

EFFECT OF ACCOUNTING SOFTWARE ON TRANSPARENCY IN THE NIGERIAN PUBLIC SECTOR

ABSTRACT

Public sector accounting software worldwide has some common objectives and peculiarities in measuring and recording receipts, expenditure, and budgetary control in the public sector. This is due to widespread cases of corruption in the public sector. To curb the issue, the International Monetary Fund through home governments encouraged the use of software as a means to encourage transparency in financial dealings of public organizations. In Nigeria, the notable accounting software in the public sector are both IPPIS and GIFMIS. This is why the current study examined the effect of accounting software on transparency in the Nigerian public sector. The study adopts a survey research design and questionnaires were issued to 250 staff of the Federal Pay-office Nigeria. 202 duly filled and returned questionnaires formed the sample size used for the study. The study used both descriptive statistics and ordinary least square regression to analyze the data gotten from respondents. It is found that, both IPPIS and GIFMIS software have a positive relationship and significant effect on transparency of organizations in the Nigerian Public sector. The study concludes that the adoption of IPPIS and GIFMIS as accounting software has positively affected the level of transparency in Nigerian public-sector organizations. This is reflected in the level of improved financial record tracking and keeping by the organizations and the accessibility of data since the introduction of IPPIS and GIFMIS as accounting software in the Nigerian public sector. As a result, the study recommends that the Federal Government of Nigeria should keep up with the current trend of IPPIS and GIFMIS implementation in the public sector. This has made stakeholders gain confidence in the financial responsibility of the government owing to the improved transparency entrenched in public financial activities. This will go a long way towards helping government institutions earn the confidence of stakeholders who intend to invest and partner with the government towards achieving the medium-term economic growth plans of the government.

Keywords: Integrated Personnel Payroll Information System (IPPIS), Government Integrated Financial Management Information System (GIFMIS) and Transparency.

INTRODUCTION

The failure of Nigerian authorities to achieve transparency and financial accountability in the public sector is typically linked to prevailing weaknesses in expenditure control, public accounting, auditing, fund management, and the administration of financial records (Shehu, 2020). To ensure a system of financial accountability, there is a need to put in place an accounting system that ensures high quality financial management in the public sector. Even though authorities have, over the years, delivered countless reforms in the public sector, the performance of the public sector has nonetheless been called into question (Onukelobi & Okoye, 2019). This is why previous authors such as Ogbonna and Ojeaburu (2015); Olurankinse and Oloruntoba (2018) have argued that the implementation of accounting software and systems in the Nigerian public sector is critical to establishing transparency. Globalization and other

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country-wide factors may additionally take reform initiatives in directions that can't be foreseen today. So, public sector reforms such as management and accounting reforms are becoming a must. Public sector accounting systems and software help governments to file facts about their financial affairs so that they can form their monetary and fiscal policies.

The accounting system and software of the public sector differ from those of non-public firms. The public sector is service-oriented and focuses more on transparency in financial reporting, while non-public firms are concerned more about earnings maximisation and the growing value of their companies (Iheduru & Amaefule, 2014). Public sector accounting software programs are concerned with recording, analysing, classifying, summarizing, communicating and decoding financial data and information of government organizations using computerized techniques (Trofimova, Prodanova, Korshunova, Savina, Ulianova, Karpova & Shilova, 2019). The Nigerian public sector is reforming its accounting system and software programs as it is necessary to impart a fair view of public finance with full cost disclosure. Since the government is bound to keep credibility and transparency at a global level, it becomes imperative for the nation to adopt the worldwide advocated public sector accounting software program to foster transparency in the public sector (Kaoje, Nabila, Idris, Gambarawa & Ubandawaki, 2020).

To achieve transparency and efficient and effective performance in the public sector, the use of accounting software and systems is important (Nwaozor, 2020). This is why Ibrahim and Dauda (2014) posited that digital technology can help improve data collection, information management, access to analytics data, and communication of such information using accounting software by the government. Governments all over the world are embracing technology to create digital systems that improve service cohesion (Khin & Ho, 2019). It's evident that in this new world, technology is not a choice but a fundamental strategy that must be interwoven into every part of an organization. Transformation can enable better collaboration within and between organizations, more personalized ways of customer engagement. Accounting software, in this regard, is a set of tools that enable the creation, representation, and transfer of financial information in an electronic format by public institutions. In Nigeria, the accounting software presently used in the public sector are the Integrated Personnel Payroll Information System (IPPIS) and the Government Integrated Financial Management System (GIFMIS) (Ibanichuka & Sawyer, 2021).

