



Integrated Personnel and Payroll Information System (IPPIS) and Fraud Reduction On Nigerian Public Service.

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Abstract

This paper examined Integrated Personnel and Payroll Information System (IPPIS) and Fraud Reduction in Nigerian Public Service. The objectives of the study include: to find out the effects of IPPIS on reduction of fraud in the Nigerian Public Service; to examine the extent IPPIS has been able to reduce fraud in the Nigerian Public Service; and to identify the impediments to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service. The research questions were three (3), and the formulated hypotheses were also three (3). The study made use descriptive survey design. The population of the study was 165 staff of the Federal Ministry of Finance, Abuja. There was no sample size determination due to the small size of the population. A 17 item structured questionnaire was used for data collection with the help of 2 assistants. The instrument was face-validated by two experts in the field of social sciences with a reliability index of 0.75 using spearman rank order formula. Data collected on the research questions were analyzed using frequency and percentage Chi-Square(x^2) was used to test the formulated hypotheses at significant level of 0.05. Findings from the analyzed data indicated: that IPPIS has effect on fraud reduction in Nigerian Public Service; that IPPIS has been able to reduce fraud in the Public Service a large extent; and that impediments exist in the implementation of IPPIS in the Public Service. Based on the findings, the study concluded that IPPIS remains a key programme of the Federal government on fraud reduction in the Public Service and its goal can be achieved if it is efficiently implementation. Based on the conclusion, the study recommended that the federal government should provide the needed facilities and enabling environment for the efficient implementation of IPPIS in the Public Sector.

Keywords: IPPIS, Fraud, Fraud Reduction, Ghost Worker and Public Service.

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Introduction

From its inception, the Nigerian civil service was a model to emulate comparatively. According to Ogunrui and Erhijakpor (2009:106), misappropriation of public funds was difficult and very rare during that era; the rendering of public services was very efficient and effective; the public service participated immensely to the formulation and implementation of public policies. However, over time, inefficiency and corruption became rife in the Nigerian public service. This malady had eaten deep into the fabrics of the Nigerian public servants (El-Rufai, 2010). The quest to change this disheartening status quo made notable and well-meaning Nigerians to have a rethink on the way out or way forward via reform of the public service.

Consequently, in the words of Adekunle (2016), the reforms came in the major aspects of government administration which include: Restructuring of the civil service; Monetization policy; Civil service salary review; Overhaul of procurement system; Sustained crusade against corruption; Capacity building; ICT development; Review of the public service rules; Regulations and procedures; Rightsizing the civil service and the Due process. These major reforms were introduced and implemented since the inception of Obasanjo's regime and YarAdua's administration, and were targeted at realizing the vision of the public service reform. The Nigeria vision of the public service reforms of 1999 was to positively transform the civil service into an ideal, competent, professional, development-oriented, public-spirited, and customer-friendly, capable of responding effectively and exhibiting core values of political neutrality, impartiality, integrity, loyalty, transparency and accountability that was improved upon to the point of being competitively well remunerated and innovative, according to Bureau of Public Service Reform (BPSR, 2009).

In Nigeria, all the Ministries, Departments and Agencies (MDA's) draw their personnel cost from the Consolidated Revenue Fund (CRF). However, the exact number of Personnel being paid in the Nation cannot be easily ascertained due to non-availability of required and necessary information. As a result of none availability of the exact number of Public servants in the country, it has become difficult for government to have an accurate wage data for planning and budgeting purpose (Bhoi, 2017). As a way out, In 2007, the Federal Government of Nigeria and

the World Bank initiated Integrated Personnel and Payroll Information System as information Communications Technology (ICT) based computerized Human Resource and accounting Management Information System project designed to improve the effectiveness and efficiency of payroll administration for its Ministries, Departments and Agencies (IPPIS, OAGF, 2019). IPPIS provides a platform for computer application in government payroll management as it calculates each employees monthly basic pay, bonuses, arrears, national housing fund and pension contributions. The IPPIS is designed to make use of modern information and communication technologies to help the government manage the human resource of the public service more efficiently and effectively; provide a reliable and comprehensive database for the public service to facilitate manpower planning; eliminate records and payroll fraud; facilitate easy storage, update and retrieval of personnel records for administrative and pension processes; and facilitate staff remuneration payment with minimal leakages and wastages.(Kinyeki, 2015).

However, the questions calling for answer remain –what are the effects of Integrated Personnel and Payroll Information System on reduction of fraud in MDAs? To what extent has IPPIS been able to reduce fraud in MDAs? and what are the impediments to the effective implementation of IPPIS in the reduction of fraud in MDAs? The above questions would serve as guide for this study.

