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EFFECT OF FINANCIAL FRAUD MAGNITUDE ON SERVICE DELIVERY PERFORMANCE IN NIGERIAN PUBLIC SECTOR ORGANIZATIONS

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Keywords: *Financial Fraud, SDI, Fraud Detection, Fraud Management & Performance Metrics.*

Abstract: *This study investigates the impact of financial fraud magnitude on service delivery performance within selected public sector organizations in Nigeria. The research specifically examines how the amount of financial fraud and the frequency of fraud detections affect the Service Delivery Index. Using an ex post facto research design covering the period from 2011 to 2023, the study employs a stratified sampling method to select twelve public sector organizations. Regression analysis, including panel estimation techniques, was utilized to analyze both cross-sectional and time series data, ensuring robust results. The findings reveal a significant negative relationship between the amount of financial fraud and the Service Delivery Index, with a p-value of 0.0000. This indicates that increased financial fraud is associated with a decline in service delivery performance, suggesting challenges in effectively managing fraud within these organizations. Additionally, the analysis shows a negative and significant impact of the number of fraud detections on the Service Delivery Index, with a p-value of 0.0036 and a t-statistic of 3.827113. This suggests that higher frequencies of fraud detection are linked to poorer service delivery outcomes, highlighting potential inefficiencies in the fraud detection processes. The study concludes by emphasizing the need to address the challenges related to financial fraud and improve fraud detection mechanisms to enhance service delivery performance in Nigeria's public sector.*

1. Introduction

Financial fraud has become a significant issue in Nigeria's public sector, leading to severe economic losses, diminished public trust, and weakened service delivery. This research focuses on examining how the magnitude of financial fraud affects the service delivery performance within selected public sector organizations in Nigeria.

The Nigerian public sector has been plagued by various forms of financial misconduct, including embezzlement, misappropriation of funds, bribery, and corruption. These fraudulent activities drain public resources and hinder the effectiveness of service delivery, ultimately

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impacting the country's socio-economic progress (Oyerogba, 2021). Addressing this issue is crucial for enhancing transparency, accountability and overall governance in public sector organizations (Bello et al., 2022).

While forensic accounting, which integrates accounting, auditing, and investigative skills, has garnered attention as an effective tool for combating financial fraud, there is limited research on how different levels of financial fraud specifically affect service delivery performance. This study aims to fill this gap by exploring the relationship between the magnitude of financial fraud and the service delivery performance in selected Nigerian public sector organizations.

By investigating this relationship, the research will provide valuable insights into how varying levels of financial fraud impact the efficiency and effectiveness of service delivery. The findings will contribute to a deeper understanding of how financial fraud magnitude influences public sector performance and offer recommendations for improving service delivery through enhanced fraud management strategies.

Statement of the Problem

In an optimal scenario, public sector organizations in Nigeria should maintain high standards of service delivery, characterized by transparency, efficiency, and effectiveness. Financial fraud should be minimal or non-existent, with robust systems in place for preventing and detecting any instances of fraud. Ideally, public sector organizations would ensure that resources are used effectively to meet the needs of the public, thereby fostering trust and confidence in government services.

Currently, many public sector organizations in Nigeria are grappling with significant levels of financial fraud, including embezzlement, misappropriation, and corruption. The magnitude of financial fraud within these organizations is adversely affecting their service delivery performance. These issues lead to inefficient use of resources, diminished quality of services, and a decline in public trust. Despite the potential of forensic accounting as a tool for mitigating these problems, its impact on improving service delivery in the context of varying levels of fraud has not been adequately studied or applied.

If the issues related to financial fraud and its impact on service delivery are not addressed, public sector organizations will continue to experience severe operational inefficiencies and reduced effectiveness in delivering services. This persistent problem will undermine public trust and confidence in government institutions, hinder socio-economic development, and exacerbate existing challenges within the public sector. Ultimately, unresolved financial fraud will lead to a continued cycle of poor service delivery and decreased accountability, further damaging the overall governance and effectiveness of public sector operations in Nigeria.