Public sector accounting software worldwide has some common objectives and peculiarities in measuring and recording receipts, expenditure, and budgetary control. This is why it has become paramount to study the effect of accounting software on transparency in the Nigerian public sector. Specifically, the study will:

1. Assess the effect of IPPIS software on the transparency of organizations in the Nigerian public sector.
2. Evaluate the effect of GIFMIS software on the transparency of organizations in the Nigerian public sector.

THEORETICAL LITERATURE

It was Schick (1998) who revived the public finance theory postulated by Adam Smith in the 1930s. Schick (1998) rephrased the public finance theory to become the public finance management theory. Public finance management theory's preposition is based on the management of financial resources. The theory assumes that every aspect of financial resources, which includes their mobilization and expenditure, is to be properly managed by a government, providing benefits for the citizens in the process. The theory specifies provisions for resource mobilization, budgetary procedures, efficient management of resources, prioritization of programs, and applying control to guide against threats. For instance, Kajoe et al. (2020) posited that both IPPIS and GIFMISS are products of financial management theory based on the precept that both systems are created primarily to avoid instances of misappropriation of public funds in the public sector.

To further buttress the relationship between accounting software and transparency in the public sector, the theory of economic performance preposition of Schumpeter (Rotimi, Olusola, Olusegun, Oluwayemisi, Rildwan, Rahmon, & Gbenga, 2021) is relied upon. Schumpeter argued the influence of technological and social changes, which he characterized as a development component in any government. Schumpeter argued that one of the important factors influencing development, which can be seen as improved financial transparency, is technological change. Anchored on the public finance management theory and the developmental precepts of Schumpeter, the current study alludes to two a priori expectations: IPPIS software has a significant effect and a positive relationship with the transparency of organizations in the Nigerian public sector, GIFMIS software has a significant effect and a positive relationship with the transparency of organizations in the Nigerian public sector.

The Concept of Accounting Software in the Public Sector

According to Peter, Kraft and Lindeque (2020), accounting transactions of public groups are predicted to be carried out using digital systems given the current technological revolution. Paul (2019) further noted that accounting software programs value and empower accounting professionals by way of making their work more efficient. Accounting software refers to computerized tools used for the formation, representation, and transmission of financial data in digital format. Computers and accounting software have modified the financial industry. Technology advancements have enhanced the accountant's capability to interpret and report data faster, more efficiently, and more effectively than ever before (Farida, Mulyani, Akbar & Setyaningsih, 2021). Using accounting software entails conducting all accounting transactions in an electronic environment under the modern digital economy. To this, Cao, Duan, and Cadden (2019) argued that the use of accounting software enhances organizations' ability to complete functional tasks more quickly and precisely and interpret and report data and information faster, more efficiently, and more effectively.

Accounting software that is successful can help public organizations obtain accurate information to make critical decisions and upgrade accounting systems to support larger scales of operations. They can remotely access financial data and information by logging into the system from anywhere and at any time to track results and data (Garcia, 2014). Public organizations can also

apply accounting software to directly and indirectly achieve success, survival, and sustainability in their operations. Accordingly, accounting software is considered a valuable tool for helping governments provide quality financial reporting, create accounting information usefulness, and support strategic decision effectiveness as well as entrench transparency (Alt, Lassen & Skilling, 2002; Adrian, 2015). Iheduru and Amaefule (2014; Kaoje et al. (2020) mentioned IPPIS and GIFMIS as the current accounting software used in the Nigerian public sector to enhance transparency of government financial activities.

IPPIS as a Public Sector Accounting Software

IPPIS is a product of the government initiated to turnaround the dwindling performance of the public and civil service. In 1999, after Nigeria's return to democratic rule, the Federal Government carried out a Public Service Reform (PSR) study, and the result was the development of the National Strategy for Public Service Reform (NSPSR) in 2003 (Ibrahim and Dauda, 2014). IPPIS was conceptualized in October 2006 by the Federal Government as one of its reform programs to improve the effectiveness and efficiency in the storage of personnel records and administration of monthly payroll in such a way to enhance confidence in staff emolument costs and budgeting (OAGF, 2011). It was also envisaged that the system would be implemented according to best practices obtainable in other parts of the world where information and communication technology (ICT) is used to improve management reporting (Nwaozor, 2020).

