ANALYSIS OF FRAUD DETECTION AND PREVENTION STRATEGIES IN THE NIGERIAN PUBLIC SECTOR

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Abstract

The research work is designed to analyze the incidence of fraud in the Nigeria public sector and the means of achieving a successful management of such fraud. To achieve this objective some research questions were raised, hypothesis were formulated and related literature to the study were reviewed. The population of the study consisted of thirty (30) ministries in Nigeria from which sample size was drawn to twenty eight (28) ministries using Yaro Yamane's formula. Three hundred and ninety two (392) copies of the questionnaire were distributed and three hundred and fifty (350) were filed and retrieved. Data collected were presented in Tables and analyzed using the means score, while analysis of variance (ANOVA) was used in testing the hypotheses with the aid of SPSS17.0. It was found that, there is positive and significant relationship between management policies and Nigeria public sector fraud , fraud prevention and detection methods have influence on Nigeria public sector fraud , there is no strong internal control system in the Nigeria public sector and management integrity has influence on fraud prevention in the Nigeria public sector. The research recommends that, there is need for developing strong management policies, public sector should take advantage of modern accounting and auditing software to enhance efficient and smooth detection of fraud, there need to build up strong internal control system in the public sector and management integrity should be enforced.

Key Words: Analysis, Fraud, Detection, Prevention, Strategies and Public Sector.

Introduction

Fraud is an act of deception intended for personal gain or loss to another party. Fraud as a crime embraces all the multifarious means which a human ingenuity can device which are resorted to by an individual to get an advantage over another by false representation. This means that fraud can

be perpetrated in the course of personal relationship in religious organisations, social clubs etc. Seetharaman, Sentivelmurugan & Periyananyagam (2004). Fraud causes tremendous loss to the business world and creates morale problems in the work place. When we are stripped of our money by fraudulent means the consequences can be devastating. Fraud losses are serious problems to organizations that need to be managed, controlled and monitored.

The Association of Certified Fraud Examination (ACFE) identifies three main categories of fraud that affects organisations; the first of these is asset misappropriations, which involves the theft or misuse of an organizations asset. Examples include theft of inventory or cash, false invoicing, accounts receivable fraud and payroll fraud. The second category of fraud is fraudulent financial statements which are the most costly with median loss of $2million among the 99 financial misstatements included in the 2008 ACFE study. The final of the three fraud categories and most common is corruption occurring in 27 percent of all fraud cases (AICPA, 2009). Corruption includes activities such as the use of bribes or acceptance of ''Kickbacks'' improper use of confidential information, conflicts of interest and collusive tendering.

Fraud has been cited as Nigeria's biggest single problem both in public and private sectors. It has not only snapped public trust in government but it has cost the government and people of Nigeria billions, due to corrupt management of public companies unrealized public projects and deteriorated infrastructure caused by looted maintenance budget. It is against this background that the researcher intends to analyze the issue of fraud and strategies to manage it.

Statement of the Problem

It has been observed that in Nigeria huge amount of money is lost through fraud and other criminal temptations which drain the nation's meager resources through fraudulent means with its far-reaching and attendant consequences on the development of the nation. Thus, like Kamaludeen (1991) observes "billions of naira is lost in the public sector every year through fraudulent means" this he argues represents only the amount that is ferreted out and made public. Indeed much more substantial or huge sums are lost in undetected frauds or those that are for one reason or the other hushed up. Cases of frauds in the public sector are so pronounced that every one in every segment of the public service could seem to be involved in one way or the other in some of those nasty acts. This assertion is not difficult to appreciate if we accept and adopt the simple definition of fraud as any deliberate false act aimed at deceiving or harming any party, individual or corporate body, in any manner. Haladu, (1991) put it starkly when he observes that:

> The bane of fraudulent administration in Nigeria has since the oil boom year, a period under which the forgoing observation becomes relevant, has been the existences of structurally weak control mechanism, which create a variety of loopholes that have tended to facilitate and sustain corrupt practices. This is coupled of course, with the fact that there is a near total absence of the notion and ethics of accountability in the conduct of public affairs in the country.

What all these tend to expose is that there is a management or operational problem in the Nigeria public sector in the area of financial or accounting control. Thus, one needs not to wonder much how devastatingly frauds have compromised the administrative competence, performance capacity and general credibility of the public sector. Initial estimates of major projects become little fractions of ultimate costs paid; original cash projections produce less than half of the

benefits expected and projects which seemed technically feasible and economically viable , turned out "while elephant " if not abandoned, with serious implications for growth and development.

Research Questions

i. What is the relationship between management policies and fraud in Nigerian public sector?
ii. How do the fraud prevention and detection method influence frauds in the Nigerian public sector?
iii. What is the relationship between internal control system and fraud in Nigerian public sector?
iv. How sound is the integrity of public sector management team in Nigerian public sector fraud prevention?

Objectives of the Study

The primary objective of this study is to analyze the incidence of fraud in the Nigerian public sector and the means of achieving a successful management of such fraud. Specifically, the study aims at achieving the following objectives:

    i. Examine the relationship between management policies and fraud in Nigerian public sector.
    ii. Examine the influence of fraud prevention and detection methods on fraud in Nigerian public sector.
    iii. Examine the relationship between internal control system and fraud in Nigerian public sector.
    iv. Examine the relationship between management integrity and fraud prevention in Nigerian public sector.

Research Hypotheses

The study will be guided by the following hypothesis:
Ho1: There is no relationship between management policies and Nigerian public sector fraud.
Ho2:   Fraud prevention and detection methods have no influence on Nigerian public sector fraud.
 Ho3: There is no strong internal control system in the Nigerian public sector.
Ho4:   Management integrity has no influence on fraud prevention in Nigerian public sector.

