

**EFFECT OF INTERNAL CONTROL SYSTEM IN NIGERIA  
PUBLIC SECTORS: A CASE STUDY OF NIGERIA  
NATIONAL PETROLEUM CORPORATION**

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**Abstract**

*Internal controls are useful for every business but are critical for organization with employees, especially employees who handle valuable assets. Retails business in which customer have direct access to small product can also benefit enormously from internal control procedure while internal control are crucial from helping you detect dishonesty, so setting up a system of internal control can keep such problem from getting out of hand. When you have internal control in place, you are protecting your assets as well as the accuracy of the accounting record in proper place of accountability. Both primary and secondary source of data were used in this study. For sourcing of primary data, questionnaires was constructed in line with the research hypothesis. For hypothesis testing chi-square statistics was employed for testing distribution of variables expressed in frequencies. It was found that there is significant relationship between Capital and Earnings Quality, since the intellectual capital is negatively related to the absolute value of Discretionary Accruals so intellectual capital positively affects earnings quality. Author therefore*

*recommends that there should be a right attitudinal change to management and market share of a bank, intellectual capital and earning quality not automatic outdated process of the bank but to redesign new ones, externally focus on customers and the generation of greater value for customers.*

*Keywords: Internal Control, Accountability, Fraud Prevention, Public Sector, Financial Irregularities, Internal Audit, Safe guard assets*

## **INTRODUCTION**

Internal control system for a business are similar to check and balance in the government, they are process put in place to make sure that things stay in the right track. Internal controls are useful for every business but are critical for organization with employees, especially employees who handle valuable assets.

Retails business in which customer have direct access to small product can also benefit enormously from internal control procedure while internal control are crucial from helping you detect dishonesty, it can also help you to reduce risk that simple mistake will keep you from seeing in your organization, concentrate on poverty as detected inadvertent errors, so setting up a system of internal control can keep such problem from getting out of hand. When you have internal control in place, you are protecting your assets as well as the accuracy of the accounting record in proper place of accountability. The type of control to put in place depend largely on the size and nature of the organization i.e either a private or public sector as in the content of these studies lies on a public sector organization.

Internal control serves as the strength of every organization. The reason being that the control system in any organization is a pillar for efficient accounting system. The establishment of an effective system of internal control that is capable of preventing fraud and also ensures government transactions are carried out under lawful procedure has been adopted. The essence being that, effective and efficient use of government activities has necessitated the need to establish sophisticated internal control system that would prevent fraudulent practices, financially or otherwise.

Therefore, increasing attention has been paid to method of internal control in recent years. Not only the complexity modern business techniques but also the size of business unit encourage the adoption of method which, whilst increasing the deficiency of public sector business, also as safeguard against errors of fraud.

Most professions and public sector manager believe that internal control is the key to prevent the risk of major failure in this sector.

This concept of internal control has been defined by the institute of Chartered Accounting Publication Statement as the "not only check and internal audit, but the whole system of controls, financial and otherwise, establishment and management in order to carry on the business of the company in an orderly manner, safeguard assets and secure as far as possible the accuracy and reliability of it records".

According to Financial Institute Training Centre (FITC) Archbong, 1992 described it as the whole system of control financial and otherwise establishment by the management in order to carry on the business enterprises in an orderly and efficient manner, ensures adherence to management policy, safeguard the asset and secure as far as possible, the competence and accuracy of record in addition to internal check and internal audit (Badmus Olusegun & Edegbe David's, 2003). It is no doubt that adherence to good and sound internal control system and effective internal check will surely reduce high rate of fraud in the public sector.

Based on the above discussion, the public sector in Nigeria accounted for a significant amount of total economic activities. Thus, the complexity government activities has encouraged the increase rate of fraud and thus necessary the need for a sound operational internal control system operation as well as adherence to its principles have remained an issue.

It is evident that failure of the internal control system of operation as designed has led to financial resources loss which has adversely affected the overall performance of the internal control could be due to human collusion i.e a situation where government employee with duties segregated would convince to over ride the system thus its prevention of fraud is inadequate procedures which arise when adequate and elaborate operation polices are not provided for established internal control system. This hindered its effective operations. Human errors due to fatigue and omission have also hindered the effective operation of internal as a means of preventing fraud particularly in the public sector where there is high rate of levity.

However, it is difficult for public enterprise to obtain realize project costing, contract pricing and investment appraisal under these conditions. This lead to no-accountability, non-transparency, fraud, misappropriation and financial irregularities.

Internal controls are policies instituted by companies to safeguard their accounting as operational process and information. The size of scope of internal control depends on the companies' dept of operations.

Accounting internal controls provides rules and standards to protect the company's financial information and limit accounting errors. Managers also monitor internal control to prevent fraud or theft by employees.