The IPPIS was introduced to adequately prove the effectiveness and efficiency of payroll administration in the government's ministries, departments, and agencies (MDAs). Prior to its implementation by the FG, it was outlined that the IPPIS would accurately and reliably provide the overall personnel information as required by the Office of the Accountant General of the Federation (OAGF). Ibanichuka and Sawyer (2021) mentioned that the introduction of IPPIS software has reduced or completely eliminated all forms of corrupt and sharp practices, as well as facilitated modern scientific and apt budgeting and forecasting. It's noteworthy that the IPPIS boasts of a separate department under the OAGF (Nwaozor, 2020). The IPPIS software facilitates payment of government staff salaries from a single database.

GIFMIS is a Public Sector Accounting Software

GIFMIS is used to support the government in all aspects of budget preparation, execution, and management of government financial resources (Abhishek & Divyashree, 2019). The GIFMIS system covers all spending units financed from the government budget and processes and manages all expenditure transactions (including interfaces) pertaining to these units (OAGF, 2014). All steps in the expenditure cycle, including budget appropriations, financing limits, commitments, verification, and payment transactions, are recorded by and managed through the GIFMISS software. In other words, the GIFMIS software is a modern, efficient, and user-friendly facility, providing comprehensive information on all the financial affairs of the government. GIFMIS acts as a reliable basis for multi-year budgeting, annual budgeting, commitment control, payment control, financial and cash management, and economic planning.

The need to ensure proper management of funds led to the introduction of the GIFMIS (Onatuyeh & Aniefor, 2013). The GIFMIS is an information system that enables the tracking and proper tracing of financial events and a complete summary of financial information. In its basic form, the GIFMIS is more than mere accounting software as it is configured to operate in line with the needs and specifications of the environment where it is installed (Kaoje et al. 2020). GIFMIS ensures that public financial management is computerized and that processes from budget preparation and execution to its accounting and reporting are properly recorded and accounted for ease of tracing. The GIFMIS, with the help of the financial management integrated systems in several government departments, agencies, and ministries, has been the biggest contributor to the performance of the public sector (Olurankinse & Oloruntoba, 2018). The GIFMIS ensures all records used in the affairs of the public sector are properly kept and available for reference. The software has to do with automating the management of public finances as it involves the computerisation of the entire records of the public sector and provides a framework to be followed in keeping government records. The existence of such a system means that online registers are kept for financial activities rather than manually.

Accounting Software and Transparency in the Nigerian Public Sector

Ouda and Klischewski (2019) lamented that, despite the political imperative of transparency, there has not been a universally agreed definition of the concept of transparency. Transparency as a many-sided concept is often conflicted with accountability or even corrupt practices, impartiality, and the rule of law. Despite the fact that analyses on the concept of transparency have flourished in fields as diverse as management, development, ethics, the economy, law, political science, and public administration, practitioners and scholars continue to hold incompatible views on the definitions of transparency. Scholars like Wang and Miraj (2018) chose to focus on the impact and effect of transparency, which is supposed to generate more confidence, trust, more participation, fewer corrupt practices, and more efficient and effective management. Ouda and Klischewski (2019) examined transparency from a post-modernist approach and found three metaphors: transparency as a public value embraced by society to counter corruption; transparency as synonymous with open decision making by governments and non-profits; and transparency as a complex tool of good governance in programmes, politics, organizations, and nations. In the first metaphor, transparency is entwined with accountability, while in the second, as transparency encourages openness, it raises concerns about secrecy and privacy. In the third standpoint, policymakers build transparency in conjunction with accountability, efficiency, and effectiveness.