Conceptual Issues

Fraud as a concept has defiled all attempts by scholars and policy makers to generate a universal definition. But despite this the conceptualization offered by Black (1979) in Bierstaker, Brody, & Pacini, (2006) widely cited where fraud is defined as "all multifarious means which human ingenuity can devise and which are resorted to by one individual to get advantage over another by false suggestions or suppressions of the truth. It includes all surprises, tricks, cunning or dissembling, and any unfair way which another is cheated. Accounting fraud involves an intentional action, leading to a misstatement in the financial statements. Webster's New Dictionary defines fraud as "intentional deception to cause a person to give up property or some lawful right". Federal Bureau of investigation agent delineated fraud best as "the fraudulent

conversion and obtaining of money or property by false pretences: included are larcenies by bailed and bad checks, forgeries and counterfeiting" (Farrell & Franco 1999). Apara (1993) in Sabo (2003) defined fraud as "all offences against ethical practices. It includes embezzlement theft or attempt to steal or acts of unlawfully obtaining, missing or harming the assets or reducing the liabilities of banks", Mani, (1993) shares this view but added that a single definition may be inadequate; thus defines fraud as involving "the use of deception to obtain an unjust or illegal financial advantage; intentional misstatement in, or omissions of amounts or disclosure from an entity's accounting records or financial statement ".

Public sector fraud is where criminals seek to exploit government grant and compensation schemes for the personal gain. This type of fraud affect all tax payers by stealing public money the criminals will produce fake document and applications to deliberately deceive and exploit certain schemes which are in place to provide help to applicants, (Abiola, 2009). A suitable summary of these definitions within the context of our discussions tends to suggest that fraud is an act of obtaining financial value by trick or deceit through inflation of contract, kickbacks, paying or collecting money for non existing commodity, misappropriation of cash, manipulation of accounts to disclose false position, wages fraud, computer frauds, ghost workers etc.

Empirical Review

Much prior research addressing fraud prevention and detection methods has addressed 'red flags'. For example; Albrecht and Romney (1986) found in a survey of practicing auditors that 31 flags related to internal control were considered better predictors of fraud. The survey contained a list of 87 red flags. Loebbecke and Willingham (1989) in Gerald, Hillision & Pacini, (2004). offered a model that considers the probability of material financial statement misstatement due to fraud as a function of three factors: First, the degree to which those in authority in an entity have reason to commit management fraud; secondly, the degree to which conditions allow management fraud to be committed; thirdly, The extent to which those on authority have an attitude or set of ethical value that would facilitate their commission of fraud. Loebbecke and Willingham (1989) in Gerald, Hillision & Pacini (2004) used the red flags approach to develop another concept model to evaluate fraud probability. A survey instrument was used to query 277 audit partners of a big 6 firm. These researchers concluded that an auditor's assessment of the client's internal controls is significant in evaluating the probability of fraud. Pincus (1989) found that auditors who did not employ reflags checklists outperformed those who did in an experimental setting. In another study, auditors were found to hold different opinions concerning the degree of fraud risk indicated by various red flag indicators Lanza (2000).

Hylas and Ashon (1982) in Sabo (2003) performed an empirical study of 281 errors requiring financial statement adjustments on 152 audits. This researcher found that analytical review procedures and discussions with clients predicted a large percentage of errors. Wright and Ashton (1989) investigated the fraud detection effectiveness of client inquire, expectations based on prior years, and analytical reviews from a sample of 186 engagements involving 368 proposed audit adjustments. These researchers discovered that about half of the errors were signaled by the three procedures noted. Blocher (1992) determined that only four out of 24 fraud cases were signaled by analytical procedures. Calderon and Green (1994) in Abiola (2009) found that analytical procedures were the initial signal in 15 percent of 455 fraud cases. Kaminskib and Wetzel (2004)

in Abiola (2009) performed a longitudinal examination of various financial rations on 30 matched pairs of firms. Using chaos theory methodology, metric tests were run to analyze the behavior of time - series data. These researchers found no differences in the dynamics between fraudulent and non-fraudulent firms providing evidence of the limited ability of financial ratios to detect fraud. Apostolou (2001) survey 40 internal and external auditors on the fraud risk factors contained in SAS82. They document management characteristics as the most significant predicator of fraud followed by client operating /financial stability features, and industry conditions. Chen and Sennetti (2005) in Abiola (2009) apply a limited, industry specific strategic system auditing lens and a logistic regression model to a match sample of 52 computer firms accused of fraudulent financial reporting by the SEC. The model achieved an overall prediction rate of 91 percent for fraud and non-fraud firms.

Moyes and baker (2003) in Abiola (2009) conducted survey of practicing auditors concerning the fraud detection effectiveness of 218 standard audit procedures. Results indicate that 56 out of 218 procedures were considered more effective in detecting fraud. In general, the most effective procedures were those yielding evidence about the existence and or the strength of internal control. McNamee (1999) introduced risk assessment as a tool to help to detect and deal with fraud in operations of organizations. He emphasized that managers had to take responsibilities to locate fraud. Risk assessment could also be used as a decision making tool to assist managers sort through a number of possibilities and single out those with the greatest payoff. Furthermore, managers could use this technique to identify and prioritize the most likely business processes where potential fraud could occur. McNamee further analyzed the three elements of risk assessment. First risk identification to determine the consequences of the risk and likelihood of its occurrence. Last risk prioritization to determine the appropriate resources to manage the risk.

