EVALUATING THE EFFECTIVENESS OF INTEGRATED PAYROLL AND PERSONNEL INFORMATION SYSTEM (IPPIS) IN CONTROLLING PAYROLL FRAUD IN PETROLEUM TRAINING INSTITUTE (PTI), WARRI, DELTA STATE

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NIGERIA

JUNE, 2025

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BEING A PROJECT WRITTEN IN THE DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION, FACULTY OF SOCIAL AND MANAGEMENT SCIENCES AND SUMMITED TO THE SCHOOL OF POSTGRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF POST GRADUATE DIPLOMA (PGD) IN PUBLIC ADMINISTRATION OF BENSON IDAHOSA UNIVERSITY, BENIN CITY, EDO STATE, NIGERIA

JUNE, 2025

DECLARATION

I, **ALEKE, Bibian Nkechinyere**, do hereby declare that this project is entirely my work and composition. The work embodied in this project to the best to my knowledge has not been summited in candidature for any degree and in not concurrently being submitted for any other degree. All references made in the work of other persons have been duly acknowledged.

ALEKE, Bibian Nkechinyere **Date**

CERTIFICATION

This is to certify that this project work was carried out by **ALEKE, Bibian Nkechinyere** with matriculation number PGD/PUB/240002 and confirmed to be adequate in scope and value for the award of Post-Graduate Diploma (PGD) in Public Administration of Benson Idahosa University, Benin-City, Edo State, Nigeria.

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External Examiner	**DATE**

DEDICATION

This project work is dedication to my Father in heaven who has given me the strength and insight for this program and to Mr. and Mrs. Aleke for their ever-loving care support and prayer.

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ABSTRACT

The study evaluated the effectiveness of integrated personnel payroll and information system (IPPIS) in the control of payroll fraud in petroleum training institute. The objectives of the study were to examine the extent to which IPPIS implementation has reduced payroll fraud at PTI; to assess the effectiveness of IPPIS in personnel record-keeping and updating at PTI; to evaluate the impact of IPPIS on minimizing leakages and wastages of funds at PTI; to identify the challenges faced in the effective implementation of IPPIS at PTI. Three of the research questions were hypothesized as follows: There is no significant relationship between IPPIS implementation and the reduction of payroll fraud in PTI; IPPIS implementation has no significant relationship with the safekeeping and updating of personnel records at PTI; IPPIS implementation is not significantly associated with the reduction of leakage and wastages of funds at PTI and implementation challenges do not significantly impact the effectiveness of IPPIS at PTI. This study adopted the quantitative survey research design in which a structured questionnaire was designed and distributed to the respondents as a means of data collection; the study adopted the Institutional Theory and Public Finance Management Theory. A combination of primary and secondary method of data collection was employed. The main instrument of field data collection was the questionnaire which was administered to the study participants. The population of the study was the total staff strength of Petroleum Training Institute, (PTI), Warri, Delta State. The study's sample was a total of one hundred and eighty (180) participants who fully participated in the exercise. Data for the study were analyzed with both the descriptive and inferential statistics of frequency distribution and percentages while the hypotheses were tested with the chi-square (x^2) statistical tool which explained the variation in the values of the independent variable on the basis of change in the dependent variable. Empirical findings revealed that: The use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated. IPPIS implementation has led to a reduction in the leakage and wastage of funds in PTI, Warri, it has helped in minimizing overpayment and incorrect salary disbursements;. However, some of the challenges in the implementation of IPPIS in Petroleum Training Institute, Warri some technical issues such as system downtimes and errors also affected the effective implementation of IPPIS initially. Therefore, the study recommends the following: Government should provide the needed facilities and an enabling environment for the efficient implementation of IPPIS in the PTI and other public sectors.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The study of the integrated payroll and personnel information system (IPPIS) is motivated by the interest for efficient and effective service delivery in our public life. IPPIS is said to ensure efficient and effective service delivery as it is a central computer-based payroll and management information system that is used to eradicate payroll fraud in the public service (Omolehinwa and Naiyeju, 2015). It is also employed in making sure that records integrity and reliability so that the employee's information is accurate and adequate. Leyira and Temple (2018) affirm that IPPIS was introduced in Nigeria, to reduce ghost workers and update the records of all government personnel. In October 2006, the federal government considered IPPIS in consideration of a consistent and detail record in the public service. This is to aid manpower planning, eradicate record of payroll fraud, enable easy storage, bring up-to-date and recover personnel records for administrative and pension procedures, and enable suitable employee salaries payment with minimal waste and leakage.

The IPPIS is one of the Transformation agenda of the Federal Government of Nigeria with the aim of creating a centralized database system for Nigerian Public Service with single, accurate source of Employee information that provides integration with other business application (Office of the Accountant General of the Federation, 2020).

The purpose of IPPIS project was to procure, implement and integrate solution that would:

i. Improve the effectiveness and efficiency in transactional services;
ii. Enhances the confidence in payroll costs and budgeting;

iii. Greatly improve management reporting and information. (World Bank Report, 2012)

IPPIS provides a unified computerized financial programme that strengthens the effectiveness and transparency of public resource management by computerizing the payroll management and accounting system for the government. IPPIS is generally one of the by-products of the civil service reform programme aimed at ensuring transparency and accountability in the Nigerian civil service by computerizing the manual Payroll System (Kaoje, Nabila, Idris, Gambarawa and Lawal 2020).

Prior to the introduction of Integrated Personnel and Payroll Information System (IPPIS), payment of monthly salaries of government workers was done manually in Ministries, Departments and Agencies (MDAs), they received their recurrent costs on monthly basis as subvention. The above arrangement gave room for the MDAs to disburse money sent to them whenever and however they deemed fit. This therefore according to records led to financial misconduct in the Nigerian Civil Service (Bello and Mela 2022); auditors also find it difficult to carry out audit exercise due to lack of proper and insufficient record keeping. Accountants spend a lot of time and energy in keeping and computing manually the records of all staff and information regarding monthly salaries, bonuses, leaves, benefits, taxes deductions amongst others.

The government has expressed worries overtime about the high cost of its employees, as the system in place before the implementation of the Integrated Personnel and Payroll Information System made it difficult to plan, manage and make effective budgeting (Otunla, 2013). Some mischievous workers were collecting salaries from multiple pay points, for false employees and some workers collecting salaries when they are employed somewhere or not working with the government (Agboola, 2018). Therefore, the exact number of personnel in MDAs being paid by the Nigerian Federal Government could not be easily ascertained due to non-availability of the required and necessary information.

Consequently, it became difficult for government to have an accurate wage data for planning and budgeting purpose. The IPPIS policy seeks to resolve this and also reduce the Federal Government expenditure on overheads. IPPIS policy took off in 2007 with five important functions that included; The management of federal staff records; timely and accurate payment of salaries and wages to federal employees; deduction of taxes and other third-party dues; remittance of payroll deductions to third parties; the enrolment of employees into IPPIS data base (Kaoje et al 2020).

Presently, the personnel costs of the MDAs that have been incorporated into IPPIS are no longer posted directly to their account; instead, their personnel costs are now kept with the Central Bank of Nigeria and this has given great benefit to the government as it has reduced the personnel cost (Office of Accountant General of the Federation, 2020).

The IPPIS introduced in the public service was a major step towards reforming and transforming the service for better service delivery in the country. In the first month (April 2007) the government saved ₦416million through the process of IPPIS (Sunday, Oro, Ogar, Imong, Jacob & Rim, 2017). 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).

The IPPIS policy which started as a World Bank-assisted programme under the Economic Reforms and Governance Project (ERGP) was instituted to provide a reliable and comprehensive database for the public service; facilitate manpower planning; eliminate record and payroll fraud; facilitate easy storage, update and retrieval of personnel records for administration and pension processes;

and facilitate staff remuneration payment with minimal wastage and leakages (Public Service Institute of Nigeria, 2012).

The IPPIS policy was approved by the Federal Executive Council (FEC), and implemented in phases. In 2007, the first phase (pilot phase) covering seven MDAs; Federal Ministry of Education, Federal Ministry of Foreign Affairs, Federal Ministry of Finance, Federal Ministry of Works, Federal Ministry of Information and Communications and National Planning Commission and Budget office. In 2009, the government expanded its scope to cover another nine MDAs which include Federal Ministry of Agriculture, Federal Ministry Transport, Federal Ministry Petroleum Resources, Federal Ministry Aviation, Federal Ministry Health, 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 (OAGF, 2020).

By the end of 2014, the IPPIS had captured a total of 344 MDAs with a total of 224,440 civil servants. IPPIS had saved the Federal Government of Nigeria a total sum of N161,953 billion between 2007 and 2013 (Mede, 2016). The introduction of the IPPIS had resulted in the reduction of ghost workers syndrome in some ministries and agencies (Adeosun,2018). It is therefore in view of the foregoing that this research tends to examine the case of the IPPIS and the control of payroll fraud in PTI.

1.2 Statement of the Problem

Overtime, inefficiency and corruption became rife in the Nigerian civil service, and this malady had eaten deep into the fabrics of the Nigerian public service. It was at this stage of rethink that many Nigerians started nursing the idea of reforms into the public service generally.

Payroll fraud has become a serious menace in public financial management system of the Nigeria public service. In the past years, the Federal government has spent Billions of Naira paying salaries

to “ghost’’ Federal Government staff, the falsification of records, has been the order of the day and the outcome of these events is that even the government or the citizens cannot confirm the exact amount of money that is spent in settling the government wage bill on its payroll.

Payroll fraud remains a critical and persistent issue within Nigeria's public sector, casting a shadow on the country's quest for transparent governance and efficient financial management. This challenge is particularly pronounced within the Financial Sector, where the Integrated Personnel and Payroll Information System (IPPIS) was introduced as a technological solution to modernize payroll processes and eradicate fraudulent activities. However, despite the implementation of the IPPIS, instances of payroll fraud continue to arise, necessitating a comprehensive exploration of the underlying issues and challenges that sustain its prevalence and hinder the intended effectiveness of the system (Azeez, & Taiwo, 2020).

Payroll fraud, involving intentional manipulation of payroll systems to unlawfully divert funds initially designated for employee salaries, presents a multifaceted challenge that undermines the integrity of Nigeria's financial sector and the equitable distribution of public resources. Ghost workers who are inserted into the payroll through collusion are usually difficult to expose due to the fact that those who ought to prevent the ghost names from entering the payroll are part of the crime. (Oluwasegun,2023). There is collaboration within the system that enhances the operation of payroll fraud. Those employees that have been retired, dead or on transfer may be kept on the payroll if payroll managers delay in removing the names of individuals who are no longer in service. This means that the workers are paid salary irrespective of not being present in the office as a staff and did not work and the salaries redirected by the fraudster. This, if not checked will further create loopholes in the payroll system and in the collection of salaries.

The IPPIS was conceived as a means to tackle this issue, striving to ensure accuracy, enhance transparency, and prevent unauthorized financial transactions within the financial sector. Nonetheless, the persistence of payroll fraud within the IPPIS underscores a complex set of challenges that extend beyond technological implementation. At the heart of this issue lies the intricate interplay between the IPPIS as a technological innovation, the broader context of the financial sector, and the underlying impediments that perpetuate payroll fraud. Factors such as suboptimal implementation strategies, technological limitations, insufficient oversight mechanisms, and the adaptability of fraudulent actors collectively impede the IPPIS's ability to fully eradicate payroll fraud. Consequently, the effectiveness of Nigeria's efforts to achieve transparent governance within the financial sector is compromised. (Bappi & Umar 2023)

1.3 Research Questions

Arising from the above statement of the problem the following research questions are raised:

i. To what extent has the implementation of IPPIS reduced payroll fraud in PTI, Warri?

ii. How effective is IPPIS in ensuring accurate personnel record-keeping and updating in PTI?

iii. What is the impact of IPPIS in minimizing leakage and wastage of funds in PTI, Warri?

iv. What are the challenges limiting the effective implementation of IPPIS in controlling payroll fraud at PTI, Warri?

1.4 Objectives of the Study

The general objective of the study is to examine the effectiveness of IPPIS in the control of payroll fraud in PTI, Warri, Delta State. The specific objectives are to:

i. To examine the extent to which IPPIS implementation has reduced payroll fraud at PTI, Warri.

ii. To assess the effectiveness of IPPIS in personnel record-keeping and updating at PTI, Warri.

iii. To evaluate the impact of IPPIS on minimizing leakages and wastages of funds at PTI, Warri.

iv. To identify the challenges faced in the effective implementation of IPPIS at PTI, Warri.

1.5 Research Hypotheses

The following null hypotheses were formulated and tested in this study

H0: There is no significant relationship between IPPIS implementation and the reduction of payroll fraud at PTI, Warri.

H0: IPPIS implementation has no significant relationship with the safekeeping and updating of personnel records at PTI, Warri.

H0: IPPIS implementation is not significantly associated with the reduction of leakages and wastages of funds at PTI, Warri.

H0: Implementation challenges do not significantly impact the effectiveness of IPPIS at PTI, Warri.

1.6 Significance of the Study

The study will be very beneficial and useful to student, scholars and the general public. This study would serve as a reference to other researchers that will embark on the related topic. The research is designed to investigate the effectiveness of IPPIS in the control payroll fraud in Petroleum Training Institute, hence this study would provide the necessary information that researchers would require about the reason for the implementation of IPPIS and how useful it has been to the public sector.

The public sector in Nigeria is of utmost important and how public funds are handled is even more important, this study would reveal if the IPPIS has been able to manage the funds appropriately since its establishment.