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Objectives of the Study

The main objectives of the study is to assess the effect of financial fraud magnitude on service delivery performance in Nigerian public sector organizations, while the specific objectives are to:

- To determine the effect of financial fraud amount on service delivery index of selected public sector organizations in Nigeria.
- To ascertain the effect of number of fraud detection on service delivery index of selected public sector organizations in Nigeria.

Research Questions

The study provided answers to the following research questions:

i. To what extent has financial fraud amount affected the service delivery index of selected public sector organizations in Nigeria?

ii. To what extent has number of fraud detection affected the service delivery index of selected public sector organizations in Nigeria?

Statement of Hypotheses

The following hypotheses in null form guided the study:

i. Financial fraud amount has no effect on service delivery index of selected public sector organizations in Nigeria

ii. Number of fraud detection has no effect on service delivery index of selected public sector organizations in Nigeria

2. Review of Related Literature

Conceptual Review

Concept of Financial Fraud

Financial fraud refers to deliberate acts of deceit designed to secure an unfair or unlawful financial gain. It involves the intentional manipulation, misrepresentation, or concealment of financial information to deceive stakeholders and achieve personal or organizational benefits. Financial fraud can take various forms, including embezzlement, falsification of financial statements, bribery, and other corrupt practices that undermine the integrity of financial transactions and reporting (Verma & Singh, 2017).

Embezzlement involves the theft of funds entrusted to an individual, often by employees or managers. Financial statement fraud includes altering or falsifying financial reports to mislead investors, regulators, or other stakeholders about an organization's financial health. Bribery and corruption involve offering or accepting illicit payments to influence decisions or obtain advantages. Such fraudulent activities not only result in significant financial losses but also damage the trust and credibility of organizations (Alhassan, 2020).

Addressing financial fraud requires a thorough understanding of these deceptive practices and their impacts. Forensic accounting plays a vital role in detecting and investigating financial fraud by applying specialized techniques to scrutinize financial records and transactions, identify

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discrepancies, and provide evidence for legal proceedings (Adebisi et al., 2016).

Fraud and fraud detection

Fraud involves deliberate deceit, dishonesty, or misrepresentation aimed at personal gain or causing harm to individuals, organizations, or society at large. It includes actions such as deception, manipulation, or hiding information to mislead others and obtain illegal benefits. In contrast, fraud detection is the process of identifying and uncovering fraudulent activities within an organization or system. This involves employing various techniques, tools, and investigative methods to spot signs of fraud, reveal fraudulent transactions, and reduce potential losses. Effective fraud detection is crucial for organizations to minimize financial damage, safeguard assets, preserve their reputation, and ensure adherence to legal and regulatory standards (Dion, 2016).

Fraud Detection Techniques of public sector organizations in Nigeria

Data Analytics: Organizations leverage advanced data analytics tools and methods to scrutinize large datasets for patterns, anomalies, or outliers that could indicate fraudulent activities. By analyzing transaction data, identifying unusual patterns, spotting duplicate or fictitious records, and flagging suspicious activities, data analytics plays a crucial role in detecting potential fraud and directing further investigation.

Internal Controls: Strong internal controls are essential for establishing checks and balances that prevent and detect fraud. This involves implementing measures such as segregation of duties, conducting regular internal audits, and ensuring that proper authorization and approval processes are followed. These controls help create a system of oversight that can deter fraudulent actions and identify them early.

Whistleblowing Systems: Encouraging the reporting of suspected fraud through confidential whistleblowing systems allows employees, customers, and other stakeholders to report suspicious activities securely and anonymously. These systems provide a safe channel for individuals to raise concerns, which can lead to the early detection of fraudulent behavior.

