

## The Role of Internal Control System in Mitigating Embezzlement and Payroll Fraud in Small and Medium Enterprises (SMEs) in Obio/Akpor Local Government Area of Rivers State

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### Abstract

Fraud and fraudulent activities has affected many privately and publicly owned entities and in most causes the effect is felt more by the SMEs. So, this study attempted to investigate the role of internal control system in mitigating embezzlement and payroll fraud in SMEs. Four departments in ten different SMEs in Obio/Akpor Local Government Area of Rivers State, Nigeria were selected and structured questionnaires were distributed. Six null hypotheses were formulated and tested using regression at 5% level of significance using SPSS. Based on the regression analysis results all the six null hypotheses were rejected and the alternative hypotheses of significant relationship were accepted. The study also revealed that increase in segregation of duty; internal check and proper procedure for authorization will cause a reduction in embezzlement and payroll fraud in SMEs. We then recommended that internal control system should be installed and strengthened in all SMEs.

**Keywords:** Segregation of duty; Internal check; Proper procedure for authorization; Embezzlement and payroll fraud

### Introduction

Fraud is a severe and a global problem that adversely affects institutions and organizations in all ramifications hence a global concern [1]. Fraudulent activities today are rampant in both the private and the public sectors. It has ruined many organizations and destabilized managers of some organizations as it affects the whole system of the organization. Fraudulent activities have been a very old issue and it is not expected that it will end very soon. SMEs are much more vulnerable to fraud by employees and are much less able to take in these losses than the larger ones [2]. The Association of fraud examiners of the United States (1998) in their report opined that a business with less than 100 staff in her employment were the most susceptible to fraud and abuse by the staff.

Our current society is full with instances of severe moral values such as personal gains, values of individuals conflicting with the goals of the organization, entrepreneur values and attitudinal competitive pressure, indiscipline, greed and unquenchable greed for wealth [3]. The present economic hardship, inflation, and high cost of living in Nigeria and in addition low income earned by the majority has further put more financial pressure on employees to involve themselves in different fraudulent activities as a palliative to counter the financial pressure not considering the implication. As a result business owners must double their effort to curb this ugly trend.

Although, companies may not willingly admit that their organization may be susceptible to fraud, the 2014 report to the Nations as published by the Association of Certified Fraud Examiners (ACFE), it is estimated that the typical organization loses five per cent yearly of her revenue to fraud. This is because fraud involves efforts to conceal unauthorized activities.

In reaction to fast developments in the business environment, a lot of business entities have been faced with severe challenge, mainly with the latest financial crises and the failure of many giant companies that resulted from an ineffective internal control system, which has the capability to improve organizational programmes through improving the policies, the procedures and the practices that are used in detecting

or preventing errors [4,5]. The installation of an effective internal control system seems to be a major player in mitigating fraud.

This study seeks to uncover the role of an effective internal control system in mitigating embezzlement and payroll fraud in SMEs.

### Research Questions

The following questions shall be addressed in the course of this study:

- RQ<sub>1</sub>. Is there any significant relationship between segregation of duty and embezzlement in SMEs?
- RQ<sub>2</sub>. Is there any significant relationship between segregation of duty and payroll fraud in SMEs?
- RQ<sub>3</sub>. Is there any significant relationship between independent check and embezzlement in SMEs?
- RQ<sub>4</sub>. Is there any significant relationship between independent check and payroll fraud in SMEs?
- RQ<sub>5</sub>. Is there any significant relationship between proper procedure for authorization and embezzlement in SMEs?
- RQ<sub>6</sub>. Is there any significant relationship between proper procedure for authorization and payroll fraud in SMEs?

### Study Variables and Conceptual Framework

Two variables (independent and dependent) are used in this

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study. The independent variable of this study is internal control system (segregation of duties, internal checks and proper procedure for authorization while the dependent variables are embezzlement and payroll fraud.

