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CONTROL ENVIRONMENT PRACTICES AND FRAUD MITIGATION IN PUBLIC ENTERPRISES IN NIGERIA

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ABSTRACT

The study investigated the relationship between control environment practices and fraud mitigation in public enterprises in Nigeria. The specific objectives were to investigate the relationship between control environment and prevention of frauds/errors in public enterprises Nigeria. Interpretative philosophy was adopted while descriptive research design was adopted for the study. The population of the study consisted of twenty six (26) public enterprises in Rivers State, Nigeria as at the end of 2020. The unit population was the staff of the public enterprises from departments of Finance and Accounts and internal audit for each of the selected public enterprises. Probability sampling technique of simple random sampling was used to determine the sample for the study. Using Taro Yamene method a sample of 24 public enterprises and 24o respondents were selected for the study. Copies of questionnaire were used for data gathering. Univariate, bivariate and multivariate techniques was used for data analysis. The result of the study shows that a positive insignificant relationship between control environment and prevention of frauds/errors in public enterprises Nigeria. The study recommends among others that government should put in place a functioning of internal control system that needs the right control make-up, with control performance clarified in detail at each point of public governance. This should contain: top level reviews; appropriate activity controls for different sectors or segments; neutral controls; looking for conformity with disclosure restrictions and follow-up on noncompliance; a system of authorisations; confirmation and reconciliation. It also needs appropriate separation of jobs and that the workforce is not assigned contradictory schedules as a means of mitigating the high level of fraud in public enterprises in Nigeria.

Keywords: Control Environment, Fraud Mitigation, Public Enterprises

INTRODUCTION

Okoro and Orlu (2021) stated that internal control are those routines that are designed for the provision of logical security towards the achievement of corporate goals in an efficient, reliable financial reporting and the conformance of appropriate rules that protects the corporate reputations. Ohaka and Somina (2020) defined internal control as those controls that are established in an organization to safeguard the financial and non-financial resources of an entity for the purpose of achieving corporate objectives. Adetiloye et al (2016) also described internal control as those measures that are designed to detect errors, fraud and irregularities that ensure that financial transactions are accurately processed and assets are safeguarded through the restriction of access to authorized individuals. Okoro and Orlu (2021) further noted that internal control directs, monitors, and measures utilization of funds to control risks to an entity and the maximization of corporate profitability. Idogei et al (2017) noted that internal control is the most effective and efficient means of detecting and preventing fraudulent practices. Iyinomen and Nkechi (2016) observed that internal control practices involves all activities that are designed to detect and prevention risks to an entity such as fraudulent activities. According to Haladu (2018), internal control practices are mechanisms that functions as fraud detection and prevention measures through performance monitoring, effective and efficient staff training on modern fraud prevention methodologies, authorization and approval of financial transactions, accuracy of accounting records, segregation of duties, and regular checks and balances. The author further noted that the prevention and detection of fraudulent practices and activities in public sector entities can be reduced or minimized through the establishment and implementation of effective and efficient internal control system through a well-established internal audit unit (Haladu, 2018).

Research Hypotheses

The study will be guided by the following research questions:

Ho_1: There is no significant relationship between control environment and prevention of frauds/errors in public enterprises Nigeria.

Ho_2: There is no significant relationship between accounting system and prevention of frauds/errors in public enterprises Nigeria.

Ho_3: There is no significant relationship between control activities/monitoring and prevention of frauds/errors in public enterprises Nigeria.

Accounting Information System and Fraud Mitigation

Accounting information is needed at all levels of an organisation to assist management in meeting the organisation's objectives. According to Ohaka and Somina (2020) an effective accounting system provides an audit trail that allows frauds to be discovered and makes concealment difficult. A well-designed accounting information system can be used to mitigate the level of fraud in the public sector. Fraud is defined as an intentional misrepresentation of financial information by an individual or group of individuals. It entails the utilisation of criminal deception to obtain an illegal advantage.Ohaka and Somina (2020) stated that fraud embraces all the multifarious means which human ingenuity can devise, which are resorted to by one individual, to get an advantage over another by false representations. The Economic and Financial Crime Commission (2004) defined fraud as the non-violent criminal and illicit activity committed with objective of earning funds illegally either individually or in a group or organized manner thereby violating existing laws governing the economic and financial activities of government. According to Okoye, et al (2017), fraud is an act of deceit or dishonest conduct involving acts of omission or making fraudulent statements with the aim of obtaining financial benefits.

