



# **Gusau Journal of Accounting and Finance (GUJAF)**

**Vol. 2 Issue 4, October, 2021 ISSN: 2756-665X**

A Publication of  
Department of Accounting and Finance,  
Faculty of Management and Social Sciences,  
Federal University Gusau, Zamfara State –Nigeria

# INTERNAL CONTROL SYSTEM EFFECTIVENESS AND FRAUD PREVENTION IN NIGERIAN DEPOSIT MONEY BANKS

**Molokwu Evelyn Nneamaka**

Department of accounting  
Nigerian Defence Academy, Kaduna, Nigeria  
Email: eamaka11@yahoo.com

**Nyor Terzungwe**

**Professor of Accounting**  
Department of accounting  
Nigerian Defence Academy, Kaduna, Nigeria  
[tnyor@nda.edu.ng](mailto:tnyor@nda.edu.ng)

**Ahmed Nma Mohammed**

Department of accounting  
Nigerian Defence Academy, Kaduna, Nigeria  
[Nmaahmed64@gmail.com](mailto:Nmaahmed64@gmail.com)

**Yazid Kabir Ibrahim**

Department of Accounting and finance  
Federal University Gusau, Zamfara state, Nigeria  
Email: [yazidkabirdabai@gmail.com](mailto:yazidkabirdabai@gmail.com)

**Halima Shuaibu**

Distance Learning Centre  
Ahmadu Bello University, Zaria  
[saasalimsuleiman@gmail.com](mailto:saasalimsuleiman@gmail.com)

## **Abstract**

*Over the years, there has been an emphasis not only on the presence of internal control system in the banking sector but also the efficiency of internal control. There is possibility for internal control unit to be present but they are ineffective. This study was carried out to examine internal control system effectiveness and fraud prevention in deposit money banks in Nigeria. The study adopts a descriptive analysis which helps in summarizing the data. Inferential statistics was used such as the multiple regression analysis to explain internal control system effectiveness and fraud prevention. Questionnaires were administered to Nineteen deposit money banks in Nigeria and a total of 40 questions were asked and answered accurately. Cronbach Alpha Coefficient was used to test the reliability of the measurement and as such are reliable because the entire alpha coefficients are greater than 0.6. The findings of the study show that there is a positive and significant relationship between control environment and fraud prevention mechanism. The overall result showed that control environment (CE), risk assessment (RA), information and communication (IC) and monitoring (MO) have a positive and significant impact on fraud prevention, whereas control activities have a positive but insignificant effect on fraud prevention. Based on the findings, the study recommends that organizations' management and those saddled with the responsibility of governance of companies should always be alert to all possible circumstances (business risks) that may threaten the banks' ability in achieving its set objectives. Management can achieve this through regular assessment of the operating environment of the organization to identify threats arising from competition, legislation, technological changes, etc. The banking sectors should carryout regular reviews of their control system. This can be done at least semi-annually. The management should ensure it receives timely, relevant, and reliable reports for decision-making.*

**Keywords:** Control Environment, Risk Assessment, Control Activities, Fraud Prevention

## 1. Introduction

The banking industry has witness significant changes in its various ways of operations over the years. The operations and activities in the banking institutions are becoming complex over time, worldwide in outlook and mechanically determined. Many banks have put in place control policies restriction to aid the smooth flow of operations. The major purpose of control is to detect the point of failures and to raise concern over errors, in order to curb their re-emergence. In line with this, the Bank of international settlement (Basel committee) on banking supervision in 1998, structured some framework principles for the supervision of effective internal control systems in the financial institutions.

Therefore, Internal Control (IC) is a well-structured system within an organizational structure whose aim is to increase effectiveness and efficiency of activities. The IC system also ensures that operations are carried out in compliance with laws and regulations to improve the financial reporting reliability. The IC system is necessary for the banking sectors to attain its overall objectives. The system allows the banking institutions to foresee future problems that could result in financial losses and, as a result establish preventive measures to limit any future losses.

Fraud which includes the use of deception and tricks to misrepresent the facts in order to rob others of anything that is rightly theirs, has become increasingly complex, placing every organisation at risk (Law, 2011). Fraud is any behavioural act exhibited by an individual with the intention to gain an unfair advantage over an individual. As a result of this, many businesses and related entities are now moving towards continuous audit modules which have been implemented to create a more automated control environment (Malescu& Sutton, 2015). Fraud prevention activities occur when deterrence fails but before the fraud is detected (Wilks & Zimbelman, 2004). In fact, new methods of performing fraudulent activities have emerged and areas that regulators and public don't consider irrelevant or fraudulent are evolving.

The regularity of fraud and misappropriation of funds in banking organization is creating fear, anxiety, and also resulted in customer or investor/shareholders loss of confidence. The Nigeria Deposit Insurance Corporation (NDIC, 2018) report's pattern analysis of fraud in the banking institution which shows that fraudulent activities in the country's banking sector are on the rise and was estimated as N41.2 billion in 2009. In 2010, reported fraud cases stood at 1,532 and also, banks reported N18.05billion fraud in 2011. Total fraud cases reported stood at 3,380 which amounted to N21.79 billion in 2012. However, in 2013 fraud cases decreased to N5.76 billion. Amount involved decreased significantly from N25.608 billion in 2014 to N18.021 billion in 2015. The NDIC accused the banking sectors of failing to file returns reporting their officials engaged in fraudulent practices to regulatory authorities in 2017 citing a total of 37,817 fraud cases registered in 2018, compared to 26,182 in 2017. Some staffs were involved in some of the fraud and forgery cases, with a total of 899 staff involved in fraud and forgery compared to 320 in 2017. This trend calls for concern and therefore, it is imperative to analyze the internal control system effect on fraud prevention.