The Nigerian public sector is filled with issues of sharp practices, such as news of ghost workers on the payrolls of Nigerian ministries and parastatals. Other sharp practices such as fraud, embezzlement, corruption, and mismanagement of funds are found everywhere in the country (Onukelobi & Okoye, 2019). Several millions of naira are lost in the Nigerian public sector through deliberate acts of financial malpractice and mismanagement. These acts in the country drain the country's meager resources through fraudulent means, which has extreme consequences for the development of the nation. Its attendant effects have hampered whatever level of socio-economic growth or political development the country intends to achieve. Through fraudulent means, billions of naira are lost in the public sector every year. Several of these figures represent the amount made public. This is to say that a substantial amount of money is

still mismanaged because huge sums are lost in undetected frauds and corruption. It's an undisputable fact that corruption is so prevalent in the Nigerian public sector and no segment of the public service is spared from this menace (Ogbonna & Ojeaburu, 2015). The cause of public sector financial mismanagement in Nigeria and the irregularity in the performance of the public sector since the oil boom years is as a result of the existence of a structurally weak control mechanism, which has created a variety of loopholes that have facilitated and sustained a range of corrupt practices. This is coupled with the absence of accountability and financial management tools such as accounting software in the conduct of public affairs (Kaoje et al., 2020).

An important way of enhancing accountability and transparency in the Nigerian public sector is to entrench accounting software (Ibanichuka & Sawyer, 2021). To do this, an effective and efficient public financial management process through accounting software is important in measuring the transparency and performance of the public sector. To ensure good governance, it is therefore necessary to control the public sector by introducing relevant financial management policies through the adoption of accounting software (Farida et al. 2021).

Empirical Review

Farida et al. (2021) studied the quality and efficiency of accounting information systems, especially in terms of supply chain efficiency and effectiveness, improving internal control structures, and improving decision-making in the public sector. Their research was conducted using a survey questionnaire distributed to 51 employees who work in the Accounting Unit of Ministries and Institutions. They adopted structural equation modeling using the Lisrel 8.80 program to analyze the data. Their study results showed that the accounting information system implementation had a significant positive effect on organizational performance through the quality of financial reporting.

Rotimi et al. (2021) examined the impacts of selected public financial management tools on performance in the Nigerian public sector were examined to ascertain their effectiveness as would-be dependable instruments for stemming the tide of financial leakages in the Nigerian public sector. A descriptive survey research design was employed using random and judgmental sampling techniques to select the sample from the study population, which consisted of government ministries, departments, and agencies as well as other economic watchers. Copies of structured questionnaires were administered to the respondents. Their study employed descriptive statistics and correlational analysis to test the hypotheses formulated so as to show the relationship between the aforementioned variables under study. The study found a strong relationship between Treasury Single Account (TSA), the Government Integrated Financial Management Information System (GIFMIS), the Integrated Personnel Payroll System (IPPIS) and financial performance in the Nigerian public sector. As indicated in the result of the analysis, the three tools were found to influence financial performance in the Nigerian public sector to a certain extent.

Shehu (2020) assessed the impact of government financial management reform on the financial management practices in Nigerian universities for the period of 2012–2016. The population of

the study was accountants, administrators, internal auditors, and IT specialists working in the Registry, Bursary, and Internal Audit Units, drawn from five (5) selected Nigerian federally-owned universities. The sample size was 80 using Yamane Taro (1967) formulae; the research used both primary (questionnaires) and secondary (textbooks and other articles) means of data collection. The collected data was analyzed and presented using tables, simple percentages, and bar charts, and the test of hypotheses was performed using the chi-square tool of analysis. The descriptive statistics revealed that the GIFMIS reform has had a positive impact on financial management practices. The empirical findings revealed that the null hypothesis was rejected while the alternate hypothesis was accepted, implying that GIFMIS has a positive impact on financial management practices.

Kaoje et al. (2020) investigated the effect of IPPIS on transparency in government payroll administration in the Nigerian civil service. A descriptive cross-sectional survey research design was used in the form of a questionnaire administered to illicit information from the respondents, which provides generalized opinions and statistics on the number of individual cases. The population of the study covers 100 Treasury Staff of the Office of Accountant General of the Federation working at the Federal Pay Office, Sokoto and the Federal Pay Office, Birnin Kebbi. A census was adopted, and as such, sampling represents the population. Data was collected and analyzed using descriptive and inferential statistics. Their study findings revealed a significant, moderately positive relationship between IPPIS, transparency, and accountability.

Ibrahim and Dauda (2014) examined globalisation and the emergence of GIFMIS in Nigeria. Both primary and secondary data were adopted, and questionnaires of 200 respondents were analysed with chi-square. Their study revealed that GIFMIS ensures accountability and financial prudence in all financial operations.

