IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 8. Ver. VII (August 2017), PP 22-30
www.iosrjournals.org

Treasury Single Account (Tsa), Integrated Payroll and Personnel Information System (Ippis), and Integrated Financial Management Information System (Ifmis): Application and Implementation Effects on Fraud Management in the Public Sector in Nigeria.

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Abstract: *This paper examines the effect of the implementation TSA, IPPIS and FMIS on fraud in Public Interest Entities in Nigeria. The theoretical structure of the work anchored on the Meta Theory Model, Circumvention Innovation Theory and Public Finance management theory which highlight the relationship between computerized innovations in government establishments and fraud management. The descriptive research design was employed, and questionnaire administered on respondents randomly selected from the studied Ministries. The linear regression model was employed in establishing the relationship between variables. Results of the statistical test reveal that TSA, IPPIS, and IFMIS have positive and significant relationship with Fraud and fraud management as well as jointly impact the performances of Public Interest Entities. Based on findings of the study, it was recommended among others that IPPIS be fully implemented to address the ghost workers syndrome in Public Interest Entities and that public officers be technologically trained to effectively utilize TSA, IPPIS and IFMIS platforms.*

Keywords: *Treasury Single Account, Integrated Payroll and Information System, Integrated Financial Management Information System, implementation, fraud management, Public Interest Entities.*

Date of Submission: 18-08-2017 Date of acceptance: 05-09-2017

I. Introduction

The Nigerian Ministry of Finance in February, 2011 revealed that the trial implementation of Integrated Personnel and Payroll Information System (IPPIS) in sixteen ministries, departments and agencies, saved the nation over N12 billion between the year 2007 and 2010. The test run was spurred with regards to the fact that government's wage bill formed a considerable chunk of recurrent expenditure at 58 percent of the budget each year. According to reports, government saved roughly 160 billion naira by fishing out 60,000 ghost workers from government's payroll. This figure excludes the 46,821 ghost workers spotted in 215 ministries, department and agencies in 2013. Hence, the result of the consistent staff screening in government ministries, departments, agencies in the three tiers of governments would suffice to expose the level of ghost workers syndrome in the public sector.

The level of unemployment in Nigeria increased to 23.90 percent in 2011 from 21 percent in 2010, far from an average of 14.6 in 2006. In 2014, 80 percent of Nigerians were unemployed. This affected the socio-economic fortunes of the citizens and the rate of corruption is obviously the cause of this trend compared to other nations such as China with 4.1 percent rate of unemployment, united kingdom with 5.5 percent unemployment rate and United States of America with 5.5 percent unemployment rate yet with low level of corruption (National Bureau of Statistics, 2015). The personnel audit carried out in FCT in 2013 showed that out of 26,017 on the government's payroll, 6000 were staged. Thus, the audit exercise revealed the high level of corruption, theft and financial impropriety that could be checked with the application of the electronic payroll system in the public interest entities. Despite the provisions of the Financial Regulations (2009), Part 1, (1503) (i) which stipulates that all public servants shall have their salaries and allowances paid through named banks on completion of Treasury Form (4), it is obvious that such provision is handicapped to empower the organizations to carry out a centralized payroll system.

Letswla and Egwemi (2013) noted that corruption did not begin today but came with ancient civilizations, carrying with it traces of widespread illegality and corruption. Multiple accounts operated by various ministries, departments and agencies in the public sector were so unaccounted for, thereby creating opportunities for public office holders to defraud the nation by emptying the nations treasury into their private accounts. It is to this effect that TSA was implemented to block all leakages in revenue collection. The adoption and full implementation of Treasury Single Account (TSA) by any government, especially in a dwindling economy cannot be over-emphasized. This is because the objectives of Treasury Single Account are primarily to safeguard government revenue, enhance openness and avoid misappropriation of State's funds. Adeolu, (2015) opined that the operation of Treasury Single Account guarantees adequate cash utilization by eliminating the concept of having funds kept idle, usually with different deposit money banks and in a way ensure that revenue receipts and payments agree. According to Karel and Jaroslava (2012), "TSA is most certainly an essential tool for proper utilization and management of government resources, thus reducing borrowing cost". It is of great import to note that Treasury Single Account is an effective tool for handling government's monies, thus limiting cost of borrowing. In economies with fragmented government banking arrangements like Nigeria, the development of TSA must be given more priority in public financial management plan.