Various studies were conducted to investigation on internal control system effectiveness. Some studies focus on internal control system effectiveness in Uganda, (Amudo& Inanga 2009). Furthermore, different researchers have used various methods and variables in the measurement of effectiveness (Arena &Azzone, 2009). Albrecht *et al.*, (2010) used two fundamental variables

for fraud measurement which are; creating and maintain a culture of high ethical code and honesty; develop an appropriate oversight process. In the same vein, Michino (2013) investigated the internal controls in operation at Kenya Revenue Authority with a view to establishing whether such internal controls have produced any meaningful results in the increase in revenue collected. The study used control environment, risk assessment, control activities, Information and communication and monitoring components of internal controls as the variables. The study did not consider fraud prevention variables.

By implication, there is no agreement on the appropriate framework for measuring effectiveness. In this study, we present a set of internal control effectiveness measurements using the internal control system components which are five: the control environment, information and communication, risk assessment, control activities and monitoring. As well, the three fundamental variables were used as a measurement of fraud prevention namely: Evaluating Anti-Fraud Process and Control; Developing an Appropriate Oversight Process and finally, Culture of Honesty and High Ethics.

The related literatures failed to consider the three main fraud measurements in their studies and also some relevant years were not covered. As a result, this study carried out further research to fill the gap and cover the relevant years.

In order to achieve the objective of this study, the following hypotheses were formulated and tested:

H0<sub>1</sub>: Control environment has no significant effect on fraud prevention among deposit money banks in Nigeria.

H0<sub>2</sub>: Risk assessment has no significant effect on fraud prevention among deposit money banks in Nigeria.

H0<sub>3</sub>: Control activities have no significant effect on fraud prevention among deposit money banks in Nigeria.

H0<sub>4</sub>: Information and communication has no significant effect on fraud prevention among deposit money banks in Nigeria.

H0<sub>5</sub>: Monitoring has no significant effect on fraud prevention among deposit money banks in Nigeria.

## **2. Review of related literature**

This section presents the conceptual review, theoretical literature and empirical review. It reviews the opinion expressed by authors and writers in the area of management and accounting on fraud nature in the banks and to provide an insight into the phenomenon. The conceptual aspect of this section consists of internal control system, effectiveness of internal control system, as well as a review of the independent variables such as; control environment, risk assessment, control activities, information and communication and monitoring and the dependent variable which is fraud prevention.

Internal control system is the totality of control, financial and otherwise, defined by management so as to carry out business of an organization. Internal Control system according to Millichamp (2000) is an autonomous assessment mechanism of a company, responsible for reviewing the control system and the level of result in the organization. Internal control system is described by

the Institute of Chartered Accountants of England and Wales (ICAEW) 1985 as a review of activities and records, often ongoing, carried out by specially appointed staff within a company.

The system of control should be cost effective for the organization that developed it (Smith, 1999). According to Ossai (2005), fraud prevention system can only be effective if it is solely determined by competence and trustworthiness of those who use them. He further stressed that a system of fraud that is ineffective is as a result of deficiencies in the system and human inadequacies.

According to COSO model which has gained international recognition in terms of internal control, internal controls are proposed to be performed based on five basic elements. The five basic elements in this regard are control environment, risk assessment, control activities, and monitoring. The culture of the organization and the management style has also played a role in the control environment. COSO (1999) explained internal control system effectiveness components as follows:

The control environment sets the tone for the organization through the influence of the control consciousness of the people (Whittington & Pany, 2001). Generally, control environment assists in securing assets and the proper execution of management policy. According to Campbell and Harther (2010) internal control is established to alert management on potentials issues and ensures they are managed before they become a problem or escalate to a big issue. Although these controls cannot in totality eradicate all the misappropriation and errors but may reduce its occurrence. A good internal control system is the antidote to the problems in the banking industry; many banks have failed due to ineffective internal control (Tunji, 2013).

Risk assessment is described as the evaluation of factors that may have the potential to impede the achievement of the organization's goals. Risk assessment is also seen as the ways of identifying and analyzing of all relevant risks to the attainment of goals and establishing a process on how to manage the risk. The risk management process allows the company to examine all possible risk that the firms face (Karagiorgos *et al.*, 2009). In most organizations the management is saddled with the obligation to ensure that only risk that is acceptable faces the firm.

Banks are in the risk-taking market while doing business (Karagiorgos *et al.*, 2009). Banking as a business enterprise is often associated with risk because of its wide exposure to uncertainty. It becomes clearer when it is understood that the primary goal of financial institutions is to optimize revenues and provide maximum value to shareholders by facilitating a variety of financial services especially by administering risks (Al-Tamimi & Al-Mazrooei, 2007). The major reason to adopt the assessment of risk practices is to avoid the probable failure in future. In reality, risk assessment is associated with a cost. It is expensive both in institutional disruption and resources.

The control activities refer to procedures, mechanism and policies established in ensuring that management directives are carried out appropriately (Aikins, 2011; Rezaee 2002). The proper recording of procedures and operational guidelines helps in deciding how control operations should be carried out. They must make sure that all areas are in compliance with the

organizations' policies and procedures and that existing policies and procedures remain intact. The internal audit function usually plays a vital role in this regard (Basle, 2011).

Therefore, Control activities should be a fundamental part of the daily activities of a bank. An effective IC system requires that an appropriate control structure is set up, with control activities defined at every business level. These should include: top level reviews, appropriate activity controls for different departments or divisions, physical controls; checking for compliance with exposure limits and follow-up on non-compliance, a system of approvals and authorizations; and a system of verification and reconciliation. The process of determining the consistency of the internal control system over time is referred to as monitoring. Internal controls are procedures so they must be properly and closely monitored in order to ensure their effectiveness. Monitoring offers assurance to the company that audit and other evaluation results are promptly determined (Theofanis *et al.*, 2011; Rezaee, 2002). Normally, monitoring takes place during the course of operations. It incorporates a regular supervisory and activities of management, and other personnel actions in discharging their duties.