Statement of the Problem

The dynamics of our modern welfare and service delivery has inevitably called for instrumentality of the attendant good governance values of accountability, probity, transparency, efficiency, effectiveness and prudence. Essentially, as we all know, public service is meant to deliver goods and services to the citizenry at the right time and accessible degreesuch that the basic values of good governance are demonstrated in the management of public business(Ahmad, 2005).

In Nigeria, given the performance of the public service in the first few years of her independence, there was great hope that the expectation of Nigerians for rapid socio-economic development would be fulfilled with reasonable efficiency. This was because giant strides were taken in the provision of infrastructural and capital investments (Agagu, 2008:243). It is

instructive to note that by the mid-1980s, the Nigerian public service was far from being ideal. It was tradition-bound, somewhat ponderous and showing signs of deterioration, inefficiency and a huge drain of public finance and resources (Adegoroye, 2006).

Record showed that the Government of Nigeria spends almost 50 to 60% of its revenue on Personnel management every year at the detriment of other sectors of the Economy. According to the Honourable minister of Finance, Mr Olusegun Aganga in his address at the flag off of Integrated Personnel and Payroll Information System Phase II workshop held at the Sharaton Hotels Abuja, he said that in 2011 Federal Government Budget was projected at #4,226.19 billion, comprising #196.12 billion(4%) for statutory transfers; #542.38 billion (13%) for Debt servicing; #2,481.71 billion (59%) for Recurrent (Nondebt) expenditure and #1,005.99 billion (24%) for Capital expenditure. This huge bill it is said if not monitored and cut down through (appropriate government policy and reform program, we may wake up one day to see that all Govt. revenue is spent in paying salaries at the detriment of competing needs(Moulin, & Kettani, 2014).

Ghost worker syndrome is not a new thing in Nigerian Public service, where a non-existing employee is being paid monthly. There are multiple payments of emoluments to a single employee and credentials are falsified. People have access to their age of retirement. It is a big challenge, that at this age when almost every aspect of the world economy is computerized, Nigeria is still depending on manual records for her personnel and payroll information. Workers data are kept in paper files, their salaries are calculated manually and as such mistakes and fraud in form of overpayment, underpayment and payment of ghost workers always occur. Government of Nigeria does not have the accurate number of civil servants and her budget is always an estimate. This has created some loop holes, whereby some ministries budget more than they require and use the excess for some other things other than payment of salary and allowances.

Objective of the Study

The general objective of this study is to examine the effect of the effect of Integrated Personnel and Payroll Information System on reduction of fraud in Nigerian public service. The specific objectives include:

- 1) To find out the effects of Integrated Personnel and Payroll Information System on reduction of fraud in the Nigerian Public Service.
- 2) To examine the extent IPPIS has been able to reduce fraud in the Nigerian Public Service.
- 3) To identify the impediments to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service.

1.4 Research Questions

The following research questions were formulated to guide the study:

1. What are the effects of Integrated Personnel and Payroll Information System on reduction of fraud in the Nigerian Public Service?
2. To what extent has IPPIS been able to reduce fraud in the Nigerian Public Service?
3. What are the impediments to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service?

Research Hypothesis

- 1) Integrated Personnel and Payroll Information System has reduced fraud in the Nigerian Public Service.
- 2) Integrated Personnel and Payroll Information System has been able to reduce fraud in the Nigerian Public Service.
- 3) Poor state of supporting infrastructure facilities, unskilled staff among others is major impediment to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service.

Literature Review

Conceptual Review

○ Concept of Integrated Payroll and Personnel Information System (IPPIS)

The Integrated Payroll and Personnel Information System (IPPIS) is information Communications Technology (ICT) based computerized Human Resource and accounting Management Information System project initiated by the Federal Government of Nigeria (FGN) in 2007 to improve the effectiveness and efficiency of payroll administration for its Ministries, Departments and Agencies (IPPIS, OAGF, 2019). IPPIS provides a platform for computer application in government payroll management as it calculates each employees monthly basic pay, bonuses, arrears, national housing fund and pension contributions.

According to Nwaodu *et al* (2014), the IPPIS introduced in the Federal Service was a major step towards reforming and transforming the service for better service delivery in the country. The IPPIS is an enterprise-wide, integrated, computerize and efficient human resource management information system that is used by the ministries, departments, agencies and local governments to undertake human resource management activities from recruitment to separation, including payroll and pension processing. The IPPIS is designed to make use of modern information and communication technologies to help the government manage the human resource of the public service more efficiently and effectively (Kinyeki, 2015).

