ASSESSMENT OF INFLUENCE OF FORENSIC ACCOUNTING ON PAYROLL FRAUD DETECTION IN TERTIARY INSTITUTIONS IN OSUN STATE

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Abstract

The objective of this study was to investigate the influence of forensic accounting on payroll fraud detection in tertiary institutions in Osun state. A survey research design was adopted for this study. The population of this study consisted of all the accountants and auditors working in the Bursary and Audit Departments in all the selected tertiary institutions in Osun state. A non-probability judgmental and purposive sampling method were employed to sample the accountants working in the Bursary Departments and Auditors working in Audit Departments of Obafemi Awolowo University (OAU), Osun State University (UNIOSUN) and LAUTECH Teaching Hospital in Osogbo.Data for the study were collected from the primary source with the aid of questionnaire. Sixty copies of the questionnaire were distributed to selected respondents out of which fifty-three (53) copies of the questionnaire were properly completed, returned and were analyzed with application of Ordinary Least Square. The results revealed that both investigative accounting and litigation support are statistically significant, as the sig. value of INVAC is 0.012, and that of LITGS is 0.004 which contributed to reducing incidence of fraud in payroll fraud in tertiary institutions in Osun state. The study recommended that in order to minimize payroll fraud, it is essential to understand the nature and scale of fraud through investigative accounting to stem the incidence of payroll fraud. It is also recommended that forensic accountants should be employed in higher institutions for early detection of payroll fraud.

Keywords: Payroll, Litigation Support, Forensic Accounting, Payroll Fraud, Ghost workers.

Introduction

The persistence increase in the white-collar crimes, where evidences are comparatively more obscure and difficult to detect has called for necessitated equipping of auditors with forensic skills (Gottschalk, 2011). The end results of several accounting scandals such as Enron and WorldCom in the USA, HIH Insurance in Australia, Royal Ahold in the Netherlands, Parmalat in Italy, and Equitable Life Assurance Society in the UK (Kleinman & Anandarajan, 2011), as well as the collapse of one of the "Big Five" auditing firms (Arthur Anderson), and the two episodes of financial crises that followed afterwards, awareness about white-collar frauds committed by employees through embezzlement of funds, ensuring personal financial and non-financial gains at a cost to the society, and fraudulent financial reporting, has increased over the past (McMullen & Sanchez, 2010).

The rate of increase in white-collar crimes in our organisations and societies is no longer an imaginative but has become a recurrent challenge which needs quick attention and solution. White-collar crimes (corruption) exist in different forms and shapes and are believed to be on the increase. One of such crimes that is common with most organizations is the payroll fraud or scheme, Garrett (2013). The study of Garrett (2013) states that the incidence of payroll fraud in organizations is real and that it occurs in about 27% of all businesses, twice in small organizations than in big ones and that a singular happening of payroll fraud lasts for about three years. The payroll fraud in Nigeria public sector over the past years have accounted for several billions of naira lost to syndicate who have deprived the government in providing for basic amenities for the society. The civil service who supposed to be the custodian and implementers of government policies have been in abeyance of this policies (Agbaje & Igbekoyi, 2018).

The findings from previous studies have shown that forensic accounting is an effective fraud detection tools used by organizations (Bierstaker, Brody, & Pacini, 2006). The study of Muthusamy (2011) argued that the escalating growth in fraudulent practices can be averted by adopting forensic accounting. Furthermore, Muthusamy (2011) observes that organizational use of forensic accounting indicates underutilization of the tools despite its effectiveness in fraud detection process. Likewise, studies have recommended the adoption of forensic accounting by ACAs in Nigeria especially the Economic and Financial Crimes Commission (EFCC) (Augustine & Uagbale-Ekatah, 2014; Dada, 2014; Kasum, 2009).