Theoretical Review

There are several theories that are used to explain the correlation between internal control practices and fraud prevention. According to Enofe et al (2016), these theories include fraud triangle theory, white collar crime theory, fraud scale theory, fraud diamond theory and new fraud diamond theory.

Fraud Triangle Theory

This theory was developed by Cassey (1919 – 1987). The theory explains that individuals who are trusted could violate the trust once they believe that having a financial problem that is non-shareable can be solved by violation of a position of financial trust. Hence, these individuals can use their position to change their perception and those of others on their action. According to Eze (2015), this theory explains that every fraud has three things in common: (1) pressure (motivation or incentives); (2) knowledge or opportunity to commit crime and (3) rationalisation.

Pressure (or incentive or motivation): It is the financial force that pushes an individual towards committing fraud and abuse. According to Eze (2015), pressure is something that occurred in the personal life of the fraudster that establishes the need that motivates him to commit fraud. He further stated that pressure centres on financial strain, but it could be the symptoms. Adebisi and Gbegi (2015) stated the issues that may result to pressure to commit fraud to include the relationship between employer and employee, isolation physically, personal failure of the individual, business reversals, gaining of status. Okoye, et al (2015), pressure relates to perceived need for assets and it is as a result of greed. It is important to note that the pressure needs only to be perceived in the mind of the perpetrator to motivate the commission of fraud. This perceived needs not be visible to a third party observer. Pressures result from immediate needs not for cash or assets to support a lavish life style, pay debts, or purchase necessaries.

Opportunity (Knowledge): This is the chance and ability of an individual to commit fraud. Adebisi and Gbegi (2015) opine that an opportunity gives the person the chance to violate a position of trust he holds in the organization. Individuals commit fraud where they find the chance to commit the fraud and get away with it. The opportunity could be in the form of weak internal control system and poor supervision in the entity. According to Eze (2015), opportunity not only means that chance exist, but either there is a lack of internal controls or the complexities related with the event are such that the fraudster examines the risk of being caught as very low. Okoye, et al (2015) noted that opportunity facilitates the ability to commit fraud. It is created by a weak internal control environment, poor management oversight, and/or the misuse of position. They further noted that failure to establish adequate procedures to detect fraudulent activity also increases the opportunity for fraud to occur.

Rationalisation: This component of the fraud triangle theory explains the fraudsters self-justification of his actions and silence his conscious (Adebisi & Gbegi, 2015). Eze (2015) stated that rationalization is reconciling unlawful or unethical behaviour with the commonly accepted notions of decency and trust in his conscious or the one acceptable by members of the society. Okoye, et al (2015) stated that rationalization is an important element in most fraud. It occurs when an employee justifies why he or she committed or should commit a fraud. They further stated that rationalization is the reconciliation of an individual fraudulent behaviour with the commonly accepted notions of decency and trust. The following some of the common rationalisations for committing fraud are:

1. The person believes that committing fraud is justifiable enough to saving a family member.
2. The person believes that they will lose everything, if they do not commit fraud.
3. They person believes that no reliable help is available.
4. The person labels the fraudster as borrowing and fully intends to pay the stolen money back to the entity later.
5. The person is unable to understand or does not care about the consequences of his or her actions.

This theory consists of advantages and disadvantages by researchers. Hogan, et al (2008) stated that this theory is an important theory that can be employed in detecting, controlling and preventing fraud. However, Wolfe and Hermanson (2004) reported that two of the three components of pressure, opportunity and rationalization are inadequate to detect and control fraud.

METHODOLOGY

In line with the problem and objective of this study, the appropriate research design for this study is survey research design. The target population of the study is made up of all accountants and auditors in the selected public enterprises in Nigeria.