To commercial Angles' Newsletter (2001) in Sabo (2003), the best way of preventing fraud was to understand why it happened. Fraudsters generally identify an opportunity for exploiting a weakness in the internal control procedures and then assess whether their potential rewards would outweigh the penalties should they be caught. In addition the paper introduced the two-stage processes of fraud prevention. First an organization should ensure that potential fraudsters believe they will be caught fraud deterrence. Introduction and enforcement of new controls would reduce the opportunities for perpetrators. A regular control was effective and normally required little management and a healthy corporate culture to detect and consequently deter fraud. According to department of public service and administration South African (2002) in Sabo (2003), fraud strategies exist in South Africa and in public services in particular. In addition to a strong political commitment, South Africa has a solid legislative, regulatory and institutional frame work, largely put in place since 1994. The public services utilizes good management practices including a code of conduct, modern employment practices, financial disclosures, fair procurement and a progressive disciplinary system for ensuring economic utilization of all state resources. These hard not helped to eliminate fraud in their system anyway. Ekechi (1990) stated that measures aimed at fraud prevention include dual control, operational manual, graduated limits of authority, lending units, reporting systems, close circuit television, establishment of inspectorate units, referencing on presentation of document of value, segregation of duties, verification of signatures, controls of dormant accounts, detection of passport sized photos, close watch on the lifestyle of staff and coding and testing of telex messages. Sabo (2003) reviewed some techniques already adopted in Nigeria to mitigate fraud as enacting financial laws and regulations,

administration of justice to fraudsters by court and tribunals which he said are all to no avail. Nevertheless he suggested strong and functioning accounting internal control and audit systems, manned by competent and morally upright staff, improving the standard of living of the general population and d empowering them economically. He also suggested computerization of all receipts and payments and restricting access to the computer only to specially assigned staff. Equally he suggested that offices of the auditor general are at federal, state and local government should be made more functional and be taking out civil services etc.

In view of the gravity of the fraud in our system, management of various organizations have employed different measures blowing, red flags with internal control as the most frequently suggested measure yet fraud has continued in upward trend. This has called the effectiveness of these measures into question. The view of literature also revealed that majority of high level fraud in the public sector are perpetrated by management who suppose to be the custodians of internal control. The researcher therefore intends to analyze management integrity to ascertain how this can enhance fraud prevention and detection, also to test the applicability and effectiveness of some fraud prevention and detection techniques in Nigerian system.

Theoretical framework

Part of the objective of this study focuses on developing a model for fraud management in the public sector. There have been some existing theories on fraud many studies suggest that fraud is more likely to occur when someone has an incentive (pressure) to commit fraud, weak controls or oversight provide an opportunity for the person to commit fraud and the person can rationalize the fraudulent behavior (attitude). The theoretical frame work of this study is on factors that can cause or prevent fraud as embedded on the three pronged framework commonly known as fraud triangle.

Public sector fraud has quickly increased over the years and could be attributed to weak anti-fraud policy, low level of risk management system, low management integrity, weak internal control, inadequate application of fraud prevention methods and software. These factors among others cause fraud in the public sector hence the diagram below:
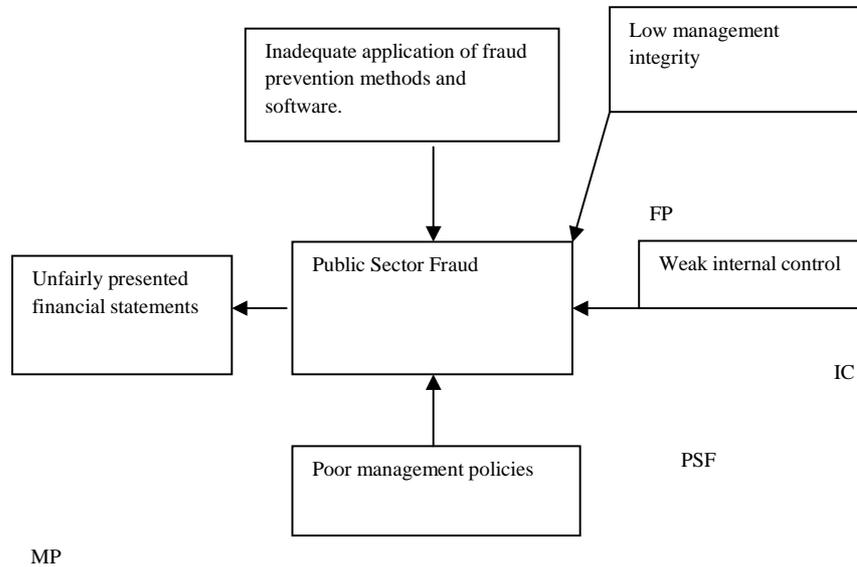
Where PSF =Public sector fraud, IC = Internal Control , FP=Fraud Prevention.

RESEARCH METHODS AND DESIGN

Since this work is aimed at gaining useful insight into fraud management strategies in Nigeria Public Sectors, the researcher employed survey research method in order to achieve the objective. The determination implies that survey method involve obtaining data from respondents. In this research, data was collected from both primary and secondary sources.

The population comprises of thirty (30) ministries in Nigeria. Due to the peculiar nature of fraud management, the elements of the population considered in this research are Accountants, Auditors and Chief Executive Officer of the ministries. The researcher determined the sample size using Yaro Yamane's formula which is used for determining the sample size of finite population to arrive at twenty eight (28) ministries. The research adopted Random sampling technique in selecting among the ministries. Three hundred and ninety two (392) copies of Questionnaire were distributed to the selected ministries in Nigeria out of which three hundred and fifty (350) were fully filled and returned.

Data Analysis Techniques
Using the descriptive data approach the data generated from the study were presented in tables and analyzed using the mean scores; while Analysis of Variance (ANOVA) was used to test all the hypotheses with the aid of SPSS 17.0 Version.

