

Accounting System and Payroll Fraud of Local Governments in Nigeria

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Abstract: *In the last few decades, payroll fraud model has been drawing a great deal of attention amongst researchers, professional accounting bodies and practitioners, as it is becoming increasingly frequent, complex, more difficult to prevent and control it effectively. The aim of this study is to empirically help re-energize movement towards accounting system and payroll fraud model of local governments in Nigeria. Survey data were obtained from 774 respondents using researcher designed questionnaire validated by experts and shown to have reliability coefficient of 0.92%. Pearson product moment coefficient of correlation and regression statistical techniques were used in analyzing the data. The empirical result indicates that accounting system significantly relate to payroll fraud, explaining about 73.8% and 84.5% of the variation in ghost employee fraud. Traditional accounting system, investigative accounting and computerized accounting system were found to significantly relate to payroll fraud model, sustaining short run equilibrium relationship with ghost employee fraud model. We conclude that accounting system has the potency to make significant contribution to payroll fraud model and recommends that government should ensure that the government should ensure that forensic accounting department is instituted in the ministries to enhance effective management of fraudulent activities. Accountants employed in the ministries should have a broad knowledge of law while lawyers also should have a broad knowledge of accounting to be able to effectively carry out the task of a forensic accountant. Back duty investigation should be carried out regularly to stem the tide of false wage claims.*

Keywords: *Accounting System, Payroll Fraud, Local Governments, Ghost Employee Fraud Model and Nigeria.*

Introduction

The local government system is recognized as the government at the grassroots level. It is the third tier of government in Nigeria. One of the significant marks in the growth and development of the local government system in Nigeria was the local government reforms of 1976. The reforms introduced unified system of local government, which in real sense established the same type of operation throughout the local governments in Nigeria. The primary objective of the reforms and also the subsequent modifications has been to empower local governments in Nigeria to discharge their constitutional responsibilities as a tier of government. For them to play these important roles, they (local governments) really need sufficient funds. In other words, the ability of any local government to accomplish such expected tasks depend largely on the availability of funds. This belief was confirmed by Adedeji (1969), who asserted that the success or failure of any local government will depend on the financial resources available to it. Similarly, it is equally difficult for any local government to carry out the assigned responsibilities as expected without adequate manpower. That is why Anugwom (2007),

saw manpower as the available human resources that local governments can tap in order to effectively discharge its duties and obligations to its constituents. According to Nwankwo (2007), human resources are about the most important of all the essential resources of an organization. He further stressed that human resources are the highest asset of any organization, because no matter the amount of capital invested in an organization, its success or failure depends on the quality of people who plan and execute its programmes. But there is no way they would be effective in their job without adequate financial reward in the form of wages and salaries. These are the means by which workers are motivated and encouraged to remain steadfast in the service of an organization.

In view of the peculiarities of the local government system, and the felt need to ensure the maximum utilization of the manpower resources, most especially the scarce high caliber ones, enhance the ability of the local government to attract, retain and maintain credible career structures for capable hands in the service and preserve the significant gains made in building the local government system, the need to pay salaries adequately to local government workers as in other tiers of government, becomes imperative. As in other government establishments, payment of salaries to local government workers is not negotiable since it is a statutory obligation. To ensure regular, accurate and prompt payments at the end of every month, payroll section of Finance and Supplies Department has been empowered by law to be solely responsible for the preparation of workers' salaries month by month (Agburu, 2012). According to Ihe (2013) the payment system in any organization or institution is very paramount. In local government system, there are two major types of payment expenditures which include capital expenditures and recurrent expenditures. Under recurrent expenditure, we have personnel costs and overhead costs. What are the concerned with in the study, is personnel costs, which is staff salaries or wages. In the payment of staff salaries or wages, the local government staff have to be pay-rolled. A payroll is a list of employees or staff receiving wages or salaries with amount due to each. The payroll consists mainly of two sections, viz: (a) payroll payment and (b) payroll deductions. Payroll payments consist of the annual basic salary, the monthly basic salary, grade level, and allowances of each staff. While the payroll deductions consist of deduction that are made out of the employee's total emolument such as tax deductions and NULGE deductions. In the process of doing this, different type of payroll fraud is being committed by the payroll staff and at times in collaboration with other employees.