Forensic Accounting: Forensic accountants use their specialized expertise to investigate and reveal fraudulent activities. They analyze financial records, conduct interviews, and apply forensic techniques to trace funds, identify discrepancies, and gather evidence for legal actions (Ehioghiren & Atu, 2016). Their role is crucial in uncovering and documenting fraud to support legal proceedings and prevent further misconduct.

Theoretical Framework

This study is theoretically linked to Fraud Diamond Theory (FDT), which provides a framework for understanding the factors that contribute to fraudulent behavior within organizations. Developed by David Wolfe and Dana Hermanson, the Fraud Diamond Theory expands upon the earlier Fraud Triangle Theory

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by adding an additional element. It consists of four interrelated components:

1. **Pressure:** This element refers to the financial, emotional, or lifestyle pressures that may drive individuals to commit fraud. Such pressures can include personal financial difficulties, significant debt, or the need to achieve unrealistic performance targets. In the context of public sector organizations in Nigeria, high levels of corruption or resource constraints might create intense pressure that could lead to increased financial fraud.
2. **Opportunity:** Opportunity involves the conditions that allow fraud to occur with minimal risk of detection. This can be due to weak internal controls, inadequate oversight, or inefficient governance structures. In Nigerian public sector organizations, opportunities for fraud might be prevalent due to bureaucratic inefficiencies or lack of transparency, potentially affecting service delivery performance.
3. **Rationalization:** Rationalization is the process by which individuals justify their fraudulent actions to themselves. This involves developing excuses or justifications that help them reconcile their behavior with their self-image. In the Nigerian public sector, cultural norms or the perception that fraud is necessary for organizational success could influence how individuals rationalize their fraudulent behavior.
4. **Capability:** Capability refers to the skills, knowledge, and resources an individual has to commit fraud successfully. This includes understanding internal control weaknesses and manipulating financial records. Evaluating capability in the context of this study involves understanding how the magnitude of financial fraud affects the effectiveness and performance of public sector organizations. By applying the Fraud Diamond Theory, this study examines how each of these elements contributes to the magnitude of financial fraud and its impact on the service delivery performance of public sector organizations in Nigeria. This theoretical framework helps to analyze how different factors influence the extent of financial fraud and, consequently, how it affects the efficiency and effectiveness of public sector service delivery.

Empirical Review

Oyebisi, Wisdom, Olusogo & Ifeoluwa (2018) examined the issue of fraud in the banking sector, with specific focus on four (4) DMBs in Nigeria. For each bank, 25 questionnaires were issued, culminating to 100 respondents, comprising management members, accountants, and auditors, selecting using stratified sampling method. The work set out to probe how fraud investigation, litigation support, and expert consultancy prevent and detect fraud. With the questionnaire validated and response found to be reliable, the data were subjected to analysis, using the analysis of variance (ANOVA) and regression methods. Empirically, it was disclosed that the application of forensic accounting

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significantly prevents fraud, and fraud can be detected by engaging in forensic accounting.

Lawal, Yinusa, Lawal, Oyetunji & Adekoya (2020) engaged four hundred and forty-nine (449) employees of P.Z. Nigeria Ltd as they investigated the detection of fraud using forensic accounting. The effect of forensic investigation, litigation, and accounting in the detection of fraud was x-rayed. With the data instrument certified valid and reliable, the data collected using a questionnaire was analyzed using regression method. From the analysis, increasing forensic investigation, litigation, and accounting by management of PZ Ltd will increase fraud detection.

Alhassan (2020) in his work based the result of his finding on the opinions of 50 respondents, which comprise of accountants and auditors, drawn from 10 ministries in FCT, Abuja, Nigeria. The survey geared towards examining the use of foreign accounting service in detecting and preventing fraud in the ministries. Those who were involved in the study were randomly selected, with ten experts each from the 10 ministries. In gathering data, a questionnaire was favored, and analysis of variance (ANOVA) used to analyze the data obtained. The major discovery is that forensic accounting is effective in the detection of fraud in the public sector, and a significant correlation was uncovered between forensic accounting and litigation service.