Despite the various reforms taken by government of Nigeria to eliminate the fraud from its payroll, still the problem continues to persist. The reforms did not yield the desired results because a major challenge to fighting payroll fraud is collusion (Stanciu, 2012). Payroll officers who are responsible for authorizing names on the payroll sometimes collude with other employees to create fictitious names on the payroll (Association of Fraud Examiners, 2011). Ghost workers created through collusion may be difficult to detect because those who are responsible for stopping the ghost names are themselves part of the crime. Therefore, there is need to demand for forensic accountants with required skills and expertise to deal with a variety of payroll fraud cases in public sector.

In Nigeria, a number of studies have been carried out on the relationship between forensic accounting and fraud detection. These are the studies of Enofe, Omagbon and Ehigiator (2015) who examined the impact of forensic audit on corporate fraud in Nigeria firms. Okoye and Gbegi (2013) studied the influence of forensic accounting tool in detection and prevention of fraud in public sector. Enofe, Okpako, and Atube (2013) investigated the effect of forensic accounting on fraud detection in Nigeria firms. Enofe, Olorunnuho and Eboigbe (2015) examined the accountants' perceptions of forensic accounting and fraud investigation.

Furthermore, Obara, Nangih and Agba (2017) studied the influence of accounting systems on payroll fraud in public sector in River state. Agbaje and Igbekoyi (2018) investigated the relationship between payroll fraud and profit performance of small and medium enterprises in Nigeria. Agbaje and Adeniran (2017) examined the effect of forensic accounting services on fraud reduction in Nigerian banking industry. Ezejiofor, Nwakoby and Okoye (2018) studied the impact of forensic accounting in combating fraud in Nigerian banking industry.

Though, there are studies in Nigeria that examined the relationship between forensic accounting and fraud detection, but to the best of the researcher's knowledge, there is dearth of study that examined the influence of forensic accounting on payroll fraud of higher institutions. Based on this, the researcher intends to fill the gap by looking at influence of forensic accounting on payroll fraud of higher institutions in Osun state.

Objectives of the Study

The primary objective of this study is to examine the influence of forensic accounting on payroll fraud of higher institutions in Osun state while the specific objectives are to :

(i) examine the effect of investigative accounting on payroll fraud in higher institutions; and to

(ii) Determine the influence of litigation support on payroll fraud in higher institutions.

Research Hypotheses

A review of prior studies has resulted to the following testable null hypotheses

H_{01}: There is no significant relationship between investigative accounting and payroll fraud in higher institution.

H_{02}: There is no significant relationship between litigation support and payroll fraud in higher institutions.

Conceptual Review

Payroll

Payroll is the process which an organization passes through to pay its employees. It deals with records relating to the employees' salaries, deductions, bonuses and income (Murray, 2017). It has also been described as the means or process by which an employee is paid by the organization for the services rendered (Rietsema, 2018).

Payroll Fraud

Payroll fraud occurs when employees take money from an organization through the payroll unlawfully with the intention of appropriating those monies themselves (Lekubu, 2013). Payroll fraud on the other hand is considered as any arrangement by which an employee causes the organization to pay money to the employee vide false claims. It has also been argued to involve the stealing of an organization's moneys using the organization's payroll system; and can be carried out by both management and regular employees (Marasco, 2007).

Types of Payroll Fraud/Schemes

While there are various types of payroll fraud, the following have however been identified as the common kinds of payroll fraud namely: Timesheet fraud, wage falsification, fraud in commissions and bonuses, expense repayment fraud, ghost staff schemes, misclassification of members of staff (Lekubu, 2013)

Timesheet Fraud

Time sheet fraud is committed when an employee bloats the number of hours he/she has worked in his/her time sheet and/or where an employee clocks in time for another employee which was not earned (Lekubu, 2013).