Atchison (2007), states that payroll fraud is the theft of cash from an organization via the payroll processing system. There are several ways in which employees can commit payroll fraud. **Payroll fraud** is a massive source of accounting fraud and employee theft. 70% of people admit that they would commit a fraud if they were confident that they could get away with it and so it is important that Business Owners and HR Directors take reasonable steps to reduce the temptation. Taking action to reduce and prevent payroll fraud is crucial, particularly in tough economic times when the temptation for an employee to commit payroll fraud is greatest. An accounting system allows an organization to keep track of all types of financial transactions, including purchases (expenses), sales (invoices and income), liabilities (funding, accounts payable), etc. and is capable of generating comprehensive statistical reports that provide management or interested parties with a clear set of data to aid in the decision-making process. Various accounting systems are available for organizations and governments alike. The usual or traditional accounting system in the local government administration in Nigeria is manual (Williams, 2016). But with the development and growth of the modern Information Technology (IT), we have a new technique of payroll in the local government system in Nigeria. The new payroll technique is called the Electronic Payment System (E-payment). Ovaga and Eme (2013) posit that when choosing an accounting system, the decision should take into account the price of the accounting system, the extent the system is used, and the capacity of the user to learn to operate the system because the accounting system adopted by an organization influences payroll fraud.

Extensive empirical literature exists globally on the effect of accounting system on payroll fraud model, but the empirical results are rather mixed (see Nnanta & Eme, 2013; Agbaje; Busori & Adeboye, 2014; Zamawe, 2015; Downe; Cowell & Morgan, 2016; Acha., Kanu & Agu, 2017; Omotubora & Basa, 2018; Lancopl, 2019; Nwaiwu, 2020). Unfortunately, the empirical assessment of the effect of accounting system on payroll fraud model in Nigeria has been sparse. The few known studies that have examined the effect of a few accounting system on payroll fraud model in Nigeria have also produced conflicting result (see Smith & Crumbley, 2015; Anaja & Onoja, 2015; Ahmad & Omor, 2016; Powell & Xiao, 2016; Omotubara & Basu, 2018; Lancouch, 2019; Adegbe & Akinyemi, 2020). It is, therefore, possible that accounting system per se may not adequately address the recurring problem of Ghost employee fraud of local governments in Nigeria. The aim of this empirical paper, therefore, is to ascertain whether changes or variations in accounting system have significant effect on payroll fraud model of local governments in Nigeria. This paper is divided into five main sections including this introduction as section. Section 2 presents the theoretical framework, reviews the theoretical and empirical literature of accounting system on payroll fraud model; it also states the hypotheses to be tested. Section 3 presents the methodology, while 4 reports the empirical results and discussion. Section 5 concludes the paper and makes recommendations, limitation and suggestion for further studies.

Review of Related Literature and Hypotheses Development

There is as yet no consensus on theoretical propositions of accounting system and payroll fraud model (Ananta & Eme, 2013; Adongon & Victor, 2016). Really, accounting system and payroll fraud model has been studied from different theoretical perspectives with conflicting or inconclusive evidence (see Zamawe, 2015; Obara; Nangoh & Agba, 2017). Although, these theoretical prescriptions technology acceptance model is sketched immediately to provide sufficient rationale for accounting system. The premise of the technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, two specific factors influence their decision about how and when they will use it. The two factors are; perceived usefulness (PU), and perceived ease-of-use (PEOU) (Davis, 1989). TAM has proven to be a useful theoretical model in helping to understand and explain use behavior in the information system implementation. It has been tested in many empirical researches and the tools used with the model have proven to be of quality and to yield statistically reliable results. However, parsimony has been one of TAM's strengths but also major weakness as it is has limited use in explaining users' behavior. As a result of the shortcomings, many authors have extended TAM with additional constructs.

Conceptual framework

Payroll Fraud

According to Nwankwo (2007), human resources are about the most important of all the essential resources of an organization. He further stressed that human resources are the highest asset of any organization, because no matter the amount of capital invested in an organization, its success or failure depends on the quality of people who plan and execute its programmes. But there is no way they would be effective in their job without adequate financial reward in the form of wages and salaries. These are the means by which workers are motivated and encouraged to remain steadfast in the service of an organization.

Payroll fraud is a massive source of accounting fraud and employee theft. 70% of people admit that they would commit a fraud if they were confident that they could get away with it and so it is important that governments, business owners and human resource directors take reasonable steps to reduce the temptation. Payroll fraud can be a serious threat for local governments that haven't safeguarded

themselves properly, which can lead to complications with their accounts, putting the local government out of pocket as well as their employees. Having safe and secure systems is one of the best ways to prevent payroll fraud. Using a trusted payroll provider is one way to safeguard the local government against payroll fraud. Taking action to reduce and prevent payroll fraud is crucial, particularly in tough economic times when the temptation for an employee to commit payroll fraud is greatest. A government that doesn't have proper controls and a powerful payroll solution will almost certainly experience a payroll fraud (Agburu, 2012). When it comes to committing fraud – there is no better payment instrument available than cash. Cash is hard to control, easy to take and impossible to track and therefore, all serious businesses should minimize the use of cash in all business processes.