Monitoring is an integral part of management responsibility in establishing and maintaining controls. Management keeps an eye on the monitoring control to see whether they are functioning as they should and if they need to be updated to account for evolving conditions. These five components are intertwined together, as a result, an integrated system that can respond dynamically to changing conditions. Internal controls are synonymous with an organization's operational activities and they are most efficient when controls are integrated into the infrastructure being a part of the organization very nature (American Institute Committee of Public Accountants, 2017).

Fraud is an intentional act to conceal vital information and the use of undue advantage to carry out an unlawful act. Udok (2002), stated that fraud is mainly concerned with the actions of individuals whose aim is to channel the fruits of others labour into their own. Nwude (2006) defined bank fraud as the misappropriation of bank assets whether in cash or in kind by bank employees, bank customers or third parties resulting in loss to the bank. He claimed that bank fraud is a heinous act that gives the dishonest individuals illegal possession of other people's money. Fraud is also described as a deliberate act of deception aimed at obtaining an unfair advantage at the cost of a person or an organization losing property or legal rights (Eseoghene, 2010). According to the Association of Certified Fraud Examiners (ACFE, 2012) fraud is described as the intentional misuse of application of an organizational assets or resources for personal gain.

It can be observed from the foregoing that fraud is prevalent and can cause huge damage to any organization if not early detected and prevented. Association of Certified Fraud Examiners (ACFE, 2014) and other professional organizations, in their document overall message is that every organization that take proactive steps to deter and prevent fraud will preserve their future, their reputation and financial integrity. It was also documented that organizations should undertake three actions that are fundamental to curb or prevent fraud. They include building a culture of honesty and high ethical standard, to develop an appropriate oversight process and to evaluate antifraud processes and controls.

The theoretical aspect of this study reviews relevant theories which help in better understanding of this study. The most important theory adopted in this study is the fraud triangular theory. The justification for choosing this theory is that the theory was based on the major factors that cause fraud in an organization.

According to Albrecht and Zimbelman (2009), fraud consists of three elements: perceived pressure, perceived opportunity and rationalization of the fraudulent act, these three elements are referred to as fraud triangle. Every intentional act of fraud, regardless of whether it is done on behalf of an organization contains the three elements (Albrecht & Zimbelman, 2009). The three elements of the fraud triangle interact, for example the greater the perceived desire or the greater the pressure, the less rationalization is needed to commit fraud (Albrecht, et al., 2010). This theory, as Onwujiuba (2014) points out, is particularly applicable to financial reporting fraud where analyst estimates, management's earnings guidance, and a history of revenue and earnings growth are more closely scrutinized.

Chiezey and Onu (2013) discovered that financial and non-financial pressures are the first temptations which make an individual to commit fraud. However, Ngalyuka (2013) noted that financial pressure is the major pressure, noting that financial pressure is majorly responsible for 95% of frauds committed.

This theory is important in this study since internal control system is one of the mechanisms used to ensure that no fraudulent problem exists within the banking sector. The internal control systems can also help to reduce information asymmetry within the organization. The fraud triangle theory is more relevant to this study and as such this study is based on it. The use of the fraud triangle theory is based on the premise that since the internal control systems is the mechanisms employed to ensure that no fraudulent problem exists within the banking sector and also help to eliminate knowledge asymmetry within the organization.

From the empirical perspective, various studies were reviewed to establish an empirical basis on the effect of internal control mechanism in fraud prevention and detection among listed deposit money banks in Nigeria. Based on this premise, the following empirical literature were reviewed:

In the Jaffna District of Sri Lanka, Muraleetharan (2016) examined the relationship between the control environment and the efficiency of internal control systems in private and public organizations. Source of data was through questionnaire and where 181 samples drawn from office staff. Data were analyzed using Chi square and regression statistical as measurement of variables. The finding of the study indicates that there is no significant relationship between internal control effectiveness and the control environment.

Bett and Memba (2017) examined the control environment effects on the system of internal control in Kenyan processing firms. The survey research design was adopted for the study and a census of 189 respondents was employed. Inferential and descriptive statistics were used to interpret the collected data. The findings of the study confirmed that the control environment has significant effect on internal control system effectiveness.

Siyanbola, (2013) examined effective internal controls system as antidote for distress in the Nigeria banking industry. The study revealed that while internal control systems are present in the majority of the banks studied, the system is being tampered with due to both knowledge gaps by some of the operators on the lower scale and deliberate action of management and key staff. The study also shows that well-built internal control system should be constrained to control and reduce the effect of fraud and mismanagement. For an internal auditor work to be effective in the organization, it is important for the management to respect the recommendations of such auditors. The finding of the study indicates that auditors' recommendations are not implemented by those who are to act on them which lead to total collapse of the institution.

Zuraidah, et al. (2015) examined fraud schemes in the banking and the measures that are preventive to avoid severe financial loss. The study was conducted among Malaysian banking management levels, with a focus on branch managers and assistant managers who handle mortgage loans with hire purchase loans. According to the results, fraudsters are still aware of the process and have capitalized and manipulated it in order to infiltrate and commit fraud. They concluded in their report that achieving zero fraud risk in the banking sector is difficult because fraudsters will still find a way.

Idowu and Adedoku (2013) studied the effect of internal control system on fraud detections in selected commercial banks in Nigeria. The least square regression analysis was employed, and the result showed that fraud was present due to poor training of employees. In the study by Ozigbo (2015) in examining fraud prevention and internal control in Nigerian business organizations. Survey was carried out in some selected firms in Warri metropolis. According to the study's result, internal control has a significant relationship with fraud prevention. It was therefore concluded that internal control is of necessity to safeguard assets which in turn assures the absentee owners of business that their fund is being efficiently utilized.

Etengu and Amony (2016) examined the role of system of internal control on the financial performance of non-governmental organizations in Uganda. It was discovered that control activities, monitoring, control environment, and financial performance has a significant relationship. They also suggested that the International Union for Conservation of Nature's control activities, control environment, and monitoring be improved in order to increase the organization's financial efficiency. In addition, performance standards should be set up as a criterion and communicated to employees of the International Union for Conservation of Nature.