Ghost Workers Scheme

Ghost workers in the public service are names on the government payroll that receive salaries but are not known to a government agency or do not exist (World Bank, 1995). Ghost workers scheme occurs where employment record is opened or created in respect of a non-existent employee and wages paid to the fake employee, which is later withdrawn and used by the criminal. A ghost employee is a person, fictional or real, who is being falsely paid through a company's payroll. The fraudster enters fake information, potentially that relating to ex-employees, into the payroll system to divert and claim money fraudulently. These can be employees whose details are kept on the system after they have left, with the fraudster inputting new bank details. Where a company pays pensions, a common fraud is to keep pensioners' details on the system after the individual has died, again diverting the payments to a new fraudulent bank account. While ghost employees are probably the hardest to engineer and involve the most effort, they can add up to serious money as effectively the whole of their pay is fraudulent. However, they appear genuine and are capable of resisting detection except in the face of strong appropriate procedures (Thurston, 2012).

Wage Falsification

False wage claims, involving falsification of records by employees to get more pay, are quite common. Methods used include: inflating hours worked, fraudulently increasing benefits earned, and increasing pay rates beyond an employee's entitlement. Other techniques involve employees being paid normal wages/salary rather than taking annual/sick leave, fraudulently reducing an individual's withholding tax, and massaging sales figures to inflate commissions or bonuses, which might involve false invoicing for services. Although these all seem similar, in fact they represent diverse fraud methodologies and different kinds of system and company abuse.

False expense claims are the most common. In general terms, they comprise: completely fictitious expenses for items or events that never happened, duplicate claims, and inflating the cost of genuine expenses. While expenses fraud manifests itself in myriad ways, it is possible to identify a number of the most common examples. Billing for travel and expenses that were never incurred (e.g. cancelled airline tickets) is one of the most frequent, as is seeking reimbursement for items that were never purchased (e.g. client gifts). Receipts are often submitted that have been manipulated, or outright falsified, and others will "lose" receipts to allow expenses to be recovered without scrutiny.

Forensic Accounting

Forensic accounting is a science dealing with the application of accounting facts and concepts gathered through auditing methods, techniques and procedures to resolve legal problems which requires the integration of investigative, accounting, and auditing skills (Arokiasamy & Cristal, 2009). Stanbury and Paley-Menzies (2010) state that forensic accounting is the science of gathering and presenting information in a form that will be accepted by a court of jurisprudence against perpetrators of economic crime. Hopwood, Leiner and Young (2008) argued that forensic accounting is the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by courts of law. Damilola and Olofinsola (2007) noted that forensic investigation is about the determination and establishment of fact in support of legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits.

Theoretical Framework

There are several theories on corruption that provided the framework for understanding fraud. The theories which guided this study are fraud triangle theory and the graft estimation model.

Fraud Triangle Theory

The fraud triangle is a theory that explains the motives for committing fraud (Dorminey et al., 2012). Even though the fraud triangle was developed with the private sector in mind, the concepts were found to be useful to public administration by researchers; therefore, many researchers have applied the concept in a variety of corruption and fraud studies relating to the public sector (Fitzsimons, 2009).

The fraud triangle was used in many fraud studies relating to the public sector. In a study on why corruption was prevalent in the Nigerian public service, Ibietan (2013) applied the fraud triangle theory and concluded that fraud persists in the Nigerian public service because the government continues to pay low salaries to public servants. Also due to weak internal control systems and the inability of the government to sanction corrupt public officials, corruption will continue to persist in the Nigerian public service (Ibietan, 2013). Based on the observations made by Ibietan, corruption in public sectors is believed to be driven by three main forces: pressure to abuse, opportunity arising from internal control weaknesses, and ability by fraudsters to rationalize their fraudulent behaviours. Corruption and fraud can be reduced in the public sectors if the factors responsible for fraud are also reduced. The factors responsible for fraud include financial pressure of public servants, weak internal control systems in the public service, and inability to punish corrupt public officials.