The study variables formed the basis for the research hypothesis and the review of related literature.

## Research Hypotheses

Based on the conceptual framework, we formed the following null hypotheses;

- Ho<sub>1</sub>. There is no significant relationship between segregation of duty and embezzlement in SMEs
- Ho<sub>2</sub>. There is no significant relationship between segregation of duty and payroll fraud in SMEs
- Ho<sub>3</sub>. There is no significant relationship between independent check and embezzlement in SMEs
- Ho<sub>4</sub>. There is no significant relationship between independent check and payroll fraud in SMEs
- Ho<sub>5</sub>. There is no significant relationship between proper procedure for authorization and embezzlement in SMEs
- Ho<sub>6</sub>. There is no significant relationship between proper procedure for authorization and Payroll fraud in SMEs

## Review of Related Literature

### Internal control

An internal control system that is effective is a successful management keystone hence the successful performance of a firm [6]. It is a system put in place in organizations by its management/directors for an effective control of financial and other resources of the organization to ensure effective and efficient operation as it concerns the realization of the organizational goals

Internal control involves the control environment and procedures of control, including the adopted procedures and policies by firm's directors and management in helping to achieve the goals such as safeguarding of assets, fraud and error prevention and detection as well as complete and accurate records, including preparing reliable financial statement information timely [7]. It is a system that is holistic that allows managers and organization to evaluate how effective the operation of the business and its functions, and what extent of proper use of resources. It is a process affected by organization's structure, work and authority flows, people and management information system designed to help the organization accomplish specific goals and objectives [8]. Gamage et al. [9] sees internal control as the procedure planned and executed by those responsible for governance, management and other employees to provide assurance that is reasonable about achievement of the organization's objectives with regard to dependability of financial reporting, and operations effectiveness and efficiency.

An internal control structure that places excessive emphasis on in depth explanation of the diverse components of the system and their design methods but ignores details on how each of the different components can be measured in order to assess their effectiveness is a lacking control system. Such system of control is not an effective one and it will fail.

In any entity, an effective internal control system must comprise all vital and necessary procedures to safeguard all assets from theft, abuse,

waste etc.; assess and promote compliance with the entity's policies; encourage accurate reliable accounting records or information; effective and efficient operations in the different departments existing within the entity.

To Abiola [10], the concept of internal control is extremely crucial for proper management of an entity's risk, which may constitute barriers to the achievement of its set objectives if ignored. The concept is also vital as it plays a major role in managing risk, facilitation of operations effectively and efficiently, assets safeguard, guiding against activities that are fraudulent, compliance with laws and regulations that are applicable, authorization and approval, documentation and reporting [11].

DiNapoli [12] asserted that the overall success of an internal control system depends on the effective functioning of each element and how well each element is coordinated and integrated with one another.

It is important to know that the system of internal control is created and run with human beings with some having their personal goals and objectives. Some are in the organization and waiting for an opportunity to defraud the company. Hence having a system of internal control does not guarantee totally free from fraud as the employees can collude and break the system to execute their evil.

### Segregation of duty

Segregation of duty is paramount in any internal control system. It makes it difficult for a single person to initiate a transaction and finish it alone. It is designed in such a way that job functions are separated to avoid a situation where only one person will not initiate, record, approve, disburse cash and close up the business transaction. It ensures the prevention and detection of mistakes, errors and actions that are not proper or not in accordance to regulations and policies of the entity. It makes it possible for others to see the omission, error, misrepresentation by one person and correct it. Again, work done can be traced to the employee that did the work.

Segregation of duties involves sharing responsibilities hence making it very uneasy for only one person to commit any form of fraud and conceal it. Kiabel [13] buttressed this when he asserted that segregation of duty involves separating responsibilities in the organization from record keeping responsibility; custody of assets from accounting; transaction authorizations from related asset custody; and also separation of responsibilities within the accounting function. For instance, granting loans by a bank, in the absence of segregation of duty, a manager can negotiate a loan, approve it, do all the documentations, set it up on the system, issue the cheque and disburse the cash. But where there is segregation of duty, the manager will not have the full control of the process from the inception to the end. Conflicting roles Ballesteros et al. [14] can lead to embezzlement by an employee.