METHOD

The study adopts a survey research design. Questionnaires are issued to 250 staff of the Federal Pay-office Nigeria. 202 duly filled and returned questionnaires formed the sample size used for the study. The questionnaire collected is administered using a 5 structured Likert scale of agreement: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1). The reliability of the questionnaire is tested using a test-retest approach using the Cronbach Alpha correlation co-efficient. The study employs the use of both descriptive statistics and multiple regression models for analysis of responses and data collated from the returned questionnaire.

The Stochastic model used for the study is stated below:

Transparency = f (IPPIS + GIFMIS) Model 1

The model is specified in a linear estimation form as;

$TRANS_i = \beta_0 + \beta_1 IPPIS_i + \beta_2 GIFMIS_i + \mu_i$... **Model 2**

Dependent variable: TRANS =Transparency

Independent Variables= IPPIS and GIFMIS
 Stochastic Error Term/ Disturbance Factor= μ
 Shift Parameters= b_1, b_2 .
 Constant Parameter= β_0
i= Cross sections

Decision rules;

Regression: Do not reject the null hypothesis if the calculated significant probability value of is greater than 0.05.

Descriptive statistics: The average of 3 is considered the benchmark that forms the accepted opinion (Decision). < 3 is disagree while, ≥ 3 is agree.

ANALYSIS OF DATA

Descriptive Statistics

Table a : IPPIS

Question	SA%	A%	UD%	D%	SD%	Obs	Mean
Adoption of IPPIS exposed ghost workers than any other verification methods	12.9	45	12.9	10.9	18.3	202	3.23
With IPPIS Transparency and accountability are observed in Payroll Management	26.2	21.8	17.8	19.3	14.9	202	3.25
IPPIS make personnel management easy in the public sector	25.7	44.6	14.4	10.4	5.0	202	3.75
With IPPIS no payroll fraud within Nigeria public sector	39.1	40.6	10.9	9.4	-	202	4.09
With IPPIS government funds have been saved	28.7	45.5	17.8	6.9	1.0	202	3.94
Mean of Means							3.65

Source: Field survey 2022.

From the table of questions above, it is noted that the majority of the respondents, with a mean score of 3.23, agree that the adoption of IPPIS as an accounting software has exposed more ghost workers than any other verification method used in the public sector. Also, it is noted that the majority of the respondents, with a mean score of 3.25, agree that with IPPIS, transparency and accountability are observed in the payroll management of the public sector. Furthermore, a majority of the respondents, with a mean score of 3.75, agree that IPPIS makes personnel management easy in the public sector. Again, the majority of the respondents, with a mean score of 4.09, agree that, with IPPIS, there is no payroll fraud within the Nigerian public sector. Also, a majority of the respondents, with a mean score of 3.94, agree that, with IPPIS, government funds have been saved. Lastly, the mean score of 3.65 revealed that IPPIS is entrenched in the Nigerian public sector.

Table b. GIFMISS

Question	SA%	A%	UD%	D%	SD%	Obs	Mean
Government Integrated Financial Management Information System (GIFMIS) is implemented in your	25.7	44.1	15.3	10.9	4	202	3.76

Organization							
Your organizations design and manage GIFMIS reform through the coordination between Administrators, Accountants, Internal Auditors& IT Specialists	-	5.9	61.9	29.2	3.0	202	2.70
With GIFMIS error and omission in payment drastically reduced	23.8	62.4	10.9	3.0	-	202	4.06
GIFMIS integrates all government payments for control purpose	-	14.4	45.0	37.6	3.0	202	2.70
With GIFMIS government funds have been saved	25.7	44.6	14.4	10.4	5.0	202	3.93
Mean of means							3.43

Source: Field survey 2022.

From the questions on GIFMIS above, on average, the respondents, with a mean score of 3.76, agree that GIFMIS is implemented in their organization. On the other hand, the mean score of 2.70 shows that they disagree that their organization should design and manage GIFMIS reforms through coordination between administrators, accountants, and IT specialists. The respondent, with a mean score of 4.06, agreed that, with GIFMIS error and omission in payment, drastically reduced but with a mean score of 2.70, the respondents disagree that GIFMIS integrates all government payments for control purposes. But with a mean score of 3.93, they agree that, with GIFMIS, government funds have been saved. Lastly, the calculated mean of the means from the group response above shows that the respondents agree that GIFMIS is entrenched in the organization.