Furthermore, weak internal control and accounting system provide opportunity for fraudulent activities in public interest entities. However, the application of Integrated Financial Management Information System promotes efficiency, security of data management and a complete financial reporting by computerizing the entire system; from budget preparation to budget implementation stage to keeping track of all transactions to detecting fraud and excessive payments in the public sector.

It is against this backdrop that this study considers the joint effect of "Treasury Single Account (TSA), "Integrated Payroll and Personnel Information System" (IPPIS) and "Integrated Financial Management Information System" (IFMIS) on the management of fraud in the Nigerian Public Interest Entities.

II. Theoretical Framework

The following underpinning theories were considered in this study:

2.1 Meta Theory Model

Ruchala and Mauldin (1999), argue that previously Information Technology (IT) was used in accounting systems merely to process transactions that would reciprocate the old order (manual processes). Meta theory is the formation of technical orientations, cognitive as well as the holistic models in the discovery of Accounting Information System. The theory has consequently been useful in tackling the current limitations in IT that are inevitable and highlighted in former studies such as the inability to acknowledge the responsibility to which Information Technology is being applied, the failure to consider the suitable nature of a false process, incapability to account for scientific design in the real field of study and failure to direct the procedure for selecting the required decisions and handling all the transactions equally.

2.2 Circumvention Innovation Theory

American economist, Kane (1981) pioneered circumvention innovation theory. According to him, various government regulations having the same feature of inherent taxation to obstruct the profitable activity engrossed by an entity and the chance of earning profit, so the newly introduced market regulations be regarded as an ever struggling process between the independent economic and political forces. Primarily, financial institutions have the responsibility to deal with issues such as profit reduction and the inability to manage the government induced regulations to reduce the probable loss to its lowest unit.

However, financial innovations are certainly caused by the desire to earn profits and circumventing government laws. It is made possible through the game between government and microcosmic economic units. His theory differs from reality. The regulation innovation he came up with is usually directed at reinforcement of regulations; however, the regulation innovation in its true sense is always directed towards free market innovation, the outcome of the game results is the development of financial regulations with markets attaining more liberality. That notwithstanding, Kane's theory seems more accepted than constraint-induced theory of financial innovation. It did not just consider the inception of innovation in the market but also carried out research on the procedure for regulation innovation having distinct relationship.

2.3 Public Finance Management Theory

This theory assumes that all aspects of financial resources – mobilization and expenditure should be well managed in government for the benefits of the citizenry. It comprises resource mobilization, prioritization of programs, budgetary procedures, efficient management of resources and applying control to guide against threats. Treasury Single Account (TSA) primarily is to avoid misapplication of public funds.

III. Conceptual Framework

The commendable initiative formulated by Ngozi Okonjo-Iweala, finance minister and coordinating minister of the economy in February, 2015 and coordinated by the Office of the Accountant-General of the Federation (OAGF) in collaboration with the CBN has welcomed several arguments. The implementation of this public financial management reforms spell doom for money deposit banks according to Adesiji (2015), in terms of liquidity; these reforms equally liberate the government from unnecessary fund shortage which it often experiences, even though its cash is lying with the commercial banks. Adesiji (2015) wonders why the trapped government revenues are also being round-tripped to purchase Treasury bills. "Why would government, for instance, go to banks to borrow money through Treasury Bills, when billions of its revenues are trapped in various accounts run by the agencies," Bankers, on the other hand are said to be against TSA because it starves them of cheap funds which they loan to customers at high interest rate, making huge profits. The banks' argument borders on the fact that releasing the funds to the CBN in addition to the current 75 percent on public sector funds sterilized with the apex bank at zero interest rate will cripple their operations.