Decision Rule: The decision for the hypotheses is to accept the alternate hypotheses if the calculated value of the test statistic is greater than the tabulated value and to reject the alternate hypotheses if the calculated value of the test statistic is less than the tabulated value. The hypotheses will be tested at 0.05 significant levels.

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Data presentation and analysis

The answers received from the respondents were presented in the table and score were used for analysis in such a way that makes it easier to the readers to comprehend.

Table 4.1: Fraud Activities

S/N	FRAUD	1-5 Times	6-10 Times	11-15 Times	16-20 Times	21and above	No of respondents N	Total sale FX	Mean score FX / N
1	Embezzlement; Taking money which one has been entrusted with on behalf of another party	15	36	39	100	160	350	1365	3.90
2	Advance fees fraud	36	40	28	100	146	350	1330	3.80
3	Benefit fraud (committing fraud to get government benefit)	200	100	30	10	10	350	580	1.70
4	Creation of false companies or long firms	10	11	28	100	201	350	1521	4.35
5	Forgery of documents or signatures	12	10	28	110	190	350	1506	4.30
6	Asset misappropriation	15	30	75	100	130	350	1350	3.86
7	Pay roll fraud	15	10	15	90	220	350	1540	4.40
8	Fraudulent financial statement	10	15	25	120	180	350	1495	4.27
9	Use of bribes and kickback	15	40	35	100	160	350	1400	4.00
10	Identify theft	18	22	30	180	100	350	1372	3.92
11	False invoice	12	28	30	100	180	350	1458	4.17
12	Theft of inventory or cash	100	90	80	40	40	350	840	2.40

SOURCE: Field Survey (2015)

The decision rule is to accept where the mean score is 3.0 and above and to reject where the mean score is less than 3.0. From the analysis on table 4.1 above, 15 respondents are on the opinion that embezzlement; - taking money which one has been entrusted with on behalf of another party occurs 1-5 times, 36 said 6-10 times, 39 respondents opined on 11-15 times, 100 respondents said 16-20 times and 160 respondents were on the opinion that embezzlement occurred 21 times and above in their ministries. The mean score of 3.90 implies that embezzlement in the ministries occurred very frequent which amount to high level of fraud committed in the ministries in Nigeria.

On the issue of advance fee fraud, 36 respondents are on the opinion that advance fee fraud penetrated in their ministries up to 1-5 times, 40 respondent said it is from 6-10 times, 28 respondent opined that it is 11-15 times, 100 respondents said 16-20 times and 146 respondent said from 21 times and above. The mean score of 3.80 implies that advance fee fraud occurred very often in the ministries.

Benefit fraud (committing fraud to get government benefit occurred in the ministries 1-5 times as responded by 200 respondents, 100 respondents said 6-10 times , 30 respondents said 11-15 times, 10 respondents said from 21 times and above. The mean score of 1.70 implies that frauds committed in the ministries are not mostly for the benefit of government.

In respect of creation of false companies to assist in committing fraud, 10 respondents are on the opinion that fraud is penetrated in the ministries through this means 1-5 times, 11 respondents said 6-10 times. 28 respondents said 11-15 times, 100 respondents opined that it is 16-20 times and 201 respondents said 21 times and above. The mean score of 4.35 implies that creation of false companies become one of the common means to which people used in committing fraud in the ministries.

As regards forgery of document or signature, 12 respondents are on the opinion that fraud is penetrated in the ministries through forgery of documents or signature 1-5 times, 10 respondents said 6-10 times, 28 respondents said 11-15 times, 110 respondents said 16-20 times and 190 respondents said 21 times and above. The mean score of 4.30 implies forgery of documents or signature in committing fraud in very high in the ministries.

As regards assets misappropriation, 15 respondents said it occurred in the ministries from 1-5 times , 30 respondents said 6-10 times, 75 respondents said 11-15 times, 100 respondents said16-20 times while 130 respondents opined that it is from 21 times and above. The mean score of 3.86 implies that assets misappropriation is very high in the ministries as one of the means of penetrating fraud.

On the issue of pay roll fraud, 15 respondents said pay roll fraud is penetrated in the ministries 1-5 times, 10 respondents said 6-10 times, 15 respondents said 11-15 times, while 90 respondent said 16-21 times, and 220 said from 21 times and above. The mean score of 4.40 shares the high rate to which fraud is penetrated in the ministries through pay roll.

As regards fraudulent financial statements, 10 respondents said fraud is penetrated by this means 1-5 times, 15 respondents said 6-10 times, 25 respondents said 11-15 times , 120 respondents said 16-20 times and 180 respondents said from 21 times and above. The mean score of 4.27 implies that fraud penetration in the ministries through fraudulent financial statements presentation is more common and occurred most frequent.

On the issue of bribes and kickback, 15 respondents are on the opinion that fraud penetration in this area is from 1-5 times, 40 respondents said 6-10 times, 35 respondents said 11- 15 times, 100 respondent said 16-20 times while 160 respondents said from 21 times and above. The mean score of 4.00 implies that most often fraud penetration in the ministries is by means of bribery and kickback.

In respect to identity theft, 18 respondents said it is penetrated in ministries 1-5 times, 22 respondents said 6-10ntimes , 30 respondents said 11-15 times , 180 respondents said 16-20 times , while 100 respondents said from 21 times and above. The score of 3.92 implies that there is high level of identity theft in the ministries.

As regard false invoice , 12 respondents are on the opinion that fraud is penetrated in the ministries through false invoice 1-5 times, 28 respondent said 6-20 times while 180 respondents

said from 21 times and above. The mean score of 4.17 implies that most of the fraud penetration in the ministries is through false invoice and the rate to which it occurred in very frequent and high.