Four major concepts could be derived from the fraud triangle theory. The first concept is the possibility of individuals to violate the trust reposed in them by their superiors (Brody, Melendy, & Perri, 2012). Second, there are forces that motivate individuals to commit fraud in violation of the trust reposed in them (Brody, Melendy, & Perri, 2012). Third, fraud can be committed by individuals within an organization irrespective of their positions or status (Trompeter, Carpenter, Desai, Jones, & Riley, 2012). Finally, fraud can be minimized if the factors responsible for fraud are also minimized (Gbegi, & Okoye, 2013)

Graft Estimation Model

The graft estimation model was also developed by Reinikka and Svennson (2004) to determine leakages or theft of public funds in government institutions (Olken & Pande, 2012). The method used for calculating graft under the graft estimation model is called "subtraction" (Pande, 2012). The subtraction method is used to determine how much of budgetary allocations (or funds) meant for government agencies actually get to the agencies that need the funds (Reinikka & Svennson, 2004). In measuring the graft, "an individual obtains two measures of the same quantity, one measure before corruption takes place and another measure after corruption takes place. The estimate of corruption is thus the difference between the two measures" (Olken & Pande, 2012). To determine the level of leakages or theft of public funds, an individual needs to compare budget allocations at the central level with the actual expenditure through the various levels of government agencies up to the frontline service delivery points or facilities (Reinikka, 2001).The difference between the budget allocations at the central level and the actual amount received at the facilities determines the amount of leakage of public funds (Dehn, Reinikka, & Svensson, 2003).

Empirical Review

Empirical literature relating to variables under study were reviewed Okoye and Gbegi (2013) investigated examine forensic accounting as a tool for fraud detection and prevention in the public sector organizations with particular reference to Kogi State. Both primary and secondary sources of data were employed. 370 questionnaires were administered to staff of five (5) selected ministries in Kogi State of Nigeria, along with interviews conducted with those ministries out of which 350 were filled and returned. Tables and simple percentages were used to analyze the data. The statistical tool used to test hypotheses was Analysis Of Variance (ANOVA). Among the findings was that the use of Forensic Accounting do significantly reduces the occurrence of fraud cases in the public sector, and that there is significance difference between Professional Forensic Accountants and Traditional External Auditors and therefore the use of Forensic Accountants can help better in detecting and preventing fraud cases in the public sector organizations.

Enofe, Okpako, and Atube (2013) tested the effect of forensic accounting on fraud detection in Nigerian firms. the aim of this study is to determine the relationship between fraud detection and forensic accounting. To achieve this objective, data was collected from primary sources. The primary data were collected with the help of a well-structured questionnaire of three sections administered to fifteen firms in Benin City Edo State. The collected data were analyzed with descriptive statistics using ordinary least square (OLS) regression and Chi-square. The study reveals that the application of forensic accounting services on firms affects the level of fraudulent activities.

Enofe, Olorunnuho and Eboigbe (2015) examined the Accountants perception of forensic accounting and fraud investigation. The study population consists the Accounting staff of commercial banks and academic Accountants currently operating in Nigeria . Quota sampling technique was adopted for this study. Using the sample size of two hundred (200) professional accountants, practicing in firms, mid-level employee and senior accountant with academic accountant drawn from the population of the professional Accountants in Edo State, data were elicited from our respondents with the aid of the research instrument adopted in this study. The major instrument used for generating the primary data was the questionnaire, which was designed in five-response option of Likert-scale and administered on our respondent. The data generated for this study were analyzed through mean scores while the stated hypotheses were statistically tested with Chi-test. Our findings revealed a general opinion for the need of the services of forensic accountants in Nigeria economy and their services are more required for fraud and corruption related issues.

Enofe, Omagbon and Ehigiator (2015) studied the impact of forensic audit on corporate fraud in Nigeria. The study collected primary data through the survey method and questionnaires designed. The data were analyzed using IBM SPSS Statistics 21ordinary least square (OLS) regression technique. The study concluded based on the statistical analysis that the frequent utilization of forensic audit services will significantly help in the detection, prevention as well as reduction of incidences of fraud in and businesses.