The Taro Yamen formula was used in the determination of the sample size of the study.

$$n = \frac{N}{1+N\,(e)^2}$$

Where:

n= sample size sought

e = level of significance

N = Population size

$$n = 26/\{1+26(0.05)^2\}$$
$$n = 26/\{1+26(0.0025)\}$$
$$n = 26/\{1+0.065\}$$
$$n = 26/\{1.065\}$$
$$n = \underline{\underline{24}}$$

The instrument used for collecting data for this study was designed by the researcher taking into consideration the objectives of the study. The instrument was named **Internal Control Practices and Fraud Mitigation Questionnaire (ICPAFMQ).**

Method of Data Analysis

The methods of data analysis involve mathematical and statistical formula used in analyzing the outcome of the research hypothesis and questions. Hence, Consistent with the positivist research philosophy and quantitative design, the employed technique of inferential analysis in this study is parametric statistics. This technique is associated with the use of quantitative models that seek to establish correlational relationship between two variables by using sample-based parameters as measures to infer about the population of the study. The data analysis was executed in three distinct stages. Firstly, a univariate (or descriptive) analysis was executed, followed by bivariate analysis and lastly, multivariate analysis.

Results

Bivariate Analysis of Model I

Correlations Analysis of Model one

		PFE	COE	ACS	CAM
PFE	Pearson Correlation	1	.058	-.052	.012
	Sig. (2-tailed)		.444	.492	.877
	N	176	176	176	176
COE	Pearson Correlation	.058	1	.122	-.512**
	Sig. (2-tailed)	.444		.107	.000
	N	176	176	176	176
ACS	Pearson Correlation	-.052	.122	1	-.162*
	Sig. (2-tailed)	.492	.107		.032
	N	176	176	176	176
CAM	Pearson Correlation	.012	-.512**	-.162*	1
	Sig. (2-tailed)	.877	.000	.032	
	N	176	176	176	176

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: SPSS Output of Field survey (2021)

The correlation matrix from table 4.4 showed the extent of relationship between the dependent variable Prevention of Frauds/Errors (PFE) and the independent variables (Control Environment (COE), Accounting System (ACS), Control Activities/Monitoring (CAM). The correlation coefficient of r = 0.058, -0.052 and0.012 shows a low, moderate positive and negative correlation between Prevention of Frauds/Errors (PFE) and all the independent variables. This implies that there is a moderate positive relationship between Prevention of Frauds/Errors (PFE) and Control Environment (COE), there is a negative relationship between Prevention of Frauds/Errors (PFE) and Accounting System (ACS). Finally, there is a low relationship between Prevention of Frauds/Errors (PFE) and Control Activities/Monitoring (ACS).

Dynamic Error Correction Mechanism (ECM) for Model One

From the result, ECM is negative (-1.485438) and significant, further confirming the existence of a long-run relationship between Prevention of fraud and errors with the selected explanatory variables in Nigeria. The negative sign indicates convergence in the long-run. Thus, the model will rightly act to correct any deviation of the dependent variable from its long-run equilibrium value. The parsimonious error correction model above shows that the coefficient of determination was very significantly high. That is, the explanatory variables included in the model explained 82% change in while the remaining variation is captured by the error term. Hence the model is of absolute good fit Also, the overall regression was significant at 1%. The Durbin Watson statistic of approximately 2 shows absence serial autocorrelation.

Model One Summary

Dependent Variable: D(LOG(PFE))

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000263	0.008641	0.030402	0.9758
ΔL(PFE(-1)	0.730909	0.160620	4.550545	0.0000
ΔL(PFE(-2)	0.598132	0.141561	4.225267	0.0000
ΔL(PFE(-3)	0.251249	0.115575	2.173902	0.0312
ΔL(PFE(-4)	0.270438	0.096487	2.802846	0.0057
ΔL(PFE(-5)	0.141910	0.078943	1.797628	0.0742
Δ(L(COE)	0.220465	0.087775	2.511709	0.0130
ΔL(COE(-1)	-0.132154	0.081166	-1.628187	0.1055
ΔL(COE(-2)	-0.157483	0.076114	-2.069034	0.0402
ΔL(COE(-4)	-0.274274	0.097675	-2.808027	0.0056
ΔL(ACS)	-0.157439	0.096256	-1.635636	0.1040
ΔL(ACS(-1)	-0.071371	0.089402	-0.798315	0.4259
ΔLOG(CAM)	0.109444	0.099771	1.096950	0.2744
ΔL(CAM(-4)	-0.190571	0.110638	-1.722482	0.0870
ECM(-1)	-1.485438	0.187836	-7.908178	0.0000