○ Concept of Fraud

Larson (2018) defined fraud as an act that is intentionally deceptive and is designed to provide the perpetrator with an unlawful gain or access to resources or to deny a right to a victim. Fraud involves the false representation of facts, whether by intentionally withholding important information or providing false statements to another party for the specific purpose of gaining something that may not have been provided without the deception.

○ Concept of Ghost workers

Ghost workers are nonexistent employees whose names and other particulars are kept on the organization's payroll and salaries paid to them but received by others (most likely the fraud) who had the name included or left in the register. Ghost workers may be kept on the payroll if

payroll managers delay in removing the names of individuals who no longer staff of the organization from the payroll (Lekubu, 2013). In some cases, payroll clerks may include names of fictitious or separated employees on the payroll, forge their signatures, and collect the salaries on their behalf (Izedonmi & Ibadin, 2012).

- **Concept of Ghost Workers and Payroll Fraud**

Osioma *et al* (2016) defined Ghost workers and payroll fraud as the entire processes of employee impersonations that have salary cost implication on the government. It includes all illegal, unauthorized, unqualified, fictitious and non-existing staff that makes salary claims from the government coffers. The foregoing implies that underage, overage, backdated employments, inherited employments, unqualified staff and unauthorized staffs even though they report for work daily; are categorized as part of ghost workers and payroll fraud in the public service (Tanzi, 2013). In some instances, these fraudulent public officeholders forge the necessary documents and authorizations to add an employee on the payroll.

Empirical Review

Chima & Folorunsho (2020) explored the extent to which IPPIS as an e-governance tool reduces corruption in the Nigerian public service. This investigation was motivated basically because IPPIS was introduced to guard against fraudulent practices and entrench accountability as well as transparency in the Nigerian Public Service. However, there are mixed reactions regarding its effectiveness in the Nigerian public service. Utilizing the qualitative method, this paper infers from analysis of existing bibliographic documentation that the use of IPPIS based on the evidence cited across Africa and Nigeria in particular is instrumental in deterring and detecting fraud. Hence, the paper supports the application of IPPIS in all MDAs. The paper, however, strongly concludes that the extension to MDAs at various levels of government can easily be facilitated and made more effective when proper records of employees are fed into the IPPIS and the operators are constantly trained and motivated to encourage them to be upright while discharging their duties. Furthermore, a comprehensive payroll and personnel system modules should be built into the IPPIS to enhance its effectiveness. Consequent upon the foregoing, the paper recommends inter alia that there is a need for government to extend its implementation to

all Ministries, Departments and Agencies (MDAs) at Federal, State and Local Government levels.

Abdulsalam *et al* (2020) investigated the effect of Integrated Personnel and Payroll Information System (IPPIS) on transparency in Government Payroll Administration in Nigerian civil service. A descriptive cross sectional survey research design was used in form of questionnaire administered to illicit information from the respondents, which provides generalized opinions/statistics from the number of individual cases. The population of the study covers 100 Treasury Staff of the Office of Accountant General of The Federation Working at Federal Pay Office, Sokoto and Federal Pay Office BirninKebbi. Census was adopted, and as such sampling represents the population. Data was collected and analyzed using descriptive and inferential statistics with the aid of Statistical Package for the Social Sciences (SPSS) Version 21. The findings from test of hypothesis of this paper revealed a significant moderate positive relationship between IPPIS, Transparency and Accountability. Hence, the null hypothesis which states that there is no significant relationship between IPPIS and transparency in government payroll administration in Federal Civil Service in Nigeria is rejected and the alternate hypothesis is accepted. The paper recommends that Government should strengthened the internal control mechanism of IPPIS so as to continuously detect and block any loopholes that will give room for fraud as well as carrying out routine Audit and Inspection of the program so as to ensure strict compliance with laid down rules and regulations governing the operation of IPPIS, coupled with compliance with the provisions of Financial Regulations and the Civil Service Rules.

Oguzierem and Sofiri (2017) carried a research work on ghost workers fraud in primary and secondary education sector in Bayelsa State. They assert that ghost workers and related payroll fraud have persisted in public service in Nigeria due to its multifarious nature and dimensions. Thus, their paper examined unauthorized employment as an emerging dimension of ghost workers and payroll fraud and how it affects wage bills of Local Government Areas (LGAs) and Rural Development Areas (RDAs) in Bayelsa State. The study adopted ex post-facto research design and collected data through secondary sources. The research findings revealed that for pecuniary and other reasons, public office holders in LGAs and RDAs in Bayelsa State were involved in continuous unauthorized employment that have bloated the wage bill and diverted

funds meant for development of local areas. The study among other measures, recommended that matters relating to employment should not be decentralized, but handled by the Local Government Service Commission, under strict guideline that will be issued by the Governor (Oguzierem UA, Sofiri J & Okodudu AS. Ghost Workers Fraud in Primary and Secondary Education Sector in Bayelsa State: Beyond Financial Loss, Journal of Public Administration and Social Welfare Research. 2017; 2(2).