On the issue of theft inventory or cash , 100 respondents opined that it occurred 1-5 times, 90 respondents said 6-10 times, 80 respondent said 11-15 times, 40 respondents said 16-20 times while 40 respondents said from 21 times and above. The mean score of 2.40 implies that theft of inventory or cash still occur in the ministries but not very regular.

Table 4.2: Management Policies

S/N	Management policies	5 Very High	4 High	3 Average	2 Low	1 Very low	No of Respondents	Total score FX	Mean score FXC/N
1	Corporate code of conduct/ ethics policy	20	30	200	80	20	350	2000	2.86
2	Preference check upon employees	19	11	180	120	20	350	939	2.86
3	Fraud reporting policy	10	30	140	100	70	350	860	2.46
4	Fraud prevention and detection training	28	12	150	140	20	350	938	2.68
5	Ethics training	19	30	102	100	99	350	820	2.34
6	Development of automated fraud prevention and detection system	3	7	40	100	200	350	563	1.61
7	Development of sound information security policy and procedures	11	19	150	70	100	350	821	2.35
8	Training on computer fraud	3	7	40	100	200	350	563	1.61
9	Proper recruitment system	14	06	100	100	130	350	724	2.07

SOURCE: Field Survey (2015)

As regards management policy on corporate code of conduct / ethics , 20 respondents opined that it is very high, 30 respondents said the policy is high, 200 respondents said the policy is average, 80 respondents are on the opinion that the policy is low while 20 respondents said the policy is very low. The mean score of 2.86 shows that management policy on corporate code of conduct/ ethics in the ministries is low and served an avenue for committing fraud.

On the issue of management policy on reference checks on employees, 19 respondents are on the opinion that it is very high, 11 respondents said the policy is high, 180 respondent said the policy is average, 120 respondents opined that it is low while 20 respondents said it is low. The mean score of 2.68 implies that management policies on reference check on employees in low and served an avenue for fraud in the ministries.

In respect to management policy on fraud reporting, 10 respondents are on the opinion that the policy is very high, 30 respondents said the policy is high, 140 respondents said the policy is average, 100 respondents said the policy is low and 70 respondents said the policy is very low. The mean score of 2.46 implies that management policy on fraud reporting is low and does not discouraged employees in committing fraud in the ministries.

As regard management policy on fraud prevention and detection training, 28 respondents are on the opinion that management policy on fraud prevention and detection training is very high, 12 respondents said the policy is average, 140 respondents said it is low while 20 respondents said the policy on fraud prevention and detection training is low. The mean score of 2.68 implies that ministries have not been training people on fraud prevention and detection as a matter of policy.

In respect to management policy on ethics training, 19 respondent said the policy is very high, 30 respondents said the policy is high, 102 respondents said the policy is average, 100 respondents opined that the policy is low while 99 respondents said the policy is very low. The mean score of 2.34 shows, that, the management policy on ethics is low.

On the issue of deployment of automated fraud prevention and detection system, 3 respondents said that policy on development of automated fraud prevention and detection system is very high, 7 respondents said the policy is high, 40 respondent said the policy is average, 100 respondents said the policy is low, while 200 respondent said the policy is very low. The mean score of 1.61 shows that deployment of automated fraud prevention and detection system is very low, which implies that ministries do not give much attention on fraud detection and prevention.

In respect of sound information security policy and procedures, 11 respondents opined that management policy on the matter is very high, 19 respondents said that the policy is high, 150 respondent said the policy is average, 70 respondents said the policy is low , while 100 respondents said the policy is very low . The means score of 2.35 shows that deployment of sound information security policy and procedures that would reduce fraud in the ministries is low.
On the issue of training a computer fraud , 65 respondent are on the opinion that management policy on training on computer fraud is very high, 71 respondents said the policy is high, 114 respondents said the policy is average, 50 respondents said the policy is low , while 50 respondents said the policy is very low. The mean score of 1.61 shows that training on computer fraud is poor.

As regard proper recruitment system, 14 respondents are on the opinion that the proper recruitment system in the ministries is very high, 6 respondents said that the policy is high, 100 respondent said the policy is average, 100 respondents said the policy is low, while 130 respondent said the policy is very low. The mean score of 2.07 shows that management policy on proper recruitment system is low and created more avenues for fraud to be committed in the ministries.

Table 4.3: Internal Control

S/N	Internal control	5 Very high	4 High	3 Average	2 low	1 Very low	No of respondent N	Total score FX	Mean score FX/N
1	Operation of internal audit department	100	150	50	21	29	350	1321	3.77
2	People intensive internal control automated content	150	140	20	20	20	350	1430	4.09
3	Proper accounting system	50	50	100	50	100	350	950	2.71
4	Recruitment of skilled and computer staff	30	20	150	100	50	350	930	2.66
5	Cleared organizational structure	150	100	40	32	28	350	1362	3.89
6	Segregation of duty	130	100	40	35	45	350	1285	3.67
7	Staff rotation	50	30	135	105	30	350	1015	2.90
8	Constant supervision of staff on e-environment	31	24	200	50	45	350	996	2.85
9	Development of automated anti-functionality	10	15	125	100	100	350	785	2.24
10	Periodic vulnerability assessment penetration testing and information system review	12	28	150	100	60	350	882	2.52
11	Adequate verification of account	3	2	200	90	55	350	858	2.45

SOURCE: Field Survey (2015)

From the analysis on table 4.3 above , the responses from 100 respondents shows that operations of internal audit department in the ministries is very high, 150 respondents said in high, 50 respondents are on the opinion that it is average, 21 respondents said the operations of internal audit dependent is low while 29 respondents said it is very low. The mean score of 3.77 implies that operations of internal audit department in the ministries are very effective.