Edheku & Akpoveta (2020) in their work sampled 43 accounting officers to explore how instrumental forensic accounting can be in detecting fraud in the private and public sectors. In investigating this, they conducted the survey in Abuja, using four federal ministries and five private multinationals. With the questionnaire used to collect data validated and found reliable, the data gathered were analyzed with mean, standard deviation, and t-test, and they report that fraud in the two sectors can be detected by engaging in forensic accounting.

Inyada, Olopade & John (2019) observed the upscale in bank-related fraud cases in Nigeria and investigated whether bank fraud occurring in Nigerian banks can be tamed through forensic audit. The study's objective centered on the effect forensic audit has on fraud detection and its prevention. They worked with 128 respondents from a population of 165 and employed primary data. This data was collected using a structured questionnaire design in line with a 5-point Likert scale. They analyzed the relationship using the ordinary least square method. The outcome was positive as analysis divulged that conducting forensic audit enhances fraud detection and ensures fraud prevention

Bello, Mohammed & Javan (2022) sourced data using a questionnaire and interview as they probed if a link exists between forensic audit and fraud detection. Their study focused on the banking sector in Nigeria as 10 persons from 10 banks operating in Yola State were sampled for the survey, using a simple random method. A model was set up as they tried to understand fraud detection through the prism of forensic audit. With the OLS method applied, the

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estimated model revealed promising outcomes as forensic audit contributed significantly to the detection of fraud in the 10 banks survey.

Owolabi & Ogunsola (2021) studied the possibility of minimizing bank fraud through forensic auditing. The study which took place in Ibadan, Nigeria, involved six DMBs and employees of these banks participated in the survey. In obtaining opinions of employees of these banks, questionnaires that reflect the 5 points scale were administered to 132 staff, with 120 returned. In turn, they combined the Pearson moment correlation and regression methods to analyze the obtained data. Evidently, they were able to show that forensic accounting skills, knowledge of forensic accounting and procedures, and legal background are significant measures that can help reduce the incidence of fraud in DMBs studied.

Eko, Adebisi & Moses (2020) in their work x-rayed the issue of fraud prevention and detection, focusing on the use of forensic accounting techniques to achieving it. The banks considered for the study numbered 15 and were those operating in Cross Rivers State. With purposeful sampling, 150 employees comprising of IT specialists, auditors, economists, and accountants were selected from a population of 170. The 150 respondents that participated were responded to questions posed to them using a questionnaire, designed to reflect the 5-point scale. While the relationship was modeled in a multiple framework, they found when the OLS method was applied that banks can forestall fraud and detect it by applying the forensic accounting techniques of commercial data mining software, trend analysis, and ratio analysis.

Uniamikogbo, Adeusi & Amu (2019) tested three hypotheses in their study to assess the possibility of detecting and preventing fraud in 16 deposit money banks (DMBs) in Nigeria through forensic audit. The hypotheses they tested were if engaging in forensic audit affects the number of fraud cases experienced at the DMBs; the amount lost to such fraud, and the number of staff that are involved in such fraud. This investigation was for a period of 5 years, from 2012 to 2016. Deploying the OLS method to estimating the regression model crafted, the outcome from estimation disclosed satisfactory results. As found from the empirical result, the number of staff that engage in bank fraud, cases of bank fraud, and amount lost to fraudulent activities in the banks declined with the practice of forensic audit.

Oyerogba (2021) study focused on the Nigerian public sector as it addressed the issue of fraud detection through the use of forensic auditing mechanism. The study drew respondents from the judiciary, federal, state, and private universities and forensic auditors, as 298 respondents participated in the survey. The data which the author used was collected using a questionnaire and then subjected to descriptive and inferential statistical analysis. The linear logistic and OLS method was used for the latter, and mean and standard deviation for the former.

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In terms of finding, fraud detection in the public sector is predicted by forensic skills and techniques. Hence, to reduce the spate of fraudulent practices in the sector, it was advised that the government rejig their internal control, scaling it up to forestall incidence of fraud.