The broad objective of this research work is to establish the reliability and effectiveness of internal controls system in the public sector. The operational areas of the public sector administration, financial, sales marketing and production are being critically monitored and appraised to ensure that internal control system established are working effectively throughout the period of intended reliance. Specially, the period intended to achieve the following objectives:

1. To affirm effective internal control help in preventing fraud in the public sector.
2. To establish how internal control system can aid the economic and political management of the Nigerian economy has been jeopardized due to mainly government official and public office holder's failure to observe due process in awarding contract and carry out public sector activities with the resultant effect being fraudulent with misappropriation of government fund.

In the light of this, effective internal control systems have been suggested as solution to the fundamental problems of inefficiency and fraudulent problem in the public sector. It is no doubt that public adherent to good and sound internal control system and effective internal check will surely reduce high rate of fraud in the public sector. Therefore, the purpose of this study will be to examine in the following:

1. To find out how effective is internal control system in public sector organization system.
2. To examine the effect of internal control as an aid in preventing fraud.
3. To access how constant evaluate of internal control system tend to help in organization development.

This study is limited to the evaluation of the effect of internal control in the public sector using the Nigerian National Petroleum Corporation as a case study. Thus the study is confirmed to operational and financial activities of the government cooperation where situation will be evaluated and appraised and findings will represent sample of what is obtainable in the Nigerian public sector. The central investigation and analysis will be based on Nigerian National Petroleum Corporation at Block 309 Akinogulewe off Ajose Adegun Victoria Lagos as well as their headquarter Annex at Block 'C' NNPC Tower Herbert Macaulay way, Central Business District P.M.B 459, Garki, Abuja, information will also be obtain from the member of staff of the organization.

The content of this research should not be seen as being totally exhaustive of all possibly situation available in the Nigeria public section on the theme of this study. This is due to the vast size of the public sector as the boundless nature of the study. Therefore the scope of this research is limited to the study carried out on the NNPC.

## LITERATURE REVIEW

### Theoretical Review

One of the purpose for setting up a corporation in form of enterprise was to give their management autonomy and flexibility within overall control and accountability to competitive and commercial terms. In ensuring these a judicious use of resource available to the corporation, steps are taken by management and competent authorities to establish control in all aspects of the business activities which might be economic, technological or public interest on the basis of efficiency and effectiveness. Internal controls are designed to bring out financial and operational deficiencies, inadequacies or ineffectiveness of systems shortfall in performance. Dolphy 'O'Souza, 2004. Financial performance is linked with physical performance and issues of efficient and economic operation and management of resources are the basis and rationale for the establishment of internal controls particularly to prevent and detect fraud in any business organization.

However, there have been a public/private sector debate contingent upon the fact that most public sector enterprises have been seen to fail woefully. The goods and services provided by these enterprises have had poor return on investment and most, if not all, have been characterized with incessant cases of fraud and irregularities. Having being faced with the poor economic indices, if not almost the whole countries of the world, particularly, developing nation have opted for the strategy of Active state participation in the economy. It has the objective of providing basic infrastructure to accelerate economic growth and Facilitate conditions which will eventually lead to a freely interplay of entrepreneurship and market force as well as state intervention to moderate economic transactions in order to ensure equity in the distribution of the fruits development. The Nigeria Accountant Journal, April/June 2007.

"There are basic consideration arising from the danger of leaving vital sector of the national economy to the whims of the private sector often under the direct or remote control of foreign large scale industrial combines. Public enterprises are thus, crucial in Nigeria quest for true national economy independence and self-reliance" (FGN,1970).

### Empirical review

Internal control is a key issue to be addressed at any organization which intend to do well and achieved it's objectives in other words; Internal control can be describe as any action taken by an organization to help enhance the likelihood that the objectives of the organization would be actualized.

Adeniyi, 2004 cited that internal control are design to bring out financial as operational deficiencies, inadequacies or ineffectiveness of system short fall in perform and however these

has been a public sector debate contingent upon the fact that most public sector enterprise have been seen to fail woefully due to lack of proper internal control measure put in place. It is in the light of these devastating phenomenon that several steps and procedure have been taken to minimize or completely eradicate fraud and put in place proper internal control in the public sector development have caused direction to be shifted toward the public sector with a view to enhancing efficiency and maximization of resources. Thus the management of fraud in the public sector has engendered of internal control and check designed to prevent and detect fraud.

Previous research concerning fraud detection has focused primarily on so-called "red flags" which are defined as conditions or circumstance that indicate potential fraud. In a study conducted by Albrecht and Romney, 1986 87 red flags were evaluated as being predictions of fraud. Questionnaires were sent to CPA firms which were divided into two (2) groups. The control group consisted of ten (10) patterns who had not detected fraud. Out of a list of 87 red flags, 31 red flags were found to be significant as predictions of management fraud.