Enofe, Idemudia and Emmanuel (2015) studied forensic accounting as a panacea to fraud reduction in Nigeria firm. The study collected data from primary sources with the aid of a well-structured questionnaire. The study distributed one hundred and fifty (150) questionnaire to respondents out of which one hundred and ten (110) were retrieved, and analyzed with the help of table, pie chart and statistical regression tool chi square. The finding of the study shows that, first forensic accounting enhances financial fraud reduction in Nigeria firms through fraud prosecution and prescription of punishment for fraudsters, second Forensic accounting has significant effect in improving internal control system of firms in Nigeria leading to fraud reduction, third forensic accounting has significant impact on the financial reporting credibility of firms in Nigeria, and finally Forensic accounting has significant impact on firms' financial transparency in Nigeria.

Obara, Nangih, and Agba (2017) investigated the influence of accounting systems and payroll fraud in the public sector of selected ministries and parastatals in Rivers state in Nigeria. The study gathered primary data from a structured and well validated questionnaire distributed to staff of Ministries, Departments, and Agencies (MDAs) of Government Parastatals in Rivers State of Nigeria. The collected data were presented using descriptive statistical tools such as tables, percentages, and charts. The study's hypotheses were tested at 0.05 level of significance level using t-tests and simple regression. The findings of the study show that there was significant correlation between the effectiveness of manual and computerized accounting system payroll fraud in the Nigerian public sector.

Agbaje, and Adeniran (2017) investigated the effects of forensic accounting services on fraud reduction in the Nigerian banking industry. The specific objectives focused on effect of forensic accounting services on treasury and forex operation and effect of forensic accounting Services on loan processing and cash management. To achieve these objectives, survey research method was adopted for the study while primary data were collected, questionnaire were administered. The correlation regression model was used to analyze the data. The study sought to find out to what level the forensic accounting services are able to fulfil this mandate and investigate problems that occur when forensic accounting services is not adopted in the operations of Nigerian banking industry. It established the role of forensic accounting accountant in banking operations. The internationally recognized procedures in detecting and investigating fraud were discussed. The findings of the study revealed that forensic accounting services reduce fraud in banking industry.

Agbaje and Igbekoyi (2018) investigated the effects of payroll fraud on profitability of small and medium scale enterprises SMEs in Nigeria. The specific objectives focused on effect of payroll fraud on ghost workers, false wage claims and false expense claims. To accomplish these objectives a survey research design was adopted and data were collected using questionnaires that were structured on 5-point Likert summated rating scale. Multiple regression analysis was adopted to analyse the data. The findings of the analysis revealed that ghost workers, false expense claims and false wage claims are predominant factors affecting the profit performance of SMEs. It was found that increase in ghost workers has a negative effect on the profitability of SMEs although the effect is not so significant compared to false expense claims and false wage claims.

Ezejiofor, Nwakoby and Okoye (2018) studied the impact of forensic accounting in combating fraudulent activities in order to ensure good corporate governance practice in Nigerian banking sector. Two hypotheses were formulated in line with the objectives of the study. Survey method was adopted and data were collected through the use of questionnaire. Data collected from sample of fifty-five (55) respondents from commercial banks in Awka, Anambra state and were analyzed with five-point Likert's scale. The two hypotheses formulated were tested using t-test statistical techniques with aid of SPSS version 20.0. The study found among others Forensic accounting is an effective tool for addressing financial crimes in the banking system. Also, the forensic audit necessitated in ensuring corporate governance in corporate organizations.

Methodology

This study employed survey research design. The reason for this design is that it involves investigation of opinion of large number of people and it involves inferences drawn from such investigation. The population of this study consists of all the accountants and auditors working in the bursary department and audit department respectively of the tertiary institutions in Osun state. The study employs non-probability judgmental and purposive sampling method to select sample for the study. The study samples the accountants working in the bursary department and auditors working in audit department of Obafemi Awolowo University (OAU), Osun State University (UNIOSUN) and LAUTECH Teaching Hospital in Osogbo. The study chooses this area for easy accessibility in order to administer questionnaires to the respondents. The study collected primary data through questionnaire administration. The sixty (60) questionnaires were distributed to accountants working in the bursary department and auditors working in audit department of Obafemi Awolowo University (OAU), Osun State University (UNIOSUN) and LAUTECH Teaching Hospital in Osogbo. The fifty-three (53) copies of questionnaire were returned out of sixty (60) copies of questionnaires distributed.