Ghost Employee Fraud:

A ghost employee is an employee of a company that doesn't exist. A ghost employee is the creation of a fraudster for the purpose of collecting that ghost employee's salary. Often a ghost employee might be an employee that recently left the company that the fraudster didn't remove from the payroll system. It also could be an entirely made-up persona or a friend or even a relative of a fraudster, who can cash the pay cheque by forging the endorsement or collect the envelope of cash on payday (Oyelakin, 1999).

Without the appropriate systems and controls, ghost employee fraud can continue unnoticed for a long time. Could this be avoided? Certainly yes. Your company has to make sure that (1) proper policies and systems are in place for departing employees and (2) a quarterly payroll reconciliation procedure is done by someone other than the person responsible for day-to-day payroll operations. The best way to prevent ghost employees is to pay employees electronically – unlike cash and cheques, electronic transfers can be traced and the offenders caught (Ovaga & Eme, 2013).

Accounting System

Accounting is the system an organization uses to measure its financial performance by noting and classifying all the transactions like sales, purchases, assets, and liabilities in a manner that adheres to certain accepted standard formats. According to Mukharji and Hanif (2001), an accounting system is a collection of processes, procedures and controls designed to collect, record, classify and summarize financial data for interpretation and management decision-making. Accounting has been done manually till the 1980s. Before the advent of fast and cheap computers, accounting traditionally was processed manually with all transactions recorded in columnar papers and kept in voluminous binders. Once computers became popular and software affordable, accounting tasks moved into this medium, where concepts stayed the same but mechanics changed from papers to programs. Modern accounting involves making use of computers therefore it is called as computerized accounting. It includes accounting software to record store and analyze financial data. A Modern accounting system brings with it many advantages that are unavailable to along accounting systems.