1.7 Scope of the Study

The scope of the study covers the effect of IPPIS in the control of payroll fraud in the public sector of Nigeria specifically in Petroleum Training Institute in Warri, Delta State. The time scope of the study is 2015 to 2023.

1.8 Limitation of the study

The study mainly focuses on the staffs of petroleum training institute on the effectiveness of IPPIS in payroll fraud. The limitation of this study was;

i. some of the questionnaires were not returned and others were manhandled so much so they became useless.

ii. Time was a big constraint so much time could not be devoted to individual respondents.

iii. The busy schedule of respondents also made the collection of information difficult.

iv. Due to unwillingness of proving any information the respondents filled the questionnaires causally which might have affected the conclusion.

1.9 Operational Clarification

The basic terms used in the study are clarified as used in the study

Ghost workers: In this research ghost employees refer to false recorded employees on payroll system, employees who do not work for the organization.

Payroll fraud: when an employee or employer manipulates a payroll system to take money they're not entitled to, when an employee illicitly gains funds from the organization through deceit

Effectiveness: The degree to which something is successful in producing a desired result; success.

Public Service: For the purpose of this research public service refers to the federal government.

Reform: Reform here refers to a positive change, resolving a pressing issue.

1.10 Organization of the Work

This research work is divided into five chapters, Chapter one discusses the background to the study, statement of the problem, research question, objectives of the study, research hypotheses, significance of the study, scope of the study, limitation of the study and operational clarification of term; Chapter two covers the review of the related literature concerning payroll fraud and the theoretical framework; Chapter three contains methodology of the study which has the research designs, population of the study, the sample size and sampling technique, data collection technique and the method of data analysis, while Chapter four dwells on data presentation and analysis and discussion of major findings; Chapter five provides the summary, conclusion and recommendations for the study.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Conceptual Framework

2.1.1 Integrated Payroll and Personnel Information System (IPPIS)

IPPIS is a policy initiative of the Federal Government reform programme which was conceptualizing at the Bureau of Public Service Reform (BPSR) for the purpose of centralizing payment of all civil servants in the employment of the Federal Government (OAGF, 2018). According to OAGF (2020), IPPIS is an ICT based computerized Human Resource and Accounting Management Information System policy initiated by the Federal Government of Nigeria in 2007 to improve the effectiveness and efficiency of payroll administration for its Ministries, Departments and Agencies (MDA).

IPPIS provides a platform for computer application in government payroll management as it calculates each employee's monthly basic pay, bonuses, arrears, national housing fund and pension contributions. The Department of IPPIS while describing its mode of operations asserts that, the Integrated Payroll Personnel and Information System (IPPIS) is a department within the office of the Accountant General of the federation which is responsible for payment of salaries and wages directly to government employee's bank account with appropriate deductions and remittances of 3rd party payments such as: Federal Inland Revenue Service, State Boards of Internal Revenue, National Health Insurance Scheme, Pension Fund Administrators (PFA), Cooperative Societies, National Housing Fund, Bank Loans and Associations Dues (Department of IPPIS, 2020).

The IPPIS is a scheme which is an integrated, computerized 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). The Integrated Personnel and Payroll Information System is one of the Federal Government of Nigeria's Public Financial Management reform programs set out to eradicate payroll fraud.

2.1.2 Payroll fraud

In law, the concept of fraud is regarded as an intentional deception to secure unfair or unlawful gain or to deprive a victim of a legal right. Fraud is a deliberate falsification, concealment or omission of facts with the intention of deceiving a person or organization which would result to financial detriment to the victim (Gbalam, 2015). It is as old as the civil service establishment in Nigeria. Fraud is 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 (Larson, 2018)

Fraud is a global challenge that affects various types of economies, businesses, and societies. 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. There are many types of fraud, which can range from petty employee theft and unproductive behavior to misappropriation of company assets and funds and fraudulent financial reporting.

Payroll fraud involves the stealing of organizations money using the organizations payroll system; and can be carried out by both management and regular employees (Lomer, 2018). Payroll fraud is when an individual illicitly gains funds from an organization’s payroll processing system either for the benefit of the perpetrator or any other person. Just like other forms of crime in the society;

payroll fraud is one form of corruption that has raided every level of government. This is commonly done by employees who manipulate the payroll system to their advantage to earn more money than they are entitled to or inflate their hours and then cover their tracks. However, this can also be done by employers, who manipulate the payroll system to avoid expenses related to staffing such as payroll expenses, unemployment tax, and worker's compensation insurance. In certain cases, these dishonest public officials falsify paperwork and authorizations in order to add an employee to the payroll (Lekubu, 2013). Payroll fraud involving phantom workers is perhaps the largest and most persistent kind of fraud in Nigeria, costing the government hundreds of billions of Naira annually to criminals (Larson, 2016).

Types of payroll fraud

Ghost Employee Fraud: Ghost employees only exist on paper; ghost employee fraud occurs when 'employees' listed in the payroll register receive payment but aren't actually working for said organization. The ghost employee can be a real person who knowingly or unknowingly is placed on the payroll or a fictitious person invented by the fraudster (Lomer 2018).

Commissions and Bonuses fraud: This occurs when employee bloat sales records just for the purpose of claiming higher bonuses or commission on sales. This form of fraud is mostly prevalent in private organizations where profit maximization is the highest priority. In order to magnify profit, the commission is dependent on the sales the employee makes in a day, week, month or annually. The employees do inflate the sale record in order to earn more commissions and bonuses and this amount to fraud (Bappi & Umar 2023).

Worker's Compensation Fraud**:** Employees falsely claim an injury or exaggerate the extent of an injury received to gain worker's compensation and increase their time off. This leaves

organizations not only without an employee for this period of time but puts them on the hook for paying worker's compensation (Bappi & Umar 2023).

Time Sheet Fraud: This is a type of payroll fraud where employees fabricate the number of hours they have worked in their time sheet or when an employee clock in for another employee when he/she isn't present or is late to work. Time sheet fraud occurs when the record of hours worked is falsified, and if this is not detected, it results in the workers been paid for more hours than they have worked. The risk of fraudulent time sheets being processed by the organization increases if the necessary controls and oversight are lacking. This mostly happens in organizations that pay their employees per hour. . (Lomer 2018)

Wage Falsification Fraud: This is a form of payroll fraud where employee's salaries are fabricated with the intention of later using the excess. This type of fraud is common in the contemporary local government system in Nigeria. The introduction of biometric and incessant verifications has lightened the existence of unreal/ghost names in the payment vouchers with this, the payroll officers resort to increment of salaries of workers while they make the necessary deductions before the actual payment of salaries (Lomer 2018).

Expense Reimbursement Fraud: This fraud occurs when an employee claims expenses that they never incurred. Employees can fabricate expense to earn an expense reports entirely or simply inflate the true value of a legitimate profit (Bappi & Umar 2023).

Causes and Effects of payroll fraud in public service

Government's negligence: Over the years governments at all levels have unconsciously encouraged fraud because of the unwillingness of government to arrest and prosecute the syndicates involved in corrupt practices (Ukoko, 2014).

Greed: The yearning for luxury by any means possible has contributed to fraud in government establishments.

Unequal Distribution of Wealth: In Nigeria today, there is a problem of disproportion in the distribution of wealth where only a few privileged members of society stockpile the wealth, leaving the bigger proportion to scramble for the left overs. As such, some civil servants turn to payroll fraud in attempts to achieve the objective of a "better life".

Fraud in modern society and organizations has wide-reaching and pervasive impact on the society and economy as it brings about a lot of problems to society at large. A lot of revenue and funds are diverted from their primary intended use which results in wasted resources and inefficiencies which affect society. It is particularly harmful to societies in developing countries which have fewer resources and hence are more vulnerable to fraud. Fraud also hinders the socio-economic development of the society as it promotes the lack of confidence and trusts in profitable transactions, causes loss of employment among community members and promotes the denial of innocent members from society (Vlad, Tulvinschi and Chiriţă 2011). The government or the citizens cannot ascertain the accurate and reliable amount of money spent in settling the Government wage bill on its payroll.

2.1.3 Corrupt practices

Corruption is deep-rooted in almost every segment/section of the Nigerian economy (Abu,2015). It is a paradox that seems to have stuck to the society. Corruption and widespread illegality is traceable to ancient civilization (Letswa and Egwuem 2013). Corruption is derived from the latin word "corruptus" which means corrupted. Corruption is dishonest or illegal behavior, especially of people in authority.According to Chuks (2011), corruption is, has become the most troubling issue in Nigeria ; not because it is new but because it has refused to yield to all manner of solution.

Corruption syndrome has been described as a menace experienced in the Nigerian Public Service. It has led the Federal government spending Billions of Naira in payment of salaries to non-existing employees. The trend of falsification of records, and lack of proper accountability among others has been on the increase annually.

Corruption is an act of an official or trustee who unlawfully and wrongfully uses his position or character to procure some benefit for himself or for another person, contrary to the duty and the rights of others.

One of the most profound definitions of corruption is that provided by World Bank and Transparency International, Transparency International defined the term as "the abuse of entrusted power for private benefit", while World Bank described it as "the misuse of public office for private gain" (Waziri 2010)

Abuse of public power may not only be for ones benefits it could also be for one's party tribe family and so on.

2.1.4 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 who had the name falsely 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).

Ghost workers inserted in the payroll through collusion are usually difficult to detect as a result of the fact that those who ought to be responsible for stopping the ghost names from entering the payroll are themselves part of the crime. The creation of ghost workers may also occur in an

organization if a single person is responsible for processing personnel and payroll transactions from the beginning to the end. Such individuals may create or maintain ghost workers on the payroll without the names being detected. Due to the large number of employees in the public sector, head count exercises are usually conducted by governments to identify the ghost workers and remove them from the staff roll (Tanzi, 2013).

According to the Daily Sun (March 7 & 24, 2011) and Daily Trust (Thursday, June21, 2012), although a total of 71,133 'ghost' pensioners were being paid, a separate batch of about 34,000 legitimate pensioners had never received pension in their lives. In effect, the pensions bill has crashed from N23 billion to N13 billion annually since the discovery.

Some of the banks involved in pension payment are also being accused of complicity as they must have been working in tandem with the powerful cabal of top civil servants in the pension's office. Five directors in the federal civil service who had previously functioned in the pension's office were arrested over alleged N5billion fraud by the EFCC.

Apart from ghost pensioners, there is also a large number of ghost workers in the federal public service: According to a revelation by the former minister of Finance, between 2009 and 2010 alone, a total of 49,000 ghost workers (ie: fictitious names) which were padded into the payroll of 36 federal ministries, departments and agencies (MDAS) Were Detected Of course, this increased the federal personnel cost from 850 billion in 2009 to 1.3 trillion in 2010

2.2 Literature review

The IPPIS is an IT-enabled facility being put in place to establish a reliable and comprehensive data base for the public service, facilitate manpower planning, eliminate record and payroll fraud, facilitate easy storage, update and retrieval of personnel records for administrative and pension processes and staff remuneration payments with minimal wastages and leakages (Department of

IPPIS, 2015). IPPIS department Complement the functions of Federal government under the efficient service drive to remove administrative bottleneck and bureaucratic complexities aimed at promoting governance, efficiency and service delivery. (Shehu, Hussaini, Katuka, 2019).

Some scholars like Derek, Laura and Stephen earlier argued that human resource management requires managing resourceful personnel through adequate reward or motivational system, however, the problem of corruption in Nigeria in recent time has crippled this belief, which now leads to the application of Integrated Payroll and Personnel Information System, with the exposition through evidence show cased of its efficiency in curbing ghost workers syndrome. IPPIS introduction into the Federal Service was a major step towards reforming and transforming the service for better service delivery in the country (Nwaodu, Adam, Okereke,2014).

Enakirerhi and Temile evaluated the IPPIS, taking a look at its implementation difficulties, anticipated advantages, and future prospects. The literature review study found that IPPIS has several advantages, including providing accurate and reliable personnel information, helping to reduce or eliminate sharp practices and corruption, and facilitating modern scientific and accurate budgeting and forecasting

IPPIS was conceived to reduce or eliminate corruption and data storage in the payroll system, 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 (Effiong, et al., 2017)

The Office of the Accountant-General of the Federation (OAGF) manages the Integrated Personnel Payroll and Information System (IPPIS) in collaboration with the Office of the Head of Service (OHCSF), the Federal Civil Service Commission (FCSC), the Budget Office of the Federation (BOF), the Office of the Auditor-General of the Federation (OAUGF), and the Central Bank of Nigeria (CBN) (Adongoi & Eyo, 2016). IPPIS is based on an intranet that connects the MDAs' data centers to the OAGF's primary server (Omolehinwa & Naiyeju, 2015).

IPPIS has saved the Federal Government of Nigeria billions of Naira since April 2007 due to discrepancies between the personnel budget and the actual amount paid by IPPIS for MDAs (IPPIS Department, 2015). There were 396 MDAs registered on IPPIS as of December 2015, in 2016, the Nigeria Police Force, Nigeria Immigration Service, Nigeria Security and Civil Defense Corps (NSCDC), and Federal Fire Service, as well as universities, polytechnics, and colleges of education, will join IPPIS (Oguzierem & Sofri, 2017).

IPPIS main objective is to help the Nigerian government enhance human resource management and prevent payroll fraud such as multiple payment of emoluments to single employee or payment of monthly salary to a non-existent employee. Its primary goal is to determine the exact number of employees and the entire salary expense at a single glance. It also aims to maintain data integrity, ensuring that personnel data is accurate and complete. It’s said to be capable of acting as an antidote to addressing the negative trend of Ghost workers and reduced wage bill. It is based on this that the research is set to assess the Implementation of Integrated Payroll and Personnel Information System on the payroll fraud in the petroleum training institute.