Loebback, Eining and Willingham, (1989) also used the red flags approach to develop a conceptual model to assess the probability of the occurrence of material management fraud. They surveyed 277 audit partners at KPMG (Peat Marwick). Loebback, et al concluded that the auditor's evaluation of the client's control environment is important in order to assess the likelihood of material mis-statements during the planning of the audit. Weak control creates a significant condition that would allow management fraud, a defalcation or an error to occur.

## **METHODOLOGY**

Both primary and secondary source of data will be used in this study for sourcing of primary data, questionnaires was constructed in line with the research hypothesis. The questionnaires was administered by the staff of the Nigerian National Petroleum Corporation (NNPC) at Victoria Island Lagos. These questionnaires was personally distributed to the selected staff and collected personally. To complement the primary data, secondary data were used by review of relevant literatures. Other secondary source of data were from ICAN journals; CIBN journals ICAN study packs.

## **Research Design**

The study adopted survey research design which focuses on the effect of internal control system in the public sector organization. In other words it was designed to show the various methods and procedures used on collecting the necessary information about this research. In the course of carrying out the research work, the researcher intends to use questionnaire to

gather sufficient as accurate information concerning the effect of the internal control system in the public sector using the NNPC as a case study and also meeting some of the staff face to face.

### **Statement of Hypotheses**

Ho- Effectiveness of internal control has no significant effect on the prevention and detection of fraud in the public sector organization.

H1 - Effectiveness of internal control has significant effect on the prevention and detection of fraud in the public sector organization.

### **Characteristics of the Study Population**

The Nigerian public sector consists of three (3) separate levels of government whose power and relationship are guaranteed by the constitution. They are Federal, State and Local government. They conduct their activities through two (2) major forms of organization namely: (a) Ministries/Extra-Ministerial Department (b) Parastatals.

The population size total 22 department of the Nigeria National Petroleum Corporation (NNPC) categorized into 4 important department of the corporation namely: Administration, Finance, Marketing and Purchasing.

### **Sample and Sampling Techniques**

Random sampling technique was used by the researcher to collect and gather adequate information. It consists of 150 randomly selected staff of the NNPC drawn from the functional field including administration, finance, and marketing as purchasing. This was taken as sample to represent the entire public sector organization.

### **Research Model**

For the purpose of the study, the research model is specified as:

$$Ic = f(Sd, Inv, PSc, Dup)$$

*Where:*

Ic = Internal Control

Sd = Segregation of duties

Inv= Internal Verification

PSc= Physical Controls

Dup= Dues process

### Data Collection Method

Completed questionnaires were collected from 129 staff out of the 150 questionnaires that were distributed drawn from functional field including administration, finance, marketing and purchasing. The selection criterion was on the premise that effective internal control system should be put in place in the public sector so as to ensure balance in operation as thereby, preventing fraud.

The questionnaire elicited measures on a total of four (4) variables. These variables are segregation of duties, internal verification, physical control and dues process. The response rates represent 86% of the total sample. The final sample size for testing, therefore, were 129.

### Validity and Reliability of the Instrument

The instrument used in course of these researcher work are valid and reliable because there was face to face conversation with some of the staff of the organization and more so the questionnaire elicit the opinion of the staff concerning these research work.

### Data Analysis Techniques

To test this hypothesis, chi-square statistics will be employed. chi-square issued for testing distribution of variables expressed in frequencies. It measure the difference between the expected and the observed frequencies. It is calculated thus

$$\chi^2 = \sum_{t=1}^k \frac{(O_i - E_i)^2}{E_i}$$

Where:  $O_j$  = Observed Frequency

$E_i$  = Expected Frequency

$K$  = Number of groups

Person's correlation co-efficient will be used to test the relationship that exists between the independent variable and the dependent variable. The correlation co-efficient is defined thus:

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{[\sum (x - \bar{x})^2][\sum (y - \bar{y})^2]}}$$

Where:

$r$  = correlation co-efficient

$\sum x$  = sum of x score

$\sum y$  = cum of y score

1.0-0.5= significantly correlated, <0.5 =insignificantly correlated.



## ANALYSIS AND FINDINGS

### Response Rate

Table 1. Response Rate

No of questionnaire Distributed	No of questionnaire Returned	Percentage (%)
150	129	86%

The above table shows that 150 questionnaire representing 100% were sent out to Nigerian National Petroleum Corporation and 86% were completed by the respondents and returned to the researcher.

### Respondents' Demographic Profile

Table 2: Sexwise

Respondents	Response	Percentage (%)
Male	90	70
Female	39	30
Total	129	100

The above table shows that 70% of the respondents are male while 30% are females.

Table 3: Agewise

Respondents	Response	Percentage (%)
Between 22-30	27	21
31-40	42	33
Above 41	60	46
Total	129	100

The above table shows that 21% of the respondents were between 22-30 years 33% were between 31-40 while 46% were above 41 years of age.

