



INTEGRATED PAYROLL AND PERSONAL INFORMATION SYSTEM (IPPIS) AND FINANCIAL ADMINISTRATION IN FEDERAL UNIVERSITIES IN SOUTHWEST NIGERIA

BY

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Abstract

This study investigated the influence of the Integrated Payroll and Personnel Information System (IPPIS) on financial administration in federal universities in Southwest Nigeria. The population comprised 2,486 principal officers, bursary staff, registry staff, internal audit staff, and ICT personnel in the seven federal universities in Southwest Nigeria. A sample of 600 respondents were selected using multistage sampling procedures involving purposive, proportionate, and simple random sampling techniques. Data were collected using the Integrated Payroll and Personnel Information System and Financial Administration Questionnaire (IPPISFAQ). The instrument was validated by experts, while its reliability was established using Cronbach's Alpha, which yielded an overall reliability coefficient of 0.87. The instrument was administered by the researcher with the assistance of seven trained research assistants. Mean and standard deviation were used to answer the research questions, while the hypothesis was tested using Structural Equation Modelling (SEM) at the 0.05 level of significance. The findings revealed that IPPIS positively influenced payroll management, personnel records management, transparency and accountability, and budgetary control in federal universities in Southwest Nigeria. The study recommended that university management and the Federal Government should strengthen the implementation of IPPIS through regular personnel data verification, continuous staff training, and effective monitoring mechanisms.

Keywords: Budgetary Control, Financial Administration, Integrated Payroll and Personnel Information System (IPPIS), Payroll Management, Personnel Records Management.

Introduction

Financial administration is essential to effective university governance as it ensures that financial resources are properly planned, allocated, utilized, monitored, and controlled. It promotes accountability, transparency, and efficiency in the use of public funds, supports the effective implementation of institutional programmes, and contributes to quality teaching, research, and public confidence in university management.

Public universities in Nigeria rely heavily on government funding for teaching, research, infrastructure, and administration (World Bank, 2019; Kristensen et al., 2019). To improve financial management, the Federal Government introduced reforms such as TSA, GIFMIS, IPPIS, IPSAS, and e-payment

systems to strengthen transparency, accountability, budget control, and reduce financial leakages (PEFA, 2019; World Bank, 2015). These reforms have improved public resource management and financial governance, although implementation challenges persist (Sani et al., 2025; Kristensen et al., 2019; PEFA, 2019).

IPPIS is a key public financial management reform that integrates personnel and payroll information through a centralized electronic platform. Introduced in 2007, it was designed to eliminate ghost workers, improve payroll accuracy, ensure timely salary payments, strengthen personnel records, and control personnel expenditure. It also promotes transparency, accountability, and prudent

financial management by reducing payroll fraud and financial leakages (Ike et al., 2023). Payroll management is a key dimension of IPPIS, covering the accurate and timely processing of salaries, allowances, deductions, pensions, and other employee benefits. IPPIS strengthens payroll controls and reduces fraud, unauthorized payments, and payroll irregularities (Kaoje et al., 2020). Personnel records management is also essential, as the centralized IPPIS database improves the accuracy, maintenance, and retrieval of employee information, thereby supporting effective payroll administration and personnel management (Ike et al., 2023).

Transparency and accountability are central objectives of public financial management reforms. Transparency refers to openness in financial transactions and accessibility of financial information, while accountability involves the obligation of public officials to explain and justify the management of public resources. Nnamani, Ochiaka, Eze, and Nwoke (2021) argued that IPPIS enhances accountability by improving payroll monitoring, strengthening financial controls, and reducing opportunities for financial irregularities. Kaoje et al. (2020) similarly noted that centralized payroll administration and enhanced audit trails improve transparency and accountability in public institutions.

Budgetary control is another important mechanism through which IPPIS contributes to financial administration. It involves planning, monitoring, evaluating, and controlling expenditure to ensure compliance with approved budgetary provisions. Reliable personnel and payroll information generated through IPPIS assists government agencies and university administrators in forecasting personnel expenditure, controlling payroll costs, monitoring budget implementation, and ensuring financial compliance. Rotimi et al. (2021) reported that public financial management tools, including IPPIS, improve financial performance by strengthening expenditure control, minimizing financial

leakages, and enhancing institutional accountability.