As regard the issue of people intensive internal control with automated content, 150 respondents said very high, 140 respondents said is high, 20 respondents said is average, 20 respondents said is low while the remaining 20 respondent said is very low. The mean score of 4.09 implies that people intensive internal control with automated content is very high in the ministries.

As regard proper accounting system, 50 respondents said it is very high, 50 respondents said it is high, 100 respondents said it is average, 50 respondents said it is low and the other 100 respondents said it is very low. The mean score of 2.71 implies that the keeping of proper accounting system in the ministries is low.

On the issue of recruitment of skilled and competent staff, 30 respondents are on the opinion that it is very high, 20 respondents said it is high, 150 respondent said it is average, 100 respondents

said it is low while 50 respondents said it is very low. The mean score of 2.66 shows, that, the recruitment of killed and competent staff is low.

In respect of clear organizational structure, 150 respondents said it is very high, 100 respondents said it is high, 40 respondents said it is average, 32 respondents said it is low while 28 respondents said it is very low. The mean score of 3.89 shows, that, there is clear organizational structure in the ministries. As regard segregation of duty, 130 respondents said that segregation of duty in the ministries is very high, 100 respondents said it is high, 40 respondents said it is average, 35 respondent said it is low while 45 respondents said it is very low. The mean score of 3.67 shows, that, the level of segregation of duty in the ministries is very high.

On the issue of staff rotation, 50 respondents said it is very high, 30 respondents said it is high, 135 respondents said it is average 105 respondents said it is low while 30 respondents said it is very low. The mean score of 2.90 shows, that, there is low level of staff rotation in the ministries. In respect of constant supervision of staff on e-environment, 31 respondents said it is very high, 24 respondent said it is high, 200 respondents said it is average, 50 respondents said it is low, while 45 respondents said it is very low. The mean score of 2.85 shows, that, there is no constant supervision of staff on e-environment in the ministries. As regard deployment of automated anti-fraud solution with alert functionality, 10 respondents said it is very high, 15 respondents said it is high, 125 respondents said it is average, 100 respondents said it is low while 100 respondents said it is very low. The mean score of 2.24 shows, that, there is no deployment of automated anti-fraud solution with alert functionality in the ministries.

On the issue of periodic vulnerability assessment penetration testing and information system review, 12 respondents said it is very high, 28 respondents said it is high, 150 respondents said it is average, 100 respondents said it is low while 60 respondents said it is very low. The mean score of 2.52 implies that there is no periodic vulnerability assessment penetration testing and information system review in the ministries. In respect of adequate verification of account, 3respondents are on the opinion that the adequate of verification of account in the ministries is very high, 2 respondents said it is high, 200 respondents said it is average, 90 respondents said it is low, while 55 respondents said it is very low. The mean score of 2.45 implies that the adequate verification of account in the ministries is low.

Table 4.4: Management Integrity

S/N	Management integrity	5 very high	4 high	3 average	2 low	1 very low	No of respondent	Total score FX	Mean score FX/N
1	Encourage communicating employee about behavior that is not acceptable and how to report them	0	0	100	120	130	350	670	1.91
2	Create culture of honesty, openness and assistance	5	8	57	80	200	350	588	1.68
3	Create a positive work environment that encourages honesty	15	10	100	105	120	350	745	2.13
4	Wiliness to adhere strictly to the rules of the game	0	20	110	130	90	350	760	2.17
5	Management supportive attitude towards internal control at the time independency competence and exemplary leadership	0	0	50	100	200	350	550	1.57
6	Cancel some financial document of the ministries prior to audit check	200	100	15	20	15	350	1500	4.29

SOURCE: Field Survey (2015)

As regards the issue of communicating employees about behavior that is not acceptable and how to report them, 100 respondents said it is average, 120 respondents said it is low , while 130 respondents said it is very low, none of the respondent responded to whether it is very high or high. The mean score of 1.91 implies that employees are not communicated about their behaviors that are not acceptable and even on how to report such behavior which has given room for fraud in the ministries.

 On the issue of creating the culture of honesty, openness and assistance, 5 respondents said it is very high, 8 respondents said it is high, 57 respondents said it is average, 80 respondents said it is low while 200 respondents said it is very low. The mean score of 1.68 shows, that, there is no culture of honesty, openness and assistance in the ministries.

As regards creating a positive work environment that encourages honesty, 15 respondents said it is very high, 10 respondents said it is high, 100 respondents said it is average, 105 respondents said it is low while 120 respondents said it is very low. The mean score of 2.13 implies that there is no positive environment that encourages honesty in the ministries.

About the willingness to adhere strictly to the rules of the game, 20 respondents said it is high, 110 respondents said it is average, 130 respondents said it is low while 90 respondents said it is very low. The mean score of 2.17 shows, that, the willingness to adhere strictly to the rules of the game in the ministries is low.

In respect of management supportive attitude towards internal control at all time, independence, competence and exemplary leadership, 50 respondents said it is average , 100 respondents said it is low while 200 respondents said it is very low , none of the respondents responded to whether it is high or very high. The mean score of 1.57 shows that there is no management supportive attitude towards internal control at all times, independence, competence and exemplary leadership in the ministries.

In respect of cancellation of some financial documents of the ministries prior to audit check, 200 respondents said it is very high, 100 respondents said it is high, 15 respondents said it is average, 20 respondent said it is low. While 15 respondents said it is very low. The mean score of 4.29 shows that there is very high level of cancellation of some financial documents of ministries prior to audit check.