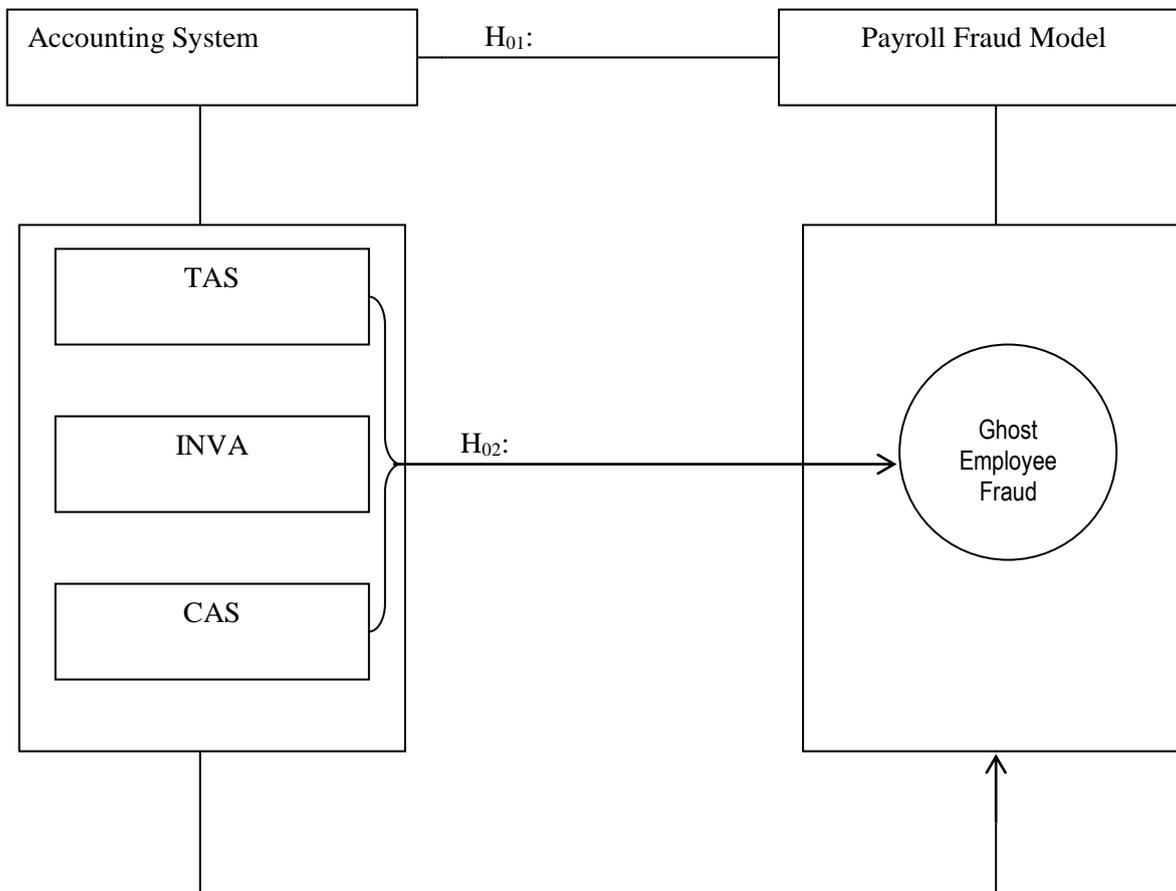


Figure 1: Operational Conceptual Framework of Accounting System and Payroll Fraud Model of Local Government in Nigeria.

Empirical Review

Much empirical studies have been conducted both in developed and less developing countries. Some of the empirical studies conducted with different statistical analysis, but surprisingly, since results were positive (Grande, 2010; Grayi, 2011; Dalabeche, 2012; Nnanta & Eme, 2013; Mba, 2014; Smith, 2015; Downe., Cowell & Morgan 2016; Akinyele., Muturi & Ngumi, 2017; Nwaiwu & Amah, 2020), while others were negative (Wilson & Sengster, 2010; Mohamed & Tahir, 2012; Adougo & Victor, 2016; Obara., Nangoh & Agbe, 2017; Laucouch, 2019; Nwaiwu, 2021), some are mixed (henry, 2007; Malmi, 2008; Smith & Crumbley, 2009; Mckee, 2010; Ccenon, 2010; Ghegi & Adebisi, 2014; Zamawe, 2015; Downe., Cowell & Morgan, 2016; Adongon & Victor, 2017; Obara., Nangah & agba, 2017; Lancouch 2019; Nwaiwu, 2020, Nwaiwu & Amah, 2021) Obara., Nangih and Agba (2017), studied accounting system and payroll fraud in the Nigerian public sector. The study used structured and well validated questionnaire distributed to staff of ministries, depts., and agencies (MDAs) of governments parastatals in Rivers State of Nigeria. Data gathered were presented using descriptive statistics tools such as tables, percentages and charts. Findings from the study revealed that there was significant correlation between the effectiveness of manual and computerized accounting system and payroll fraud in the Nigerian public sector. Based on the findings, the study concluded that government should take strict methodology in recognizing the need for an active accounting and payroll system, which includes stiffer

penalties in public sector. The study further recommends that everyone should join hands with EFCC and ICPC to curb corrupt practices in Nigeria. It further enjoined the government to train forensic accountant to block all the leakages in the ministries and parastatals as an active measure to check the incidence of payroll fraud. However, the study concentrated on the public sector using Rivers State as instance. Others reviews are captured in webometric analysis as shown in table 1 below.

Table 1: Webometric Analysis of Accounting System and Payroll Fraud Model of Local Governments in Nigeria.

S/ N	Author & Year	Study Title	Journal, Volume, Number, and pages
i)	Dalabech, (2012)	The role of computerized accounting information system in reducing the costs of medical services at king Abdullah University Hospital.	Interdisciplinary Journal of Contemporary Research in Business, Oman, 4(6),35-48
ii)	Grande, (200)	The impact of accounting information systems (AIS) on performance measures: Empirical evidence in Spanish SEMs.	The International Journal of Digital Accounting Research 11(3),25-43
iii)	Grayi, (2011)	Accounting information systems selection in small organizations: Incongruences between accounting professionals	Journal of Information System, 6(3),17-35
iv)	Henry, (2007)	A study of the nature and security of accounting information systems: The case of Hampton Roads, Virginia	The Mid-Atlantic Journal of Business, 33(3), 171-189
v)	Lancouch, (2003)	The perceived threat to the security of computerized accounting information systems.	The Journal of America Academy of Business, Cambridge USA, 3(1), 33-39
vi)	Honig, (2009)	The changing land scope of computerized accounting systems.	The CPA Journal, 9(5), 14-20
vi i)	Malami,	Security threats of computerized banking system (CBS): The	International Islamic University Malaysia Management Studies, 1(11),54-59
vi ii)	Mohamed, & Tahir, (2012)	The adoption of computerized accounting system in small medium enterprises in Malaka Malaysia.	International Journal of Business and Management, 7(18), 34-55
ix)	Nnanta & Eme,(2013)	An analysis of computerized accounting and payroll system on monthly emolument in Nigeria local government.	International Journal of accounting Research, 1(3),16-23
x)	Powell, & Xiao, (2006)	The extent, model and quality of IT use in accounting.	Journal of Applied Management Studies, 5(2), 143-158
xi)	Proudlock, Phelps, & Gamble, (1999)	IT adoption: Best practice guideline for professional SMEs	Journal of Small Business and Enterprises Development, 6(3), 240-252
xi i)	Wilson, & Sangster, (2010)	The automatic of accounting practice.	Journal of Information technology, 7(3),66-75