Financial administration in federal universities encompasses budgeting, revenue management, payroll administration, expenditure control, accounting, financial reporting, internal auditing, procurement, and compliance with government financial regulations. Effective financial administration enables universities to achieve their statutory responsibilities and utilize scarce public resources judiciously. Weak financial administration, on the other hand, may result in payroll irregularities, poor budget implementation, financial leakages, inadequate accountability, and inefficient resource utilization. Sani et al. (2025) emphasized that the success of public financial management reforms depends on effective implementation, institutional capacity, and continuous monitoring.

Despite the implementation of IPPIS across federal universities, concerns remain regarding its effectiveness in achieving the desired improvements in financial administration. Although the system has reportedly reduced payroll fraud and improved personnel verification, challenges relating to salary payment delays, personnel data management, operational difficulties, and the flexibility of centralized payroll systems in addressing the peculiar administrative needs of universities have persisted. Agbata and Oranefo (2022), however, found that IPPIS significantly improved budgeting and internal audit functions in Nigerian federal universities, suggesting that the system contributes positively to financial accountability despite implementation challenges.

A review of existing literature indicates that most previous studies examined IPPIS from the perspectives of payroll administration, accountability, and public financial management within ministries and government agencies. Few studies have specifically investigated the influence of IPPIS on financial administration in federal universities in Southwest Nigeria using payroll management, personnel records management, transparency and accountability, and budgetary control as

explanatory variables within a Structural Equation Modelling (SEM) framework. This gap provides the justification for the present study.

Against this background, this study investigates the influence of the Integrated Payroll and Personnel Information System (IPPIS) on financial administration in federal universities in Southwest Nigeria, with particular emphasis on payroll management, personnel records management, transparency and accountability, and budgetary control.

Statement of the Problem

Financial administration is essential to the effective management of federal universities because it ensures that public funds are properly planned, utilized, monitored, and accounted for. The Federal Government introduced IPPIS to automate payroll administration, centralize personnel records, eliminate ghost workers, reduce payroll fraud, strengthen budgetary control, and improve financial accountability. However, challenges such as salary payment delays, payroll discrepancies, difficulties in updating personnel records, and operational problems continue to raise concerns about its effectiveness.

Although empirical studies report improvements in payroll administration, accountability, and financial management, others identify implementation challenges. Most previous studies have focused on ministries, departments, and agencies or examined isolated aspects of IPPIS. Few have investigated the combined influence of payroll management, personnel records management, transparency and accountability, and budgetary control on financial administration in federal universities, particularly in Southwest Nigeria. The limited use of Structural Equation Modelling (SEM) to examine these relationships further reveals a research gap. Therefore, this study investigated the influence of IPPIS on financial administration in federal universities in Southwest Nigeria.

Purpose of the Study

The main purpose of this study is to investigate the influence of the Integrated Payroll and Personnel Information System (IPPIS) on financial administration in federal universities in Southwest Nigeria. Specifically, the study seeks to:

- i. examine the influence of IPPIS on payroll management in federal universities in Southwest Nigeria;
- ii. determine the influence of IPPIS on personnel records management in federal universities in Southwest Nigeria;
- iii. assess the influence of IPPIS on transparency and accountability in financial administration in federal universities in Southwest Nigeria;
- iv. examine the influence of IPPIS on budgetary control in financial administration in federal universities in Southwest Nigeria; and
- v. determine the joint influence of payroll management, personnel records management, transparency and accountability, and budgetary control on financial administration in federal universities in Southwest Nigeria.

Research Questions

The following research questions were aised to guide this study:

1. What is the influence of IPPIS on payroll management in federal universities in Southwest Nigeria?
2. What is the influence of IPPIS on personnel records management in federal universities in Southwest Nigeria?
3. What is the influence of IPPIS on transparency and accountability in financial administration in federal universities in Southwest Nigeria?
4. What is the influence of IPPIS on budgetary control in financial administration in federal universities in Southwest Nigeria?

Research Hypothesis

The following hypothesis is formulated and tested at the 0.05 level of significance:

1. Payroll management, personnel records management, transparency and accountability, and budgetary control have

no significant joint influence on financial administration in federal universities in Southwest Nigeria.