Garbade, John and Paul (2004) observed that the full implementation of TSA helps the banks to refocus on the original objectives for which they were established - to collect deposits, keep them safe and serve as financial intermediates. The full implementation of TSA in Nigeria depends on its accompaniment with efficient fiscal policy. Allen and Carletti (2006) submitted that TSA opens up the financial activities of government in a way that there will be no more hiding place for those who divert or loot government money; as it goes a long way to ensure budgeting process and implementation, including contract awards, should be in the open for Nigerians to see both how revenues are generated and how public money is spent by those in the government and why.

TSA is bound to improve transparency and accountability in Public Financial Management. First, it removes MDA's secrecy around the management of public finances. The second is that revenue generating agencies that have been depriving the Treasury of due revenue through a plethora of bank accounts under their purview unknown to the authorities will no longer be able to defraud government since all funds are swept into the TSA. Larson (2007) noted that TSA implementation impacts beyond transparency and accountability, TSA ushers into the economy efficiency in the overall management of public finances and this, in the long run leads to effectiveness of government spending since it places the government in a better position to realize overall policy goals (Idris, 2017).

Ochenni (2016) opined that TSA policy is paramount in the nation's revenue drive, transparency and fight against corruption. However, the policy adoption affects banks' liquidity and employment as well. Consolidation of cash resources through TSA helps to avoid borrowing and paying additional interest charges to finance the expenditures of some agencies while other agencies keep idle balances in their bank accounts. TSA is a unified arrangement which enhances the fungibility of government cash resources, and implies that no other government agency should be allowed to operate bank accounts without the oversight of the treasury. It is also concluded that it is comprehensive, encompassing all government cash, both budgetary and extra budgetary. Regarding the "architecture" of the TSA, it should be underscored that there is no single TSA model or design.

Adoption of a Treasury Single Account (TSA) is capable of plugging financial loopholes, promoting transparency and accountability in the public Financial System as evidenced in the work of Bashir (2016). The TSA model implemented in each country depends on the stage of development, the quality of its public institutions, the financial management systems, its technological development, communication infrastructures and the degree of maturity of its banking system. Equally, of importance is the fact that the design of TSA depends on the technology used for interbank settlements and the electronic and/or manual system, used by the Central Bank for clearing of collections and payments with the commercial banks. In some cases, the banking system might also be moving to a Real Time Gross Settlements System (RTGS).

TSA enhances the transparency of the government's banking arrangements by ensuring that all end-of-the-day balances are electronically swept into the TSA. The establishment of a TSA is a key element of an efficient and effective Public Financial Management system and an essential tool for minimizing government borrowing costs. Kanu (2016) observed that the implementation of Treasury Single Account in the public accounting system impacted negatively on the liquidity base and the performance of banking sector in Nigeria.

The effectiveness and efficiency of TSA can be achieved if the below cash management policy documents are strictly implemented and monitored: Government Integrated Financial Management Information System (GIFMIS): GIFMIS is an IT based system for budget management and accounting being implemented by the Federal Government to improve public expenditure management. The purpose is to enhance greater accountability and transparency across Ministries and Agencies. Ochenni (2016) observed that Integrated Personnel and Payroll Information System (IPPIS) is a centralized computer based payroll and management system aimed at elimination of payroll fraud; it has as its focus, the determination of the actual personnel cost at a glance. It also aimed at ensuring data integrity towards ensuring that personnel information is correct and intact.