Okoye, Adeniyi & James (2019) used descriptive and inferential tools such as mean, standard deviation, and regression method to investigate the effectiveness of forensic accounting in fraud management. In conducting this research, four manufacturing firms in Nigeria were focused on and one hundred and ninety (190) of the staff of these firms participated in the survey. The firms were Dupril Forma, Cadbury, Breweries, and Nigeria Bottling company, domiciled in Aba, in Abia State. The outcome matched expectations as their work disclosed that more fraud will be detected and prevented as forensic accounting is undertaken in the companies studied. Their analysis also informed that engaging in fraud litigation really had little effect on the recovery of the funds lost to the perpetrated act.

Okoye & Ndah (2019) examine how effective forensic accounting can be to preventing fraud in 10 manufacturing companies that undertake their activities in Port Harcourt, Nigeria. Fifty (50) staff of the 10 companies were involved in the survey, and questionnaires were randomly distributed to them. The data collected were then analyzed using the OLS method. Like some studies that address this germane issue, their result showed fraud in the companies studied can be prevented using fraud litigation practices. Also, discovery made revealed that fraud in the companies can be prevented through fraud investigation.

Gap in Literature

The existing literature on the effect of financial fraud magnitude on service delivery performance in Nigerian public sector organizations reveals several key gaps. Primarily, research has predominantly focused on financial fraud within the private sector, with limited attention given to its implications for public sector service delivery. Additionally, there is a notable lack of empirical studies examining how different magnitudes of financial fraud impact service delivery performance specifically in Nigerian public organizations. Much of the existing research is conducted in contexts outside Nigeria, which may overlook local regulatory, cultural, and institutional factors that could significantly influence the relationship between fraud magnitude and service performance. Moreover, there is insufficient investigation into how varying levels of financial fraud affect specific dimensions of service delivery, such as efficiency and quality. Finally, there is a need for more direct analysis to understand how the severity of financial fraud correlates with service delivery outcomes. Addressing these gaps is crucial for gaining a comprehensive understanding of how financial fraud impacts service delivery in the Nigerian public sector and for developing effective mitigation strategies.

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3. Methodology

Research Design

This study adopted *ex-post facto* research design. The choice of the *ex-post facto* design is because the research relied on already recorded events, and researchers do not have control over the relevant dependent and independent variables they are studying with a view to manipulating them.

Area of the Study

The study was carried out in Nigeria, and specifically on the public sector organizations.

Sources of Data

This study employed secondary data. It was sourced from the annual reports and accounts of the selected public sector organizations in Nigeria for various years within the period of 2011 to 2023.

Population of the Study

The population of the study is the entire thirty-eight (38) quoted public sector organizations in Nigeria.

Determination of Sample Size

The study adopted a stratified sampling technique in determining the sample size, hence twelve (12) public sector organizations were sampled for analysis.

Model Specification

The study used financial fraud amount and number of fraud detection as proxy for financial fraud magnitude while Service Delivery Index (SDI) serves as the dependent variable.

Given the above considerations, a two predictor model were specified as follows:

$Y' = a + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it}$ ....(i)

Where; Y = Dependent variable

X_1, X_2 --------------------X_n = the explanatory or independent variables

B_1, β_2 --------------------β_n = the coefficient of the parameter estimate or the slope

ε = Error or disturbance term, while

t = Time

Explicit representation of the model:

$SDI = \beta_0 + \beta_1 FFAit + \beta_2 NFDit + \varepsilon it$ ....(ii)

Where; SDI = Service Delivery Index

FFA = Financial Fraud Amount

NFD = Number of Fraud Detection

εit = error terms

t = time

Method of Data Analysis

This study applied Panel Least Squares Regression Analysis.