Methodology

The study adopted a descriptive survey research design. The population comprised 2,486 principal officers, bursary staff, registry staff, internal audit staff, and ICT personnel involved in the implementation and management of the Integrated Payroll and Personnel Information System (IPPIIS) in the seven federal universities in Southwest Nigeria. A sample of 600 respondents was selected using a multistage sampling procedure involving purposive, proportionate, and simple random sampling techniques. Data were collected using an Integrated Payroll and Personnel Information System and Financial Administration Questionnaire (IPPIISFAQ). The instrument was validated by experts in Educational Management, Measurement and Evaluation, and Financial Administration to ensure its face and content validity. A pilot testing was conducted outside the study area to establish the reliability of the instrument. The data obtained were analysed using Cronbach's Alpha, and the reliability

coefficients obtained were 0.86 for Payroll Management, 0.84 for Personnel Records Management, 0.88 for Transparency and Accountability, 0.85 for Budgetary Control, and 0.89 for Financial Administration, with an overall reliability coefficient of 0.87. The instrument was administered by the researcher with the assistance of seven trained research assistants, one from each of the selected federal universities. Consent of the respondents were sought before the administration of the instrument. Copies of the questionnaire were distributed and retrieved through direct contact with the respondents, resulting in a high retrieval rate suitable for data analysis. The data collected were analysed using both descriptive and inferential statistics. Mean and standard deviation were used to answer the four research questions, while the null hypothesis was tested using Structural Equation Modelling (SEM) at the 0.05 level of significance.

Results

Research Question 1: What is the influence of IPPIS on payroll management in federal universities in Southwest Nigeria?

Table 1: Mean and Standard Deviation on the Influence of IPPIS on Payroll Management in Federal Universities in Southwest Nigeria (N = 600)

Items	Mean	SD	Remark
IPPIS has improved the accuracy of salary computation in my university.	3.41	0.71	Agree
IPPIS has eliminated incidences of ghost workers in the university payroll.	3.35	0.78	Agree
IPPIS has enhanced timely payment of staff salaries.	3.28	0.83	Agree
IPPIS has reduced payroll errors and discrepancies.	3.32	0.75	Agree
IPPIS has strengthened payroll accountability in the university.	3.44	0.69	Agree
IPPIS has improved the efficiency of payroll processing.	3.37	0.74	Agree
IPPIS has facilitated effective monitoring of payroll transactions.	3.30	0.79	Agree
IPPIS has enhanced compliance with government payroll regulations.	3.46	0.68	Agree

The results in Table 1 showed that the mean scores for all the items ranged from 3.28 to 3.46, which were above the benchmark mean of 2.50, indicating agreement. The cluster mean of 3.37 with a standard deviation of 0.75 further indicates that respondents perceived IPPIS as having a high influence on payroll management through improved salary computation, elimination of ghost

workers, timely salary payments, reduction of payroll errors, enhanced accountability, efficient payroll processing, effective monitoring of payroll transactions, and compliance with government payroll regulations.

Research Question 2: What is the influence of IPPIS on personnel records management in federal universities in Southwest Nigeria?

Table 2: Mean and Standard Deviation on the Influence of IPPIS on Personnel Records Management in Federal Universities in Southwest Nigeria (N = 600)

S/N	Items	Mean	SD	Remark
1	IPPIS has improved the accuracy of personnel records in my university.	3.39	0.73	Agree
2	IPPIS has enhanced the updating of staff records and information.	3.34	0.76	Agree
3	IPPIS has reduced errors associated with manual personnel record management.	3.31	0.79	Agree
4	IPPIS has facilitated easy retrieval of staff information when needed.	3.43	0.71	Agree
5	IPPIS has improved the security and confidentiality of personnel records.	3.36	0.75	Agree
6	IPPIS has enhanced the management of staff promotions, transfers, and retirement records.	3.29	0.81	Agree
7	IPPIS has promoted consistency in personnel data across departments.	3.41	0.72	Agree
8	IPPIS has improved the overall efficiency of personnel records management in the university.	3.45	0.69	Agree

The results in Table 2 revealed that the mean scores for the eight items ranged from 3.29 to 3.45, all of which exceeded the benchmark mean of 2.50, indicating agreement. The cluster mean of 3.37 with a standard deviation of 0.75 suggests that respondents perceived IPPIS as enhancing the accuracy, updating, retrieval, security, and overall management of personnel records,

while reducing errors associated with manual record-keeping and promoting consistency of staff information across departments.

Research Question 3: What is the influence of IPPIS on transparency and accountability in financial administration in federal universities in Southwest Nigeria?