Sang (2012) explored fraud control determinants measures in Kenya commercial banks. The data was gathered by the use of a questionnaire and evaluated using inferential and descriptive statistics. He came to the conclusion that non-adherence to the dual control aspect and a lack of adequate time to conduct the various periodic tests will pose as a limit to the efficiency of internal control system. The recommendation of the study is that a comprehensive measure militating against fraud should be established as well as implementation of fraud mitigation system compliance and an increase in the number of workers.

Channar, et al. (2015) examined functionality of the five internal control components, the control system and the effectiveness and its relationship with financial performance of the organisation. According to the study's findings, internal control effectiveness is lowest in Islamic banks and

highest in private banks, though the gap is not statistically important. Internal control effects on fraud prevention and identification in Kakamega County district treasuries were investigated by Albert and Byaruhanga (2015). The study recommended that district treasuries and other organizations develop reliable and efficient internal control processes and policies to identify and prevent fraud. Kinyua et al., (2015) investigated internal control systems effect on the financial performance of companies quoted in the Nairobi Securities Exchange (NSE). The control environment, internal control activities, internal audit, risk management, and role of corporate governance controls on the financial performance of quoted companies in Kenya were all examined in order to meet the study's objectives. The study found a correlation between internal control environment and financial performance, and it was suggested that the internal control environment be strengthened in order to improve the financial performance of companies.

Imegi and Ogbeide (2017) undertook an empirically assessment of frauds on banks' liquidity in Nigeria for the period 1994 to 2015 using Johansson co-integration technique and error correction mechanism. The findings revealed that total number of fraud cases, actual amount involved in the fraud and the loss associated with it negatively affect banks liquidity position in the long-run, though the effect is not as strong as in the short run. The paper concluded that fraud is a key variable that depletes the banks' ability to meet up with short term obligation as well as impinge on the ability to effectively maximize the wealth of the shareholders. The study further suggested that the services of the forensic accountants be given utmost priority by banks and all concerned stakeholders so as to constantly and effectively monitor the internal control system, report levels of frauds, as well as come up with a model to fight the effect of frauds on banks' operation.

### 3. Methodology and Data

This section presents the methodology of this study that was employed. It explains the procedural plan that was adopted in answering the research questions. In this section, the research population and sample size, model specification, variable definition and measurement, data collection method and sources, data analysis techniques and diagnostic tests are described.

The study population comprises the staff of deposit money banks in Nigeria that are knowledgeable on the system of internal control and also fraud prevention prevalent in the banking sector. They comprise the Heads of Operations, Fund Transfer Officials, Customer Relationship Officers, Resident Internal Control Officials, Chief Revenue Officers, Operational Risk Specialists, Financial Analysts, Relationship Managers, Auditors, Branch Managers, Credit Analysts and Business Development Managers. Other staff members who have limited knowledge in the operations of the banks were not considered.

Since the population is unknown the Cochran's formula of (1977) is more suitable and was used in determining the sample size from the population. The Cochran formula is used for an infinite population. The desired level of precision was used to give equal opportunity to the deposit money banks in Nigeria. The formula is expressed thus:

$$n_o = \frac{z^2 (p) (1-p)}{e^2}$$

Where: z= is derived from the z- value table at given confidence level (95%)

P= is the estimated proportion of population having a given attribute (that is 50%)

$q = 1 - p$   
 $e =$  desired level of precision is 5% that is 0.05  
 $n_o =$  sample  
 $z = 1.96$        $p = 0.50$        $e = 0.05$   
 Imputing the figures using Cochran formula is expressed thus:  

$$n_o = \frac{1.96^2 \times 0.50 \times (1 - 0.50)}{0.05^2}$$

$$n_o = \frac{0.9604}{0.0025}$$

$$n_o = 384.16$$

$$n_o \sim 384$$
 Number of deposit money banks are 19  

$$n_o = 384 / 19$$

$$n_o = 20.21$$
 Therefore:  $n_o \simeq 20$

The sample size allocated to each of the banks is twenty-two (22) questionnaires that is 10% increase in the questionnaires administered. Total number of sample circulated was 418 questionnaires; this was done to enable the researchers retrieve larger number of the questionnaires for accurate analysis and results.

In this study, the model used to analyze the effect among the variables of the study was adopted from the earlier works of Ayagre, *et al* (2014).

The model by Ayagre *et al* is stated as follows:

$$ICSE1_i = \alpha_i + \beta_1 CE1_i + \beta_2 CE2_i + \beta_3 CE3_i + \beta_4 CE4_i + \beta_5 CE5_i + \beta_6 CE6_i + \epsilon_i$$

The model is further adapted and modified thus:

$$FP = f(CE, RA, CA, IC, MO)$$

The model is thus presented below:

$$FPM = \alpha + \beta_1 CE_1 + \beta_2 RA_2 + \beta_3 IC_3 + \beta_4 CA_4 + \beta_5 MO_5 + \epsilon_t$$

Where:

FP = Fraud Prevention

Proxied by:

FPM = Fraud Prevention Mechanism

$\alpha =$  Constant

CE = Control Environment

RA = Risk Assessment

IC = Information and Communication

CA = Control Activities

MO = Monitoring

$\beta_1 - \beta_5 =$  coefficient to be estimated

$\epsilon_t =$  error term

This study collected data using a primary instrument of data collection. The questionnaire presents statements on the five component of internal controls effectiveness as provided by Committee of Sponsoring Organization (COSO) and fraud prevention as adapted from Association of Certified Fraud Examiners (ACFE) measures rated on a five-point scale of

Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1) on the statements. Strongly disagree and disagree scores were used to construct statements which had an effect to a Small Extent (S. E) equivalent to mean score of 0 to 2.4 on the constant Likert scale;  $0 \leq S. E < 2.5$ . The score of neutral was chosen to represent a statement that had an effect to a Moderate Extent (M.E.) equivalent to a mean score of 2.5 to 3.4 on the continuous Likert scale:  $2.5 \leq M.E. < 3.5$ . The score of strongly agree and agree were taken to reflect statements that had an effect to a Large Extent (L.E.) equivalent to a mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \leq L.E. \leq 5.0$ .