3.1. Treasury Single Account (TSA) in Nigeria

Treasury Single Account (TSA) was introduced by the federal government of Nigeria in 2012 being a financial policy in use in several countries all over the world to consolidate all inflows from all agencies of government into a single account. The CBN enumerates that efficient management and control of government's cash resources rely on government banking arrangements. Nigeria, like many other developing countries, employed fragmented systems in handling government receipts and payments. The need for the establishment of a unified structure or a single account as pointed out by the International Monetary Fund (IMF) would reduce borrowing costs, extend credit and improve government's fiscal policy among other benefits

The introduction of the Treasury Single Account policy therefore was vital in reducing the proliferation of bank accounts operated by Ministries, Departments and Agencies (MDAs) towards promoting financial accountability among governmental organs. Babajide (2016), pointed out that the compliance with the policy in Nigeria created challenges for majority of the MDAs. Commercial banks in Nigeria remitted over 2 trillion Naira worth of idle and active governments deposits with full implementation of this policy in 2016. Meanwhile, the bankers' committee of the country has declared their support for the policy. Through Remita, the integrated electronic payments and collections platform developed by a company called SystemSpecs, the TSA initiative has enabled the Federal Government of Nigeria to take full control of over 3 trillion Naira ($15 billion) of its cash assets as at the end of the first quarter of 2016, (OAGF, 2016).

Adoption of TSA in Nigeria has reduced government borrowing and therefore the cost of debt servicing has reduced drastically to perhaps below half of the previous level. Consequently, it has certainly uncovered lots of government funds unaccounted for in times past. One striking issue before TSA adoption was that most banks in Nigeria intentionally held back the remittance of revenue collected by them, only to trade with the money at the expense of government. Certain MDAs in Nigeria traded with government revenue for their personal gains resulting in poor execution of budget and timely payment to beneficiaries such as pensioners. It is however expected that all such practices carried out in the past will cease as there will be timely distribution of funds for government projects. Perhaps, if project contractors receive their pay quickly, then the need to borrow at a high rate of interest will be reduced thus resulting in lower cost of government projects, efficient execution of budgets and quick completion of projects. One of the reasons for adopting TSA in the public sector is to reduce or shorten any delay in payments. For best practices, payment process should be automated using electronic payment system, having payments made directly to the bank accounts of beneficiaries or contractors as the case may be. For this purpose, MDAs must be serious when dealing with cash flow planning and revenue or cost projections to ensure cash is managed effectively.

However, legal barriers may hinder the full implementation of TSA. Section 162 of the 1999 Constitution concerning Federation Account makes provision for a wider framework but it does not give attention to operational details. Some forms of autonomy have been given to certain MDAs by constitution with powers to operate and maintain an account out of which expenses will be paid and to invest excess funds and maintain a reserve.

TSA adoption should be encouraged both at the states and local governments so that revenue allocation from the Federal government can be paid directly into their TSAs held at Central Bank of Nigeria(CBN), thereby, creating enabling environment for easier management of liquidity in the system. If however, negotiations on tax collection fees focuses more on transactions instead of the amount of revenue collected, then the cost of collecting tax will reduce for tax agencies from above 5% presently in certain instances to a ratio perhaps less than 1% which meets the international benchmark. This promotes transparency by ensuring that gross revenue collection and commissions are accounted for separately instead of using net revenue approach which does not encourage transparency. Since interest arising from government bonds and treasury bills are not tax deductible, this increases tax revenues thereby compelling banks to lend to the private sector which is usually taxable. Sadly, banks' reported profit might perhaps go down for a short term while their taxes will certainly increase. Consequently, the excess dividend taxes banks usually pay when they distribute profits, exempted as dividend to stakeholders, help to offset the impact of tax increase.

TSA has been found to ensures transparency in tax revenue reporting which paves way for prompt payment of refunds as well as tax offsetting .Using configurations outlined in TSA, there is the possibility that taxpayers can use excess payments or perhaps refunds in an area (for example, withholding tax or value added tax) to settle other taxes, say corporate income tax or capital gains tax, etc. Fiscal federalism is improved because TSA transit accounts become essential for tax revenues collected centrally but shared among the various levels of government. Allocation of funds to states and local governments can be done automatically in real time rather than monthly basis.