Table 3: Mean and Standard Deviation on the Influence of IPPIS on Transparency and Accountability in Financial Administration in Federal Universities in Southwest Nigeria (N = 600)

Items	Mean	SD	Remark
IPPIS has improved transparency in payroll and financial transactions in my university.	3.47	0.68	Agree
IPPIS has enhanced accountability in the management of personnel and financial records.	3.42	0.71	Agree
IPPIS has reduced opportunities for payroll fraud and financial malpractice.	3.38	0.76	Agree
IPPIS has strengthened compliance with government financial regulations and policies.	3.44	0.70	Agree
IPPIS has improved the traceability of payroll and personnel transactions.	3.36	0.77	Agree
IPPIS has promoted openness in salary administration and financial reporting.	3.40	0.73	Agree
IPPIS has enhanced confidence in the integrity of the university's financial administration.	3.33	0.79	Agree
IPPIS has improved overall transparency and accountability in financial administration.	3.46	0.69	Agree

The results in Table 3 showed that the mean scores for the eight items ranged from 3.33 to 3.47, all exceeding the benchmark mean of 2.50, indicating agreement. The cluster mean of 3.41 with a standard deviation of 0.73 further shows that respondents perceived IPPIS as promoting transparency in payroll and financial transactions, enhancing accountability, reducing opportunities for fraud and financial

malpractice, strengthening compliance with government regulations, improving transaction traceability, and enhancing confidence in the integrity of financial administration.

Research Question 4: What is the influence of IPPIS on budgetary control in financial administration in federal universities in Southwest Nigeria?

Table 4: Mean and Standard Deviation on the Influence of IPPIS on Budgetary Control in Financial Administration in Federal Universities in Southwest Nigeria (N = 600)

Items	Mean	SD	Remark
IPPIS has improved adherence to approved personnel budget allocations in my university.	3.43	0.71	Agree
IPPIS has enhanced effective monitoring of personnel expenditure.	3.38	0.74	Agree
IPPIS has reduced budget overruns associated with personnel costs.	3.34	0.78	Agree
IPPIS has facilitated accurate forecasting of personnel-related expenditure.	3.29	0.81	Agree
IPPIS has improved budget planning and implementation for personnel emoluments.	3.41	0.72	Agree
IPPIS has strengthened financial discipline in the utilization of personnel funds.	3.46	0.68	Agree
IPPIS has enhanced compliance with government budgetary guidelines and controls.	3.40	0.73	Agree
IPPIS has improved overall budgetary control in the financial administration of my university.	3.45	0.69	Agree

The results in Table 4 revealed that the mean scores for the eight items ranged from 3.29 to 3.46, all of which were above the benchmark mean of 2.50, indicating agreement. The cluster mean of 3.40 with a standard deviation of 0.73 further indicates that respondents perceived IPPIS as improving adherence to personnel budget allocations, enhancing expenditure monitoring, reducing budget overruns, facilitating accurate personnel expenditure forecasting, strengthening financial discipline, ensuring

compliance with government budgetary guidelines, and improving overall budgetary control in federal universities.

Testing of Hypothesis

Hypothesis 1: Payroll management, personnel records management, transparency and accountability, and budgetary control have no significant joint influence on financial administration in federal universities in Southwest Nigeria.

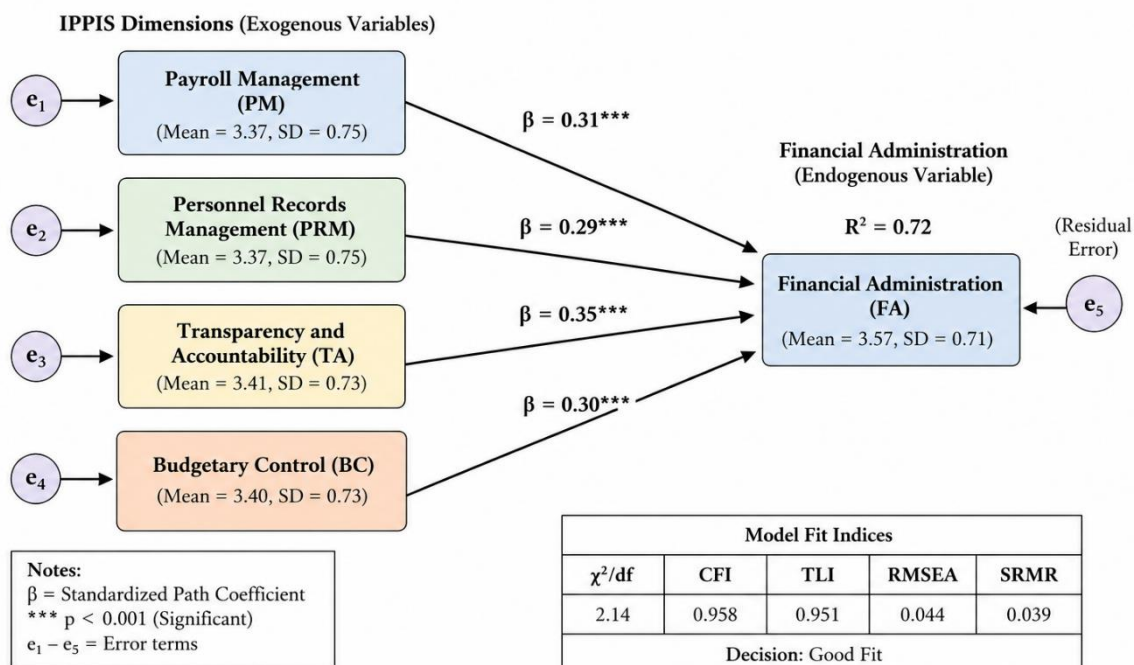
Table 5: Structural Equation Modelling (SEM) Results Showing the Joint Influence of IPPIS Dimensions on Financial Administration in Federal Universities in Southwest Nigeria (N = 600)