Table c. Transparency

Question	SA%	A%	UD%	D%	SD%	Obs	Mean
The existence of IT software has improved data management in public sector	11.9	38.6	23.3	14.9	11.4	202	3.24
IT software are used for accounting functions in the public sector	37.6	25.2	12.9	14.4	9.9	202	3.66
IT software has increased openness and accessibility to public sector data	25.7	43.1	17.3	11.9	2.0	202	3.78
The use of software has improved the level of data verification and harmonization	5.9	17.8	55.4	20.8	-	202	3.08
GIFMIS and IPPIS as accounting software have increased the level of transparency in the public sector.	29.7	52.0	15.3	3.0	-	202	4.08
Mean of means							3.56

Source: Field survey 2022.

From the table above, the mean response of 3.24 shows that the respondent agrees that the existence of IT software has improved data management in the public sector. Also, the mean score of 3.66 shows that the respondents agree that IT software is used for accounting functions in the public sector. Also, with a mean score of 3.78, the respondents agree that IT software has increased openness and accessibility to public sector data. Also, the mean score of 3.08 shows that the respondents agree that the use of software has improved the level of data verification and harmonization. Again, the mean score of 4.08 reveals that the respondent agrees that GIFMIS and IPPIS as accounting software have increased the level of transparency in the public sector.

Table d : Data Validity Test

In order to ensure that the results are robust, the following pre and post tests are conducted.

TEST	TEST STAT	Result	Decision
Independence of residuals	Durbin Watson	1.60 (DW)	Appropriate
Multicollinearity	Variance Inflation Factor	1.64112 (Centered)	Appropriate
Reliability	Cronbach Alpha	0.728	Appropriate

Source: E view output in appendix ii

The results for the regression model reveal a Durbin-Watson statistic of approximately 1.60. This indicates that the set of data for the model variables has residuals that cannot influence the outcome of the linear regression. As posited by Field (2009), a Durbin-Watson statistic within the range of 1 to 3 is appropriate for a linear model. This is the case with the study results. The VIF test for multicollinearity reveals a statistic of 1.64112, which indicates the absence of multicollinearity. The Cronbach Alpha test conducted to test for reliability of the questionnaire revealed a statistic of 0.728, which is above 0.50, indicating that the 15 questions used with 5 Likert can be relied upon for inferences.

Regression Model Analysis

Table e : Dependent Variable: TRANS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.653234	0.205057	8.062312	0.0000
IPPIS	0.485943	0.050245	9.671547	0.0000
GIFMIS	0.042101	0.075366	0.558614	0.5771
R-squared	0.453452	Mean dependent var		3.574257
Adjusted R-squared	0.447959	S.D. dependent var		0.504833
F-statistic	82.55161	Durbin-Watson stat		1.608859
Prob(F-statistic)	0.000000			

Source: E view output in appendix

The table above presents the regression results between accounting software (IPPIS and GIFMIS) and transparency. From the model summary table above, the following information can be distilled:

The regression result as presented in the table above to determine the relationship between accounting software and transparency shows that, given only the intercept model, there will be a variation in transparency in the public sector by 1.653234 units. This simply implies that there is a likely increase in transparency without the introduction of IPPIS and GIFMIS. With the introduction of IPPIS, there has been a further increase in transparency of 48.5%. Also, the introduction of GIFMIS has caused a further increase in transparency of only 4.2%.

Generally, the introduction of accounting software has led to a 45.3% (R-square) increase in the transparency of the public sector, while 54.7% of the change (increase is caused by other factors

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Comment [u3]: 1.This implication holds no grounds. Was there a secondary data, as basis to this claim?
 Since the title of the study is "effect," there should have been a previous data to compare with in terms of transparency.
 2.Or the study should have control group (those government agency which do not use these software) and compare to those which are using. This makes the study more sturdy in its claims.

not considered in this study). If the other factors are considered in the study model, the study result will deviate by 0.006 (0.453–0.447), or 0.6%, which is below the allowable error term of 5%.