xi ii)	Aburime, (2008)	Company – level determinants of bank profitability in Nigeria	Lagos Journal of Banking, Finance & Economic Issues, 2(1),221-239
xi v)	Adongon, & victor, (2016)	Corruption in the civil service: A study of payroll fraud in selected ministries, departments and agencies (MDAs) in Bayelsa State, Nigeria.	Research on Humanities and Social Sciences (RHS), 6(3), 53-69
xv)	Agbaje, Busori & Adeboye, (2014)	Effects of accounting information management on profitability of Nigerian banking industry.	International Journal of Humanities Social Sciences and Education (IJHSSE), 1(9), 100-105
xv i)	Enofe, Okpako, & Atube, (2013)	The impact of forensic accounting on fraud detection.	European Journal of Business and Management, 5(2), 61-72
xv ii)	Agbaje, Busari, & Adeboye, (2014)	Effects of accounting information management on profitability of Nigerian banking industry.	International Journal of Humanities Social Sciences and Education (IJHSSE), 1(9), 100-105
xv iii)	Fakile, & Adegbie, (2012)	Economic and financial crime in Nigeria: Forensic accounting as antidote.	British Journal of Arts and Social Sciences, 6(1), 37-50.
xi x	Mba, & Cletus, (2014)	Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port Harcourt city, Nigeria	European Journal of Sustainability Development, 3(1), 101-114
xx	Nnanta, & Eme, (2013)	An analysis of computerized accounting and payroll system on monthly emolument in Nigeria local government.	International Journal of Accounting Research, (IJAR), 1(3), 53-70
xx i	Obara, Nanglh, & Agba, (2017)	Accounting system and payroll fraud in the public sector: A survey of selected ministries and parastals in Rivers State, Nigeria.	Journal of Accounting and Financial Management, 3(2), 54-67
xx ii	ogbuanu, Kabouh, & Okwu, (2014)	Relevance of small and medium enterprises in the growth of the Nigerian economy: A study of manufacturing SMEs.	International Journal of Advanced research in Statistics, Management and Finance, 2(1), 180-191
xx iii	Okoye, & Gbegi, (2013)	Forensic accounting: A tool for fraud detection and prevention in the public sector (A study of selected ministries in Kogi State.	International Journal of Academic Research in Business and Social Sciences, 3(3),1-19
xx iv	Rosemary, Agbionu, & Ezenwite,(2006)	Parochial political culture: The bane of Nigerian Development.	Review of Public Administration and Management, 1(2), 1-18
xx v	Zamawe, (2015)	The implication of using NVIVO software in qualitative data analysis:	Malwi Medical Journal, 27(1), 13-15