R-squared	0.820196	Mean dependent var	0.000697
Adjusted R-squared	0.776577	S.D. dependent var	0.155152
S.E. of regression	0.112249	Akaike info criterion	-1.451625
Sum squared resid	1.940377	Schwarz criterion	-1.173823
Log likelihood	137.6623	Hannan-Quinn criter.	-1.338888
F-statistic	11.92601	Durbin-Watson stat	1.981463
Prob(F-statistic)	0.000000		

Source: E-view Output of Field survey (2021)

Some of the coefficients of the variables of interest have the expected signs while some do not. The table above indicates that control environment (COE) has a positive significant relationship with Prevention of fraud as a measure. In other words, an increase in the control environment will prevent fraud. Both accounting system (ACS) and control activities/monitoring (CAM) measures appeared insignificant in explaining changes in Prevention of Fraud/Errors (PFE) of internal control practices in public enterprises in Nigeria.

Internal Control Practices and Prevention of Fraud/Errors

The parsimonious error correction result in model 1 shows that internal control measure is able to explain 82% change in prevention of fraud/errors. Hence the model is a very good fit. This was furthered confirmed by the significance of the overall model. This implies that internal control plays a significant role in prevention of fraud/errors. Result from ECM model of table 4.8 showed that internal control has a positive significant relationship with Prevention of fraud. This findings is in agreement with Singal et al (2019) who investigated the effects of fraud detection and prevention strategies in India and the result revealed that the application of management fraud prevention methods positively and significantly affects the incidence of fraud. The findings further agreed with Idogei et al (2017) carried out a study of internal control on fraud prevention, detection and eradication in the banking sector. His findings showed that internal control measures are positively and significantly affect fraud detection, prevention and eradication in the Nigerian banking sector. Other includes; Ogiriki and Appah (2018); Andove et al (2019); Gibson (2018); Owusu-Boateng et al (2017) and Iyinomen and Nkechi (2016). Their result suggested a statistical significant relationship between fraud prevention and internal control practices. However, this finding is in disagreement with Adelana and Toba (2018), they investigated internal control system and fraud detection and prevention in Ondo State, Nigeria. And the result from the multiple regression disclosed a negative and insignificant relationship between segregation of duties and fraud detection and prevention. Similarly, the findings further agreed with Sorunke (2016) carried out a study of internal audit and fraud control in local government councils in Osun State and the result from the analysis disclosed that the existence of internal audit does not prevent the occurrence of fraud and that fraud prevention. Others include; Yakubu et al (2017); Uniamikogbo et al (2019); Akenbor and Ironkwe (2014) and Agyapong (2017). Their findings suggested that internal control practices measures had insignificant relationship with presentation of fraud.

CONCLUSIONS

The study examined the relationship between control environment practices and mitigation of fraud in public enterprises in Nigeria. The need for adequate internal control practices cannot be overemphasized due to the high level of financial irregularities in public enterprises in Nigeria. The results obtained indicates a positive significant relationship between control environment and prevention of frauds/errors but negative in detection of fraud/errors and safeguarding of assets /misappropriation in public enterprises Nigeria.

RECOMMENDATIONS

Based on the findings made in the course of this study, the following recommendations are hereby suggested:

1. Government should put in place a functioning of internal control system that needs the right control make-up, with control performance clarified in detail at each point of public governance. This should contain: top level reviews; appropriate activity controls for different sectors or segments; neutral controls; looking for conformity with disclosure restrictions and follow-up on noncompliance; a system of authorisations; confirmation and reconciliation. It also needs appropriate separation of jobs and that the workforce is not assigned contradictory schedules as a means of mitigating the high level of fraud in public enterprises in Nigeria.
2. Government should put in place measures to mitigate the challenges faced in implementing internal controls findings are that the internal audit function, as part of the monitoring of the system of internal controls, must report directly to the directors of the institution and to senior executives. It is recommended that internal control gaps, whether known by public enterprise, internal audit, or other control personnel, should be reported in a well-timed fashion to the proper management level and reported on time. Material internal control issues should be reported to senior management within the public enterprise.
3. The government should make every effort to remunerate public servants adequately to enable them to meet their basic needs, ensuring that they pay competitive salaries. This should serve as proper motivator, alongside other welfare issues such as promotion, giving staffers a sense of belonging so as to mitigate the level of fraud in the public sector in Nigeria.

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