Objectives of IPPIS

i. To facilitate human resource planning and by providing information for decision making

ii. To provide a platform for accurate budgeting of annual recurrent expenditure on staff emoluments

iii. To monitor monthly payment of staff emoluments against FGN's annual Budget to ensure minimal wastage and leakage

iv. To facilitate easy storage, updating and retrieval of personnel record for administrative and pension processing

v. To ensure database integrity such that, data once entered cannot be manipulated by unauthorized users

vi. To eliminate payroll fraud such as multiple payment of emoluments to a single employee or payment of monthly salary to a non-existent employee

vii. To ascertain actual personnel emoluments of the Federal Government employee; etc. (Office of Accountant General of the Federation, 2020).

The Core Values of IPPIS

i. Confidentiality: We will always respect your privacy and the privacy of your personal information.

ii. Individuality/empathy**:** We understand that each employee is unique. We will always begin by first trying to understand your concerns from your point of view.

iii. Teamwork: We will always work together to support the needs of the employee, the MDAs and other stakeholders.

iv. Honesty: We are truthful in all we say and all we do. And we are consistent in our application of policies and procedures for all employees.

v. Accuracy/Timeliness**:** We pay all employees the amount they are due on the schedule they are due to be paid. If a mistake occurs, regardless of the source of the problem, we will ensure the mistake is resolved within a reasonable time depending on the circumstances of the case**.**

vi. Trust/Accountability**:** We will always behave in a manner that deserves your trust and your respect. You can be confident that we apply best practice policies and procedures consistently, fairly and accurately for all employees

2.2.1 History of Integrated Personnel and Payroll Information System

The IPPIS project started in April 2007 with the enrolment of the seven pilot Ministries, Departments and Agencies (MDAs). It was financed through a World Bank facility of about USD 4.9 million. It was finally transferred to the Office of the Accountant General of the Federation (OAGF) in 2008. In other words, the IPPIS was introduced to serve the purpose of centralized payment of all civil servants in the employment of the Federal Government which after 13 years of introduction has not registered some agencies and departments**.**

The Federal Government in October 2006, conceived the Integrated Personnel and Payroll Information System (IPPIS) to provide a reliable and comprehensive database for the public service to address ghost worker also to facilitate human resource planning, eliminate manual record and payroll fraud also to facilitate easy storage, update and retrieve personnel records for administrative and pension processes, and facilitate convenient staff salary administration payment with minimal waste and leakage (Public Service Institute of Nigeria, 2011).

In April 2007, the IPPIS project was formally tested on six ministries: Education, Foreign Affairs, Finance (including the Federation's Budget Office), Works, Information and Communications, and the National Planning Commission. Aviation, Health, Agriculture, Petroleum Resources, Transportation, the Office of the Accountant General of the Federation, the Office of the Head of the Civil Service of the Federation, the Office of the Secretary to the Government of the Federation, and the Federal Civil Service Commission were among the nine Ministries, Departments, and Agencies that were added to the scope in 2009 (Enakirerhi & Temile, 2017).

All 585 government MDAs, made up of the mainstream Civil Service and other Agencies in the Public Service that draw personnel costs from the national budget, were supposed to be enrolled in the IPPIS platform by the end of 2014, according to the government's plan (Ikechukwu & Chikwe, 2015).

IPPIS, 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. A breakdown of these shows that ₦416 million was saved in its first month of operation and ₦12 billion at the end of its three-year pilot phase. 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 (Office of Accountant General of the Federation, OAGF, 2020). Within 13 years of IPPIS implementation, the payroll policy has recorded some remarkable achievements.

The Kogi state government in December 2016 carried out an audit of workers in the state and uncovered 18,471 ghost workers (www.informationng.com). In his report to the executive governor, the chairman of staff screening review, Mr. Yakubu Okala said, there were 45,128

genuine workers and pensioners in the state, and 18, 471 ghost workers, asserting that the children of big men (i.e. wealthy and influential individuals) were among ghost workers uncovered. According to Okala, ghost workers syndrome cost the state a little over #2.6billion naira monthly. This means about N31billion would be saved in the 2017 budget and redirected at other critical sectors in need of development

2.2.2 Achievement and Impact of IPPIS

The implementation of IPPIS has recorded several positive achievement across the public service.

There has been an Improved prompt and regular payment of salaries of MDAs; Facilitation of prompt deductions and remittances to the accounts of all third-party stakeholders e.g., PFAs, NHIS etc.

Over N361 Billion savings in personnel cost recorded between 2017 and 2019; Financial/personnel variances trend is easily accessible and available; Thus IPPIS has made personnel planning/budgeting easy since it's also a personnel management tool; IPPIS has enhanced enforcement of compliance with due process on employment. Between September, 2011 and 2020, so many Nigerians have been employed in the MDAs thereby reducing unemployment rate in the country.

IPPIS big data in various organizations are being transformed into a rich source of information which could be leveraged to make rich decision about government operations. Moreover, Many of the Departments and Agencies having realized that personnel cost was no longer coming to them for direct disbursement, embarked on recruitment to utilize their approved manpower/personnel budget.

MDAs are getting used to the application and many are currently managing their payroll at their respective offices without recourse to IPPIS Secretariat.

IPPIS has also been able to eliminate unauthorized personnel workforce (ghost workers) from Government payroll; They have provided for Easy retrieval of personnel information of all public servants under the scheme; Reduction in personnel records' falsification record of service including age, length of service; etc.

Now Salary/monthly emoluments are paid to all public servants on the scheme same day no matter the location within the country without delay; Actual personnel cost paid monthly/annually are easily accessible with reason(s) for fluctuation easily given; The scheme programmed automatic stoppage of payment to personnel due for retirement as a result of length of service, age and tenure thus reducing wastage or unauthorized payment; All third parties' payment (cooperative deduction, tax, NHF and Union dues, etc.) are affected from employee's salary and paid directly and promptly to beneficiaries account on behalf of payee with schedule of payment made available to the beneficiaries; All Unapplied/unutilized fund are easily monitored; Saving to government as a result of personnel cost over-budgeting (Office of Accountant General of the Federation, OAGF, 2020).

It's translucent that IPPIS implementation has resulted in massive saving into federal funds, prompt and accurate salary payment, generate data or personnel and overhead budgeting, halted ghost workers etc. it is valid to presume that the implementation of IPPIS policy in Nigeria has resulted into lots of achievement and gains to the public servants and the nation at large.

Reports have it that the government can save significant amounts of money by discovering and deleting ghost workers from the payroll (Olumuyiwa, 2018). Micah and Moses (2018) reports that IPPIS reduced fraud significantly but observes that MDAs have yet to establish private virtual

network connection to the IPPIS platform. Enakirerhi and Temile (2017) evaluated IPPIS's strengths, weaknesses, and future prospects in Nigeria. They study found that IPPIS decreases corrupt practices. The study also indicates that with better management reporting and information, there can be only few impediments to skills transfer concerns, such as inadequate infrastructure, technology barriers for inferring MDA transfers and opposition from stakeholders

Enakirerhi and Temile (2017) observed that IPPIS deployment delivers accurate and trustworthy personnel information, a decrease in unethical and sleazy operations, and convenience of current scientifically precise forecasting. Anichebe and Alphonsus (2019) found that adoption of IPPIS improves employees' welfare in 50 Ministry departments and agencies. Ibanichuka (2019) provides that government's capacity to plan and budget improved significantly. After the implementation of IPPIS; while Kaoje and Sunday (2020) reports that IPPIS impacts Nigeria's civil service payroll administration transparency.

There was a salary bill decrease of $10.5 million euros or $11.5 million in February 2016, according to Festus Akanbi, Kemi Adeosun's special adviser on finance. There were 23, 846 non-existent employees removed from the payroll by the federal government.

However, it was averred that, in order to ensure that IPPIS operates in accordance with all applicable rules and regulations, as well as Financial Regulations and IPPIS, the system's internal control mechanisms should be strengthened and that the program should be audited regularly (Kaoje & Sunday, 2020) to identify and close any fraud-enabling loopholes.

2.2.3 Challenges of IPPIS Implementation

IPPIS has faced some challenges since its implementation; however, some of these challenges were either as results of the nation under development in terms of technological infrastructure and expertise or just the reluctance of the authority to carry out the full implementation. Lack of

sufficient skills transfer to government personnel, which prolong consultants stay on the project, poor state of supporting infrastructure such as low internet penetration, technological barrier, problem associated with transfer of pay point due to the posting of employees from IPPIS MDA to non IPPIS MDA, resistance from stake holders which have prolonged implementation, etc. (Idris, Adaja and Audu 2015) and (Mede, 2016). Some other challenges has been highlighted by Olowu & Adeyemi (2021)

Deliberate Institutional resistance by many MDAs in joining IPPIS in the face of set deadline for enrolment: Stiff resistance from the unions in the Tertiary Institutions more especially ASUU in the Universities and resort to incessant blackmail of IPPIS on the media for self-seeking objectives.

Inadequate Infrastructure: Poor internet connectivity to the Primary Data Centre (PDC) by MDAs on IPPIS and inadequate computer hardware for IPPIS Role Players. This inhibits efficiency and effectiveness in service delivery.

The IPPIS application has not been fully utilized: Of the seven modules on the software, only the payroll module is in appreciable use. The Human Resource modules, which are meant to manage staff recruitment, posting, promotion, training, discipline, and disengagement, are yet to be fully deployed for use by MDAs Service-Wide. The current vendor has not delivered everything contracted and paid for and the project management of the initiative has been weak.

Inadequate training: Most of the IPPIS Staff in the MDAs have not been exposed to Oracle Training and some of the few that received the training have been deployed to other MDAs (Office of Accountant General of the Federation, OAGF, 2020).

Lack of Synergy between MDAs Desk Officers and OAGF: Finding revealed that lack of effective synergy between the two major partners was a major setback for IPPIS implementation.

The WhatsApp platform created for IPPIS Desk Officer by Office of the Accountant General of the Federation for the purpose of interacting about the challenges bedeviling the IPPIS implementation has not be active. It is ridiculous that members of the platform have never for once met to discuss about these challenges and there was no official meeting to interface with the officials of Office of the Accountant General of the Federation.

Delayed Response to complain and over-centralization: Public servant who is victims of under/over payment or complete omission of salary experienced a lot of difficulty in getting their cases addressed. Some who are working outside Abuja after series of unattended complaints from their MDAs Desk Officers resulted into travelling to OAGF in Abuja with more financial burden to shoulder. Often times, they were reversed to their MDAs Desk Officers from Abuja without solution while others get the problem fixed in Abuja. But the stress and timeline of getting the complaint addressed put such victims in more precarious condition because lots of unmet needs which might demotivate workers.

Lack of Technological Transfer: Most often, there are two-way technical hitches experience by the officials of the OAGF who claimed the consultants did not show them the complete technical know how to handle the platform properly while the MDAs Desk Officers on their own part alleged the OAGF of not giving them enough access to the platform as well as technical knowhow. The exact location of IPPIS server is shrouded in secrecy.

Sharp Practices by IPPIS Handlers: The IPPIS project has also had some scandals coming from it. Police inspectors and rank and file under the Akwa Ibom State Police Command and some personnel of the Nigeria Security and Civil Defense Corps have called on the authorities to investigate inconsistency in the payment of their salaries. They queried the operation of the IPPIS, saying they suspect fraud. The police officers involved have been suffering underpayment of their

regular salary every month since 2018 when payment of police salaries and allowances was moved from Mechanized Salary Section (MSS) to the IPPIS (Nduka, 2019). In his own testimony, the former Chairman of Independent Corrupt Practices and other Related Offences Commission (ICPC), Ekpo Nta alleged that "by outsmarting the Federal Government Integrated Personnel Payroll Information System (IPPIS), some public servant allegedly collected salaries from four different federal ministries. Some unidentified software developers have unhindered access to the database of IPPIS and usually set up new users and change live data, from time to time".

IPPIS and Corruption: Issuing of payment slip without salary payment is another corrupt practice in IPPIS office. Once the payment slip is being issued out the money is gone and nothing can be done. Even after writing complaints letter Months after the letter was written, the affected workers were unable to get any response. It was also alleged that there are cabals in the finance section of the IPPIS that embezzle monies meant for workers in the federal civil service but issue pay slips to show salaries are paid (Sahara Reporters July 27, 2019).

It is evident with these aforementioned challenges that IPPIS has created some other challenges while trying to solve others. In other word, we can infer that IPPIS implementation has resulted in creating some challenges that adversely affected public servants and government.

2.3 Theoretical Framework

The issue of payroll fraud has eaten deep into the public system thereby creating instability and wastage of funds in the economy. Quite a number of theories of socioeconomic accounting were borrowed to form sound foundation to substantiate IPPIS adoption and implementation. Therefore, this paper identified two theories, institutional and public finance management theories.

2.3.1 Institutional Theory

Institutional Theory, as formulated by Powell and DiMaggio in 1991, explores the establishment of social structures and norms as authoritative guidelines for behavior and practice.