		Evidence – based reflections	
xx vi	Vgas, Ambadkar, & Bhargara, (2015)	True and fair view – A fact or illusion in the world of creative accounting.	International Journal of Multidisciplinary and Current Research, 3(6), 572-575
xx vi i	Thomas, (2006)	A general inductive approach for qualitative data analysis.	America Journal of Evaluation, 27(2),237-246
xx vi ii	Smith, (2015)	The past, present and future of forensic accounting.	The CPA Journal, 85(3),16-21
xx ix	Smith, & Crumbley, (2009)	Defining a forensic audit.	Journal of Digital Forensic, Security and Law, 4(1), 61-80
xx xi	Mueller, Carter, & Whittle, (2015)	Can audit (still) be trusted	Organization Studies, 36(9), 1171- 1203
xx xi i	Mckee, (2010)	The cry wolf problem in current frau auditing standards.	The CPA Journal, 80(1),60
xx xi ii	Digabriele, (2011)	Revisiting the integration of forensic accounting and the auditing paradigm	The Forensic Examiner, 20(3),70- 73
xx xi v	Digabriele, & Huber (2014)	Topics and methods in forensic accounting research	Accounting Research Journal, 28(1),98-114
xx xv	Acha, Kanu, & Agu, (2017)	Cashless policy in Nigeria: The mechanics, benefits and problems, innovative.	Journal of Economics and Financial Studies, 1(1), 28-38
xx xv i	Downe, Cowell, & Morgan, (2016)	What determines ethical behavior in public organizations: Is it rules or leadership.	Public Administration Review, 76(6), 898-910
xx xv ii	Dorminey, Fleming, Kranacher, & Riley, (2012)	The evolution of fraud theory.	American Accounting Association, 27(2), 555-579
xx xv iii	Davidson, (2009)	Transcription: Imperatives for qualitative research.	International Journal of Qualitative methods, 8(2), 36-52
xx xi x	Cuervo, (2002)	Corporate governance mechanisms: A plea for less code of good governance and more market control.	Corporate Governance, 10(2), 84- 93.
xx xx	Cressey, (1950)	The criminal violation of financial trust.	American Sociological Review, 15(6), 738-743
xx xx i	Ccenen, (2010)	Escaping detection: Why auditors do not find fraud.	Valuation Strategies, 13(4), 33-39
xx	Chong, (2013)	Detecting fraud: What are auditors’	The Journal of Corporate

xv		responsibilities?	Accounting & Finance, 24(2), 47-53
xx xv i	Asare, Wright, & Zimbelman, (2015)	Challenges facing auditors in detecting financial statement fraud: Insight from fraud investigations.	Journal of Forensic & Investigative accounting, 7(2), 63-112
xx xv ii	Anaja, & Onoja, (2015)	The role of financial statements on investment decision making: A case of United Bank for Africa Plc (2004-2013)	European journal of Business, Economics and Accountancy, 3(2), 12-37.
xx xv iii	Albrecht, Kranaches, & Albrecht, (2008)	The role of power in financial statement fraud schemes.	Journal of Business Ethics, 131(4), 813-816
xx xv	Ahmad, & Omar, (2016)	Basic corporate governance models: A systematic review.	International Journal of Law and Management, 58(1), 73-107
xx xv i	Powell, & Xiao, (2016)	The extent, mode and quality of It use in accounting.	Journal of Applied Management Studies, 5(2),143-157
xx xv ii	Joseph, & Richard, (2015)	Electronic payment system in Nigeria: its economic benefits and challenges.	Journal of Education and Practice, 6(16), 56-62
xx xv iii	Omotubora, & Basu, (2018)	Regulation for e-payment systems: Analytical approaches beyond private ordering.	Journal of African Law, 62(2),281-313
xx xi v	Akinyele, Muturi, & Ngumi, (2017)	Financial Innovation and fraud risks in deposit money banks of Nigeria.	International Journal of Economic and Business review, 3(12), 56-66
xx xv	Gbegi, & Adebis, (2014)	Forensic skills and techniques in fraud investigations in the Nigerian public sector.	Mediterranean Journal of Social Sciences, 5(3), 243-252
xx xv i	Ogumlowore, & Oladele, (2014)	Analysis of electronic banking and customer satisfaction in Nigeria.	European Journal of Business and Social Sciences, 3(3), 14-27
xx xv ii	Olatunji, & Adekola, (2014)	Analysis of frauds in banks: Nigeria's experience.	European Journal of Business Management, 6(31),90-99
xx xv iii	Laucouch, (2019)	The perceived threat to the security of computerized accounting information system.	The Journal of American Academy of Business, Cambridge, USA, 3(1), 33-39
xx xi x	Ihe, (2013)	Implication of computerized accounting systems on monthly emolument.	Journal of Policy and development Studies, 7(1), 30-36
xx xx	Adeghi, & Akinyemi, (2020)	Electronic payment system and revenue generation in Lagos State.	Journal of Accounting and Financial Management, 6(1), 59-85

Research Questions and Hypotheses Development

This study empirically seeks to offer critical investigation on the relationship between accounting

system and payroll fraud model of local governments in Nigeria. Specifically, the study provides answer to the following research questions (Rq).

RQ₁: What is the relationship between accounting system and payroll fraud model of local governments in Nigeria.

RQ₂: What is the effect of accounting system on ghost employee fraud of local government in Nigeria.

Those two hypotheses, formulated in the null form also serve as robustness checks among variables of the study as thus:

H₀₁: There is no significant relationship between accounting system and payroll fraud model of local governments in Nigeria.

H₀₂: Accounting system does not significantly affect ghost employee fraud of local governments in Nigeria.