The questionnaire designed in this study comprised of two sections. The first part includes the demographic and operational characteristics designed to determine the demographic characteristics of the respondents. The second part was devoted to the questions on the effects of forensic accounting components on payroll fraud in higher institutions in Osun State. Items are measured or scored using a measurement instrument adopted from Enofe, Omagbon and Ehigiator (2015). The researcher requires respondents to assess the forensic accounting components on payroll fraud on a 4-point Likert scale ranging from strongly disagree, disagree, agree or strongly agree with each variable capturing the performance with the scores of 1,2,3,4, respectively. The dependent variable is payroll fraud, while the independent variables are investigative accounting and litigation support. Payroll fraud is measured using various questions responded to by the respondents in the questionnaire on the payroll fraud. For the purpose of regression, the median of the question items for each variable were obtained for the analysis. This measurement is in line with Enofe, Omagbon and Ehigiator (2015).Independent variables are investigative accounting and litigation support and were measured using the various responses on questionnaire raised on the influence of investigative accounting and litigation support on payroll fraud. For the purpose of regression, the median of the question items for each variable were obtained to use in the analysis. This measurement is in line with Enofe, Omagbon and Ehigiator (2015).

Model Specification

The model applied in the study is a multi linear regression model and based on the model adopted by Enofe, Omagbon and Ehigiator (2015), this study then modified their model specification as stated below:

$PAYRF = \beta_0 + \beta_1 INVAC + \beta_2 LITGS + \varepsilon i$

Where:

PAYRF = Payroll fraud
β_0 = Coefficient of the constant variable
INVAC = Investigative accounting
LITGS = Litigation support

The study employed description statistics, correlation analysis to study the characteristics of the variables. Ordinary Least Square (OLS) regression was also employed to measure the relationship between the forensic accounting variables and payroll fraud.The model is considered appropriate because it is very effective in estimating the relationships as well as the impact of one variable on another variable, thus, it is consistent with the objective of this study.

Data Analysis and Interpretation

Descriptive Statistics

Descriptive statistics was used to summarize and describe variables under the study. The table 1 below revealed descriptive statistics for the dependent and independent variables.

Table 1: Summary of Descriptive Statistics

Variables	Maximum	Minimum	Mean	Std. Deviation
PAYRF	4	3	3.641509	0.4316489
INVAC	4	2	3.45283	0.5394455
LITGS	4	2	3.584906	0.6334874

Source: STATA 13 Outputs

Descriptive statistics results from table 4.1 revealed that the mean of payroll fraud is 3.641509 with standard deviation of 0.4316489 while the maximum and minimum values are 4 and 3 respectively. However, the maximum and the minimum value of investigative accounting are 4 and 2 respectively with standard deviation of 0.5394455 while the mean value of investigative accounting is 3.45283. However, the mean of the litigation support is 3.584906 with standard deviation of 0.6334874, the maximum and minimum values are 4 and 2 respectively.

Correlation Analysis

Table 2 presents the correlation matrix of the dependent and independent variables, from which it can be observed that two independent variables investigative accounting and litigation support are negatively correlated with payroll fraud. It can be seen from table 4.2 that the highest correlation between independent variables is 0.36 and that occurred investigative accounting and litigation support. Judge, Griffiths, Hill, Luthepohl, and Lee (1985) suggest that simple correlation between independent variables should not be considered harmful until they exceed 0.8 or 0.9.

Table 2: Correlation Matrix of Dependent and Independent Variables

	PAYRF	INVAC	LITGS
PAYRF	1.0000		
INVAC	-0.4579	1.0000	
LITGS	-0.4896	0.3604	1.0000

Source: STATA 13 Outputs

Diagnostic Test

Diagnostic test is carried out to make sure that multiple regression assumptions are not violated. The study therefore tests for homoskedasticity, and multicollinearity.