In the context of recent public accounting reforms in Nigeria, such as Integrated Payroll and Personnel Information System (IPPIS),Treasury Single Account(TSA),Government Integrated Financial and Management Information System (GIFMIS) and Integrated Public Sector Accounting Standards (IPSAS), this theory focuses on the processes by which structures such as cognitive, normative, regulatory, as well as the norms, rules and routines become established as authoritative guidelines for social behaviors and practice. These reforms aim to enhance organizational efficiency, legitimacy, and standardization, promoting accountability and transparency. By adhering to these practices, organizations align with global standards, fostering homogeneity, efficiency, and accountability within Nigeria's government entities, as well as potentially on a global scale. Institutional theory looks at the deeper and more resilient aspects of social structure (Nagalinagm, Mangala and Kumudine, 2015). Recent developments in Nigeria's public accounting framework are the new accepted behaviors, rules, norms that need to be adhered to and the question prevalent in this theory and applied here is whether these recent reforms (financial management reforms) are due to normative or regulatory practices?

This theory in relation to the research, addresses practices which are the subject of the recent happenings in the public sector. Such happenings include the introduction/adoption of IPSAS, TSA, GIFMIS, and IPPIS and lot more that can enhance the technical efficiency in the organization or institution adopting these practices. It also results in legitimization of the standard practices, and the absence of these leave the organization to be termed irrational, corrupt and negligent. The

net effect of these reforms therefore is to increase homogeneity in organizational structure and in terms of Nigeria; the reference will be the MDAs.

2.3.2 Public Finance Management Theory

Public finance management theory as developed by Aman Khan and W. Bartley Hildreth in 2004 emphasizes effective management of financial resources in government for the benefit of citizens. This theory believes that government should effectively manage all elements of financial resources, including mobilization and expenditure, for the benefit it's constituents. It includes resource mobilization, program prioritization, budget procedures, resource management efficiency, and the use of control to mitigate risk. The purpose of the Treasury Single Account (TSA) is to prevent the misuse of public monies. This idea was based on the premise that the government should effectively manage the mobilization and expenditure of financial resources for the benefit of its constituents. Resource mobilization, program prioritization, budgeting, and resource management are all part of this process. Controlling dangers is also a part of it. To prevent the misuse of public monies, the implementation of IPPIS in 2007 aimed to curtail financial wastage in the public sector. Prior to this, inaccurate resource utilization led to higher recurrent expenditures at the expense of capital budgets and employment levels. With IPPIS, the government has made meaningful stamps in reducing resource wastage, improving financial control, and optimizing budget allocation for sustainable development.

2.4 Empirical Review

Farajimakin & Anichebe (2019) in their work Effect of Integrated Personal Payroll Information System on Employee Welfare: Evidence from Federal Ministries in Nigeria. The main objective of the study was to examine the degree to which the implementation of IPPIS helps curb payroll fraud and affect employee welfare in Nigerian. The study was based on survey and descriptive

research design and the data were collected using questionnaire structured in hinaty format. Binary logistic regression analysis was employed. The result of the study showed that, the implementation of IPPIS had weak positive relationship with employee welfare but it is statistically significantly. The study recommended among others that: IPPIS should be introduced to address the ghost workers syndrome at the federal, state and local government level.

Kaoje, "et al", (2020) which focused on Integrated Personnel and Payroll Information System (IPPIS) and Transparency in Government Payroll Administration in Nigerian Civil Service: A Unique Approach. The research question was: Is there any significant relationship between IPPIS and transparency in government payroll administration in Nigerian Federal Civil Service? While the hypothesis was: There is no significant relationship between IPPIS and transparency in government payroll administration Federal Civil Service. The study was carried out with descriptive cross-sectional survey research design. The study found a significant moderate positive relationship between IPPIS, Transparency and Accountability and recommended 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.

Idris, Adaja and Audu (2015), in their study the effect of ghost workers syndrome were studied simultaneously with how the help of IPPIS has grasp this threat in the public service. The researchers used basic statistical methods, frequency tables, the mean score, and the spearman rank order correlation methodology to analyze data that they gathered from primary and secondary sources. It is recommend that all public service agencies use IPPIS to guarantee a robust economy through increased productivity, as the research found that ghost workers syndrome was very common before but has decreased significantly since its implementation.

Agboola (2018), in the study which focuses on Effectiveness of Integrated Personnel and Payroll Information System in Addressing Ghost Worker Syndrome in Nigerian Public Sector. The main objective of the study was to examine the strategies adopted by IPPIS in checking ghost workers in the Federal Revenue Service (FIRS); was survey research. The study utilized primary and secondary sources of data to elicit the opinions of public servants in the Federal Inland Revenue Service (FIRS). The study revealed that there were still challenges facing IPPIS in uploading monthly salary of the employees. The study concluded that with the introduction of the IPPIS scheme, if properly implemented and managed, it will go a long way in eradicating ghost workers in the Nigeria public service and recommended that: In order to thwart ghost workers in Nigeria public service a proper implementation of payroll policies should be taken by the Nigeria government, that is to ensure the payroll policies are written in place and up-to-date, this will ensure there are proper protocols for payroll processes and ensure that workers familiarize themselves with it.

Hamza and Ahmed (2018) analyzed the impact of IPPIS and BVN in eliminating payroll fraud and corruption, efficiency and transparency in management of personnel costs in local governments of Gombe state. Primary data were collected from 103 respondents. The data were analyzed using descriptive statistic and Chi square was used to test the hypothesis formulated. The study found out that integration of BVN and IPPIS will help in eliminating payroll fraud and corruption thereby bringing efficiency and transparency in management of personnel costs in the selected local government areas of Gombe state

Enakirerhi and Temile (2017) explored the Integrated Personnel and Payroll Information System (IPPIS) in Nigeria by looking critically at the challenges of the implementation of IPPIS, benefits derived from IPPIS if fully implemented and what the future holds. The study articulated various

federal government announcements, pronouncements, opinions of stakeholders, presentations to international bodies and various articles on the pages of newspapers and few published works and reached conclusion. The study stated 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. They concluded that the future looks bright with IPPIS implementation set to serve as platform for budgeting projection and planning, acts as database for national statistics and enable reduction in governance cost.

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, Departments, and Agencies (MDAs) of Government Parastatals in Rivers State of Nigeria. Data gathered were presented using descriptive statistical 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 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 accountants 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 an instance

Olowu (2022) on Integrated Payroll and Personnel Information System (IPPIS) and Public Service Wages and Salary Payment in Nigeria, the objective was to assess how IPPIS has been able to pay public servant wages and salary on time and accurately with hypothesis that: IPPIS policy has not mitigated the problem of delay and accurate payment of public servants. The study was a survey while findings showed that IPPIS has been able to mitigate problems associated with salary payment of public servants' wages and salary in Nigeria and recommended that the federal government still need to pressurized the consultants to redesign the payment platform in order to accommodate more flexibility and peculiarity

2.5 Organization context of the Study

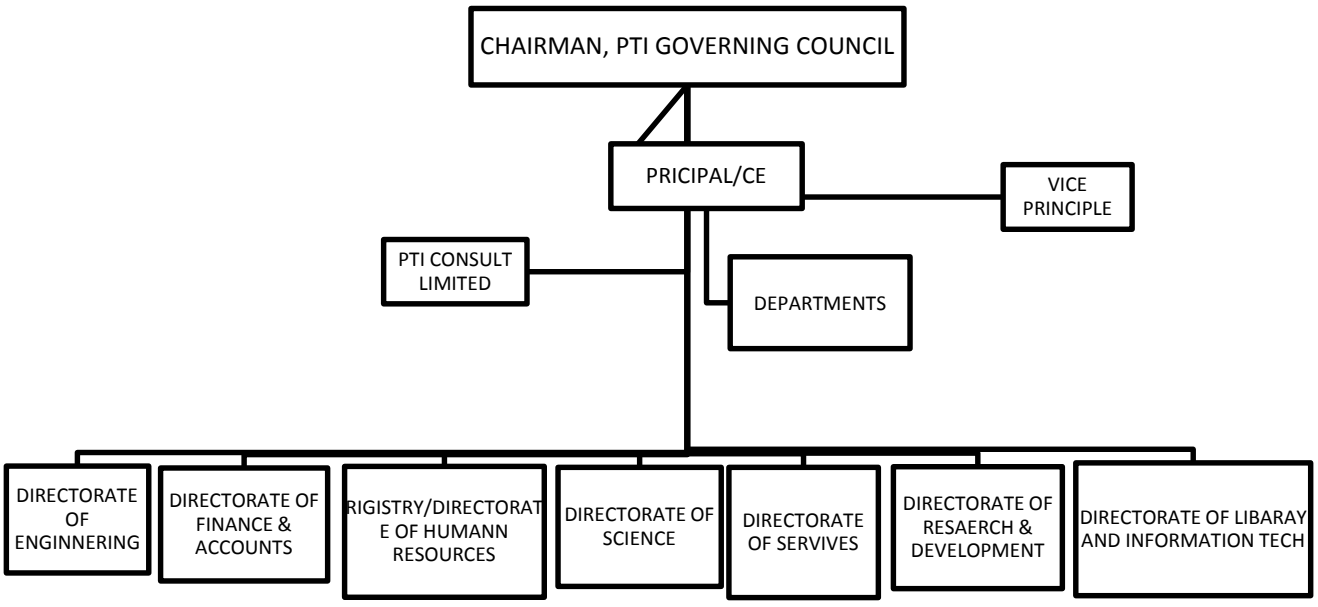
According to the handbook of PTI Petroleum Training Institute (P.T.I.) in Effurun, Delta State was established in 1972 by the federal government of Nigeria as a prerequisite for the membership in the Organization of Petroleum Exporting Countries (OPEC) to train indigenous middle-level manpower to meet the labour force demands of the oil and gas industry in Nigeria and the West African sub region. It awards General Welding Certificates, ND (National Diploma) and HND (Higher National Diploma) certificates. The P.T.I Act: 1972 N0.37 an Act to establish the Petroleum Training Institute to provide courses of instruction training and research in petroleum technology & to produce technicians and other skilled personnel required to run the petroleum industry. The Petroleum Training Institute Quality Policy is in compliance with the requirements of ISO9001 which is geared towards the provision of quality service delivery and training of the personnel to meet client's requirements in conformity with global best practices

The following are the departments in the institution

- Petroleum & Natural Gas Processing (PNGPD)
- Industrial Safety and Environmental Technology (ISET)

- Petroleum Marketing and Business Studies (PMBS)
- Petroleum Engineering and Geosciences (PEG)
- Electrical/Electronic Engineering (EEED)
- Welding Engineering and Offshore Technology (DWEOT)
- Mechanical Engineering (MED)
- Science Laboratory Technology (SLT)
- Computer Science and Information Technology (CSIT)
- Computer Engineering (COMPT)
- Environmental Science and Management Technology (ESMT)

PETROLEUM TRAINING INSTITTUTE ORGANIZATIONAL CHART



CHAPTER THREE

METHODLOGY

3.1 Research Design

For the purpose of this study, the quantitative survey research design was adopted to collect quantitative data to determine the effect of Integrated Personnel and Payroll Information System (IPPIS) on payroll fraud reduction in petroleum training institute; to find out the extent IPPIS has been able to reduce fraud in the PTI; and to identify the impediments to the effective implementation of IPPIS in the reduction of fraud in the PTI. The choice of this research design was considered appropriate because of the advantage of identifying attributes of large population from a group of individuals.

3.2 Population of the Study

The target population for this study was the academic and non-academic staffs of Petroleum Training Institute, Warri, Delta state. The total population of both academic and non-academic staff is 550 (Petroleum Training Institute's Human Resource Administration, HRA). The study therefore made use of the projected population to obtain the sample size for the study

DEPARTMENTS	**NUMBERS OF STAFF**
Department of engineering	64
Department of finance and accounting	45
Department of human resources	53
Department of science	67
Department of service	85
Department of research and development	45
Department of library and information tech	46
Nonacademic staffs	145
Total	**550**

3.3 Sample Size

The sample size for this study was 232. The study used Taro Yamane's statistical formula to calculate the population size of 550 employees in Petroleum Training Institute, Warri, Delta state. The following are formula for Taro Yamane:

n = sample size

N = population size

e = margin of error

Formula for calculating sample size

$$n = \frac{N}{1 + Ne^2}$$

n = Sample size

N = Population size

e= Margin of error

N= 550

e = 0.05

$$n = \frac{550}{(1 + 550 \times (0.05)^2)}$$

$$n = \frac{550}{(1+ 550 \times (0.0025)}$$

$$n = \frac{550}{1+ 1.375}$$

$$n = \frac{550}{2.375}$$

n = 231.5789

Therefore, the sample size n is approximately **232**.

3.4 Sampling Techniques

The simple random sampling technique was used in selecting 232 respondents from the sample size.

3.5 Methods of Data Collections

In view of the need to utilize accurate data for this research, primary data was obtained through a structured questionnaire to elicit responses from respondents to meet the requirements of this research. Since questionnaire was the only research instrument used, the primary data was utilized in the study because of its originality which was needed for this research work on the effectiveness of integrated personnel payroll and information system (IPPIS) on payroll fraud in petroleum training institute. The research also made use of secondary data which was sourced from extant literature of works of past scholars relevant to this study. This was sourced from journal articles, textbooks from library among others.

3.6 The Research Instrument

The main instrument that was used in the collection of data is a structured questionnaire. The questionnaire was used to obtain information from the individual respondents. The respondents were expected to personally fill the questionnaires. A time frame of seven days was given to them and the researcher went round to retrieve the questionnaire. The questionnaire had two sections. First section which was labeled Section A consisted of demographic questions such as age, sex, educational qualification, while the second part labeled section B relates to the objectives and hypotheses of study, questions to be answered by respondents. Likert five-point

response scale of "Strongly Agree (SA), Agree (A)", "Undecided (U) "Disagree (D) and Strongly Disagree (SD)" as 5 4, 3, 2 and 1 was used to extract response from the respondents.