Data for this study were analyzed using Statistical Package for Social Sciences (SPSS) version 22 of statistical software. This study adopted the descriptive analysis which helps in summarizing the data in order to understand the behaviour of the variable using the mean, standard deviation minimum and maximum. The study used inferential statistics such as multiple regression analysis to explain internal control system effect on fraud prevention. The selection of the analysis used depends on the data nature and the result of the various diagnostics and post estimation test.

The data were subjected to diagnostic tests so as to ensure conformity and to produce valid result. Validity and reliability test were carried out. Cronbach's Alpha was applied to measure the co-efficient of internal consistency and therefore reliability of the instrument. Hence, the instrument used must have the capacity to provide internal consistency. All the items under the study constructs must have internal significant correlation co-efficient of 0.6 or above using Cronbach Alpha (Hair et al., 1998).

#### 4.Result and Discussion

This section presents data collected, analysis, findings and interpretation of the research results. The main aim of this study is to examine internal control system effectiveness on fraud prevention in deposit money banks listed in Nigeria.

There are two major sections presented in the questionnaire, Section A and Section B. Section A is made up of questions about variables in the internal control system (Control Activities, Control Environment, Risk Assessment, Information and Communication, and Monitoring) while section B entails question relating to Fraud Prevention variables (Culture of Honesty and High Ethics, Evaluating Anti-fraud process and Control, and Developing an Appropriate Oversight Process). The study administered questionnaires to 418 respondents who formed the sample, however only 384 questionnaires were retrieved and answered adequately. This equates to 92 percent response rate among the target population. Responses obtained from the data collected from the organization were adequate enough to fulfill the study research objectives.

**Table 1:Summarizes the response rate**

Table 1		
<i>Questionnaires Distribution and Response Rate</i>		
Description	Frequency	Response Rate
No. of questionnaires circulated	418	100%
No. of questionnaires returned	384	92%
No. of questionnaires not returned	34	8%

<b>Source: Researcher's Field Work, 2021</b>	
--	--

Cronbach's coefficient alpha ( $\alpha$ ) is the most common accepted formula for assessing the reliability of a measurement scale with multi-point items (Peter, 1979). A total number of forty questions (40) questions were asked from the respondents, and each of those questions were grouped in their respective subsections. The alpha values were calculated using SPSS, a Statistical Package for Social Sciences. Table 2 shows the result.

**Table 2: Cronbach's alpha: Internal Controls on Revenue Generation**

S/N	Cronbach Alpha	Cronbach Alpha Based on Standardized Items	No of Items
1	0.731	0.744	05
2	0.706	0.722	05
3	0.728	0.741	05
4	0.737	0.739	05
5	0.940	0.941	05
6	0.742	0.763	05
7	0.823	0.821	05
8	0.792	0.782	05

**Source: SPSS Output, 2021**

The reliability of the instrument was tested by the researcher through the use of reliability values (Alpha values) recommended by Cronbach who recommended analysis of each alpha value for each variable under study which should not be less than 0.6 (Mohsen and Reg, 2011). The result as presented in Table 2 is very much reliable because they all have alpha coefficient greater than 0.6 as recommended. This implies that the items have relatively high level of internal consistency. Hence, the reliability of the variables used to examine the internal controls measures and fraud prevention are acceptable.

The summary of the respondents' view on control environment in the organization reveal that the respondents show to a great extent a positive response to the extent in which they disagree or agree with various aspects of control environment. This is evident from the overall mean scores of the statement of 20.89 from a possible mean score of 25. The highest mean score statement is 4.47 while the lowest mean score is 3.70 from a possible mean score of 5. On the other hand, the respondent's response to the various aspect of questions relating to the risk assessment status of the deposit banks in Nigeria. The highest mean scored recorded is statement 4 which shows that about 91% of the respondent agreed that the Staff understand their roles within the organizations internal control framework relating to how their job procedures are designed to control fraud risks and recognize circumstances where noncompliance may lead to fraud. The overall mean score is 20.87(20.87/5=4.174) out of a possible highest mean score of 20(20/5=5). Going by ranking of the Likert-scale. It can be concluded that the respondents to a large extent have a positive view towards the various aspect of risk assessment in the organization since it falls within the mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \leq L.E. \leq 5.0$ .

Evidence from the report also reveal that the control activities of the organization to a great extent is good. This could be drawn from the overall mean score of 21.73 out of a maximum means score of 25. All five statements have a mean score of 4 suggesting that a greater percentage of respondents have a positive view to all the statements. For instance, statement 3 (There is

appropriate supervision by senior staff on the work of their juniors) having the highest mean score of 4.83 out of a possible mean score 5 shows that about 91.4% of the respondents strongly agreed, 8.6% undecided. The lowest means score (4.10) is recorded in statement 2 where 90% of the respondent agreed that staff are trained to implement the accounting and financial management system while the remaining 10% disagreed to the statement.

Further, findings from the result reveal that the respondents show to a great extent a positive response to which they agree or disagree with various aspects of information and communication. This is evident from the overall mean scores of the statement of 20.79 out of a possible mean score of 25. The highest mean score statement is 4.49 and the lowest mean score is 3.80 out of a possible mean score of 5. In addition, the status of the monitoring of the organization was also assessed through some questions listed in the Likert scale. Evidence from the report revealed that the monitoring of the organization to a great extent is good. This could be drawn from the overall means score of 20.38 out of a maximum means score of 25. All the five statements all have a means score above 4 showing that a larger percentage of the respondents have a positive view to all the statements. For instance, statement 2 (The bank has an independent monitoring unit) having the highest mean score of 4.21 out of a possible mean score 5 shows that about 31.4% of the respondents strongly agreed, 58.6% agreed and the remaining 10% undecided. The lowest means score (4.00) is recorded in statement 4 where 80% of the respondents showed a positive to that periodically management reviews audit or internal controls is in place.