Enakirerhi and Temile (2017) explored the Integrated Personnel and Payroll Information System (IPPIS) in Nigeria by looking critically at the challenges of implementation of IPPIS, benefits to be derived when IPPIS is fully implemented and what the future holds. The study which descriptive in nature outlined that accurate and reliable personnel information, reduction or elimination of corrupt and sharp practices, facilitation of modern scientific and accurate budgeting and forecasting are the major benefits of IPPIS. These benefits are, however, threatened by skills transfer problem, poor supporting infrastructure, technological barriers for infer MDAs transfer, resistance from stakeholders and lack of will for accelerated implementation.

Theoretical Framework

Theoretical Framework This research paper will be guided by the fraud diamond theory as proposed by Wolfe and Hermanson(2004). They posit that fraud is occurs due to four factors. These are the: Incentive/Pressure, Opportunity, capability and Rationalization. According to Wolfe and Hermanson (2004), most frauds would not occur without the right person with the right ability to carry out the fraud. Furthermore, the right person will have to observe and take advantage of an “Opportunity to commit the fraud considering that and incentive and rationalization can draw the person toward it. But the person must have the capability to recognize the open doorway as an opportunity and to take advantage of it by walking through, not just once, but time and time again.

Applying the theory, a closer study of the fraud syndrome indicates that most of the factor as espoused by Wolfe and Hermanson (2004) are present in the public service fraud environment in Nigeria. For Example, the prior system of manual personnel and wage management system

basically was an open invitation to commit fraud. Thus, the overworked manual system was an opportunity. Capability to commit the fraud is provided by insiders in positions of authority who see the extra money to be made as an incentive while it is rationalized by the difficult economic environment and other corruption going up higher up in the food chain of the government.

Methodology

The study adopted the descriptive survey research design to collect quantitative data to determine the effect of Integrated Personnel and Payroll Information System (IPPIS) and fraud reduction on Nigerian Public Service; to find out the extent IPPIS has been able to reduce fraud in the Public Service; and to identify the impediments to the effective implementation of IPPIS in the reduction of fraud in the Public Service. Using the Federal Ministry of Finance, Abuja as a reference point, the population of this study is staff of the Federal Ministry of Finance, Abuja, Nigeria numbering One Hundred and Sixty Five (165). Since the population size was small and measurable, the researcher decided to make use of the entire population, hence no sampling. Kothari and Guarav (2014) stated that the entire population of a study should be studied if the size of such a population is small and if the researcher can reach all and able to manage it. The instrument used for data collection was a structured questionnaire designed by the researcher designed by the researcher titled the Integrated Personnel and Payroll Information System and Fraud Reduction on Nigerian Public Service Questionnaire (IPPISFRNPSQ). It contains 17 items. The instrument has a 5 point Likert Rating Scale of Strongly Agree (5), Agree (4), Disagree (3), Strongly disagree (2) and Don't Know (1). The face validation of the instrument for the study was carried out by two experts; one from the Department of Political Science at Gregory University, Abia, and the other from the Department of Public Administration of Caritas University, Enugu. The reliability of the instrument was established by using, test-retest. Forty copies of the questionnaire were distributed in two occasions, with the interval of two weeks, to forty (40) staff in the Federal Ministry of Labour and Productivity, Abuja that was not used for the actual study. Scores obtained were corrected using spearman rank order formula after which a reliability index of 0.75 was gotten which shows that the material was highly reliable. The researcher with the help of six (6) assistants visited the seven Departments making up the

Federal Ministry of Finance, Abuja and administers the questionnaire to the respondents directly. Out of one hundred and sixty five (165) copies of the questionnaires distributed, only 120 were returned representing 73% of the total distributed and total return copies respectively. The data to be collected from the respondents were analyzed using mean values to answer the 3 research questions. In testing the hypotheses, Chi-Square(x^2) at significant level of 0.05 was used assembled, tallied and their frequency and percentage worked out. These frequencies and percentages were used to present the research questions that guided the study. The research questions were presented in likert scale form. The three hypotheses postulated for the study were tested using Chi-Square(x^2) at significant level of 0.05. The decision rule is accept null hypothesis if the (x)² calculated is lower than the table or critical value; reject the null hypothesis if the (x)² calculated is higher than the table or critical value; and reject the null hypothesis if the (x)² calculated is equal to the table or critical value.