The questionnaire was constructed in a way to elicit responses as much as possible to the questions bearing in mind the need to avoid measurement error, surrogate information error and make for high response rate.

3.7 Validity of the research instruments

In order to ensure that the research instrument designed for the study was reliable and authentic, the questionnaire was presented to the supervisor of this project for evaluation of its validity. This is to ensure that a valid measurement was achieved with the research instrument of the study.

3.8 Reliability of the research instruments

To obtain consistency of the instrument for data collection the researcher applied a pre-test experimental design. Ten copies of the questionnaire were administered to 10 heads of department. The data collected from the test was correlated using chi-square (x^2) analysis to ascertain the reliability of instruments.

3.9 Method of Data Analysis

The data derived from the field work were subjected to collation, clear presentation, interpretation and was analyzed in such a way that the result was visible. The data from all the respondents were calculated and analyzed using tables, percentage, and frequency.

The chi-square ((x^2).) was used for testing the formulated hypotheses. The chi-square ((x^2).) variables were used in taking the decisions regarding the hypotheses. The hypothesis accepted where the calculated x^2 is greater than the value of the critical chi-square ((x^2).). The reverse is the case when calculated x^2 is less than critical x^2 from the same degree of freedom.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This chapter presents analysis on field data collected using the instrument of the questionnaire. A sample of two hundred and thirty-two (232) questionnaire were designed and distributed to respondents in the study location of Petroleum Training Institute, Warri, Delta State. From the total copies of the questionnaire distributed, one hundred and eighty (180) copies were accurately completed and retrieved, making the total respondents who participated fully in the study to be one hundred and eighty respondents. The table below shows the return rate of the questionnaire.

Table 4.1 Rate of return

Question	No. of Respondents	Percentage
Returned and found usable	180	77.6%
Not usable	22	9.5%
Not returned	30	12.9%
Total Distributed	**232**	**100%**

Total 4.1 shows that a total of 232 questionnaire were distributed, 180 questionnaire, representing 77.6% were returned and found usable, while 22 questionnaire, representing 9.5% were not usable and 30 questionnaire, representing 12.9% were not returned. Therefore a total of 180 questionnaire were used to analyze this study

Source: Field Survey, 2024

4.2 Analysis on Respondents Personal Data

This section presents and analyzes data on respondents' social characteristics and their interpretations. The frequency distribution and percentage analysis is employed in this analysis.

Table 4.2: Respondents' Sex

Sex	Frequency	Percentage
Male	102	56.7
Female	78	43.3
Total	180	100

Source: Field Survey, 2024

From table 4.2, 102 respondents, representing 56.7% are males and 78 respondents, representing 43.3% are females. The analysis therefore shows that majority of the respondents who fully participated in the exercise are males. This implies that more male participates than their female counterparts.

Table 4.3: Respondents' Marital Status

Marital Status	Frequency	Percentage
Single	35	19.4
Married	108	60.0
Divorced	12	6.7
Widow	25	13.9
Total	180	100

Source: Field Survey, 2024

From table 4.3, out of the 35 respondents, representing 19.4% of them are single,108 respondent, representing 60% of them are married;12 respondent, representing 6.7% of them are divorced, and 25 respondents, representing 13.9% of them are widowed. The analysis therefore shows that majority of the respondents who fully participated in the exercise are married. This implies that more married respondents participated in the study.

Table 4.4: Respondents' Age

Age	Frequency	Percentage
20-30 years	22	12.2
31-40 years	65	36.1
41 years and above	93	51.7
Total	180	100

Source: Field Survey, 2024

From table 4.4, out of the 22 respondents, representing 12.2% are ages 20 to 30 years; 65 respondents, representing 36.1% are between 31 to 40 years of age; and 93 respondents, representing 51.7% are 41 years and above. The analysis therefore shows that majority of the respondents who fully participated in the exercise are above 40 years of age which is within the active working age.

Table 4.5: Respondents' Educational Background

Education	Frequency	Percentage
SSCE	12	6.7
OND/NCE	09	5.0
B.Sc./B.A.	34	18.9
Post-Graduate Degree	125	69.4
Total	180	100

Source: Field Survey, 2024

From table 4.5,12 respondent, representing 6.7% have the senior secondary school certificate, 9 respondents, representing 5% have diploma or NCE; 34 respondents, representing 18.9% have Bachelor's degree; and 125 respondents, representing 69.4% of them have postgraduate degrees. The above analysis therefore shows that majority of the respondents have postgraduate qualifications. This is expected since the study was carried out in a tertiary institution where majority of the workforce are expected to possess postgraduate degrees, especially masters and doctorate degrees.

Table 4.6: Respondents' Job Grade Level

Occupation	Frequency	Percentage
Grade Level 1 – 6	37	20.5
Grade Level 7 – 10	100	55.6
Grade Level 11 – 17	43	23.9
Total	180	100

Source: Field Survey, 2024

From table 4.6, 37 respondents, representing 20.5% are of grade level 1-6;100 respondent, representing 55.6% are of grade level 7-10; and 43 respondents, representing 23.9% are of grade level 11-17. The above analysis therefore shows that majority of the respondents are within grade level 7 – 10 in their career ladder. This indicates that most of the respondents are already senior staffs of the institution.

4.3 Analysis on Research Variables

This section provides analysis on the subject matter of the study.

Research Question One

To what extent has the implementation of IPPIS reduced payroll fraud in PTI, Warri?

Table 4.7: The introduction of IPPIS has effectively reduced the presence of ghost workers in PTI's payroll system

Responses	Frequency	Percentage
Strongly Agree	65	36.1
Agree	85	47.2
Undecided	10	5.6
Disagree	05	2.8
Strongly Disagree	15	8.3
Total	180	100

Source: Field Survey, 2024

Table 4.7 shows that 65 respondents, representing 36.1% of the respondents strongly agree that the introduction of IPPIS has effectively reduced the presence of ghost workers in PTI's payroll system; and 85 respondents, representing 47.2% of them agreed, while 10 respondents, representing 5.6% of them are undecided on the issue. However, 5 respondents, representing 2.8% of the respondents disagreed and 15 respondents, representing 8.3% strongly disagreed. The above table therefore implies that the introduction of IPPIS has effectively reduced the presence of ghost workers in PTI's payroll system promoting integrity and accountability in the institution.

Table 4.8: IPPIS has significantly improved the accuracy of payroll processing at PTI, thereby reducing fraudulent activities

Responses	Frequency	Percentage
Strongly Agree	85	47.2
Agree	90	50.0
Undecided	5	2.8
Disagree	-	-
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.8 shows that 85 respondents, representing 47.2% of the respondents strongly agree that IPPIS has significantly improved the accuracy of payroll processing at PTI, thereby reducing fraudulent activities; and 90 respondents, representing 50% of them agreed, while 5 respondents, representing 2.8% of them are undecided on the issue. However, none of the respondents disagreed and none strongly disagreed. The above table therefore implies that IPPIS has significantly improved the accuracy of payroll processing at PTI, thereby reducing fraudulent activities and creating room for transparency in the institution.

Table 4.9: The transparency provided by IPPIS has made it easier to detect and prevent payroll fraud at PTI

Responses	Frequency	Percentage
Strongly Agree	70	3.9
Agree	75	41.7
Undecided	15	8.3
Disagree	10	5.6
Strongly Disagree	10	5.5
Total	180	100

Source: Field Survey, 2024

Table 4.9 shows that 70 respondents, representing 3.9% of the respondents strongly agree that the transparency provided by IPPIS has made it easier to detect and prevent payroll fraud at PTI; and 75 respondents, representing 41.7% of them agreed, while 15 respondents, representing 8.3% of them are undecided on the issue. However, 10 respondents, representing 5.6% of the respondents disagreed and 10 respondents, representing 5.5% strongly disagreed. The above table therefore implies that the transparency provided by IPPIS has made it easier to detect and prevent payroll fraud at PTI. This indicates that corrupt financial practice has drastically reduced in the institution.

Table 4.10: The centralization of employees' data through IPPIS has been effective in preventing payroll fraud at PTI

Responses	Frequency	Percentage
Strongly Agree	60	33.3
Agree	85	47.2
Undecided	20	11.1
Disagree	-	-
Strongly Disagree	15	8.3
Total	180	100

Source: Field Survey, 2024

Table 4.10 shows that 60 respondents, representing 33.3% of the respondents strongly agree that the centralization of employees' data through IPPIS has been effective in preventing payroll fraud at PTI; and 85 respondents, representing 47.2% of them agreed, while 20 respondents, representing 11.1% of them are undecided on the issue. However, none of the respondents disagreed and 15 respondents, representing 8.3% strongly disagreed. The above table therefore shows that the centralization of employees' data through IPPIS has been effective in preventing payroll fraud at PTI. This indicates financial integrity and accountability has become a reality in the institution.

Analyses from tables 4.7 to 4.9 implies that some of the ways IPPIS has helped in arresting payroll fraud in Petroleum Training Institute (PTI), Warri are by effectively reducing the presence of ghost workers in PTI's payroll system to promote integrity and accountability in the institution; significantly improving the accuracy of payroll processing at PTI, thereby reducing fraudulent activities; making it easier to detect and prevent payroll fraud; and through the centralization of employees' data, preventing payroll fraud at PTI.

Research Question Two:

How effective is IPPIS in ensuring accurate personnel record-keeping and updating in PTI?

Table 4.11: The use of IPPIS ensures that personnel records are regularly and accurately updated at PTI

Responses	**Frequency**	**Percentage**
Strongly Agree	110	61.1
Agree	40	22.2
Undecided	10	5.6
Disagree	-	
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.11 shows that 110 respondents, representing 61% of the respondents strongly agree that the use of IPPIS ensures personnel records are regularly and accurately updated at PTI; and 40 respondents, representing 22.2% of them agreed, while 10 respondents, representing 5.6% of them are undecided on the issue. However, none disagreed and none strongly disagreed. The above table therefore implies that the use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated.

Table 4.12: IPPIS provides sufficient protection against unauthorized access to personnel records in PTI

Responses	**Frequency**	**Percentage**
Strongly Agree	59	32.8
Agree	74	41.1
Undecided	10	5.6
Disagree	30	16.7
Strongly Disagree	07	3.8
Total	180	100

Source: Field Survey, 2024

Table 4.12 shows that 59 respondents, representing 32.8% of the respondents strongly agree that IPPIS provides sufficient protection against unauthorized access to personnel records at PTI; and 74 respondents, representing 41% of them agreed, while 10 respondents, representing 5.6% of them are undecided on the issue. However, 30 respondents, representing 16.7% disagreed and 7 respondents, representing 3.8% strongly disagreed. The above table therefore implies that IPPIS has provided sufficient protection against unauthorized access to personnel records so far at PTI.

Table 4.13: IPPIS is an effective tool for maintaining the integrity and accuracy of personnel records at PTI

Responses	Frequency	Percentage
Strongly Agree	79	43.9
Agree	59	32.8
Undecided	10	5.6
Disagree	30	16.7
Strongly Disagree	2	1.1
Total	180	100

Source: Field Survey, 2024

Table 4.13 shows that 79 respondents, representing 43.9% of the respondents strongly agree that IPPIS is an elective tool for maintaining the integrity and accuracy of personnel records at PTI; and 59 respondents, representing 32.8% of them agreed, while 10 respondents, representing 5.6% of them are undecided on the issue. However, 30 respondents, representing 16.7% disagreed and 2 respondents, representing 1.1% strongly disagreed. The above table therefore implies that IPPIS is an elective tool for maintaining the integrity and accuracy of personnel records as evidenced at PTI

Table 4.14: The implementation of IPPIS has reduced the risk of data loss or tempering in personnel records at PTI

Responses	Frequency	Percentage
Strongly Agree	99	55.0
Agree	62	34.4
Undecided	15	8.3
Disagree	-	-
Strongly Disagree	04	2.2
Total	180	100

Source: Field Survey, 2024

Table 4.14 shows that 99 respondents, representing 55% of the respondents strongly agree that the implementation of IPPIS has reduced the risk of data loss or tempering in personnel records at PTI; and 62 respondents, representing 34.4% of them agreed, while 4 respondents, representing 8.3% of them are undecided on the issue. However, 4 respondents, representing 2.2% strongly disagreed. The above table therefore shows that IPPIS has reduced the risk of data loss or tempering in personnel records at PTI since its implementation.

Analyses in tables 4.10 to 4.13 implies that responses to how IPPIS is being utilized in the safe keeping and updating of personnel records in Petroleum Training Institute, Warri, indicates that, the use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated; IPPIS has provided sufficient protection against unauthorized access to personnel records so far at PTI; IPPIS has served as an elective tool for maintaining the integrity and accuracy of personnel records as evidenced at PTI; and IPPIS has reduced the risk of data loss or tempering in personnel records at PTI since its implementation.

Research Question Three:

What is the impact of IPPIS on minimizing leakages and wastage of funds in PTI, Warri?

Table 4.15: IPPIS has been effective in minimizing overpayments and incorrect salary disbursements at PTI

Responses	Frequency	Percentage
Strongly Agree	110	61.1
Agree	70	38.9
Undecided	-	-
Disagree	-	-
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.15 shows that 110 respondents, representing 61.1% of the respondents strongly agree that IPPIS has been effective in minimizing overpayments and incorrect salary disbursements at PTI; and 70 respondents, representing 38.9% of them agreed, while none of them are undecided on the issue, and none of them disagreed or strongly disagreed. The above table therefore shows that IPPIS has been an effective tool in minimizing overpayments and incorrect salary disbursements at PTI.