The overall mean score is 20.38( $20.38/5=4.076$ ) out of a maximum highest mean score of 20 ( $20/5=5$ ). Going by ranking of the Likert-scale. It can be concluded that to a large extent, the respondents have a positive view towards the various aspect of monitoring in the organization since it falls within the mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \leq L.E. \leq 5.0$ .

Moreso, evidence from the report revealed that the culture of honesty and high ethics is good. This can be seen from the overall mean score of 21.13 out of a maximum mean score of 25. Statement 5 (A set up policy for instant dismissal for commission of fraud) with the highest mean score of 4.80 is easily traceable in the sense that, none of the respondents has a negative view to the statement as about 80% of the respondent strongly agreed to the statement while the remaining 20% agreed. This is followed by statement 1 (The organization's culture, including the tone at the top, as strong as it can be with respect to zero-tolerance toward fraud.) with a means score of 4.51 out of a possible mean score of 5. 51.4% of the respondents strongly agreed while the remaining 48.6% of the respondents agreed to the statement. The lowest mean score is statement 3 (Policies and procedures, including re-engineering processes, to significantly reduce the risk of fraud been implemented) with a maximum mean score of 3.80 out of a possible mean score of 5. At statement 3, 20% of the respondents strongly agreed, 40% agreed while the remaining 40% are undecided. The overall mean score is 21.13 ( $21.13/5=4.226$ ) out a possible highest mean score of 20( $20/5=5$ ). Going by ranking of the Likert-scale. It can be concluded that the respondents to a large extent have a positive view towards the various aspect of culture of honesty and high ethics in the organization since it falls within the mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \leq L.E. \leq 5.0$ .

#### 4.1 Summary of Regression Analysis

This section presents the summary of the regression result of the effects of internal control system effectiveness and fraud prevention in deposit bank in Nigeria. The results are presented in Table 3, 4 and 5.

**Table 3: Model Summary: Goodness of fit analysis**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.772 <sup>a</sup>	.652	.631	1.20996

Source: SPSS Output, 2021

This study conducted ANOVA (i.e. analysis of variance) to ascertain the extent to which the independent variables Control Activities (CA), Control Environment (CE), Information and Communication (IC), Risk Assessment (RA) and Monitoring (MO), influence the dependent variable which is fraud prevention.

The R value (the "R" Column), reflects the simple effect and is 72.2% indicating a strong degree of effect.  $R^2$  which is also known as coefficient of determination or measure of goodness of fit, indicate by how much the dependent variable is influenced by the independent variable(s). From the Table, R-square stands at 65.2%, this means that about 65% variation in fraud prevention can be described by the independent variables i.e. control environment (CE), control activities (CA), risk assessment (RA), information and communication (IC) and monitoring (MO). Thus, the remaining 35% which is represented as U = error term, are other variables which also influence fraud prevention but not captured in the model.

**Table 4: Multiple Regression Output**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta	T	
(Constant)	58.081	3.162		18.366	.000
CE	.254	.108	.181	2.354	.020
RA	1.484	.165	1.615	8.995	.000
CA	.007	.054	.009	.134	.893
IC	.665	.131	.553	5.069	.000
MT	.851	.134	1.215	6.344	.000

Source: SPSS Output, 2021

Table 4 presents the regression analysis of each of the explanatory variables stated in the model formulated. This explained the contribution of each of the explanatory variables to changes in the dependent variable. The dependent variable is the fraud prevention mechanism (FP) while the independent variables are control activities (CA), control environment (CE), information and communication (IC), risk assessment (RA) and monitoring (MO). The Coefficient of CE is 0.254, this indicates that control environment has a positive effect on fraud prevention. Thus, holding other variables constant, a percentage increase in CE will lead to approximately 25% increase in fraud prevention.

Moreover, the result from the t-statistic stands at 2.354 and the level of significant is .020 and is significant at 5% significant level. Therefore, the null hypothesis which state that Control

environment has no effect on the prevention of fraud in deposit money banks listed in Nigeria is therefore rejected. This finding conforms Bett and Memba (2017) who also found a significant and positive relationship between control environment and fraud prevention, meanwhile it did not agree with Lemi (2015), who found a negative relationship between control environment and fraud prevention mechanism.

The Coefficient of risk assessment (RA) is 1.484 meaning that risk assessment had a positive effect on fraud prevention. Thus, a percentage increase in RA will lead to approximately 148% increase in fraud prevention. The result from the t-statistic and p-value stands at 2.354 and the significant level is 0.020 which implies that the effect is significant at 5% level. Therefore, null hypothesis which state that “risk assessment has no significant effect on fraud prevention among deposit money banks in Nigeria” is therefore rejected. This finding conform to Karagiorgos, Drogalas and Dimou (2010) who in their study found that risk assessment is effective to enhance the efficiency of fraud prevention.

The coefficient for Control activities (CA) is 0.007, meaning that there exist, a relationship that is positive in both control activities and fraud prevention. Invariably, a percentage increase in Control Activities will also lead to approximately 0.7% increase in the effect of fraud prevention in the banks. However, the result from the t-statistic and p-value stands at 0.134 and significant level is 0.893 is insignificant at 5 percent level of significance.

Therefore, the null hypothesis which holds that Control activities has no significant effect on fraud prevention among deposit money banks in Nigeria cannot be rejected. The result did not conform to Ozigbo (2015) and Ali (2013) who found out that control activities has a significant positive effect on fraud prevention. This is so because if the banks have no control activities in place it can still run the organization effectively without its operating activities being affected.