From the foregoing, we see clearly here that TSA provides a mechanism for keeping track of government revenues and expenditures. TSA implementation in Nigeria will put a stop to some or perhaps all leakages that have hindered growth in the economy. There are cases where most MDAs run and manage their finances like private empires and remit to government treasuries below what was actually collected. Within a system of government where TSA is properly run, this is impossible as all MDAs are required to spend in line with the approved budget. Maintaining a single account by government ensures proper monitoring of fund flow by the Ministry of Finance as no government agency is permitted to operate a bank account that is outside the surveillance of the Ministry of Finance.

3.2. Integrated Payroll and Personnel Information System (IPPIS) in Nigeria

In a bid to reduce corruption, the Nigerian government in October 2006, conceived the Integrated Payroll and Personnel Information System (IPPIS) to provide a reliable and efficient database for the public service to eliminate record and payroll frauds, facilitate easy storage, facilitate manpower planning, update and retrieve personnel records for administrative and pension processes and facilitate convenient staff remuneration payment with minimal wastes and leakages. The IPPIS project in April 2007 was officially tested on six ministries: Education, Foreign Affairs, Finance (including the Budget Office of the Federation), Works, Information and Communications (as it was then known), and the National Planning Commission. In 2009, government decided to expand its scope to cover another nine Ministries, Departments and Agencies which include Aviation, Health, Agriculture, Petroleum Resources, Transport, the Office of the Accountant General of the Federation, Office of the Head of the Civil Service of the Federation, Office of the Secretary to the Government of the Federation and the Federal Civil Service Commission. It was discovered that in the first month of implementation, IPPIS saved the government ₦416 million. At the end of its first phase implementation in 2010, the savings rose to ₦12 billion. Building on the success of the pilot phase, the government saw the need to undergo a service-wide deployment of IPPIS in 2011. Government's intention was that by the end of 2014, all 585 government MDAs, made up of the mainstream Civil Service and other Agencies in the Public Service, drawing personnel cost from the national budget would have been enrolled into the IPPIS platform. Presently, government is also pursuing the full implementation of the human resource management component of IPPIS and the full connectivity of all human resource and finance offices to the system. The quality of government payroll administration has vastly improved and an increasing number of MDAs are moving away from manual payroll administration. The MDAs have the necessary information for planning their personnel costs. IPPIS has actually reduced corruption by virtually eliminating ghost-worker syndrome where applied, thereby reducing the cost of governance. The Scheme has, from its launch in 2007 to December 2014, saved the government ₦185 billion (about US$1 billion), representing the difference between the money that government would have released to MDAs based on their estimated nominal roll submissions and the amount actually paid through the IPPIS platform. The scheme now covers 359 MDAs and has successfully enrolled 237,917 members of staff and weeded out 60,450 'ghost workers'. Furthermore, it reduced the red tape involved in manual payroll administration. (Udo, 2016). Salaries, according to the Federal Republic of Nigeria Financial Regulations (2009) Part I (1501), is the personal emolument paid to an employee of an organization, usually monthly for services rendered at a predetermined rate of pay. More so, part II (1518) of the financial regulation pointed out that the standard payroll system shall be applied in all offices, unless otherwise provided under financial regulation (1519), shall be such as to ensure that records shall be made in single operation. Garbe, John and Paul (2004) pointed out that the most essential computer application in organization is payroll management as it calculates each employees monthly basic pay, bonuses, tasks, national insurance and pension contributions.

Though Obinna (2015) sees public service as a paid non-elective office in an executive arm of government, the public service is principally charged with the responsibility of implementing the machinery of governance and it's role cannot be over- emphasized. Okoh (2003) sees the public service as the major institutional instrument used by government to implement its policies and programs hence, it is the management arm of government charged with the responsibility of driving government machinery to the pre-determined end.