Data Analysis

In this section, all data generated were used for the analysis. The study conducted two major analyses here: analysis of research questions and hypotheses testing.

Analysis of Research Questions

Research Question One: What are the effects of Integrated Personnel and Payroll Information System on reduction of fraud in the Nigerian Public Service?

S/N	ITEM	SA	A	D	SD	TOTAL
1	IPPIS created a centralized database system for the Nigerian Public Service	50(41.7)	50(41.7)	10(8.3)	10(8.3)	120
2	The use of IPPIS led to the uncover of most of the fraud using biometric data capture machine.	57(47.5)	38(31.7)	3(2.5)	22(18.3)	120
3	IPPIS replaced the ineffective manual and file-based personnel system	27(22.5)	30(25)	33(27.5)	30(25)	120
4	IPPIS reduced fraudulent financial practices.	100(83.3)	10(8.3)	5(4.2)	5(4.2)	120
5	IPPIS reduced massive financial losses occasioned by payroll fraud	45(37.5)	33(27.5)	15(12.5)	27(22.5)	120

and ghost workers					
Total	279	161	66	94	600
Percentage	40.5%	26.8%	11%	15.7%	100%

Table 1 showed that 40.5% respondents strongly agree, 26.8% of the respondents agree, 11% of the respondents disagree and 15.7% strongly disagree.

Research Question Two: To what extent has IPPIS been able to reduce fraud in the Nigerian Public Service?

S/N	ITEM	SA	A	D	SD	TOTAL
1	The use of IPPIS has reduced payroll fraud.	43(35.8)	37(30.8)	23(19.2)	17(14.7)	120
2	The use of IPPIS has reduced ghost workers in Public Service	55(45.8)	40(33.3)	20(16.7)	5(4.2)	120
3	IPPIS has aid in detecting and deterring financial fraud	70(58.3)	40(33.3)	5(4.2)	5(4.2)	120
4	The use of IPPIS has reduced corrupt practices	39(32.5)	37(30.8)	23(19.2)	21(17.5)	120
5	The use of IPPIS has reduced government monthly payroll	40(33.3)	50(41.7)	20(16.7)	10(8.3)	120
6	The use of IPPIS has exposed and deterred certain financial crimes commitment	35(29.2)	47(39.2)	25(20.8)	13(10.8)	120
7	The use of IPPIS has reduced in government annual budget for Public Service.	38(31.7)	46(38.3)	22(18.3)	14(11.7)	120
	Total	320	297	138	85	840
	Percentage	40%	35.4%	16.4%	10.1%	100%

Table 2 showed that 40% respondents strongly agree, 35.4% of the respondents agree, 16.4% of the respondents disagree and 10.1% strongly disagree

4.3 Research Question Three: What are the impediments to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service?

S/N	ITEM	SA	A	D	SD	TOTAL
1	Lack of will and commitment by the government in full implementation of IPPIS	43(35.8)	37(30.8)	23(19.2)	17(14.7)	120
2	The noncompliance of all MDA's to join the IPPIS.	55(45.8)	40(33.3)	20(16.7)	5(4.2)	120
3	Incompetence of most IPPIS staff in the use of ICT	70(58.3)	40(33.3)	5(4.2)	5(4.2)	120
4	Lack of sufficient skills transfer to government personnel by consultants	100(83.3)	10(8.3)	5(4.2)	5(4.2)	120

	of the project.					
5	Poor state of supporting infrastructure facilities for the use of IPPIS	57(47.5)	50(41.7)	10(8.3)	3(2.5)	120
	Total	305	196	62	37	600
	Percentage	50.8%	32.7%	10.3%	6.2%	100%

Table 4.3 showed that 50.8% respondents strongly agree, 32.7% of the respondents agree, 6.2% of the respondents disagree and 6.2% strongly disagree.

Hypotheses Testing

Hypotheses One: Integrated Personnel and Payroll Information System has reduced fraud in Nigerian Public Service.

Degree of Freedom

$$df = (r-1) \times (c-1)$$

Where R=5, c=4

$$df = (5-1) (4-1)$$

$$= 4 \times 3 = 12$$

$$df = 12$$

If 0.05 level of significance at 12 degree of freedom, the critical value X^2 otherwise called chi-square tabulated (X^2 tab) is given as = 21.026