Table 4.16: The introduction of IPPIS has improved financial accountability, leading to better management of funds at PTI

Responses	Frequency	Percentage
Strongly Agree	90	50.0
Agree	90	50.0
Undecided	-	-
Disagree	-	-
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.16 shows that 90 respondents, representing 50% of the respondents strongly agree that the introduction of IPPIS has improved financial accountability, leading to better management of funds at PTI; and 90 respondents, representing 50% of them agreed. While none of them are undecided on the issue, none of them disagreed or strongly disagreed. The above table therefore implies that the introduction of IPPIS has enhanced financial accountability, leading to better management of funds at PTI. The implication of this will be improved accountability and efficiency in the institution.

Table 4.17: The automation of payroll process by IPPIS has led to more efficient use of funds, reducing unnecessary expenditures at PTI

Responses	Frequency	Percentage
Strongly Agree	59	32.8
Agree	91	50.6
Undecided	10	5.5
Disagree	20	11.1
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.17 shows that 59 respondents, representing 32.8% of the respondents strongly agree that the automation of payroll process by IPPIS has led to more efficient use of funds, reducing unnecessary expenditure; and 91 respondents, representing 50.6% of them agreed, while 10 respondents, representing 5.5% of them are undecided on the issue. However, 20 respondents, representing 11.1% disagreed and none of them strongly disagreed. The above table therefore implies that the automation of payroll process by IPPIS has improved efficiency in the use of funds and reduced unnecessary expenditures at PTI.

Table 4.18: The implementation of IPPIS has significantly reduced the leakage of funds through the elimination of ghost workers at PTI

Responses	Frequency	Percentage
Strongly Agree	90	50.0
Agree	70	38.9
Undecided	13	7.2
Disagree	07	3.9
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.18 shows that 90 respondents, representing 50% of the respondents strongly agree that the implementation of IPPIS has significantly reduced the leakage of funds through the elimination of ghost workers at PTI; and 70 respondents, representing 38.9% of them agreed, while 13 respondents, representing 7.2% of them are undecided on the issue. However, 7 respondents, representing 3.9% of the respondents disagreed and none strongly disagreed. The above table therefore implies that the implementation of IPPIS has significantly reduced the leakage of funds through the elimination of ghost workers at PTI.

Analyses in tables 4.14 to 4.17 show that IPPIS implementation has led to a reduction in the leakage and wastage of funds in Petroleum Training Institute, Warri, because IPPIS has helped in minimizing overpayments and incorrect salary disbursements; IPPIS has enhanced financial accountability, leading to better management of funds at PTI; the automation of payroll process by IPPIS has improved efficiency in the use of funds and reduced unnecessary expenditures at PTI.; and IPPIS has significantly reduced the leakage of funds through the elimination of ghost workers at PTI.

Research Question four:

What are the challenges limiting the effectiveness of IPPIS in controlling payroll fraud at PTI, Warri?

Table 4.19: The reluctance of the authority initially affected the adequacy in the implementation of IPPIS

Responses	Frequency	Percentage
Strongly Agree	60	33.3
Agree	85	47.2
Undecided	20	11.1
Disagree	-	-
Strongly Disagree	15	8.3
Total	180	100

Source: Field Survey, 2024

Table 4.19 shows that 60 respondents, representing 33.3% of the respondents strongly agree that the reluctance of the authority initially affected the adequacy in the implementation of IPPIS into existing payroll system at PTI; and 85 respondents, representing 47.2% of them agreed, while 20 respondents, representing 11 % of them are undecided on the issue. However, none of the respondents disagreed and 15 respondents, representing 8.3% strongly disagreed. The above table therefore shows that the reluctance of the authority initially affected the adequacy in the implementation of IPPIS.

Table 4.20: Inadequate skills and infrastructure hampers IPPIS effectiveness

Responses	Frequency	Percentage
Strongly Agree	70	3.9
Agree	75	41.7
Undecided	15	8.3
Disagree	10	5.6
Strongly Disagree	10	5.5
Total	180	100

Source: Field Survey, 2024

Table 4.20 shows that 70 respondents, representing 3.9% of the respondents strongly agree that inadequate skills and infrastructure hampers IPPIS effectiveness; and 75 respondents, representing 41.7% of them agreed, while 15 respondents, representing 8.3% of them are undecided on the issue. However, 10 respondents, representing 5.6% of the respondents disagreed and 10 respondents, representing 5.5% strongly disagreed. The above table therefore shows that inadequate skills and infrastructure hampers IPPIS effectiveness at IPPIS.

Table 4.21: Technical issues such as system downtimes and errors, have significantly affected the effective implementation of IPPIS at PTI

Responses	**Frequency**	**Percentage**
Strongly Agree	30	16.7
Agree	35	19.4
Undecided	60	33.3
Disagree	30	16.7
Strongly Disagree	25	13.9
Total	180	100

Source: Field Survey, 2024

Table 4.21 shows that 30 respondents, representing 16.7% of the respondents strongly agree that technical issues such as system downtimes and errors have affected the effective implementation of IPPIS at PTI; and 35 respondents, representing 19.4% of them agreed, while 16.7% of them are undecided on the issue. However 30 respondents, representing 16.7% of the respondents disagreed and 25 respondents, representing 13.9% strongly disagreed. The above table therefore shows that somehow technical issues such as system downtimes and errors have affected the effective implementation of IPPIS at PTI but not significantly

Table 4.22: Poor technological and infrastructural facilities were a major hiccup in effective IPPIS execution at PTI.

Responses	Frequency	Percentage
Strongly Agree	98	54.4
Agree	72	40.0
Undecided	5	2.8
Disagree	5	2.8
Strongly Disagree	-	-
Total	180	100

Source: Field Survey, 2024

Table 4.22 shows that 98 respondents, representing 54.4% of the respondents strongly agree that poor technological and infrastructural facilities was a major hiccup in effective IPPIS execution at PTI; and 72 respondents, representing 40% of them agreed, while 5 respondents, representing 2.8% of them are undecided on the issue. However, 5 respondents, representing 2.8% of the respondents disagreed. The above table therefore shows that poor technological and infrastructural facilities were a major hiccup in effective IPPIS execution at PTI. Analyses from tables 19 to 21 show that

some of the challenges in the implementation of IPPIS in Petroleum Training Institute, Warri, The reluctance of the authority initially affected the adequacy in the implementation of IPPIS; Inadequate skills and infrastructure hampers IPPIS effectiveness; and some technical issues such as system downtimes and errors which affected the effective implementation of IPPIS initially.

4.4 Hypotheses Testing

In this research, four (4) hypotheses were formulated for testing. These are:

The following null hypotheses were formulated and tested in this study

H0: There is no significant relationship between IPPIS implementation and the reduction of payroll fraud at PTI, Warri.

H0: IPPIS implementation has no significant relationship with the safekeeping and updating of personnel records at PTI, Warri.

H0: IPPIS implementation is not significantly associated with the reduction of leakages and wastages of funds at PTI, Warri.

H0: Implementation challenges do not significantly impact the effectiveness of IPPIS at PTI, Warri.

Procedure for Testing

This study employed the chi-square (x^2) in the testing of the formulated hypotheses. The chi-square (x^2) determines the relationship between the dependent and independent variables. The hypothesis is accepted where the calculated x^2 is greater than the value of the critical chi-square (x^2). The reverse is the case when calculated x^2 is less than critical x^2 from the same degree of freedom.

Hypothesis One

H_0: There is no significant relationship between IPPIS implementation and the reduction of payroll fraud at PTI, Warri

H_R: There is a significant relationship between IPPIS implementation and the reduction of payroll fraud at PTI, Warri

Hypothesis Testing by Respondents' Gender

Responses	**Male**	**Female**	**Total**
Strongly Agree	36 (a)	29 (b)	65
Agree	50 (c)	35 (d)	85
Undecided	07 (e)	03 (f)	10
Disagree	03 (g)	02 (h)	05
strongly Disagree	06 (i)	09 (j)	15
Total	**102**	**78**	**180**

Source: Field Data, 2024

Statement of Hypothesis One:

H_0: There is no significant relationship between respondents' gender and their opinion that the implementation of IPPIS has reduced payroll fraud in PTI, Warri

H_R: There is a significant relationship between respondents' gender and their opinion that the implementation of IPPIS has reduced payroll fraud in PTI, Warri

$$X^2 = \sum \frac{(fo-fe)^2}{fe}$$

$X^2 = 2.64$

Degree of Freedom

df = (r-1) (c-1) = (5-1) (2-1) = (4) (1) = 4

Research Decision

Calculated $x^2 = 2.64$

Critical $x^2 = 9.49$

df = 4

$\alpha = .05$ (5%)

Research Result

Calculated x^2 > critical x^2 @ $\alpha = .05$.

∴ Data are not statistically significant @ .05% sampling error. We therefore accept H_0 and reject H_R. There is no significant relationship between respondents' gender and their opinion that IPPIS implementation has reduced payroll fraud in PTI, Warri

This means that irrespective of gender, the respondents believe that IPPIS implementation has reduced payroll fraud in PTI, Warri.

Hypothesis Two

H_0) IPPIS implementation has no significant relationship with the safekeeping and updating of personnel records at PTI, Warri.

H_R) IPPIS implementation has a significant relationship with the safekeeping and updating of personnel records at PTI, Warri.

Hypothesis Testing by Respondents' Gender

Responses	**Male**	**Female**	**Total**
Strongly Agree	47 (a)	32 (b)	79
Agree	32 (c)	27 (d)	59
Undecided	07 (e)	03 (f)	10
Disagree	15 (g)	15 (h)	30
Strongly Disagree	01 (i)	01 (j)	02
Total	**102**	**78**	**180**

Source: Field Data, 2024

Statement of Hypothesis Two:

H_0) There is no significant relationship between respondents' gender and their opinion that IPPIS implementation enhances the safekeeping and updating of personnel records at PTI Warri.

H_R) There is a significant relationship between respondents' gender and their opinion that IPPIS implementation enhances the safekeeping and updating of personnel records at PTI, Warri.

$$X^2 = \sum \frac{(fo-fe)^2}{fe}$$

$X^2 = 1.77$

Degree of Freedom

df = (r-1) (c-1) = (5-1) (2-1) = (4) (1) = 4

Research Decision

Calculated $x^2 = 1.77$

Critical $x^2 = 9.49$

df = 4

$\alpha = .05$ (5%)

Research Result

Calculated x^2 > critical x^2 @ $\alpha = .05$.

∴ Data are not statistically significant @ .05% sampling error. There is no significant relationship between respondents' gender and their opinion that IPPIS implementation enhances the safekeeping and updating of personnel records at PTI, Warri. We therefore accept H_0 and reject H_R.

This means that irrespective of gender, the respondents believe that IPPIS implementation could boost the safekeeping and updating of personnel records in PTI, Warri.

Hypothesis Three

H_0: IPPIS implementation is not significantly associated with the reduction of leakages and wastages of funds at PTI, Warri.

H_R: IPPIS implementation is significantly associated with the reduction of leakages and wastages of funds at PTI, Warri.

Hypothesis Testing by Respondents' Gender

Responses	**Male**	**Female**	**Total**
Strongly Agree	32 (a)	27 (b)	59
Agree	53 (c)	38 (d)	91
Undecided	07 (e)	03 (f)	10
Disagree	10 (g)	10 (h)	20
Strongly Disagree	0 (i)	0 (j)	-
Total	**102**	**78**	**180**

Source: Field Data, 2024

Statement of Hypothesis Three:

H_0: There is no significant association between respondents' gender and their opinion that IPPIS implementation has led to reduction in the leakages and wastages of funds in PTI, Warri

H_R: There is a significant association between respondents' gender and their opinion that IPPIS implementation led to reduction in the leakages and wastages of funds in PTI,Warri.

$$X^2 = \sum \frac{(fo-fe)^2}{Fe}$$

$X^2 = 1.29$

Degree of Freedom

df = (r-1) (c-1) = (5-1) (2-1) = (4) (1) = 4

Research Decision

Calculated $x^2 = 1.29$

Critical $x^2 = 9.49$

df = 4

$\alpha = .05$ (5%)

Research Result

Calculated x^2 > critical x^2 @ $\alpha = .05$.

∴ Data are not statistically significant @ .05% sampling error. We therefore accept H_0 and reject H_R. There is no significant association between respondents' gender and their opinion that IPPIS implementation has led to reduction in the leakages and wastages of funds in PTI, Warri, this means that irrespective of gender; the respondents believe that IPPIS implementation has resulted in the reduction in the outflow and wastage of funds in PTI, Warri.

Hypothesis Four

H_0: Implementation challenges do not significantly impact the effectiveness of IPPIS at PTI, Warri.

H_R: Implementation challenges significantly impact the effectiveness of IPPIS at PTI, Warri.

Hypothesis Testing by Respondents' Gender

Responses	**Male**	**Female**	**Total**
Strongly Agree	36 (a)	34 (b)	70
Agree	45 (c)	30 (d)	75
Undecided	08 (e)	07 (f)	15
Disagree	08 (g)	02 (h)	10
Strongly Disagree	05 (i)	05 (j)	10
Total	**102**	**78**	**180**

Source: Field Data, 2024

Statement of Hypothesis Four:

H_0: Implementation challenges do not significantly impact the effectiveness of IPPIS at PTI, Warri.