Methodology

Descriptive survey and causal – comparative research design were adopted for the study. We designed questionnaire that was validated by experts in accounting, finance and corporate reporting, and its reliability established using Cronbach Alpha in a test – retest interval of two weeks was used. It gives a reliability coefficient of 0.952 which is considered to be high enough. The instrument was administered on a sample of 774 respondents drawn from among accountants of all the local governments in Nigeria. The data collected were analyzed using descriptive, Pearson product moment correlation coefficient and multiple regression analysis with the aid of statistical package for social science (SPSS) version 20.

Model Specification

The model specification is based on the theory that accounting system to payroll fraud model of local governments in Nigeria (Adouyo & Victor, 2016; Laucouch, 2019). Specifically, the model from related empirical evidence used by Nnanta and Eme (2013), Mba & Cletus (2014), Zamawe (2015) was adopted but we made modifications. We generated three models to achieve the first three objectives and answer the corresponding research questions. Consequently, the model specification was formulated in the following functional forms.

$$PFM_t = f(AS_t) \quad (i)$$

$$GEF_t = f(AS_t) \quad (ii)$$

Expanding the functional form into mathematical form as thus:

$$PFM_t = \beta_0 + \beta_1 AS_t \quad (iii)$$

$$GEF_t = \beta_0 + \beta_1 AS_t \quad (iv)$$

These functional or deterministic forms do not have a random or stochastic variable and since in statistical relationship we deal with random or stochastic variables, that is variables that have probability distribution, the above functional equations are stated in equations that describes how the dependent variables are related to all the independent variables and stochastic error term or stochastic disturbance term stated as a multiple regression model as thus:

$$PFM_t = \lambda_0 + \lambda_1 AS_t + \mu\lambda_t \quad (v)$$

$$GEF_t = \delta_0 + \delta_1 AS_t + \mu\lambda_t \quad (vi)$$

Where: PFM_t = Payroll Fraud model for the period of time 't'

GEF_t = Ghost Employee fraud for the period of time 't'

AS_t = Accounting System for the period of time 't'

Results and Discussion

This section of the study has been mapped out to aid the presentation and discussion of empirical results. So it were, the study attempt to investigate empirically the effect and relationship between

accounting system and payroll fraud model of local government sin Nigeria. The method of Pearson product moment coefficient of correlation and multiple regression analysis were employed. The summarized result of the descriptive statistics for the entire data across all panels is presented in the tables below:

Table 2: Relationship between accounting estimate and payroll fraud model of local government in Nigeria.

Results of Data Analysis and Discussion

To analyze the effect and relationship between accounting system and payroll fraud model of local government sin Nigeria, this section is presented as thus:

Table 2: Relationship between accounting system and payroll fraud model of local government in Nigeria.

		Accounting System	Payroll Fraud Model	
Accounting System (Tas, Inva, CAS)	Pearson Correlation Sig1 (2-tailed)		1.000	.738 .000
	N		774	774
Payroll Fraud Model	Pearson Correlation Sig1 (2-tailed)		.738 .000	1.000
	N		774	774

** correlation is not significant at the 0.01 level (2 tailed)

The empirical result presented in table 2 above revealed a correlation coefficient (r) of .738, which is positive and high. This empirically suggests that there is a strong positive relationship between accounting system and payroll fraud model of local governments in Nigeria. The P-value (0.000) which is less than 0.05 level of significance shows a significant relationship. This suggests that accounting system relate to payroll fraud model of local governments in Nigeria.

To deal with the issues of effect bias the functional form model is carried out as follows:

Table 3: Effect of accounting system on Ghost Employee fraud model of local governments in Nigeria.

VARIABLES/TEST STATISTICS	LINEAR	EXPONENTIAL	SEMI-LOG	DOUBLE-LOG
Constant	4.836E8* (.795)	14.378*** (8.741)	-4.215E9*** (-4.320)	8.720*** (4.371)
X ₁ :Traditional Accounting system	2.187E7* (1.325)	-.070* (.345)	3.172E3* (1.531)	-.631* (.376)
X ₂ : Investigative Accounting	1.364EB* (-.370)	-.742* (.440)	-.946* (-632)	-.876* (-1.346)
X ₃ :Computerized Accounting system	1.204E6* (1.677)	-.437* (3.321)	3.632E8* (0.759)	6.345E8* (1.134)
R	.752	.662	.720	.845
R ²	.566	.438	.518	.714
Adjusted R ²				
Std Error of the estimate	4.035E8	1.03200	3.8358E8	1.20260
F-ratio	6.842	6.802	6.024	7.556
Durbin-Watson	1.720	2.411	2.327	2.417

Note: *** = Significant at 1%; ** = Significant at 5% & * Significant at 10% and above. t-values are shown in parenthesis.