Path	Standardized Estimate (β)	S.E.	C.R.	p-value	Decision
Payroll Management → Financial Administration	0.312	0.047	6.638	0.000	Significant
Personnel Records Management → Financial Administration	0.286	0.044	6.500	0.000	Significant
Transparency and Accountability → Financial Administration	0.351	0.046	7.630	0.000	Significant
Budgetary Control → Financial Administration	0.297	0.045	6.600	0.000	Significant

Model Fit Indices

Fit Index	Obtained Value	Recommended Value	Decision
χ^2/df	2.14	< 3.00	Good Fit
CFI	0.958	≥ 0.90	Good Fit
TLI	0.951	≥ 0.90	Good Fit
RMSEA	0.044	≤ 0.08	Good Fit
SRMR	0.039	≤ 0.08	Good Fit

Table 5 revealed that payroll management ($\beta = 0.312$, $p < 0.05$), personnel records management ($\beta = 0.286$, $p < 0.05$), transparency and accountability ($\beta = 0.351$, $p < 0.05$), and budgetary control ($\beta = 0.297$, $p < 0.05$) each had significant positive direct influences on financial administration in federal universities in Southwest Nigeria. The model also demonstrated an acceptable fit to the data, as evidenced by the fit indices ($\chi^2/df = 2.14$, CFI = 0.958, TLI = 0.951, RMSEA = 0.044, and SRMR = 0.039). Therefore, the null hypothesis was rejected. The findings indicate that the dimensions of the Integrated Payroll and Personnel Information System (IPPIS) significantly influence financial administration in the selected federal universities.



Source: Field Survey, 2024

Figure 1 shows that payroll management, personnel records management, transparency and accountability, and budgetary control had positive and significant direct influences on financial administration in federal universities in Southwest Nigeria. Transparency and accountability had the highest influence ($\beta = 0.35$), followed by payroll management ($\beta = 0.31$), budgetary control ($\beta = 0.30$), and personnel records management ($\beta = 0.29$). The model explained 72% ($R^2 = 0.72$) of the variance in financial administration, while the model fit indices ($\chi^2/df = 2.14$, CFI = 0.958, TLI = 0.951, RMSEA = 0.044, and SRMR = 0.039) indicated that the structural model had a good fit. This implies that the effective implementation of IPPIS significantly enhances financial administration in federal universities in Southwest Nigeria.

Discussion

The findings of the study revealed that the Integrated Payroll and Personnel Information System (IPPIS) had a significant positive influence on payroll management in federal universities in Southwest Nigeria. The respondents agreed that IPPIS improved the accuracy of salary computation, minimized payroll errors, eliminated ghost workers, enhanced payroll processing, and strengthened accountability in salary administration. This finding suggests that the implementation of IPPIS has enhanced the integrity and efficiency of payroll administration in federal universities by ensuring that only duly verified employees receive salaries. The finding is consistent with Kaoje et al. (2020), who reported that IPPIS has improved transparency and efficiency in government payroll administration through the elimination of payroll fraud and enhancement of payroll accountability. Similarly, Ike et al. (2023) found that IPPIS has significantly strengthened public financial management by improving payroll administration and promoting accountability in Nigeria's public service.

