzed based on the decision rules. The data was analyzed with the regression technique and the probability statistic was used to accept or reject the null hypothesis.

4.2.1 Hypothesis One

Ho_1: Benchmarking technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

Table 14: Regression Result

Dependent Variable: Financial Reporting Fraud

Method: Least Squares

Date: 07/26/24 Time: 18:30

Sample: 57

Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.903308	9.084418	0.319592	0.7575
Benchmarking Technique	0.416508	0.251521	4.655955	0.0023

Source: Researcher's Computation Using E-view 10.

Decision: From the above analysis, it is clearly seen that the probability value (prob) of benchmarking technique is 0.0023 and this value is less than 0.05(5%). This results in the non-acceptance of the null hypothesis (Ho) and acceptance of its alternative. Hence; benchmarking technique has significant effect on financial reporting fraud in manufacturing firms in Nigeria.

The result as shown from the analysis revealed that benchmarking technique has a positive and significant effect on financial reporting fraud in manufacturing firms in Nigeria. This is in agreement with the findings of Henry and David (2020) who investigated the relationship between benchmarking forensic investigation, and the organizational performance of selected telecommunications in Sri Lanka and discovered that benchmarking technique has a positive relative to the organizational performance of the selected telecommunications companies in Sri Lanka. This finding is against the findings of Benjamin (2019) who carried out an empirical analysis of the effect of benchmarking forensics on fraud reporting in selected

deposit money banks in Ghana and found that benchmarking forensic technique has no significant effect on financial fraud reporting for the period under analysis.

4.2.2 Hypothesis Two

Ho_2: Exception reporting technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

Table 15: Regression Result 2

Dependent Variable: Financial Reporting Fraud

Method: Least Squares

Date: 07/26/24 Time: 19:26

Sample: 57

Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.61900	14.89278	1.451643	0.1847
Exception Reporting Technique	0.310096	0.536038	0.578496	0.0088

Source: Researcher's Computation Using E-views

Decision: From the above analysis, it is clearly seen that the probability value (prob) of the exception reporting technique yielded 0.0088 and this value is less than 0.05(5%). This compels the rejection of the null hypothesis (Ho) and acceptance of its alternative. Hence; exception reporting technique has significant effect on financial reporting fraud in manufacturing firms in Nigeria.

This finding reveals that the exception reporting technique has a significant effect on financial reporting fraud in manufacturing firms in Nigeria. This finding is in tandem with the findings of Oluwaseun (2020) who investigated the effect of exception reporting forensic investigation on reducing fraud in the Nigerian banking sector and shows that exception reporting forensic investigation is significantly useful in fraud control and reduction in the Nigerian banking industry and positively influences banks' performance. This finding is also in corollary with the findings of Elizabeth and George (2018) who examined the effect of exception-reporting forensic investigation methods in corporate fraud deterrence in Nigerian banks and found that there is a significant relationship between the exception-reporting forensic investigative methods and corporate fraud deterrence.

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4.2.3 Hypothesis Three

Ho_3: Risk assessment technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

Table 16: Regression Result 3

Dependent Variable: Financial Reporting Fraud

Method: Least Squares

Date: 07/26/24 Time: 20:19

Sample: 57

Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.761477	12.86384	0.370144	0.7209
Risk Assessment Technique	0.985143	0.534603	1.842758	0.1026

Source: Researcher's Computation Using E-views

Decision: From the above analysis, it is clearly seen that the probability value (prob) of the risk assessment technique yielded 0.1026 and this value is greater than 0.05(5%). This compels the acceptance of the null hypothesis (Ho). Hence; the risk assessment technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

The finding from this objective revealed that risk assessment technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria. This is in line with the findings of Obi (2018) who examined the correlations of utilizations of risk assessment forensic investigative techniques and the extent of financial fraud by top management. The result from the study shows that there is evidence of a significant negative correlation between risk assessment techniques and financial fraud in the selected financial institutions. The finding of the present study is not in line with the findings of Bernard (2017) who examined the role of risk assessment forensic investigation in reducing financial corruption and discovered that there is a significant relationship between the risk assessment forensic accounting methods and the effectiveness of the control and auditing bodies to detect financial corruption cases.

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4.2.4 Hypothesis Four

Ho_4: The data matching technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

Table 16: Regression Result 4

Dependent Variable: Financial Reporting Fraud

Method: Least Squares

Date: 07/26/24 Time: 20:55

Sample: 57

Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.291224	0.441464	9.720440	0.0000
Data Matching Technique	-0.013415	0.040675	-0.329821	0.7500

Source: Researcher's Computation Using E-views

Decision: From the above analysis, it is clearly seen that the probability value (prob) of data matching technique yielded 0.7500 and this value is greater than 0.05(5%). This compels the acceptance of the null hypothesis (Ho). Hence; data matching technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria.

Here it was discovered that the data matching technique has no significant effect on financial reporting fraud in manufacturing firms in Nigeria. The finding of this study is not in agreement with the findings of Clara and Joseph (2018) who empirically estimated the effect of data-matching forensic techniques and fraud detection in selected financial institutions in Imo state, Nigeria. The key findings indicate that the data matching technique was an effective forensic technique for fraud detection. It is also not in line with the findings of Benson and Fred (2021) who conducted a study on the effect of data-matching techniques on financial reporting fraud in manufacturing companies in Ethiopia. The study revealed that a data matching technique has a positive and significant effect on the financial reporting fraud of manufacturing companies in Ethiopia.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, the following recommendations are suggested:

1. In the study, results revealed that the benchmarking technique has a significant effect on asset misappropriation in manufacturing firms in Nigeria. Given this, companies should ensure them optimally and continually engage in benchmarking techniques when investigating the financial status of their firms.
2. It was discovered in the study that exception reporting technique has a significant effect on asset misappropriation in manufacturing firms in Nigeria. On the premise, companies should ensure they update to the latest exception reporting standards as it also helps in checkmating frauds and accounting irresponsibility.
3. It was discovered in the study that the risk assessment technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria. Based on this, it is therefore recommended that the application of this technique should be minimized as a strategy for fraud detection.
4. In the course of the study, it was discovered that the data matching technique has no significant effect on asset misappropriation in manufacturing firms in Nigeria. Based on this finding, non-financial companies should stick more to benchmarking and exception reporting techniques than data matching techniques.

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