Table 4.5: Fraud Prevention and Detection Methods

S/N	Fraud Prevention and Detection Methods	5 Very High	4 High	3 Average	2 Low	1 Very Low	No of respondent N	Total score FX	Mean score FX/N
1	Fraud auditing	0	0	10	230	110	350	600	1.71
2	Fraud vulnerability review	2	3	55	240	50	350	717	2.05
3	Fraud Hotline	6	4	140	150	50	350	816	2.33
4	Whistle Blowing	13	6	133	150	48	350	836	2.39
5	Organizational use of forensic accounting	0	0	50	240	55	350	685	1.96
6	Surveillance equipment	2	4	84	200	60	350	738	2.11
7	Increased role of audit committee	30	20	100	151	49	350	881	2.52
8	Staff rotation policy	8	12	200	100	30	350	918	2.62
9	Employment counseling programs	24	26	190	70	40	350	974	2.68
10	Cash reviews	50	30	100	100	70	350	940	2.69
11	Inventory observation	13	6	150	100	81	350	820	2.34
12	Bank reconciliation	150	100	40	30	30	350	1360	3.89
13	Discovery sampling	0	0	190	100	60	350	830	2.37
14	Continuous auditing	26	14	160	100	50	350	916	2.62
15	Virus protection	30	10	150	110	50	350	910	2.60
16	Password protection	20	25	125	100	80	350	855	2.44

SOURCE: Field Survey (2015)

As regards fraud audit, 10 respondents were on the opinion that fraud audit in the ministries is at average, 230 respondents said it is low, while 110 respondents said it is very low, none of the

respondents expresses opinion or whether it is very high or high. The mean score of 1.71 implies that there is no fraud audit in the ministries.

In respect of fraud vulnerability review, 2 respondents said it is very high, 3 respondents said it is high, 55 respondents said it is average, 240 respondents said it is low while 50 respondents said it is low. The mean score of 2.05 shows that fraud vulnerability reviewed in the ministries is low.

As regard fraud hotline, 6 respondents opined that fraud hotline is very high, 4 respondents said it is high, 140 respondents said it is average, 150 respondents said it is low, 50 respondents said it is very low. The mean score of 2.33 implies that the fraud hotline in the ministries is low. On the issue of whistle blowing, 13 respondents said it is very high, 6 respondents said it is high, 133 respondents said it is average, 150 respondents said it is low while 48 respondents said it is very low. The mean score of 2.39 implies that whistle blowing in the ministries is low. As regard organizational use of forensic accounting, 50 respondents said it is average, 240 respondents said it is low while 55 respondents said it is very low. The mean score of 1.96 implies that the use of forensic accounting in the ministries is low.

On the use of surveillance equipments, 2 respondents said it is very high, 4 respondents said it is low while 60 respondents said it is very low. The mean score of 2.11 shows, that, the surveillance equipment is low. In respect on increased role of audit committee in reducing fraud, 30 respondents said it is very high, 20 respondents said it is high, 100 respondents said it is average, 151 respondents said it is low, while 49 respondents said it is very low. The mean score of 2.52 implies that the role of audit committee in reducing fraud in the ministries is low.

On staff rotation policy in the ministries, 8 respondents are on opinion that it is very high, 12 respondents said it is high, 200 respondents said it is average, 100 respondents said it is low while 30 respondents said it is very low. The mean score of 2.62 shows that staff rotation policy is low in the ministries. On the issue of employee counseling, 24 respondents opined that the level of employee counseling is very high, 26 respondents said it is high, 190 respondents said it is average, 70 respondent said it is low while 40 respondents said it is very low. The mean score of 2.78 implies that the level of employee counseling in the ministries is low.

In respect on cash reviews, 50 respondents said it is very high, 30 respondent said it is high, 100 respondent said it is low while 70 respondents said it is very low. The mean score of 2.69 shows that the cash review policy in the ministries is low. As regard inventory observation 13 respondents opined that the inventory observation in the ministries is very high, 6 respondents said it is high, 150 respondents said it is average, 100 respondents said it is low while 81 respondents said it is very low. The mean score of 2.34 implies that the level of inventory observation in the ministries is low.

In respect on bank reconciliation; 150 respondents said it is very high, 100 respondents said it is high, 40 respondent said it is average, 30 respondents said it is low while 30 respondents also said it is very low. The mean score of 3.89 shows, that, bank reconciliation in the ministries is very high. On the issue of discovery sampling, 190 respondents said it is average, 100 respondents said it is low, 60 respondents said it is very low while none of the respondents were on the opinion that it is high or very high. The mean score of 2.37 implies that discovery sampling in the ministries is low.

As regard continuous auditing, 26 respondents said it is very high, 14 respondents said it is high, 160 respondents said it is average, 100 respondents said it is low while 50 respondents said it is very low. The mean score of 2.62 implies that there is low level of continuous audit in the ministries. On the issue of virus protection, 30 respondents said it is very high, 10 respondents said it is high, 150 respondents said it is average, 110 respondents said it is low while 50 respondents said it is very low. The mean score of 2.60 implies that virus protection in the ministry is low.

In respect of password protection, 20 respondents said it is very high, 25 respondents said it is high, 125 respondents said it is average, 100 respondents said it is low while 80 respondents said it is very low. The mean score of 2.44 implies that password protection in the ministries is low.

Test of Hypotheses
Test of hypothesis one
Ho1: There is no relationship between management policies and Nigerian public sector fraud.