HO₁: *IPPIS software has no significant effect on the transparency of organizations in the Nigerian public sector.*

Since the calculated probability value for IPPIS (0.0000) against TRANS response is less than the accepted probability value of 0.05, The null hypothesis is rejected and the alternative accepted; thus, IPPIS software has a significant effect on the transparency of organizations in the Nigerian public sector.

HO₂: *GIFMIS software has no significant effect on the transparency of organizations in the Nigerian public sector.*

Since the calculated probability value for GIFMIS (0.0000) against TRANS response is less than the accepted probability value of 0.05, The null hypothesis is rejected and the alternative accepted; thus, GIFMIS software has a significant effect on the transparency of organizations in the Nigerian public sector.

CONCLUSION

The study concludes that the adoption of IPPIS and GIFMIS as accounting software has positively affected the level of transparency in Nigerian public-sector organizations. This is reflected in the level of improved financial record tracking and keeping by the organizations and the accessibility of data since the introduction of IPPIS and GIFMIS as accounting software in the Nigerian public sector.

Comment [u4]: Show evidence that before the adoption of these soft wares, transparency was not good as it is now.

RECOMMENDATION

As a result, the study recommends that the Federal Government of Nigeria should keep up with the current trend of IPPIS and GIFMIS implementation in the public sector. This has made stakeholders gain confidence in the financial responsibility of the government owing to the improved transparency entrenched in public financial activities. This will go a long way towards helping government institutions earn the confidence of stakeholders who intend to invest and partner with the government towards achieving the medium-term economic growth plans of the government.

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Appendix I
List of Tables

a. GIFMIS

S/N	Question	SA	A	UD	D	SD
1	Government Integrated Financial Management Information System (GIFMIS) is implemented in your Organization					
2	Your organizations design and manage GIFMIS reform through the coordination between Administrators, Accountants, Internal Auditors& IT Specialists					
3	With GIFMIS error and omission in payment drastically reduced					
4	GIFMIS integrates all government payments for control purpose					
5	With GIFMIS government funds have been saved					

b. IPPIS

S/N	Question	SA	A	UD	D	SD
1	Adoption of IPPIS exposed ghost workers than any other verification methods					
2	With IPPIS Transparency and accountability are observed in Payroll Management					
3	IPPIS make personnel management easy in the public sector					
4	With IPPIS no payroll fraud within Nigeria public sector					
5	With IPPIS government funds have been saved					

c. Transparency

S/N	Question	SA	A	UD	D	SD
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1	The existence of IT software has improved data management in public sector					
2	IT software are used for accounting functions in the public sector					
3	IT software has increased openness and accessibility to public sector data					
4	The use of software has improved the level of data verification and harmonization					
5	GIFMIS and IPPIS as accounting software have increased the level of transparency in the public sector.					

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Reliability Statistics

Cronbach's Alpha	N of Items
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Item Statistics

	Mean	Std. Deviation	N
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Question2	2.7079	.62201	202
Question3	4.0693	.68032	202
Question4	2.7079	.74569	202
Question5	3.9307	.95425	202
Question6	3.2327	1.32722	202
Question7	3.2525	1.41443	202
Question8	3.7574	1.09978	202
Question9	4.0941	.93365	202
Question10	3.9406	.91229	202
Question11	3.2475	1.18788	202
Question12	3.6634	1.36609	202
Question13	3.7871	1.02177	202

Question14	3.0891	.78669	202
Question15	4.0842	.75168	202

Frequencies

Notes

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Frequency Table

Question1

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	8	4.0	4.0	4.0
Disagree	22	10.9	10.9	14.9
Undecided	31	15.3	15.3	30.2
Agree	89	44.1	44.1	74.3
Strongly Agree	52	25.7	25.7	100.0
Total	202	100.0	100.0	

Question2

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	6	3.0	3.0	3.0
Disagree	59	29.2	29.2	32.2
Undecided	125	61.9	61.9	94.1
Agree	12	5.9	5.9	100.0
Total	202	100.0	100.0	

Question3

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	6	3.0	3.0	3.0
Undecided	22	10.9	10.9	13.9
Agree	126	62.4	62.4	76.2
Strongly Agree	48	23.8	23.8	100.0
Total	202	100.0	100.0	

Question4

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	6	3.0	3.0	3.0
Disagree	76	37.6	37.6	40.6
Valid Undecided	91	45.0	45.0	85.6
Agree	29	14.4	14.4	100.0
Total	202	100.0	100.0	