Multicollinearity Test

The study conducted multicollinearity test in order to check whether there are high correlations between independent variables which will mislead the result of the study. The study tested for the existence of multicollinearity, using variance inflation factor (VIF) and the tolerance value. The rule of thumb is that if the variables have VIF above 10 and tolerance values less than 0.10, there is a strong indication of the existence of multicollinearity, (Gujarati & Porter, 2009). The results from the table 4.3 below showed that there is no problem of multicollinearity because all the tolerance values are greater than 0.10 while all the VIF are less than 10.

Table 3: Results of Multicollinearity Test

Variables	VIF	Tolerance
INVAC	1.15	0.870116
LITGS	1.15	0.870116
Mean VIF	1.15	

Source: STATA 13 Outputs

Heteroskedasticity Test

The study carried out the homoskedasticity test which is one of the assumptions of multiple regressions which states that the variance of the errors must be constant. If the errors do not have a constant variance, they are said to be heteroskedastic (Gujarati & Porter 2009). The Breusch-pagan\cook-weisberg test was used to test the presence of the heteroskedasticity. Accordingly, table 4 showed the p-value is greater than 5%. This shows that there is no evidence for the presence of the heteroskedasticity.

Table 4: Breusch-Pagan / Cook-Weisbergtest for Heteroskedasticity

Test	**Chi-square**	**Prob>chi2**
Breusch-Pagan / Cook-Weisberg	3.77	0.0521

Source: STATA 13 Outputs

Regression Results

Table 5: Regression Results

Mode Summary	
No. of Observation	53
F-statistic	12.35
Prob. > F	0.0000

R-square	0.3307			
Adj. R-squared	0.3039			
Root MSE	0.78405			
Variables	**Coefficient**	**Std. Err.**	**t-statistic**	**Sig.**
INVAC (investigative accounting)	-0.5428973	0.2081795	-2.61	0.012
LITGS (litigation support)	-0.649789	0.2160766	-3.84	0.004
(Constant)	-1.246132	1.053438	-1.18	0.242

Source: STATA 13 Output

Based on the result from Table 5, it can be seen that the adjusted R^2 of the regression model is 30%, suggesting that the independent variables (investigative accounting and litigation support) employed in the model explain 30% of the variation in payroll fraud. Table 4.5 also reported a positive and significant association between (investigative accounting and litigation support with payroll fraud.

Findings and Recommendations

Discussions

The researcher based the discussion of findings on the pool regression results in table 5. The beta value (coefficient) from regression results in table 5 above measures the degree to which each of the explanatory variables affects the dependent variable.

Investigative Accounting and Payroll Fraud

Investigative accounting is statistically significant at the 0.05 level of significance. The result reveals that every one unit increase in investigative accounting will lead to 0.54 decreases in payroll fraud of higher institutions in Osun State, Nigeria. The result shows that the more the higher institutions make use of forensic accountants, the lower the payroll fraud of that higher institution. The finding is in line with findings of Nyaledzigbor (2015).

Litigation Support and Payroll Fraud

The results of multiple regressions from table 4.5 showed that the beta coefficient of litigation support is -0.64 while significant value (p-value) is 0.004 which is lower than 5% level of significant. This however, showed that there is negative significant relationship between litigation support and payroll fraud. The result implies that every one unit increase in litigation support will lead to 0.64 decreases in payroll fraud of higher institutions in Osun State, Nigeria. This result is consistent with the findings of Nyaledzigbor (2015).

Recommendation

Based on the findings of the study, it is therefore recommended that in order to minimize payroll fraud, it is essential to understand the nature and scale of fraud and develop measures to eliminate it. Furthermore, Payroll managers need to break down the size of the management units into manageable units to facilitate monitory and supervision of employees on the payroll. It is also recommended that forensic accountants should be employed in higher institutions in order to detect and eliminate payroll fraud.

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