Table 4.6a; Test of Homogeneity of variances

Levene statistic	df1	df2	Sig.
4.361	4	40	.005

Source: Field Survey (2015) using SPSS Version 17.0

Table 4.6b   ANOVA

	Sum of squares	Df	Means square	F	Sig
Between groups Within Groups Total	80348.222 59261.778 139610.00	4 40 44	20087.056 1481.544	13.558	.000

Source: Field Survey (2015) using SPSS Version 17.0

The result of data analysis in table 4.6a and 4.6b reveals that the mean is statistically positive and significant at 5% level of significance. The $F_{(4,40)} = 13,558$ is greater than the F (tab) = 2.61, therefore the estimated parameters are statistically positive and significant. This means that the Null hypothesis is rejected, while accepting the alternate hypothesis since the $F_{(4,40)}$ of 13.558 is greater than the F (tab) of 2.61: we therefore concluded that there is positive and significant relationship between management policies and Nigerian public sector fraud.

Test of Hypothesis Two
Ho2: Fraud presentation and detection methods have no influence on Nigerian public sector fraud.

Test of Homogeneity of variance

Levene statistic	df1	df2	Sig
7.657	4	75	.000

Source: Field Survey (2015) using SPSS Version 17.0

Table 4.7b   ANOVA

	Sum of Squares	Df	Mean square	F	Sig
Between Groups Within Groups Total	188538.13 144300.56 332838.69	4 75 79	47134.531 1924.008	24.498	.000

Source: Field Survey (2015) using SPSS Version 17.0

The result of data analysis in table 4.7a and 4.7b reveals that the mean is statistically positive and significant at 5% level of significance. The $F_{(4,75)} = 24.498$ is greater than the F(tab) = 2.53. Therefore, the estimated parameters are statistically positive and significant. This means that the Null hypothesis is rejected while accepting the alternate hypothesis since the $F_{(4,75)}$ of 24.498 is greater than the F(tab) of 2.53. We therefore, concluded that fraud prevention and detect ion methods have influence on Nigerian public sector fraud.

Test of Hypothesis Three
Ho3: there is no strong internal control system in the Nigerian public sector.

Test of Homogeneity of variances

Levene statistics	df1	df2	Sig
2.475	4	44	.058

Source: Field Survey (2015) using SPSS Version 17.0

Table 4.8b   ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between Groups Within Groups Total	22424.351 118621.20 141045.55	4 44 48	5606.088 2695.936	2.079	.100

Source: Field Survey (2015) using SPSS Version 17.0

The result of data analysis in table 4.8a and 4.8b reveals that the mean is statistically positive but not significant at 5% levels of significance. The $F_{(4,44)} = 2.079$ is less than the f(tab) = 2.60, therefore the parameter are statistically positive but not significant. This means that the Null hypothesis is accepted since the $F_{(4, 44)}$ of 2.079 is less than F(tab) of 2.60, we therefore conclude that there is no strong internal control system in the Nigerian public sector .

Test of Hypothesis Four
Ho4: management integrity has no influence on fraud prevention in the Nigerian public sector.

Test of Homogeneity of variances

Levene statistics	df1	df2	Sig
877	4	25	.492

Source: Field Survey (2015) using   SPSS Version 17.0

Table 4.9b: ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between Groups	41686.333	4	10421.583	3.300	.027
Within Groups	78951.667	25	3158.067		
Total	120638.00	29			

Source: Field Survey (2015) using   SPSS Version 17.0

The result of data analysis in table 4.9a and 4.9b reveals that the mean is statistically positive and significant at 5% level of significance. The $F_{(4,25)} = 3.30$ is greater than the F(tab) = 2.76, therefore the estimated parameters are statistically positive and significant. This means that the Null hypothesis is rejected while accepting the alternate hypothesis since the $F_{(4,25)}$ of 3.30 is greater than the f (tab) of 2.76 , we therefore concluded that management integrity has influence on fraud prevention in the Nigerian public sector.

Conclusion

The research analyzed why attention has to be given to the question of fraud prevention in the Nigerian public sector, it has discussed the management policies as regards fraud prevention in the Nigerian public sector.
The study also appreciated fraud prevention and detection methods and its influence on Nigerian public sector and discovered that there is no strong internal control system. The study further examined management integrity as regards its influence on fraud prevention in the Nigerian public sector. We therefore concludes that the ultimate responsibility for discouraging and preventing fraud rest with the government and management and need good and effective fraud prevention policies to be in place.

Recommendations
Consequent upon several revelations   from the research conducted, there is need to make some recommendations as follows;-
i.   Since management policies has positive and significant relationship with Nigerian public sector fraud , there is need for developing strong management policies and such policies be supported with training and guidance because they are vital in maintaining the effectiveness of the strategy for the detection and prevention of fraud. The policy setting process should be modernized and streamlined to ensure that guidelines can be attended, created or eliminated as changing condition dictates.

ii. As regard fraud prevention and detection methods, the Nigerian public sector should take advantage of modern accounting and auditing   soft ware's to enhance efficiency and smooth operation of the task of detection prevention and recovery through the application of relevant information technology.

iii. As regards internal control system in the Nigerian public sector, the government need to support indention an d work related training, particularly for employees involved in internal control system and accounting units to ensure their responsibilities and duties are regularly highlighted to reinforced and that best practices are followed across the nation service as this will build up effective internal control system in the Nigerian public sector.

iv. On the issue of management integrity, policies should be set up to ensure that management integrity be enforced as it has influence on fraud prevention in the Nigerian public sector. Those management level and even those at lower level should avoid actual or apparent conflict of interest, refuse any gift, favor, or hospitality that would influence or would appear to influence their actions and avoid any other act that would temper with their integrity. If management integrity is enhanced it will go a long way in preventing fraud in the Nigerian public sectors.

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