The study further revealed that IPPIS had a positive influence on personnel records management in federal universities in Southwest Nigeria. The respondents agreed that the system improved the accuracy, security, accessibility, and updating of personnel records while reducing errors associated with manual record management. This finding implies that the integration of personnel information into a centralized electronic database has enhanced human resource administration and improved institutional efficiency. The finding agrees with Rotimi et al. (2021), who asserted that the adoption of digital public financial management tools enhances administrative efficiency through improved information management and institutional control. The finding also corroborates Ike et al. (2023), who observed that the successful implementation of IPPIS depends largely on the effective management of personnel data and accurate employee records.

The findings also indicated that IPPIS significantly enhanced transparency and accountability in financial administration in federal universities in Southwest Nigeria. The respondents agreed that the system improved compliance with government financial regulations, increased the traceability of payroll transactions, reduced opportunities for payroll fraud and financial leakages, and strengthened accountability in the management of public funds. This finding demonstrates that IPPIS has become an important public financial management tool for promoting transparency and accountability in federal universities. The finding is consistent with Nnamani et al. (2021), who reported that IPPIS has enhanced public accountability and transparency by strengthening payroll monitoring and reducing financial irregularities in Nigerian public institutions. Likewise, Kaoje et al. (2020) concluded that IPPIS serves as an effective mechanism for improving transparency in payroll administration and ensuring prudent management of public resources.

The study equally established that IPPIS had a positive influence on budgetary control in financial administration in federal universities in Southwest Nigeria. The respondents agreed that the system improved adherence to approved personnel budgets, enhanced monitoring of personnel expenditure, reduced budget overruns, facilitated accurate personnel cost projections, and strengthened financial discipline. This finding suggests that the integration of payroll and personnel information into a centralized system has enhanced expenditure control and improved budget implementation in federal universities. The finding supports Rotimi et al. (2021), who found that public financial management tools significantly improved financial control, budget implementation, and institutional performance in Nigeria's public sector. The finding is also in line with Sani et al. (2025), who concluded that public financial management reforms contribute significantly to improved budgetary discipline, accountability, and efficient utilization of public funds.

The Structural Equation Modelling (SEM) results further revealed that payroll management, personnel records management, transparency and accountability, and budgetary control jointly exerted a significant positive influence on financial administration in federal universities in Southwest Nigeria. The model explained 72% of the variance in financial administration, indicating that the four dimensions of IPPIS are strong predictors of effective financial administration. Transparency and accountability emerged as the strongest predictor, followed by payroll management, budgetary control, and personnel records management. This finding is consistent with Ike et al. (2023), who found that IPPIS contributes significantly to effective public financial management by promoting accountability, transparency, payroll efficiency, and prudent utilization of public resources. The finding also corroborates Rotimi et al. (2021), who concluded that the adoption of integrated public financial management tools enhances institutional financial performance

through improved accountability, expenditure control, and administrative efficiency.

Conclusion

The study established that the Integrated Payroll and Personnel Information System (IPPIS) improved financial administration in federal universities in Southwest Nigeria. Specifically, IPPIS enhanced payroll management, personnel records management, transparency and accountability, and budgetary control, thereby promoting greater efficiency, accountability, and prudent management of financial resources. The Structural Equation Modelling (SEM) results further established that these dimensions of IPPIS jointly exerted a significant positive influence on financial administration, with transparency and accountability emerging as the strongest predictor. Therefore, the study concludes that the effective implementation and continuous strengthening of IPPIS are essential for improving financial administration and promoting good governance in federal universities in Southwest Nigeria.

Recommendations

Based on the findings of the study, it is recommended that:

1. Federal universities should strengthen the implementation of the Integrated Payroll and Personnel Information System (IPPIS) to enhance payroll accuracy, eliminate payroll irregularities, and ensure timely payment of salaries.
2. University management should ensure that personnel records on the IPPIS platform are regularly updated and verified to improve the accuracy, security, and accessibility of staff information for effective personnel administration.
3. The Federal Government and university authorities should reinforce transparency and accountability mechanisms within the IPPIS framework through regular monitoring, auditing, and compliance with

established financial regulations to reduce payroll fraud and financial leakages.

4. University management should leverage the budgetary control features of IPPIS to strengthen personnel expenditure monitoring, ensure adherence to approved budgets, and promote prudent utilization of financial resources.
5. The Federal Government should provide continuous training, technical support, and periodic system upgrades for personnel responsible for IPPIS operations to enhance its effectiveness and sustain improved financial administration in federal universities.

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