### Proper procedures for authorization

There must be a proper procedure for authorization. Certain transactions must pass through the process of authorization. For instance, disbursement of cash has to pass through the authorization procedure. This is achieved by setting a limited amount to be authorized by different calibers or hierarchies in the company. This is necessary especially when it involves a large sum of payment or expenditure to prevent fraudulent activities. It is desirable that the individual that authorizes a transaction should not have control of the transaction [13]. To him, for effective control, every transaction must be properly authorized, reason being that, there may be chaos in a situation where a single person could acquire and expand asset at his will. He further

opined that, “authorization must have to follow the lines of who is over who in the organization.”

### Internal check

Internal check is also called independent check. It is a continuous review of all control procedures and it includes surprise checks of procedures and periodic comparisons of accounting records and physical assets [13]. He asserted that internal check is needed because systems changes frequently thus necessitating regular review.

Internal check involves checking on individuals’ performance, integrity of the process and data correctness. It ensures that records are kept according to standards and policies and transactions undertaken in accordance to guidelines and policies.

### Embezzlement

Embezzlement is seen as a white-collar crime and its effect is felt by both the small and large companies globally. The Federal Bureau of Investigation (FBI) defined embezzlement as, the illegal misuse or misapplication by a criminal to his/her individual benefit such as money, property, or some other thing of value entrusted to his/her care, custody or control.” Edori [15] included embezzlement as part of financial crimes in his list of financial crimes. It is an offense that occurs when an individual deliberately use assets and/or money for a purpose which it was not intended.

According to the National white Collar Crime Center (NW3C) [16] what differentiates embezzlement from other types of theft is the breach of financial trust between the property or money owner and the offender. They further explained that, embezzlement, technically, are a type of larceny and as a result does not enjoy a class of its own in the uniform crime reports so measurement of its number of occurrences is a bit difficult and may vary from source to source.” Embezzlement is normally committed by employees that are entrusted with money or asset. Bartz et al. [17] confirm that every organization both big and small, private and public is prone to embezzlement, they suggested different ways of preventing embezzlement such as segregation of duties and meticulous check of every transaction whether big or small.

### Payroll fraud

Payroll processing is a hot area for fraud to occur. According to Hubbard [18], it is often impossible for management of companies to know every staff and their pay status. This gives opportunity for manipulation by the officer charged with the payroll responsibility to commit fraud in the absence of an effective internal control mechanism. Payroll fraud involves manipulation of the payroll system by increasing number of staff; deliberately giving wrong amount as total; including ghost workers; booking excess overtime; inflating salaries, allowances and bonuses; additional compensation that is false etc. This fraud is always committed by a minimum of two staff through collusion and the proceeds are shared in an agreed term by the parties involved.

**Signs of employee theft and embezzlement:** The following are some of the signs [19].

- Staff who refuse to take a leave for fear of being detected when replaced
- Employee continuously working overtime even when not needed
- Interested in completing official work at home
- A staff who desires to take office work home

- Extreme private spending by a staff that his income cannot support his excessive spending
- Quick Petty cash disappearance
- Excessive expenses for staff trip or travel
- Staff with a close relationship with vendors.
- Fast disappearance of supplies in the office.
- Existence of private relationships between staff and other staff, vendors, or customers.

### Research Methodology

The research work is basically a survey work. The study population comprises of all SMEs in Obio/Akpor Local Government Area of Rivers State, Nigeria. Ten SMEs were selected as sample for the study.

The researchers relied heavily on primary data. To complement the primary data was the secondary data which was well depended upon in searching materials that are of much relevant to the study from textbooks, journals, and internet.