Statement of Decision Rule/Criteria for Hypotheses Testing

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

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4. DATA PRESENTATION AND ANALYSIS

Table 4.1: Regression Analysis Result of the Industry Level Panel Data of the sampled Public Sector Organizations in Nigeria

Dependent Variable: SDI
Method: Panel Least Squares
Date: 08/28/24 Time: 11:37
Sample: 2011 2023
Periods included: 13
Cross-sections included: 12
Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FFA	-1.581234	0.161026	-9.819743	0.0000
NFD	-0.304642	0.079601	-3.827113	0.0036
C	-9.294746	2.143663	-4.335918	0.0000

R-squared	0.603470	Mean dependent var	10.95170
Adjusted R-squared	0.593670	S.D. dependent var	1.469920
S.E. of regression	1.045949	Akaike info criterion	2.953033
Sum squared resid	166.2894	Schwarz criterion	3.031234
Log likelihood	-226.3365	Hannan-Quinn criter.	2.984795
F-statistic	51.37483	Durbin-Watson stat	1.782377
Prob(F-statistic)	0.000000		

Source: E-view 11.0 Statistical Output, 2024

Table 4.1 presents findings on the impact of financial fraud magnitude and fraud detection on the service delivery performance of Nigerian public sector organizations. The results indicate that the amount of financial fraud has a negative and significant effect on the Service Delivery Index (SDI), with a p-value of 0.0000 and a t-statistics of 9.819743, highlighting a strong and statistically significant inverse relationship. Similarly, the number of fraud detections negatively influences the SDI, as shown by a p-value of 0.0036 and a t-statistic of -3.827113, confirming the significance of this negative effect.

The adjusted R-squared value of approximately 59% suggests that a substantial portion of the variation in the Service Delivery Index can be explained by the variables related to financial

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fraud and fraud detection. The remaining 41% of the variation is attributable to other factors that could impact the Service Delivery Index or are captured by the error term.

Additionally, the significance of the F-statistic (0.00000) indicates that the multiple regression model is statistically robust and fits the data well. There is no evidence of serial autocorrelation in the panel data, as indicated by the Durbin-Watson statistic of 1.782377, which falls within a normal range. This absence of autocorrelation supports the validity of the regression analysis and its results.

Test of Hypotheses

Test of Hypothesis One

Restatement of the Hypothesis in Null and Alternate forms:

Null Hypothesis: Financial fraud amount has no effect on Service Delivery Index (SDI) of selected public sector organizations in Nigeria

Alternative Hypothesis: Financial fraud amount has effect on Service Delivery Index (SDI) of selected public sector organizations in Nigeria

Statement of Decision Rule:

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Decision

In Table 4.1, the panel regression results indicate that the Service Delivery Index is negatively influenced by the Financial Fraud Amount. The extent of this influence on the Service Delivery Index of the sampled public sector organizations is both significant and adverse. This suggests that an increase in financial fraud amount is likely to impair the Service Delivery Index of these organizations in Nigeria. The p-value of 0.0000 for Financial Fraud Amount is less than the threshold of 0.05, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. Therefore, the study concludes that a higher Financial Fraud Amount has a negative and significant effect on the Service Delivery Index of the sampled public sector organizations in Nigeria.

Test of Hypothesis Two

Restatement of the Hypothesis in Null and Alternate forms:

Null Hypothesis: Number of fraud detection has no effect on Service Delivery Index of selected public sector organizations in Nigeria

Alternative Hypothesis: Number of fraud detection has effect on Service Delivery Index of selected public sector organizations in Nigeria

Statement of Decision Rule:

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Decision

The panel regression results from Table 4.1 show that the Service Delivery Index is negatively influenced by the number of fraud detections. The extent of this influence indicates that an increased number of fraud detections is likely to decrease the Service Delivery Index of the

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sampled public sector organizations in Nigeria. The p-value of 0.0036 for the number of fraud detections is below the significance threshold of 0.05, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. Consequently, the study concludes that a higher number of fraud detections has a negative and significant effect on the Service Delivery Index of the sampled public sector organizations in Nigeria.