Question5

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.0	1.0	1.0
Disagree	20	9.9	9.9	10.9
Valid Undecided	27	13.4	13.4	24.3
Agree	94	46.5	46.5	70.8
Strongly Agree	59	29.2	29.2	100.0
Total	202	100.0	100.0	

Question6

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	37	18.3	18.3	18.3
Disagree	22	10.9	10.9	29.2
Valid Undecided	26	12.9	12.9	42.1
Agree	91	45.0	45.0	87.1
Strongly Agree	26	12.9	12.9	100.0
Total	202	100.0	100.0	

Question7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	30	14.9	14.9	14.9
Disagree	39	19.3	19.3	34.2
Undecided	36	17.8	17.8	52.0
Agree	44	21.8	21.8	73.8
Strongly Agree	53	26.2	26.2	100.0
Total	202	100.0	100.0	

Question8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	10	5.0	5.0	5.0
Disagree	21	10.4	10.4	15.3
Undecided	29	14.4	14.4	29.7
Agree	90	44.6	44.6	74.3
Strongly Agree	52	25.7	25.7	100.0
Total	202	100.0	100.0	

Question9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	19	9.4	9.4	9.4
Undecided	22	10.9	10.9	20.3
Agree	82	40.6	40.6	60.9
Strongly Agree	79	39.1	39.1	100.0
Total	202	100.0	100.0	

Question10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	1.0	1.0	1.0
Disagree	14	6.9	6.9	7.9
Undecided	36	17.8	17.8	25.7
Agree	92	45.5	45.5	71.3
Strongly Agree	58	28.7	28.7	100.0
Total	202	100.0	100.0	

Question11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	23	11.4	11.4	11.4
Disagree	30	14.9	14.9	26.2
Undecided	47	23.3	23.3	49.5
Agree	78	38.6	38.6	88.1
Strongly Agree	24	11.9	11.9	100.0
Total	202	100.0	100.0	

Question12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	20	9.9	9.9	9.9
Disagree	29	14.4	14.4	24.3
Undecided	26	12.9	12.9	37.1
Agree	51	25.2	25.2	62.4
Strongly Agree	76	37.6	37.6	100.0
Total	202	100.0	100.0	

Question13

	Frequency	Percent	Valid Percent	Cumulative Percent

	Strongly Disagree	4	2.0	2.0	2.0
	Disagree	24	11.9	11.9	13.9
	Undecided	35	17.3	17.3	31.2
Valid	Agree	87	43.1	43.1	74.3
	Strongly Agree	52	25.7	25.7	100.0
	Total	202	100.0	100.0	

Question14

	Frequency	Percent	Valid Percent	Cumulative Percent
	Disagree	42	20.8	20.8
	Undecided	112	55.4	76.2
Valid	Agree	36	17.8	94.1
	Strongly Agree	12	5.9	100.0
	Total	202	100.0	100.0

Question15

	Frequency	Percent	Valid Percent	Cumulative Percent
	Disagree	6	3.0	3.0
	Undecided	31	15.3	18.3
Valid	Agree	105	52.0	70.3
	Strongly Agree	60	29.7	100.0
	Total	202	100.0	100.0

Dependent Variable: TRANS

Method: Least Squares

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Sample: 1 202

Included observations: 202

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.653234	0.205057	8.062312	0.0000
IPPIS	0.485943	0.050245	9.671547	0.0000
GIFMIS	0.042101	0.075366	0.558614	0.5771

R-squared	0.453452	Mean dependent var	3.574257
Adjusted R-squared	0.447959	S.D. dependent var	0.504833
S.E. of regression	0.375088	Akaike info criterion	0.891430

Sum squared resid	27.99756	Schwarz criterion	0.940562
Log likelihood	-87.03440	Hannan-Quinn criter.	0.911309
F-statistic	82.55161	Durbin-Watson stat	1.608859
Prob(F-statistic)	0.000000		

Variance Inflation Factors
Date: 04/26/22 Time: 11:02
Sample: 1 202
Included observations: 202

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.042048	60.37176	NA
IPPIS	0.002525	50.07438	1.641112
GIFMIS	0.005680	97.95905	1.641112

UNDER PEER REVIEW