Table 4: Martial status-wise

Respondents	Response	Percentage (%)
Marriage	105	81
Single	24	19
Total	129	100

The above table shows that 81% of the respondents are married while 19% are single

Table 5: Educational Qualifications

Respondents	Response	Percentage (%)
First School leaving certificate	-	-
WASCE/GCE	-	-
NCE/ND	15	12
HND/BSc./BA/Professional qualification e.g ICAN, NIM	102	79
Others (Specify)	12	9
<b>Total</b>	<b>129</b>	<b>100</b>

The above table shows that none of the respondents indicated that they had First school leaving certificate and WASCE/GCE. 12% had NCE/ND while others were 9% of the total respondents. 79% of the respondents had HND/BSc./BA/Professional qualification.

Table 6: Positions in the Corporation

Respondents	Response	Percentage (%)
Directors	6	4
Ass. Directors	24	19
Accountants	72	56
Accounting Officers	27	21
Others	-	-
<b>Total</b>	<b>129</b>	<b>100</b>

The table shows that 4% were directors, 19% were assistant directors, 56% were accountant while 21% of the respondents were accounting officers.

## Descriptive Analysis

Table 7: internal control is effective in eliminating fraudulent activities in organization.

Variables	Response	Percentage (%)
Yes	99	77
No	30	23
No idea	-	-
<b>Total</b>	<b>129</b>	<b>100</b>

The above table shows that 30 respondent representing 23% indicated that the effectiveness internal control does not eliminate fraudulent activities in organization while 99 respondent representing 77% claimed that effective internal control eliminate fraudulent activities in an organization.

Table 8: It repositions the organization environment

Variables	Response	Percentage (%)
Yes	96	74
No	33	26
No idea	-	-
<b>Total</b>	<b>129</b>	<b>100</b>

The above table shows that 33 out of the respondents representing 26% said that it does not reposition the organization environ while 96 of the respondents maintained that it reposition the organization environ.

Table 9: Management effectiveness is minimizing fraud in organization if there is inefficient internal control?

Variables	Response	Percentage (%)
Yes	90	72
No	39	28
No idea	-	-
<b>Total</b>	<b>129</b>	<b>100</b>

The above table shows that 28% out of respondent indicated that management effectiveness does not minimizing fraud in organization of there is inefficient internal control system while 72% proved otherwise.

Table 10: Inefficient and unstructured responsibility affects the internal control system in the organization.

Variables	Response	Percentage (%)
Yes	105	81
No	24	19
No idea	-	-
<b>Total</b>	<b>129</b>	<b>100</b>

The above table shows 81% out of respondent maintained that inefficient and unstructured responsibility affect the internal control system in the organization while 19% claimed otherwise.

## Test of Hypotheses

Table 11: Chi Square Testing

O	E	O-E	(O-E) <sup>2</sup>	$\frac{(O - E)^2}{2}$
99	129	-30	900	450
30	129	-99	9801	4900.5
96	129	-27	729	364.5
33	129	-96	9216	4608
90	129	-39	1521	760.5
39	129	-90	8100	4050
105	129	-24	576	288
24	129	-105	11025	5512.5
516				21114

$X^2$  Cal=108.07

$X^2$  Tab =5.226

The degree of confidence is given as (r-1) (c-1)

$$(4-1)(5-1)$$

$$(3) (4) = 12$$

Therefore, the critical value for  $X^2$  distribution for two tail test at 95% confidence level of significance is 5.226.

The results of the hypothesis testing by the use of chi-square tested at 95% confidence level established that our empirical value which is 108.07 is less than the critical value of 5.226. We therefore, reject the null hypothesis ( $H_0$ ) at 95% confidence level. We conclude that there is a significant effect of effectiveness of internal control system in the public sector as in the case of NNPC in the prevention and detection of fraud.

## CONCLUSIONS

From the findings, it can be concluded that; the establishment of internal control play a vital in prevention of fraud and irregularities. It is also a basis for the conclusion that, management and relevant authorities should focus on more strategic ways of internal control establishment as a way to preventing fraud in the public sector. More so, even though there is an inefficient internal control, such as public sector reform etc, effective internal control are most effective for fraud prevention. It is obvious that the act of fraud has become the order of the day in the public sector due to inefficient management culture on fraud absence of internal control system etc.

## LIMITATIONS

The reader is advised to be aware of the following major limitation in appraising the study findings:

- The research work is only limited to NNPC (case study) which is not extended to all government parastatals. In carrying out this research work, certain amount was which a limited factor for this research works.
- There was little time set-aside by the school authority for the research. This research was carried on with classroom work and assignment.
- The internal auditor(s) of NNPC did not reveal all required information needed meaning that some of this information were very confidential to the company.

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