H_R: Implementation challenges significantly impact the effectiveness of IPPIS at PTI, Warri

$$X^2 = \sum \frac{(fo-fe)^2}{fe}$$

$X^2 = 3.58$

Degree of Freedom

df = (r-1) (c-1) = (5-1) (2-1) = (4) (1) = 4

Research Decision

Calculated $x^2 = 3.58$

Critical $x^2 = 9.49$

df = 4

$\alpha = .05$ (5%)

Research Result

Calculated x^2 > critical x^2 @ $\alpha = .05$.

∴ Data are not statistically significant @ .05% sampling error. We therefore accept H_0 and reject H_R. There is no significant association between respondents' gender and their opinion that IPPIS implementation challenges impact its effectiveness.

This means that irrespective of gender, the respondents believe that the challenges in the implementation of IPPIS impacted its implementation success at PTI, Warri

4.5 Major Findings

The first finding in the study shows that some of the ways IPPIS has helped in arresting payroll fraud in Petroleum Training Institute (PTI), Warri are by the study shows that IPPIS implementation has led to a reduction in the leakage and wastage of funds in Petroleum Training Institute to promote integrity and accountability in the institution; significantly improving the accuracy of payroll processing, thereby reducing fraudulent activities; making it easier to detect and prevent payroll fraud; and through the centralization of employees' data, preventing payroll fraud at the institution.

The second finding in the study shows that the use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated; has provided sufficient protection against unauthorized access to personnel records so far at PTI; served as an elective tool for maintaining the integrity and accuracy of personnel records as evidenced at PTI; and has reduced the risk of data loss or tempering in personnel records at PTI since its implementation.

The third finding in the study shows that IPPIS implementation has led to a reduction in the leakage and wastage of funds in Petroleum Training Institute, Warri, it has helped in minimizing overpayments and incorrect salary disbursements; has enhanced financial accountability, leading to better management of funds at PTI; the automation of payroll process by IPPIS has improved efficiency in the use of funds and reduced unnecessary expenditures at PTI.; and has significantly reduced the leakage of funds through the elimination of ghost workers at PTI.

The fourth finding in the study shows that the several implementation challenges in the IPPIS affected the effectiveness in the implementation process. Challenges so far in the implementation of IPPIS in Petroleum Training Institute, Warri, were the initial difficulty in the integration of IPPIS into existing payroll system at the institution. Some technical issues such as system

downtimes and errors also affected the effective implementation of IPPIS initially; and delays sometimes experienced in the regular updating.

4.6 Discussion of Findings

The discussion of the major findings in the study is presented in this section.

Effect of IPPIS on Payroll Fraud in Petroleum Training Institution, Warri, Delta State

The second finding in the study shows that the use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated; provided sufficient protection against unauthorized access to personnel records; served as an elective tool for maintaining the integrity and accuracy of personnel records as evidenced at PTI; and has reduced the risk of data loss or tempering in personnel records.

This finding is confirmed by the submission of Enakirerhi and Temile (2017) that IPPlS deployment delivers accurate and trustworthy personnel information a decrease in unethical and sleazy operations, and convenience of current scientifically precise forecasting. Further reports show that the scheme programmed automatic stoppage of payment to personnel due for retirement as a result of length of service, age and tenure thus reducing wastage or unauthorized payment. All Unapplied/unutilized fund are easily monitored; and improved saving to government as a result of personnel cost over-budgeting (Office of Accountant General of the Federation, OAGF,2020)

Effect of IPPIS in the Safe Keeping and Updating of Personnel Records in Petroleum Training Institute, Warri, Delta State

The third finding in the study shows that IPPIS implementation has led to a reduction in the leakage and wastage of funds in Petroleum Training Institute, Warri, it has helped in minimizing overpayments and incorrect salary disbursements; has enhanced financial accountability, leading

to better management of funds at PTI; the automation of payroll process by IPPIS has improved efficiency in the use of funds and reduced unnecessary expenditures at PTI; and has significantly reduced the leakage of funds through the elimination of ghost workers at PTI.

This finding is in consonance with the assertion of Olumuyiwa (2018) that IPPIS implementation has resulted in massive saving into federal funds, prompt and accurate salary payment, generate data or personnel and overhead budgeting, halted ghost workers etc. The author noted that the government can save significant amounts of money by discovering and deleting ghost workers from the payroll (Olumuyiwa, 2018). Micah and Moses (2018) reports that IPPIS has reduced fraud significantly even though some MDAs are yet to establish private virtual network connection to the IPPIS platform.

IPPIS and Reduction in the Leakage and wastage of funds in Petroleum Training institute, Warri, Delta state?

The fourth finding in the study shows that some of the ways IPPIS has helped in arresting payroll fraud in Petroleum Training Institute (PTI), Warri are by a reduction in the leakage and wastage of funds in Petroleum Training Institute to promote integrity and accountability in the institution; significantly improving the accuracy of payroll processing, thereby reducing fraudulent activities; making it easier to detect and prevent payroll fraud; and through the centralization of employees' data, preventing payroll fraud at the institution.

The finding is in line with the assertion of Enakirerhi and Temile (2017) that IPPIS deployment delivers accurate and trustworthy personnel information, decrease in unethical and sleazy operations, and convenience of current scientifically precise forecasting. Ibanichuka (2019) notes that government's capacity to plan and budget improved significantly and IPPIS has also been able to eliminate unauthorized personnel workforce (ghost workers) from Government

payroll. It has provided for easy retrieval of personnel information of all public servants under the scheme; reduction in personnel records' falsification record of service.

Challenges in the Implementation of IPPIS in Petroleum Training Institute, Warri, Delta State

The fifth finding in the study shows that some of the challenges so far in the implementation of IPPIS in Petroleum Training Institute, Warri, were the initial difficulty in the integration of IPPIS into existing payroll system at the institution. Some technical issues such as system downtimes and errors also affected the effective implementation of IPPIS initially and delays sometimes experienced in the regular updating.

This finding is in consonance with the submission of the Office of Accountant General of the Federation, OAGF (2020) that the initial implementation of IPPIS was hindered by issues such as stiff resistance from the unions in the Tertiary Institutions more especially ASUU in the Universities; poor internet connectivity to the Primary Data Centre (PDC) by MDAs on IPPIS and inadequate computer hardware for IPPIS Role Players.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study was carried out checkmate the effectiveness of IPPIS in the controlling of payroll fraud in petroleum training institute, Warri, delta state. The study's objectives were to examine the extent to which IPPIS implementation has reduced payroll fraud at PTI; To assess the effectiveness of IPPIS in personnel record-keeping and updating at PTI; To evaluate the impact of IPPIS on minimizing leakages and wastages of funds at PTI and to identify the challenges faced in the effective implementation of IPPIS at PTI, Warri. Four research questions were formulated for the study and corresponding hypotheses were also formulated and tested using the chi-square (x^2). The study adopted the quantitative survey research design which made use of questionnaire; the populations for this study were the academic and non-academic staffs of Petroleum Training Institute, Warri, Delta state. The actual sample (participants) in the study was one hundred and eight (180). The simple random sampling technique was adopted to select samples from the population. The structured questionnaire was employed as the instrument of primary data collection. Findings showed that;

IPPIS has helped in arresting payroll fraud in Petroleum Training Institute (PTI), Warri by reducing the leakage and wastage of funds in Petroleum Training Institute to promote integrity and accountability in the institution; significantly improving the accuracy of payroll processing, thereby reducing fraudulent activities; making it easier to detect and prevent payroll fraud; and through the centralization of employees' data, preventing payroll fraud at the institution.

The use of IPPIS so far at PTI ensures personnel records are regularly and accurately updated; has provided sufficient protection against unauthorized access to personnel records so far at PTI;

served as an elective tool for maintaining the integrity and accuracy of personnel records as evidenced at PTI; and has reduced the risk of data loss or tempering in personnel records at PTI since its implementation.

IPPIS implementation has led to a reduction in the leakage and wastage of funds in Petroleum Training Institute, Warri, it has helped in minimizing overpayments and incorrect salary disbursements; has enhanced financial accountability, leading to better management of funds at PTI; the automation of payroll process by IPPIS has improved efficiency in the use of funds and reduced unnecessary expenditures at PTI.; and has significantly reduced the leakage of funds through the elimination of ghost workers at PTI.

Some of the challenges so far in the implementation of IPPIS in Petroleum Training Institute, Warri, were the initial difficulty in the integration of IPPIS into existing payroll system at the institution. Some technical issues such as system downtimes and errors also affected the effective implementation of IPPIS initially; and delays sometimes experienced in the regular updating

5.2 Conclusion

The Integrated Personnel and Payroll Information System introduction by the federal government into the public service has been one of the prominent reforms for the reduction of fraud emanating from payroll fraud in Nigeria's public service. IPPIS has enhanced transparency and accountability in the Personnel record of petroleum training institute. The reform will be more effective if substantial precautions are put in place to ensure proper implementation of the program. IPPIS has helped to checkmate irregularities and regularized the remuneration of staffs' entitlement and has aided in the reduction of ghost workers in government's payroll.

5.3 Recommendation

These following recommendations were made to ensure a successful implementation of IPPIS and for improvement to the reform.

Federal government should provide the needed facilities and an enabling environment for the efficient implementation of IPPIS in the PTI and other public sectors.

Government should initiate additional polices to the Integrated Personnel and Payroll Information System in order to make sure that payroll fraud is totally eliminated in the public service.

A better functioning ICT infrastructure in MDAs to enhance the usage of IPPIS and ensuring the presence of skilled personnel to manage the IPPIS database efficiently.

MDAs that are yet to establish private virtual network connection to the IPPIS platform should be made to adhere without further delay.

It is also recommended that government and heads of government parastatals should ensure IPPIS operates in accordance with all applicable rules and regulations, as well as Financial Regulations, the system's internal control mechanisms should be strengthened and the programme should be audited regularly.

5.4 Contribution to Knowledge

The study will contribute significantly by providing enlightenment to the public on IPPIS and payroll fraud and how IPPIS has helped in curbing the menace of payroll fraud. This study also contributed to an empirical enlightenment on the effectiveness of IPPIS in the reduction of payroll fraud in petroleum training institute in the field of public administration. This study has been able to ascertain that indeed IPPIS has been of great benefit in the reducing wastage of funds and keeping going records of staffs.

5.5 Suggestion for Further Studies

Research work should be done on more MDAs to ascertain the effectiveness of this policies on other public sectors.

Other researchers should look into the major challenges facing the successful implementation of IPPIS in Nigeria public sector.

REFERENCE

Abu, N. (2015). The effects of corruption and political instability on savings: The case of the Economic Community of West African States (An unpublished PhD Thesis submitted). Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia.

Adeosun, K. (2018). FG Saves N68Bn on Personnel Cost, Captures 511 MDAs under IPPIS. Lagos: The Sun Newspaper.

Agboola, T.O. (2018) Effectiveness of integrated personnel and payroll information system in addressing ghost worker syndrome in Nigerian public sector. *International Research Journal Publisher. Vol. 18 (2).* Retrieved From

Azeez, B. A., & Taiwo, J. N. (2020). Financial Sector Reforms and Economic Growth in Nigeria. *International Journal of Economics, Commerce and Management, 8(2), 172-186*

Bappi, Usman & Umar, Mahmoud. (2023). FINANCIAL SECTOR REFORM AND PAYROLL FRAUD IN NIGERIA: ISSUES AND CHALLENGES. 5. 32-39.

Bello, Matthew & Mela, Keneth. (2022). IPPIS Policy and the Challenges of its Implementation in the Nigerian Universities: A Conceptual Discourse.

Dada, S.O. (2014). Forensic accounting technique: a means of successful eradication of corruption through prevention, bribery prevention and embezzlement prevention in Nigeria. *Kuwait chapter of Arabian Journal of Business and Management review, 4(1), 176-186*

Department of IPPIS (2012). The Integrated Personnel and Payroll Information System (IPPIS). *The World Bank Project, 1-12.*

Effiong, S.A., Oro, B.L., Ogar, G.U., Imong, N.R., Jacob, G.E., & Iroushu, R.B. (2017). 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. *IOSR Journal of Business and Management. Vol. 19 (8).*

Enakirerhi L. & Temile S. O., (2017). IPPIS in Nigeria: Challenges, Benefits and Prospects. *International Journal of Social Science and Economic Research, 2(5), 3490*. Retrieved from http://www.abrj.org/publications-of-abrj/article/129/

Farajimakin, A.S., & Anichebe, A.S., (2019*)* Effect of integrated personal payroll information system on employee welfare: evidence from federal ministries in Nigeria. Australian. *Journal of Arts and Scientific Research. 2(2).* Retrieved from https://www.scribd.com/document/456473058/Effect-ofintegrated-personal-payrollinformation-systemon-employeewelfare-anichebea-s

Gafar, Oluwasegun. (2023). INTEGRATED PERSONNEL PAYROLL INFORMATION SYSTEM (IPPIS) AND TRANSPARENCY IN NIGERIA CIVIL SERVICE: IN OGUN STATE.

Gbalam, E. (2015). *Corporate Fraud: Forensic Accounting. Port Harcourt*: Vinson's Publishers

Hamza, M. A, & Ahmed, I. (2018). *An Appraisal of Integration of BVN and IPPIS in Eliminating Payroll Fraud and Corruption in Gombe State*. Journal of World Development Studies, Volume(4) No2

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.