The coefficient of information and communication system is 0.665, this suggests that Information and Communication has a significant effect on fraud prevention on the organization. Thus, a percentage increase in IC will lead to approximately 66.5% increase in the fraud prevention mechanism. Moreover, the result from the t-statistic and p-value stands at 5.069 and level of significant is .000 and is highly significant at 5% significant level. Therefore, the null hypothesis which states that information and communication system has no significant effect on fraud prevention among deposit money banks in Nigeria, can therefore be rejected. This result conforms to Mensah (2011) who found out that information communication system is an effective tool in enhancing fraud prevention. However, the result did not conform to Channar, *et al* (2015)

The coefficient of monitoring is 0.851; this implies that monitoring has a positive effect on fraud prevention. Thus, a percentage increase in MO will lead to approximately 85% increase in fraud prevention. Moreover, the result from the t-statistic and p-value stands at 6.344 and significant level is .000 and is significant at 5% significant level. Therefore, the null hypothesis which states that “monitoring has no significant effect on fraud prevention among deposit money banks in Nigeria can be rejected. This result conforms to Ayagre *et al* (2014) who also found a significant positive relationship between monitoring and fraud prevention.

The Intercept of the model (C) also known as the autonomous is the expected value of the dependent variable (fraud prevention) when independent variables, control activities (CA), control environment (CE), information and communication (IC), risk assessment (RA) and monitoring (MO) equal zero. This value is 0.851 and has a significant p-value of 0.000. This implies that fraud prevention will increase by approximately 85% when all independent variables in the study equal zero.

**Table 5: ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	161.567	5	32.313	22.072	.000 <sup>b</sup>
Residual	196.176	134	1.464		
Total	357.743	139			

**Source:** SPSS Output, 2021

Table 5, present the ANOVA Table, which report how perfectly the regression equation fits into the data (that is, predicting the dependent variable). From the result obtained from the F statistic and Sig. which stand at 496.131 and 0.00 respectively, indicate that the explanatory variables i.e. Control Activities (CA), Control Environment (CE), Information and Communication (IC), Risk Assessment (RA) and Monitoring (MO) simultaneously influence the result of the dependent variable i.e. Fraud Prevention (FP) since the p value is less than 0.05, therefore it can be concluded that the model predicts the dependent variable significantly well.

## 5. Conclusion and Recommendations

The study has shown that internal control system as an effective tool for fraud prevention in deposit money banks in Nigeria. From the summary of the findings, the study concludes as follows: Banking institutions have a strong internal control system put in place to oversee its control environment, risk assessment, monitoring, information and communication on fraud prevention and control activities. The study therefore concludes that internal control system effectiveness prevents fraud occurrences in the deposit money banks in Nigeria.

Based on the study findings and conclusion the following recommendations are advanced:

- i. Management of DMBS should continually imbibe the attitude of designing and maintaining sound control environment as the success of their business depends to a significant extent on the strength of the control environment.
- ii. The banking organisations should ensure that it carries out a regular risk assessment in order to prevent all irregularity of fraud occurrences. The banks should always be at alert to all possible circumstances (business risks) that may threaten the banks' ability in achieving its set objectives. The management of the banks should ensure it receives timely, relevant, and reliable information and communication for effective decision-making and that all relevant information is communicated to staff, all channels of communication are utilized by company staff, and that there is quick and free flow of information in time. This will enable them communicate decisions made to the junior employees on time.
- iii. The activities of all bank staff should be regulated at all levels. This would help the banks in ensuring that all staff are accountable in their various departments.

- iv. The banking sectors should carryout regular reviews of their monitoring system of internal control. This can be done at least semi-annually.
- v. Conducting regular monitoring control system review will enable the banks to determine if the control systems are working effectively and efficiently. The banks can learn from the outcome and improve on the policies.

## References

- Aikins, S. (2011). An Examination of Role of Government Internal Audits Improving Financial Performance. *Public Finance and Management*, 11(4), 306-337.
- AICPA. (2017). Management Anti-Fraud Programs and Controls
- Albert, O. C., & Byaruhanga, J. (2015). Internal control effects on fraud prevention and identification in kakamega County district treasuries. *Accounting, Auditing & Accountability Journal*, 22(2), 200-220.
- Albrecht, O. C., & Zimbelman, F. M. (2009). *Fraud Examination*. Third edition. Mason USA: South-Western Engage Learning.
- Albrecht, C., Turnbull, C., Zhang, Y., &Skousen, C. J. (2010). The relationship between South Korean Chaebols and fraud, *Management Research Review*, 33(3), 257- 268.
- Aldridge, C. R., & Colbert, J. K. (1994). Management reports on internal control and the accountant's response. *Managerial Auditing Journal*, 5(7), 21-28.
- Al-Tamimi, H. A. & Al-Mazrooei, F. M. (2007). Banks risk management; A comparison study of UAE national and foreign banks, *Journal of Risk Finance*, 8(4) 394-407.
- Amudo, A., & Inanga, E. L. (2009). Evaluation of internal control systems: A case study from Uganda, *International Research Journal of Finance and Economics*, 3(2), 65-76.
- Arena, M., &Azzone, G. (2009). Identifying organizational drivers of internal audit effectiveness. *International Journal of Auditing*, 13(1), 104-111.
- Association of Certified Fraud Examiner, (2012). *Fraud Examiner Manual*, ACFE, USA
- Association of Certified Fraud Examiners. (2014). *Report To the nation On Occupational Fraud and Abuse*. Austin, Texas.
- Ayagre, P., Appiah-Gyamerah, I., & Nartey, J. (2014). The effectiveness of internal control systems of banks: The case of Ghanaian banks. *International journal of Accounting and Financial Reporting*, 4(2), 377-389.
- Basel Committee. (1998). *Framework for Internal Control System in Banking Organizations*.
- Basel Committee. (2011). *Principles for the Sound Management of operational risk*. Basel, Switzerland: Bank for International Settlements Communications
- Bett, J. C., &Memba, F. S. (2017). Effects of control environment on the internal control system effectiveness of processing firms in Kenya: A case of Menegai company. *International Journal of Recent Research in Commerce, Economics and management*, 4(1), 105-115.
- Campbell, S., & Hartcher, J. (2010). *Internal Controls For Small Business*. National office CPA entre Level 28, 385 Bourke Street Melbourne.
- Channar, T., Khan, E., &Shakri, O. (2015). Functionality of the five Components of internal control system and the effectiveness and relationship with financial performance of an organization. *Journal of Financial crime*, 23(4), 1154-1168.
- Chiezey, U., & Onu, A. (2013). Impact of fraud and fraudulent practices on the performance of banks in Nigeria. *British Journal of Arts and Social Sciences*, 15(4), 12–28.
- Cochran, W. W. (1977). *Global Land Analysis and Discovery: Sampling techniques* Third Edition.
- Committee of Sponsoring Organizations of the Treadway Commission, (2013). *Internal Control Integrated Framework*, AICPA, New York, New York
- Eseoghene, J. I. (2010). Bank frauds in Nigeria: Underlying causes, effects and possi remedies. *African Journal of Accounting, Finance and Banking Research*, 6(6), 62 – 80.