Primary data were collected for the study using structured questionnaire. It was through simple random sampling distributed to the 120 respondents that was randomly selected. A five point rating scale was used in which the respondents was required to tick based on his opinion as follows; 1 (disagree), 2 (strongly disagree), 3 (undecided), 4 (agree) and 5 (strongly agree).

### Model Estimation

The model is first formulated in functional form thus;

#### Model 1

$$EMB = a_0 (SOD, INC, PPA) \text{ --- } (1)$$

The model was then recast into econometric form by introducing slope, constant and error terms thus;

$$EMB = a_0 + \beta SOD + \beta INC + \beta PPA + \mu \text{ --- } (2)$$

Where

EMB = Embezzlement

SOD = Separation of duty

INC = Internal check

PPA = Proper procedure of authorization

$a_0$  = Constant

$\beta$  = Coefficient or slope

$\mu$  = Error term

#### Model 2

$$PF = a_0 + \beta SOD + \beta INC + \beta PPA + \mu \text{ --- } (3)$$

Where

PF = Payroll fraud

### Data Presentation and Analysis

From Table 1, it is clear that 120 structured questionnaires were distributed to four departments of the ten selected SMEs. Fifteen structured questionnaires were sent to each of the four selected

departments in the ten selected SMEs. From the accounts department 26 were retrieved representing 86.67%; from the internal audit department 28 were retrieved representing 93.33%; from human resources department 22 were retrieved representing 73.33%; and from procurement department 24 were retrieved representing 80%. Total retrieval of the structured questionnaires was one hundred out of the one hundred and twenty distributed which represents a retrieval of 83.33%. This means that twenty of the structured questionnaires representing 16.67% were not retrieved.

From Table 2 (model summary), model 1 has R<sup>2</sup> of 71.20%. When adjusted for degree of freedom it resulted in adjusted R<sup>2</sup> of 70.6%. Model 2 has R<sup>2</sup> of 63.50%. When adjusted for degree of freedom it resulted in adjusted R<sup>2</sup> of 62.30%.

The R<sup>2</sup> values of 71.20% (model 1) and 63.50% (models 2) shows that the predictor variables (SOD, INC and PPA) accounts for 71.20% for the variation in the criterion variable (EMB) in model 1 and 63.50% for the variation in the criterion variable (PF) in model 2. That is, 29.8% of the variation in model 1 is not represented in the study model and 36.50% of the variation in model 2 is not represented in the study model.

This can be interpreted to mean that that the independent variables (SOD, INC and PPA) are key that mitigates the deadly menace of embezzlement and payroll fraud in SMEs.

The Table 3 shows F-values of 121.040 and 51.796 for models 1 and 2 respectively. Also, the table shows a P-value of 0.000 for both models which is less than 0.05 significant levels. This suggests the existence of significant relationship between the independent variables (SOD, INC and PPA) and the dependent variables (EMB and PF). It again suggests the reliability of both models of the study.

From Table 4, in model 1, the t-statistics for SOD is -17.080, -2.627 for INC and -6.080 for PPA with a P-value of 0.000, 0.002 and 0.000 for SOD, INC and PPA (the predictor variables). In model 2 the t-statistics for SOD is -5.132, -4.128 for INC and -3.506 for PPA with a P-value of 0.000, 0.001 and 0.000 for SOD, INC and PPA (the predictor variables).

| Dept.           | No. Given | No. Retrieved | % Retrieved |
|-----------------|-----------|---------------|-------------|
| Accounts        | 30        | 26            | 86.67       |
| Internal Audits | 30        | 28            | 93.33       |
| Human Resources | 30        | 22            | 73.33       |
| Procurement     | 30        | 24            | 80.00       |
| Total           | 120       | 100           | 83.33       |

**Table 1:** Distribution and retrieval of questionnaire.

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .844 | .712     | .706              | .35388                     |
| 2     | .797 | .635     | .623              | .19690                     |