Idris, H., Adaja, J., & Audu, J. S. (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.*

Ikechukwu D & Chikwe G. C. (2015). Electronic human resource management and ghost workers syndrome in Nigeria: A study of selected LGAs in Imo State. *Advance Research Journal of Multi- Disciplinary Discoveries, 2456-1045.*

IPPIS Department. (2015) Integrated Payroll and Personnel Information System. Retrieved from https://ippis.gov.ng

Kaoje, A.N., Nabila, K., Idris, S., Gambarawa, J.A., & Ubandawaki, L.I., (2020) Study on integrated personnel and payroll information system (IPPIS) and transparency in government payroll administration in Nigerian civil service: *Asian Journal of Economics, Business and Accounting Vol. 19 (3)*

Khan, A., &Hildreth, W.B. (2004). Public Finance Management. New York: Springer

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. (2016). Fraud silent fraud and innocent misrepresentation. Expert law. Retrieved from https://www.ippis.gov.ng/what-is-3/ DOR: January 19, 2020

Larson A. (2018). Fraud, Silent Fraud, and Innocent Miss-representation. Expert Law. Retrieved 29th May 2018.

Lekubu B.K (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.

Letswa, A. M., & Egwuem, V. ((2013). 'Corruption and the Challenges of Democratic Governance in Nigeria. ' Journal of Public Administration, .

Leyira, C. M. & Temple, M. (2018). IPPIS and ghost worker's syndrome in Nigeria's public sector. Scholars Journal of Economics, Business and Management (SJEBM), 5(8), pp. 773-778.

Lomer, S. (2018). Payroll Fraud Prevention: Tips and Best Practices. Sage.

Mede (2016).Nigeria's experience with identity systems for civil service reform. A Paper Presented At The Id 4 Africa Annual Meeting – Rwanda, 2016, 1-13

Micah, L. C., & Moses, T. (2018). IPPIS and the Ghost Workers' Syndrome in Nigeria's Public Sector. *Scholars Journal of Economics, Business and Management, 773-778*

Nagalinagm, N., Mangala, F., & Kumudine, D. (2015). The development of public sector accounting and financial reporting. *International Journal on Governmental Financial Management, 15(2), 70-88*

Nduka, C., (2019).Understanding Integrated Personnel and Payroll Information System .Thenation.https://thenationonlineng.net/understanding-intergrated-personnel-and-payroll-information-system/

Nwaodu, N, Adam, D & Okereke, O. (2014). A Review of Anti-Corruption Wars in Nigeria. Africa's Public Service Delivery & Performance Review 2(3).153-174 available@https://apsdr.org/index.php/apsdpr/article/view

Obara, L.C; Nangih, E. & Agba, J.N (2017). Accounting System and Payroll Fraud in the Public Sector: A Survey of Selected Ministries and Parastatals in Rivers State, Nigeria. *Journal of Accounting and Financial Management (JAFM): 3(2).*

Office of the Accountant General of the Federation (OAGF), IPPIS Department Publication, 2020

Office of the Accountant General of the Federation, (2018). Department, office of the accountant of the federation, federal ministry of finance. Garki, Abuja

Office of the Accountant General of the Federation, (2020). International public sector accounting standards, office of the accountant of the federation, federal ministry of finance. Garki, Abuja.

Oguzierem, U. A., & Sofiri, J. (2017). Ghost workers and related payroll fraud: the impact of unauthorized employment on local government areas (LGAS) & Rural Development Areas (RDAS) In Bayelsa State, *International Journal of Economics and Business Management.3(8), 12-23*

.

Olowu, O.F. (2022) Integrated payroll and personnel information system (IPPIS) and public service wages and salary payment in Nigeria. Quest Journal Humanities and Social Science. Retrieved from http://www.questjournals.org/jrhss/papers/vol10-issue1/Ser2/H10016271.

Olowu, O.F., & Adeyemi, S.O., (2021) The gains and the pains of integrated payroll and personnel information systems (IPPIS) policy implementation in Nigeria. *Journal of Human Resource and Sustainability Studies. Vol. 9 (4).*

Omolehinwa, O. E., & Naiyeju, K. J. (2015). Government Accounting in Nigeria: An IPSAS approach. Lagos; NG, Pumark Nigeria Ltd.

Otunla, J. (2013). FG saves N120bn through IPPIS, reduce ghost workers, personnel cost. www.thenigeriainvoice.com

Petroleum Training Institute handbook retrieved from https://pti.edu.ng

Powell, W.W., & DiMaggio, P.J. (Eds.). (1991). the New Institutionalism in Organizational Analysis. Chicago: University of Chicago Press

Public Service Institute of Nigeria, (2011). Integrated Payroll and Personnel Information System: Public Service Reforms in Nigeria, Abuja: Public Service Institute of Nigeria.

Public Service Institute of Nigeria. (2012) Public Service Reforms in Nigeria.www.psin.gov.ng

Sahara Reporters (2019) How Office of Nigeria's Accountant General Refused to Pay Civil Servants Five Months' Salaries? http://saharareporters.com/2019/07/27/exclusive-corruption-how-office-nigeria%E2%80%99s-accountant-general-refused-pay-civil-servants

Sunday, A., Oro, B., Ogar, G., Imong, N., Jacob, G., & Rim, B. (2017). Treasury Single Account (TSA) Integrated Personnel Payroll and Information System (IPPIS) Integrated Financial Information Management System (IFIMS): Application and Implementation Effect on Fraud Management in the Public Sector in Nigeria. Journal of Business and Management Vol. 19 Issue 8, 22-30.

Tanzi, V. (2013). Corruption and the Economy. Filozofija I drustvo. 24(1), 33-59

The Punch (2016). Nigerian Government removes 23, 846 ghost workers from payroll. The Punch, 10(5), 23-21.

Vlad, M., Tulvinschi, M., & Chiriţă, I. (2011). The consequences of fraudulent financial reporting. *The USV Annals of Economics and Public Administration*, *11*(1), 264-268.

Waziri, F, C. (2010). Corruption and governance challenges in Nigeria. Cleen foundation monograph series working paper No. 7

Wikipedia. (2019). Fraud. Retrieved from https://en.wikipedia.org/wiki/Fraud

World Bank Report. (2012). Nigeria Public Sector Governance Reform and Development Project (P097026) Document of the world bank.

APPENDIX I

QUESTIONNAIRE

Department of Political science
And Public Administration,
School Of Postgraduate Studies,
Benson Idahosa University,
Benin City, Edo State

Dear Sir/madam,

I am a post-graduate student of the Department of Political Science and Public Administration of the above-named University, as part of the requirements for the award of Post Graduate Diploma (PGD) in Public Administration; I am embarking on a research study titled "The Effectiveness of IPPIS in the Control of Payroll Fraud in Petroleum Training Institute in Warri, Delta state". Please kindly answer the following questions by ticking the most appropriate answers in the boxes provided.

All information will be treated with utmost confidentiality.

Thanks for your cooperation.

Sincerely Yours,

Aleke, Bibian Nkechinyere

Researcher

SECTION A

Instruction: Please tick (✓) the options appropriate to you

1. Sex: Male ( ), Female ( ).
2. Marital status: Single ( ) Married ( ) divorced ( ) widowed ( )
3. Age: 20 – 30 ( ), 30 - 40 ( ), 40 and above ( ).
4. Grade Level: 01- 06 ( ), 07- 10 ( ), 11-17( )

SECTION B

Instruction: Please tick (✓) on the appropriate option of your choice.

Key:

SA - Strongly Agree

A - Agree

U - Undecided

SD - Strongly Disagree

D – Disagree

NO	ITEMS	SA	A	U	SD	D
A	**IPPIS as a check against Payroll Fraud**					
5	The introduction of IPPIS has effectively reduced the presence of ghost workers in PTI's payroll system					
6	IPPIS has significantly improved the accuracy of payroll processing at PTI, thereby reducing fraudulent activities					
7	The transparency provided by IPPIS has made it easier to detect and prevent payroll fraud at PTI					
8	The centralization of employee data through IPPIS has been effective in preventing payroll fraud at PTI					
B	**IPPIS and Safe Keeping and Updating of Personnel Record**					
9	The use of IPPIS ensures that personnel records are regularly and accurately updated at PTI					
10	IPPIS provides sufficient protection against unauthorized access to personnel records in PTI					
11	IPPIS is an effective tool for maintaining the integrity and accuracy of personnel records at PTI					
12	The implementation of IPPIS has reduced the risk of data loss or tempering in personnel record at PTI					
C	**IPPIS and reduction in Leakage and Wastage of Funds**					

13	IPPIS has been effective in minimizing overpayments and incorrect salary disbursements, thereby reducing wastage of funds at PTI					
14	The introduction of IPPIS has improved financial accountability, leading to better management of PTI's funds					
15	The automation of payroll process by IPPIS has led to more efficient use of funds, reducing unnecessary expenditures at PTI					
16	The implementation of IPPIS has significantly reduced the leakage of funds through the elimination of ghost workers at PTI					
D	**Implementation Challenges and Effectiveness of IPPIS**					
17	The reluctance of the authority initially affected the adequacy in the implementation of IPPIS in PTI.					
18	Inadequate skills and infrastructure hampers IPPIS effectiveness.					
19	Technical issues, such as system downtimes and errors, have significantly affected the effective implementation of IPPIS at PTI					
20	Poor technological and infrastructural facilities was a major hiccup in effective IPPIS execution at PTI					

APPENDIX II

Calculation of Chi-Square

Hypothesis One

Computation of Expected Frequencies (Fe)

Cell a = (79) (102)/180 = 44.77

b = (79) (78)/180 = 34.77

c = (59) (102)/180 = 33.43

d = (59) (78)/180 = 25.57

e = (10) (102))/180 = 5.67

f = (10) (78)/180 = 4.33

g = (30) (102)/180 = 17.00

h = (30) (78)/180 = 13.00

i = (02) (102)/180 = 1.12

j = (02) (78)/180 = 0.87

Computation of X^2

Cell	Fo	Fe	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
A	47	44.77	2.23	4.9729	0.11
B	32	34.77	-2.77	7.6729	0.22
C	32	33.43	-1.43	2.0449	0.06
D	27	25.57	1.43	2.0449	0.08
E	07	5.67	1.33	1.7689	0.31
F	03	4.33	-1.33	1.7689	0.41
G	15	17.00	-2.00	4.00	0.24
H	15	13.00	2.00	4.00	0.31
I	01	1.12	-0.12	0.0144	0.01
J	01	0.87	0.13	0.0169	0.02
				X^2	1.77

Hypothesis Two

Computation of Expected Frequencies (Fe)

Cell a = (59) (102)/180 = 33.43

b = (59) (78)/180 = 25.43

c = (91) (102)/180 = 51.57

d = (91) (78)/180 = 39.43

e = (10) (102))/180 = 5.7

f = (10) (78)/180 = 4.3

g = (20) (102)/180 = 11.33

h = (20) (78)/180 = 8.7

i = (0) (102)/180 = 0.00

j = (0) (78)/180 = 0.00

Computation of X^2

Cell	Fo	Fe	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
A	32	33.43	-1..43	2.0449	0.06
B	27	25.43	1.57	2.4649	0.10
C	53	51.57	1.43	2.0449	0.04
D	38	39.43	-1.43	2.0449	0.05
E	07	5.7	1.3	1.69	0.30
F	03	4.3	-1.3	1.69	0.39
G	10	11.33	-1.33	1.7689	0.16
H	10	8.7	1.3	1.69	0.19
I	0	0.0	0	0.0	0.0
J	0	0.0	0	0.0	0.0
				X^2	1.29

Hypothesis Three

Computation of Expected Frequencies (Fe)

Cell a = (65) (102)/180 = 36.83

b = (65) (78)/180 = 28.17

c = (85) (102)/180 = 48.17

d = (85) (78)/180 = 36.83

e = (10) (102))/180 = 5.67

f = (10) (78)/180 = 4.33

g = (5) (102)/180 = 2.83

h = (5) (78)/180 = 2.17

i = (15) (102)/180 = 8.5

j = (15) (78)/180 = 6.5

Computation of X^2

Cell	Fo	Fe	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
A	36	36.83	-0.83	0.6889	0.02
B	29	28.17	0.83	0.6889	0.02
C	50	48.17	1.83	3.3489	0.07
D	35	36.83	-1.83	3.3489	0.09
E	07	5.67	1.33	1.7689	0.31
F	03	4.33	-1.33	1.7689	0.41
G	03	2.83	0.17	0.0289	0.01
H	02	2.17	-0.17	0.0289	0.01
I	06	8.5	-2.5	6.25	0.74
J	09	6.5	2.5	6.25	0.96
				X^2	2.64

Hypothesis Four

Computation of Expected Frequencies (Fe)

Cell a = (70) (102)/180 = 39.67

b = (70) (78)/180 = 30.33

c = (75) (102)/180 = 42.50

d = (75) (78)/180 = 32.50

e = (15) (102))/180 = 8.50

f = (15) (78)/180 = 6.50

g = (10) (102)/180 = 5.67

h = (10) (78)/180 = 4.33

i = (10) (102)/180 = 5.67

j = (10) (78)/180 = 4.33

Computation of X^2

Cell	Fo	Fe	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
a	36	39.67	-3.67	13.47	0.34
b	34	30.33	3.67	13.47	0.44
c	45	42.50	2.50	6.25	0.15
d	30	32.50	-2.50	6.25	0.19
e	08	8.50	-0.5	0.25	0.03
f	07	6.50	0.5	0.25	0.04
g	08	5.67	2.33	5.43	0.96
h	02	4.33	-2.33	5.43	1.25
i	05	5.67	-0.67	0.45	0.08
j	05	4.33	0.67	0.45	0.10
				X^2	3.58