CALCULATED CHI-SQUARE TABLE

Cell location	Fo	Fe	fo-fe	$\sum(fo-fe)^2$	$\frac{\sum(fo-fe)^2}{Fe}$
R1C1	50	41.6	8.4	70.56	1.70
R1C2	50	41.6	8.4	70.56	1.70
R1C3	10	8.3	1.7	2.89	0.35
R1C4	10	8.3	1.7	2.89	0.35
R2C1	57	47.5	9.5	90.25	1.9
R2C2	38	31.7	6.3	39.69	1.25
R2C3	3	2.5	0.5	0.25	0.1
R2C4	22	18.3	3.7	13.69	0.75
R3C1	27	22.5	4.5	20.25	0.9
R3C2	30	25	5	25	1
R3C3	33	27.5	5.5	30.25	1.1
R3C4	30	25	5	25	1
R4C1	100	83.3	16.7	278.9	3.35
R4C2	10	8.3	1.7	2.89	0.35
R4C3	5	4.7	0.3	0.09	0.01

R4C4	5	4.7	0.3	0.09	0.01
R5C1	45	37.5	7.5	56.25	1.5
R5C2	33	27.5	5.5	30.25	1.1
R5C3	15	12.5	2.5	6.25	0.5
R5C4	27	22.5	4.5	20.25	0.9
TOTAL	600				19.82

Calculated value = 19.82, Critical Value = 21.026

Decision: Therefore, the null hypothesis is accepted and the alternative hypothesis one which stated Integrated Personnel and Payroll Information System has reduced fraud in the Public Service is accepted which indicated that Integrated Personnel and Payroll Information System has reduced fraud in the Public Service.

Hypotheses Two: Integrated Personnel and Payroll Information System has been able to reduce fraud in the Nigerian Public Service.

Degree of Freedom

$$df = (r-1) \times (c-1)$$

Where R=7, c=4

$$df = (7-1) (4-1)$$

$$= 6 \times 3 = 12$$

$$df = 18$$

If 0.05 level of significance at 18 degree of freedom, the critical value X^2 otherwise called chi-square tabulated (X^2 tab) is given as = 28.71

CALCULATED CHI-SQUARE TABLE

Cell location	Fo	Fe	fo-fe	$\sum(fo-fe)^2$	$\frac{\sum(fo-fe)^2}{Fe}$
R1C1	43	35.8	7.2	51.84	1.45
R1C2	37	30.8	6.2	38.44	1.25
R1C3	23	19.2	3.8	14.44	0.75
R1C4	17	14.7	2.3	5.29	0.36
R2C1	55	45.8	9.2	84.64	1.85
R2C2	40	33.3	6.7	44.89	1.35
R2C3	20	16.7	3.3	10.89	0.65
R2C4	5	4.2	0.8	0.64	0.15
R3C1	70	58.3	11.7	136.89	2.35

R3C2	40	33.3	6.7	44.89	1.35
R3C3	5	4.2	0.8	0.64	0.15
R3C4	5	4.2	0.8	0.64	0.15
R4C1	39	32.5	6.5	42.25	1.3
R4C2	37	30.8	6.2	38.44	1.25
R4C3	23	19.2	3.8	14.44	0.75
R4C4	21	17.5	3.5	12.25	0.7
R5C1	40	33.3	6.7	44.89	1.35
R5C2	50	41.7	8.3	68.89	1.65
R5C3	20	16.7	3.3	10.89	0.65
R5C4	10	8.3	1.7	2.89	0.35
R6C1	35	29.2	5.8	33.64	1.15
R6C2	47	39.2	7.8	60.84	1.55
R6C3	25	20.8	4.2	17.64	0.85
R6C4	13	10.8	2.2	4.84	0.45
R7C1	38	31.7	6.3	39.69	1.25
R7C2	46	38.3	7.7	59.29	1.55
R7C3	22	18.3	3.7	13.69	0.75
R7C4	14	11.7	2.3	5.29	0.45
TOTAL	840				27.81

Calculated value = 27.81. Critical Value = 28.87

Decision: Therefore, the null hypothesis is accepted and the alternative hypothesis one which stated that Integrated Personnel and Payroll Information System has been able to reduce fraud in the Public Service is accepted which indicated that Integrated Personnel and Payroll Information System has been able to reduce fraud in the Public Service.

Hypotheses Three: Poor state of supporting infrastructure facilities, unskilled staff among others is major impediment to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service.