The Nigerian government regards the application of a computerized system as the most essential tool for tackling the huge personnel cost as it will improve effectiveness and efficiency in government transactions and enhance confidence in personnel costs and budgeting thereby improving management reporting and information. More so, the Integrated Personnel Payroll and Information System will help Ministries, Departments and Agencies (MDAs) avoid infractions of regulatory bodies as a result of ghost workers. Such policy would create a synergy between government and employees in combating corruption.

The Integrated Payroll and Information System as well as the Integrated Financial Management System have been able to enhance transparency and accountability in the utilization of government finances. In 2013, the Federal Ministry of Finance took cognizance of the fact that IPPIS has efficiently improved personnel cost planning and budgeting since it is based on actual verifiable targets rather than estimated figures. Consequently, it has broadened employment opportunities, reduced corruption in publicly owned establishments and reduced personnel costs. The efficiency in transacting government business is enhanced as it has enhanced the confidence in payroll system and budgeting, greatly improved management of information and reporting, rebuilding public confidence, provide opportunities for improved infrastructural facilities and create serene work environment and job security (Hall and Torington, (1998); Oyedele, (2015). Though, the envisaged challenges by the employees include bureaucratic delays, decayed facilities, wickedness in unionism, less earnings for recruitments, lack of sensitivity and commitment on the part of government in terms of carrying out its policies in the past, Mayo (2001) analyzed the achievable success and concludes that its success can be grouped completely by its application at all levels of government especially the local government to overcome the persistent issue of ghost workers in the system.

3.3. Integrated Financial Management Information System (IFMIS)

Aminatu (2010) opined that an Integrated Financial Management System is an Information Technological-driven accounting and budgetary system that assist government and other entities in managing its spending and reporting processes. It combines series of vital asset management function into a single software application. However, the size and requirements of the organization will go a long way to determine if the software will be off-the-shelf or custom-made. Financial management in the Public Sector can be improved with IFMIS through management of cash, liabilities and debt. A more efficient budget model can be prepared with IFMIS by using historical information. In addition, IFMIS reduces cost of transactions and enhance decision-making process. One essential feature which integrates an effective IFMIS is the inter-connectivity it has with a couple of reliable databases, in which there is a flow of information in terms of financial transactions. Integration is crucial to IFMIS successful implementation. In other words, integration suggests that the system includes these primary attributes; standard data classification for recording financial events, internal controls over data entry, transaction processing, reporting, mutual procedure for monetary events that are similar and systematic design that cancels identical data entry. However, IFMIS is not only limited to just financial management functions which it supports but also covers other information systems it communicates with, like human resources, payroll and revenue. To say the least, IFMIS should be structured in a way that there is an interface with these systems.

It must be noted that for effective applicability, functioning and maintenance, IFMIS demands personnel with the required knowledge and expertise. Diamond and Pennacchi (2006) posits "that capacity building deficiency is seen as one of the primary reasons for the setback in IFMIS implementation process in Ghana". On the other hand, the special attention to capacity building via training was one of the major factors contributing to the breakthrough of IFMIS in Tanzania.

Murphy (2002) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Systems improvements (that is, macro model, MTEF, performance budgeting, cash management, IFMIS, payroll/personnel systems) are typically undermined by failure to address complimentary human resource (manpower planning, recruitment, incentives, training), organizational restructuring and improved management capacity (delegation, middle management empowerment, team building). He further posits that IFMIS implementation is hindered by over-complex change projects requiring high levels of technical and management capacity.

IV. Methodology

For this study, the descriptive and expost facto research design were adopted. These research designs were used to establish the relationship between TSA, IPPIS, IFMIS and fraud management in public sector in Nigeria. The target population was the staff of the Ministry of Finance. The choice of the Ministry of Finance was borne out of the fact that the ministry is the one mandated to supervise the implementation and use of TSA, IPPIS and IFMIS in Nigeria.