- Etengu, R. O., & Amony, M. (2016). Internal control system and financial performance in non-governmental organisations in Uganda: A case study for international union for conservation of nature. *International Journal for Contemporary Applied Sciences* 3(2), 329-349.
- Idowu, A., & Adedokwu, D. (2013). Internal control system on fraud detection: Nigerian experience. *Journal of accounting and finance*, 13(15), 628-640.
- Imegi, J. C., & Ogbeide, S. O. (2017). Empirical assessment of fraud on banks' liquidity; Evidence from Nigeria. *International Journal of Arts and Humanities*, 6(2), 161-170.
- Independent Corrupt Practices Commission, (2016). *Internal Control Mechanism*. Archives-Anti-Corruption Academy of Nigeria
- Institutes of Chartered Accountants of England and Wales, (1985). *Auditing and Reporting London. International Auditing Guidelines*.
- Karagiorgos, T., Drogalas, G., Gotzamanis, E. & Tampakoudis, I. (2009). The contribution of internal auditing to management, *International Journal of Management Research and Technology*, 3(2), 417-42.
- Kinyua, J. K., Gakure, R., Gekara, M. & Orwa, G. (2015). Effect of internal control on the financial performance of companies quoted in the Nairobi securities exchange. *International Journal of Innovative Finance and Economics Research*, 3(4), 29-48.
- Law. (2011). Importance of internal control system in banking sector: Evidence from Turkey. *International Journal of Finance and Research*, 5(2), 345-251.
- Malesu, I., & Sutton, S. (2015). The reliance of external auditor on internal audit's use of continuous audit. *Journal of Information Systems*. 29(1), 140-155.
- Michino, W. B. (2013). A Survey of the Impact of Internal Controls on Operational Efficiency among NGOs in Nairobi. Unpublished MBA thesis, University of Nairobi, Kenya.
- Millichamp, A. H. (2002). *Auditing: An Instructional Manual for Accounting Students*, London: DP Publishers.
- Muraleetharan, P. (2016). Control Environment and Internal Control System Effectiveness of Public and Private Organization in Jaffna District. Department of Accounting, Faculty of Management Studies and Commerce, University of Jaffna, Sri Lanka.
- Ngalyuka, C. (2013). The relationship between ICT utilization and fraud losses in commercial banks in Kenya. *International Journal of Business and Public Management*, 2(3), 56-59.
- Nigeria Deposit Insurance Corporation. (2018). *Annual Statement and Reports*. Abuja.
- Ntim-Sarpong, K. (2012). Internal control system: Challenges and effects on management, staff and customers of agricultural development bank, Bong-Ahafo Region, Kwame Nkrumah University of science and technology
- Nwude, C. (2006). Bank fraud, the Nigerian banker. *Journal of the Chartered Institute of Bankers of Nigeria, (NIBN) October-December, P.7*.
- Onwujiuba, M. (2014). Overview and impact of fraud in the commercial banks in Nigeria. *International Journal of Research in Management, Economics and Commerce*, 2(3). 347-352.
- Ossai, C. E. (2005). Effectiveness of internal control in fraud prevention and control in the Nigeria private sector (A Case Study of the Cash Centre of Delta State University Bursary Department at Abraka) Unpublished MBA Thesis UNEC: Department of Banking and Finance.
- Ozigbo, S. A. (2015). Internal control and fraud prevention in Nigerian business organization. A survey of some selected companies in Warri metropolis. *Journal of Policy Development Studies*, 9(3), 185-188.
- Sang, M. J. (2012). Determinants of fraud control measures in commercial banks: A survey of selected commercial banks in Nakuru town, Kenya. *International Journal of Science and Research*, 3(10), 2178-2183.
- Siyabola, T. T. (2013). Effective Internal Controls System as Antidote for Distress in the Banking Industry in Nigeria. *Journal of Economics and International Research*, 1(5), 106-121.

- Theofanis, K., George, A. D., & Nikolaos, G. (2011). Evaluation of effectiveness of internal audit in Greek hotel business. *International Journal of Economic Sciences and Applied Research* 4(1), 19-34.
- Tunji, S. (2013). Effective internal control system as an antidote for distress in banking industry in Nigeria. *Journal of Economics and International Business Research*, 1(5), 106 – 121.
- Udok, S. A. (2002). Motivation and frustration in organizations. Paper presented at a Seminar organized by faculty of Administration, Ahmadu Bello University Zaria.
- Whittington, O. R., & Pany, K. (2001). Principles of auditing and other assurance services. Irwin/McGraw- Hill. New York
- Zuraidah, M. S., Mohd, N. F., & Yusarina, M. I. (2015). Fraud schemes in the banking institutions: Prevention measures to avoid severe financial loss. *Procedia Economics and Finance*, 28(5), 107-11.