Degree of Freedom

$$df = (r-1) \times (c-1)$$

Where R=5, c=4

$$df = (5-1) (4-1)$$

$$= 4 \times 3 = 12$$

df = 12

If 0.05 level of significance at 12 degree of freedom, the critical value X^2 otherwise called chi-square tabulated (X^2 tab) is given as = 21.026

CALCULATED CHI-SQUARE TABLE

Cell location	Fo	Fe	fo-fe	$\sum(\text{fo-fe})^2$	$\frac{\sum(\text{fo-fe})^2}{\text{Fe}}$
R1C1	43	35.8	7.2	51.84	1.45
R1C2	37	30.8	6.2	38.44	1.25
R1C3	23	19.2	3.8	14.44	0.75
R1C4	17	14.7	2.3	5.29	0.36
R2C1	55	45.8	9.2	84.64	1.85
R2C2	40	33.3	6.7	44.89	1.35
R2C3	20	16.7	3.3	10.89	0.65
R2C4	5	4.2	0.8	0.64	0.15
R3C1	70	58.3	11.7	136.89	2.35
R3C2	40	33.3	6.7	44.89	1.35
R3C3	5	4.2	0.8	0.64	0.15
R3C4	5	4.2	0.8	0.64	0.15
R4C1	100	83.3	16.7	278.9	3.35
R4C2	10	8.3	1.7	2.89	0.35
R4C3	5	4.7	0.3	0.09	0.01
R4C4	5	4.7	0.3	0.09	0.01
R5C1	57	47.5	9.5	90.25	1.9
R5C2	50	41.7	8.3	68.89	1.7
R5C3	10	8.3	1.7	2.89	0.35
R5C4	3	2.5	0.5	0.25	0.1
TOTAL	600				19.82

Calculated value = 20.05, Critical Value = 21.026

Decision: Therefore, the null hypothesis is accepted and the alternative hypothesis one which stated that Poor state of supporting infrastructure facilities, unskilled staff among others is major impediment to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service is accepted which indicated poor state of supporting infrastructure facilities like low internet penetration, technological barrier among others is a major impediment to the effective implementation of IPPIS in the reduction of fraud in the Public Service.

Discussion of Findings

The study examined Integrated Personnel and Payroll Information System (IPPIS) and fraud reduction on Nigerian Public Service. Three (3) research questions were raised and data were collected from the respondents to answer them. Also, three (3) hypotheses were formulated as tentative answers to research questions raised and were tested to find support from the propositions. From findings from the data analyzed revealed thus:

IPPIS has effect on reduction of fraud in the Nigerian Public Service. It has created a centralized database system for the Nigerian Public Service; IPPIS has led to the uncover of most of the fraud using biometric data capture machine; IPPIS has replaced the ineffective manual and file-based personnel system; IPPIS has reduced fraudulent financial practices; and IPPIS has reduced massive financial losses occasioned by payroll fraud and ghost workers.

IPPIS to a large extent has been able to reduce fraud in the Nigerian Public Service. The use of IPPIS has reduced payroll fraud; the use of IPPIS has reduced ghost workers in Public Service; the use of IPPIS has aid in detecting and deterring financial fraud; the use of IPPIS has reduced corrupt practices; the use of IPPIS has reduced government monthly payroll; the use of IPPIS has exposed and deterred certain financial crimes commitment; and the use of IPPIS has reduced in government annual budget for Public Service.

The impediments to the effective implementation of IPPIS in the reduction of fraud in the Nigerian Public Service include the lack of will and commitment by the government in full implementation of IPPIS; the noncompliance of all MDA's to join the IPPIS; incompetence of most IPPIS staff in the use of ICT; lack of sufficient skills transfer to government personnel by consultants of the project; and poor state of supporting infrastructure facilities for the use of IPPIS

Conclusion

The current drive to improve management in government through public service reform programmes which aims at increasing efficiency, effectiveness, and the delivery of quality service to the public is common to many African countries, including Nigeria. The ills of the

Nigerian public service have been identified at various times. The Integrated Personnel and Payroll Information System is a good program introduced by the federal government primarily to reduce fraud emanating from payroll fraud and ghost workers in the country's public service. This goal can be achieved if adequate care is taken to ensure proper implementation of the program.

Findings and suggestions made in this research are not absolute and conclusive. All these will only add to already available knowledge and information on the subject. No doubt that the government wants the Integrated Personnel and Payroll Information System to succeed in Nigeria as it did in other developed countries, this can be achieved if only more interest is put to careful implementation of the programme with the co-operation of the employees, MDAs and other stakeholders.

Recommendations

The following recommendations, if taken into practice by the Government and civil servants as well will make a lot of remarkable improvement to the Scheme.

- Federal government should provide the needed facilities and enabling environment for the efficient implementation of IPPIS in the Public Sector. The IPPIS programme should be introduced and implemented at both the state and local government owned organizations levels to curb the ills associated with financial fraud ghost workers in the
- Government should initiate additional polices and various means to be added in the Integrated Personnel and Payroll Information System in order to make sure that payroll fraud is totally eliminated in MDAs
- The Federal government should update the data's of employees in the integrated personnel and payroll information system in order not to result to untimely and inaccurate payment of salaries in MDAs.
- The government should create a medium in the Integrated Personnel and Payroll Information System for employees to make request and suggestion in other to enhance transparency in the public service human resource records.