Sample size consisted of 120 respondents drawn from the studied ministry. The research instrument used a 5 point scale in weighting the responses from the respondents. To test the hypotheses regarding the effect of Treasury Single Account (TSA), Integrated Payroll and Personnel Information System (IPPIS) and Integrated Financial Management Information System application and implementation on Fraud Management in the Public Sector, the following model was developed for the variables:

$$\mathbf{FMPS = b_0+b_1TSA+b_2IPPIS + b_3IFMIS + \mu}$$

Where:
FMPS = Fraud Management in the Public Sector
TSA = Treasury Single Account
IPPIS = Integrated Payroll and Personnel Information System
IFMIS = Integrated Financial Management Information System
μ = represents error term.
b_o = regression intercept.
b_1, b_2 & b_3 = regression coefficients.

V. Results And Discussion Of Findings

Table 1 Financial Fraud Management

BEFORE TSA	AFTER TSA	DIFFERENCE	BEFORE IPPIS	AFTER IPPIS	DIFFERENCE	BEFORE IFMIS	AFTER IFMIS	DIFFERECE
₦7,435,114,613,716.05	₦ 5,391,434,173,303.85	₦ 2,043,680,440,412.2	₦ 334,109,198,224	₦ 331,218,801,283	₦ 2,890,396,941	₦ 2,369,890,735,546	₦ 1,973,414,204,438	₦ 396,476,531,108

Total values of Financial Fraud management before and after TSA, IPPIS and IFMIS implementation.
Source: Monthly Federation Account (General salaries and wages) Nigerian Budget 2010-2015.

Regression analysis on fraud management before TSA, IPPIS and IFMIS

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.258[a]	.066	-.245	101183499929.570

a. Predictors: (Constant), Integrated Financial Management Information System, Treasury Single Account, Integrated Personnel Payroll System.

Source: SPSS 20

The model Summary of the data shows R square of .258 and an adjusted R square of .066. These are essential for interpreting the model summary as the coefficient of variation of the dependent variable. This indicates that TSA, IPPIS and IFMIS can predict and control up to 66% of the fraudulent activities prevalent or perpetrated in the public sector of Nigeria. This model explains that only 25.8% of fraud management has been effective before the predictors' introduction. This is statistically unsatisfactory.

Table 3: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6549406376151738000000.000	3	2183135458717246200000.000	.213	.885[b]
	Residual	92142905921975850000000.000	9	10238100657997317000000.000		
	Total	98692312298127600000000.000	12			

a. Dependent Variable: Fraud Management

b. Predictors: (Constant), Integrated Financial Management Information System, Treasury Single Account, Integrated Personnel Payroll System

Source: SPSS 20

The ANOVA table reveals the explanatory power of "Integrated Financial Management Information System", "Treasury Single Account", "Integrated Payroll and Personnel Information System" on fraud management. The F- ratio statistic has a p-value above 0.05 for the 95% level of confidence. This result reveals that the dependent variable (fraud management) before the introduction of TSA, IPPIS and IFMIS was not effectively managed.

Table 4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-31864961799.802	117101103760.402		-.272	.792
	Treasury Single Account Before	.063	.207	.103	.307	.766
	Integrated Personnel Payroll System Before	-.634	.848	-.258	-.748	.474
	Integrated Financial Management Information System Before	.039	.366	.038	.106	.918

a. Dependent Variable: Fraud Management

Source: SPSS 20

The Coefficients table reveals the actual result of the regression analysis. It is therefore upheld that TSA has no significant effect on fraud management in the Nigerian Public sector. The regression un-standardized coefficients of fraud management before TSA, IPPIS and IFMIS show that Fraud has been on the increase before the introduction of the independent variables. Meaning that there is a positive relationship between TSA, IPPIS and IFMIS and Fraud management.