**Table 2:** Model summary (Dependent Variables: EMB and PF). Source: SPSS.

| Model        | Sum of squares | df  | Mean Square | F       | Sig.  |
|--------------|----------------|-----|-------------|---------|-------|
| 1 Regression | 23.406         | 1   | 7.802       | 121.040 | 0.000 |
| Residual     | 9.475          | 99  | 0.64        |         |       |
| Total        | 32.882         | 100 |             |         |       |
| 2 Regression | 8.032          | 1   | 2.008       | 51.796  | 0.000 |
| Residual     | 4.613          | 99  | 0.039       |         |       |
| Total        | 12.646         | 100 |             |         |       |

Source: SPSS a. Dependent Variables: EMB, PF b. Predictors: (Constant), SOD, INC, PPA

**Table 3:** ANOVA.

| Model        | Unstandardized Coefficients |            | Unstandardized Coefficients |         |       |
|--------------|-----------------------------|------------|-----------------------------|---------|-------|
|              | B                           | Std. Error | Beta                        | t       | Sig.  |
| 1 (Constant) | 1.149                       | 0.314      |                             | 3.659   | 0.000 |
| SOD          | -0.673                      | 0.039      | -0.800                      | -17.080 | 0.000 |
| INC          | -0.225                      | 0.086      | -0.133                      | -2.627  | 0.002 |
| PPA          | -0.280                      | 0.046      | -0.295                      | -6.080  | 0.000 |
| 2 (Constant) | 0.057                       | 0.219      |                             | 0.260   | 0.000 |
| SOD          | -0.287                      | 0.056      | -0.315                      | -5.132  | 0.000 |
| INC          | -0.268                      | 0.665      | -0.256                      | -4.128  | 0.001 |
| PPA          | -0.008                      | 0.025      | -0.212                      | -3.506  | 0.000 |

**Table 4:** Coefficients.

Both in model 1 and 2, movements are in same negative direction suggesting that increase in the dependent variables (segregation of duty, internal check and proper procedure for authorization) will automatically result to decrease in the dependent variables (embezzlement and payroll fraud).

## Findings and Discussion

In testing the hypotheses the regression results above was used and in determining the significance, we adopted a significant level of 5%. To determine whether to accept any of the hypothesis stated in the null form, the P-value, that is, the significant value must be greater than 0.05 level of significant otherwise it is rejected and the alternative hypothesis is accepted.

## Conclusion and Recommendations

The purpose of the study was to investigate the role of internal control system in mitigating embezzlement and payroll fraud. The researchers' looked at segregation of duty, internal check and proper procedure for authorization as the proxies of internal control system. The study discovered a significant relationship between the proxies of internal control system (independent variable) and the dependent variables (embezzlement and payroll fraud). Also, the relationship is on the negative direction. That is, increase in internal control system, using segregation of duty, internal check and proper procedure for authorization, will result to a decrease in embezzlement and payroll fraud in SMEs.

The finding of the study is in line with the findings of Messier et al. [20] and Hayes [21] that discovered from their respective studies that SMEs with effective internal control have led to the business success and it is also a step that is essential and imperative in employee theft reduction. The finding is also in tandem with the findings of Adetiloye et al. [22], Oguda et al. [23] and Ademola et al. [24]. These studies results show that internal control is effective against fraud, it has statistical significant relationship between the capability of the systems of internal control and detecting and preventing of fraud in banks in Nigeria, and that establishing internal control play a fundamental role in preventing of fraud and irregularities. Also, the finding is in tandem with theoretical expectation and shows that internal control system has the capacity to reduce embezzlement and payroll fraud.

We therefore concluded that internal control system has a significant relationship with embezzlement and payroll fraud and then made the following recommendations;

All SMEs that have no internal control system should engage an expert and install it SMEs that have a weak internal control system should strengthen the system as a way of mitigating embezzlement and payroll fraud.



All transactions that involve cash should be subjected to proper check.

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