From the table 3 shows test empirical results of the effect of accounting system on ghost employee fraud model in four functional forms, Linear, exponential, semi-log and double-log. Our choice of double-log function result is based on the statistical values of the correlation coefficient R , coefficient of determination (r^2), Adjusted r^2 , R , R^2 , Standard error of the estimate, Durbin-Watson and F-ratio, which yielded the best fit. The double-log for produced an (r) of .845 indicating a strong positive effect of accounting system on ghost employee fraud model. With (r^2) of .714, the empirical study evidenced that about 84.5% of the changes in ghost employee fraud model could be attributable to variations in accounting estimate. Two of the variables were positively significant 9TAS & INVA) expect (CAS) that was positively insignificant. The empirical results implicated traditional accounting system, investigative and computer accounting system as being significant at 1% level. The f-ratio is shown to be significant at 1% level. Based on the analysis, we accordingly reject the null hypothesis and conclude that accounting system has significant influence on ghost employee fraud model. Computerized accounting system is the most potent predictor while traditional accounting system and investigative sustained very weak and insignificant influence on ghost employee fraud model.

Hypotheses Testing

If sign value $>.05$ “not significant

If sign value $\leq .01$ “highly significant”

Decision Rule

If the sign – value is less than (or equal to) Alpha ($\alpha = 0.05$), then the relationship is significant and thus, the hypothesis is rejected. But if the sign – value is greater than Alpha ($\alpha = 0.05$), then the relationship is not significant and thus, the null hypothesis is accepted.

H_{01} : Accounting system does not relate to payroll fraud model of local governments in Nigeria.

The empirical result presented in table above revealed a correlations coefficient (r) of .738, which is positive and very high. This suggests that there is a strong positive relationship between accounting system and payroll fraud model of local governments in Nigeria. The p-value (0.000) which is less than 0.05 level of significance indicates a significant relationship. This suggests that accounting system relate to payroll fraud of local governments in Nigeria during the period of this study.

The results of this study are inconsistent with the finding of Fakile & Adegbe (202), Enofe., Okpako & Atube (2013) Nwaiwu (2020) who report no significant effect of accounting system on ghost employee fraud of local governments in Nigeria.

H_{02} : Accounting system does not exert any significant influence on ghost employee fraud of local governments in Nigeria.

The empirical evidence from this study suggests a strong positive and insignificant influence of accounting system on payroll fraud model as measured by ghost employee fraud. It offers evidence of significant positive effect of accounting system on ghost employee fraud, which suggests a rejection on the null hypothesis. The results are, not robust. This finding is consistent with Wilson & Samgoter (2010), Mohamed & Tahir (2012), Ogbuanu., Kabouh & Okwu (2014), the alternative hypothesized positive effect of accounting system and ghost employee fraud of local governments in Nigeria.

Concluding Remark and Recommendations

Researchers have sought to ascertain how accounting system either in private or public sector relate to payroll fraud model. Strikingly, empirical evidence has either suggested that a positive relationship exist or does not exist between accounting system and payroll fraud. This however, prompted this empirical study which is designed to examine the extent which accounting system relate to payroll fraud model by

drawing evidence from local governments in Nigeria. This is premised on the contradictory findings in prior studies on the link between accounting system and payroll fraud model coupled with the dearth of recent empirical evidence from the entire local governments in Nigeria. Descriptive statistics, Pearson product moment coefficient of correlation and multiple regression estimate, were combined to estimate and evaluate our variables and specified regression model. Overall, our empirical results indicate and conclude that positive relationship exist between accounting system and payroll fraud model of local governments in Nigeria.

Given the empirical findings and concluding remark obtained in the course of this empirical analysis and evaluations, we recommend that back duty investigation should be carried out regularly to stem the tide of false wage claims. Government should ensure that the government should ensure that forensic accounting department is instituted in the ministries to enhance effective management of fraudulent activities. Accountants employed in the ministries should have a broad knowledge of law while lawyers also should have a broad knowledge of accounting to be able to effectively carry out the task of a forensic accountant.

Limitation and Suggestion for further studies

This empirical study was conducted to possibly unveil the extent to which trends in the local governments could be predicated by their respective accounting system. To this end, primary data on the sub-variables of accounting system and payroll fraud model were sourced from 774 local governments of Nigeria. This considered a limitation to this current empirical study which therefore calls for further empirical documentations that may include firms from private sector so that comparison results could be made.

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