Regression analysis on fraud management after TSA, IPPIS and IFMIS

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.752[a]	.566	.421	68990012655.474

a. Predictors: (Constant), Integrated Financial Management Information System After, Treasury Single Account After, Integrated Personnel Payroll System After

Source: SPSS 20

The model summary of the data analysis revealed the coefficient of correlation (R). The R square and Adjusted R square are essential for interpreting the model summary as the coefficient of variation. The R Square is 0.566 and the Adjusted R square is 0.421. This indicates that the independent variables - "Integrated Financial Management Information System", "Treasury Single Account", "Integrated Payroll and Personnel Information System", explain 56.6% variation in the dependent variable - Fraud Management. The predictors are statistically significant; leaving only about 43.4% variability in Fraud Management to other factors not considered in this study.

Table 6: ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55855715682304 970000000.000	3	18618571894101 658000000.000	3.912	.049[b]
	Residual	42836596615822 630000000.000	9	47596218462025 14000000.000		
	Total	98692312298127 600000000.000	12			
a. Dependent Variable: Fraud Management						
b. Predictors: (Constant), Integrated Financial Management Information System After, Treasury Single Account After, Integrated Personnel Payroll System After						

Source: SPSS 20

The ANOVA table reveals the explanatory power of "Integrated Financial Management Information System", "Treasury Single Account' 'and "Integrated Payroll and Personnel Information System on fraud management". The F- ratio statistic has a p-value that is below 0.05 for the 95% level of confidence respectively. This shows that the model is statistically significant.

Table 7: Coefficients[a] After						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	67023795575.368	85371474820.740		.785	.453
	Treasury Single Account After	.320	.183	.015	.068	.947
	Integrated Personnel Payroll System After	.210	.349	.077	.317	.759
	Integrated Financial Management Information System After	.217	.181	-.777	-3.144	.012
a. Dependent Variable: Fraud Management						

The Coefficients table reveals the actual result of the regression analysis. It goes further to highlight significantly, the specific relationship between the independent variables and the dependent variable.

1. The regression un-standardized coefficient of TSA variable result shows that a 1 percent increase in TSA will achieve a 32% percent increase in fraud Management. Meaning that there is a positive relationship between TSA and Fraud management; the higher the implementation of TSA, the higher the level of Fraud control and vice versa.
2. The regression un-standardized coefficient of IPPIS result shows that a 1 percent increase in IPPIS will achieve a 21% percent increase in fraud Management. Meaning that there is a positive relationship between IPPIS implementation and Fraud management; the higher the implementation of IPPIS, the higher the level of Fraud management, and vice versa.
3. The regression un-standardized coefficient result of IFMIS shows that a 1 percent increase in IFMIS will achieve a 21.7% percent increase in fraud Management. Meaning that there is a positive relationship between IFMIS and Fraud management; the higher the implementation of IFMIS, the higher the level of Fraud management, and vice versa.

With the p-value below 0.05 percent alpha level, the null hypothesis was rejected. It is therefore follows that efficient IFMIS implementation has a significant impact on the fraud management in Nigerian Public sector.

VI. Conclusion And Recommendations

This paper reveals that the implementation and application of "Treasury Single Account" (TSA), "Integrated Payroll and Personnel Information System" (IPPIS) and "Integrated Financial Management Information System" (IFMIS) in the public sector control fraudulent activities in the management of government revenue and expenditure as it cuts down ghost workers, reduces personnel cost budget, enhances a more efficient and viable internal control in Government owned establishments in keeping track of government financial information for producing auditable financial statements. These variables impact positively on the development of public sector enterprises in Nigeria. From the result of the data analysis and consequent upon findings by the researchers, the paper concludes that for an efficient fraud control and management in the Nigerian Public Sector, the adoption and full implementation of TSA, IPPIS and IFMIS cannot be neglected. Thus, these indispensable tools cannot be over emphasized.

Consequently upon the findings and conclusion, the paper recommends that:

1. Integrated Personnel Payroll and Information System should be fully implemented to address the ghost workers syndrome in public enterprises. This will help cut down personnel cost budget by the government, thus rewarding only those who are in active workforce
2. Staff should be trained with regards to the growing trend in ICT in order to be able to effectively utilize the IPPIS and IFMIS frameworks.

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