- Government should also provide funds for purchasing of new machines, updating or replacement of ICT systems in other for the Integrated Personnel and Payroll Information System to improve in its level of management of Federal staff records.

References

- Abdulsalam Nasiru, Kaoje, Kabir, Nabila, Sani, Idris, Jafaru Abdu, Gambarawa, and Lawal Ibrahim Ubandawaki. (2020). Integrated Personnel and Payroll Information System (IPPIS) and Transparency in Government Payroll Administration in Nigerian Civil Service: A Unique Approach. *Asian Journal of Economics, Business and Accounting* 19(3): 1-8, 2020; Article no.AJEBA.61704 ISSN: 2456-639X.
- Adongoi T, Victor EA. (2018). 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*. Vol. 6, No. 3, 53-63.
- Agbatogun T. O. (2019). *Financial Accountability, Transparency and Management*. Abuja: ABI Publishers
- Enakirerhi L. I. and Temile S. O. (2017). IPPIS in Nigeria: Challenges, Benefits and Prospects, *International Journal of Social Science and Economic Research*. 02(05), Pp 3490
- Garbade K.D, John C.P, Paul J.S.(2004). *Recent Innovations in Treasury Cash*. Available: <https://www.accountingcoach.com/blog/what-is-payroll-accounting>.
- Haruna I, Joseph A, Samson A.J. (2015). Integrated Personnel Payroll and Information System (IPPIS): Panacea for Ghost Workers Syndrome in Nigerian Public Service. *International Journal of Public Administration and Management Research (IJPAMR)*.2(5):55-64.
- Ibanichuka EAL, Sawyer M. E. (2019). Integrated payroll system and government recurrent expenditure in Nigeria. *International Journal of Advanced Academic Research, Economic Evaluation*.;5(4):16- 37.
- Ibrahim A, Amina A, Yaaba, B. N. (2017). *Treasury Single Account Implementation in Nigeria Advances in Management*. A publication of the Department of Business Administration; University of Ilorin Nigeria.16(17):35-56.

- Iyanda D.O (2012). Corruption: Definitions, Theories And Concepts. *Arabian Journal of Business and Management Review*, 2(4), 37-45.
- Izedonmi F, Ibadin P.O. (2012). Forensic accounting and financial crimes: adopting the inference, relevance and logic solution approach. *African Research Review*.6(4):125-39.
- IPPIS (2018) *About Integrated Payroll and Personnel Information System (IPPIS)*. Retrieved on 29/04/18 from <https://www.ippis.gov.ng/what-is3>
- King D. K. (2016). *Multiple Jeopardy, Multiple Consciousnesses: The Context Of A Black Feminist Ideology in Race, Gender and Class*. Dec 5 (pp. 36-57). Routledge.
- Kinyeki, C. (2015). *Adoption and Implementation of the Integrated Personnel and Payroll Database in Kenya Government Ministries*. Masters Dissertation. University of Nairobi, Kenya.
- Larson A. (2018). *Fraud, Silent Fraud, and Innocent Misrepresentation*. Expert Law. Retrieved 29th May 2018.
- Lekubu BK (2013). *Issues of Corruption in South Africa's Municipalities*. In Conference Proceedings published by the South African Association of Public Administration and Management (SAAPAM). Aug 15. Department of Public Administration & Management, Tshwane University of Technology.
- Mauldin EG, Ruchala LV. Towards a Metatheory of Accounting. *International Journal of Intellectual Discourse (IJID)* ISSN: 2636-4832 Volume 3, Issue 1
- Micah L.C., Moses T. (2018). IPPIS and the Ghost workers' syndrome in Nigeria's Public Sector. *Scholars Journal of Economics, Business and Management*.5(8): 773-778. 12.
- Murana AO, Olayinka SM, Omotayo I. B. (2016). The Impacts of the Nigerian Public Sector. *The American Political Science Review* 80(1), 107-119
- Osioma B.C, Akembor C. & Okaro (2016). *Effect of Integrated Personnel and Payroll Information System (IPPIS) on Federal Government Recurrent Expenditure in Nigeria*. Awka: SCOA HERITAGE NIG. LTD
- Smith, D. J. (2007). *A Culture of Corruption: Everyday Deception and Popular Discontent in Nigeria*. Princeton, New Jersey: Princeton University Press.
- Uzochukwu M. (2018). *Corruption in Nigeria: Review, Causes, Effects and Solutions*. available <https://soapboxie.com/world-politics/Corruption-in-Nigeria>.