Discussion of Results

The study identified a significant and negative relationship between the amount of financial fraud and the Service Delivery Index in the sampled Nigerian public sector organizations. With a p-value of 0.0000, the results are statistically significant, suggesting that an increase in the amount of financial fraud is associated with a decline in the Service Delivery Index. This implies that higher levels of financial fraud negatively impact the service delivery performance of these organizations.

Additionally, the analysis revealed a negative and significant impact of the number of fraud detections on the Service Delivery Index, with a p-value of 0.0036 and a t-statistic of 3.827113. This result indicates that an increase in the number of fraud detections is linked to a lower Service Delivery Index. This suggests that more frequent fraud detection efforts may not be improving service delivery and could reflect inefficiencies or challenges in the fraud detection processes within Nigerian public sector organizations.

5. Summary of Findings, Conclusion and Recommendations.

Summary of Findings

Findings arising from this research were summarized as follows:

i. The study revealed a significant and negative relationship between the amount of financial fraud and the Service Delivery Index in the sampled Nigerian public sector organizations. With a p-value of 0.0000, the results are statistically significant, indicating that this observed effect is unlikely to be due to chance. This finding suggests that an increase in the amount of financial fraud is associated with a decline in the Service Delivery Index. It implies that public sector organizations in Nigeria may be struggling to effectively use forensic accounting to reduce financial fraud, which in turn adversely affects their service delivery performance.

ii. Additionally, the analysis found a negative and significant impact of the number of fraud detections on the Service Delivery Index, with a p-value of 0.0036 and a t-statistic of 3.827113, confirming the significance of this effect. This result indicates that an increase in the number of fraud detections is linked to a lower Service Delivery Index, suggesting that more frequent fraud detection efforts may not be contributing positively to service delivery in Nigerian public sector organizations.

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Conclusion

In conclusion, the study emphasizes the substantial impact of financial fraud magnitude on service delivery performance in Nigerian public sector organizations. By analyzing the interplay between financial fraud amounts, fraud detection frequency, and the Service Delivery Index, several key findings have emerged.

The study identifies a significant negative correlation between higher levels of financial fraud and the Service Delivery Index. This indicates that as financial fraud increases, service delivery performance tends to deteriorate. The results underscore the harmful effects of substantial financial fraud on the efficiency and quality of services provided by public sector organizations.

Furthermore, the research highlights the crucial role of effective fraud detection. The negative relationship between the frequency of fraud detection and the Service Delivery Index suggests that increased efforts in fraud detection may not necessarily lead to better service delivery outcomes. This finding points to the need for more effective fraud detection mechanisms and suggests that simply increasing detection efforts without addressing underlying issues may not enhance service quality.

Moreover, the study sheds light on how the magnitude of financial fraud negatively affects service delivery in Nigerian public sector organizations. It underscores the importance of managing and mitigating financial fraud to improve service delivery and ensure high performance in public sector operations.

Recommendations

Based on the findings from the study, the discussions and the conclusion, the following recommendations were suggested:

i. The study identified a significant and negative relationship between the amount of financial fraud and the Service Delivery Index in the sampled Nigerian public sector organizations. The p-value of 0.0000 confirms the statistical significance of this relationship, indicating that the observed effect is highly unlikely to be due to chance. This result suggests that as the amount of financial fraud increases, the Service Delivery Index declines. This implies that public sector organizations in Nigeria may be facing challenges in effectively utilizing forensic accounting to curb financial fraud, which negatively impacts their service delivery performance.

ii. The analysis also revealed a negative and significant impact of the number of fraud detections on the Service Delivery Index, with a p-value of 0.0036 and a t-statistic of 3.827113. This finding indicates that a higher number of fraud detections is associated with a lower Service Delivery Index. It suggests that increasing the frequency of fraud detection efforts may not be enhancing service delivery outcomes and could be reflecting inefficiencies

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or challenges in the detection processes within Nigerian public sector organizations.

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