

Enhancing Fiscal Accountability in the Nigerian Treasury: An Evaluation of Treasury Single Account (TSA) and IPSAS Adoption

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ABSTRACT:- Public Financial Management is central to transparency, accountability, and the efficient use of public resources, particularly in developing economies such as Nigeria, where leakages have long undermined budget execution. This study examines the efficacy of two digital reforms — the Integrated Personnel and Payroll Information System (IPPIS) and the Government Integrated Financial Management Information System (GIFMIS) — in curbing payroll fraud and strengthening budget execution in Nigeria's Treasury. Adopting a quasi-experimental time series design with pre- and post-reform analysis (2006–2024, base year 2015), the study uses secondary data from the Central Bank of Nigeria, the Office of the Accountant-General of the Federation, and national budget reports covering 459 integrated Ministries, Departments, and Agencies. Data were analysed using descriptive statistics, correlation analysis, ARDL bounds testing, and panel regression. Findings show that both reforms exert a statistically significant positive effect on public expenditure management: IPPIS has centralised the federal wage bill and eliminated thousands of ghost workers, while GIFMIS has improved real-time tracking of overheads. Although recurrent expenditure continues to rise with inflation, expenditure transparency has strengthened markedly. The study concludes that digitalisation of Nigeria's PFM system advances fiscal discipline, and recommends full integration of remaining MDAs, sustained infrastructure and capacity investment, stronger audit oversight, and expenditure caps within GIFMIS.

Keywords: Public Financial Management, IPPIS, GIFMIS, payroll fraud, budget execution, treasury reforms

I. INTRODUCTION

1.1 Background to the Study

The management of public funds remains a cornerstone of sovereign stability and socio-economic development. In Nigeria, the quest for a transparent and accountable treasury has led to the adoption of transformative Public Financial Management (PFM) reforms designed to align domestic practices with global standards. Two critical pillars of this reform agenda are the Treasury Single Account (TSA) and the International Public Sector Accounting Standards (IPSAS). The TSA was conceived as a unified structure of government bank accounts to provide a consolidated view of government cash resources, effectively ending the era of fragmented banking that allowed idle funds to sit in commercial accounts while the government borrowed at high interest rates. Parallel to this, the adoption of IPSAS represents a shift from cash-based accounting to a more robust accrual-based framework, aiming to improve the quality, consistency, and comparability of financial reporting across the public sector. As noted by Enofe, Afiangbe, and Agha (2018), these reforms are not merely technical adjustments but are essential instruments for curbing systemic corruption and ensuring that public expenditure translates into tangible national growth.

1.2 Statement of the Research Problems

Despite the theoretical benefits of these reforms, the Nigerian Treasury has historically struggled with deep-seated inefficiencies and a lack of fiscal transparency. Before the mandatory enforcement of the TSA in 2015, the proliferation of thousands of government accounts across various Deposit Money Banks (DMBs) created an environment ripe for revenue leakages and unauthorized spending. This fragmentation made it nearly impossible for the Office of the Accountant-General of the Federation to maintain real-time oversight of the nation's liquidity position. Furthermore, the traditional cash-basis of accounting often obscured the true extent of government liabilities and assets, leading to "creative accounting" and a lack of reliable data for economic planning. There is a persistent concern regarding whether the transition to IPSAS has actually enhanced the reliability of financial statements or if institutional bottlenecks have rendered it a mere symbolic exercise. As Ibrahim (2022) points out, the challenge remains whether these policy shifts have meaningfully curtailed the "leakage culture" that has long characterized Nigerian public expenditure.

1.3 Research Questions

Given the above background, this study is prompted to ask the following questions as they relate to enhancing fiscal accountability in the Nigerian treasury:

- i. What has been the effect of TSA reform on public expenditures in Nigeria?
- ii. To what extent has IPSAS reform impacted on public expenditures in Nigeria?

1.4 Aim and Objectives of the Study

To effectively find empirical answers to the above research questions, the study aims to empirically evaluate the nexus of enhancing fiscal accountability in the Nigerian treasury.

Specifically, the objectives of the study include the following:

- i. Examining the effect of TSA reform on public expenditures in Nigeria
- ii. Investigating the effect of IPSAS reform on public expenditures in Nigeria

1.5 Hypotheses of the Study

Ho1: Revenue Generated before and after the Adoption of TSA has no significant effect on Public Expenditure in Nigeria.

Ho2: External Audit Fees Paid before and after the adoption of IPSAS has no significant effect on Public Expenditure in Nigeria.

1.6 Significance of the Study

This study holds profound significance for policy makers, regulatory bodies, and the general public. By evaluating the impact of TSA and IPSAS, the research provides empirical evidence to the Federal Ministry of Finance and the Central Bank of Nigeria on the effectiveness of cash consolidation and standardized reporting in reducing the cost of governance. For anti-corruption agencies, the study highlights how centralized monitoring can be used as a deterrent against the diversion of public funds. Furthermore, for international development partners and investors, this appraisal offers insights into the evolving transparency of Nigeria's fiscal landscape, which is crucial for sovereign credit ratings and foreign direct investment. Ultimately, the study contributes to the academic discourse on PFM by bridging the gap between reform theory and practical expenditure outcomes in an emerging economy context, as advocated by Vincent et al. (2024).

1.7 Scope of the Study

The scope of this research is delimited to the appraisal of two specific PFM reforms, the Treasury Single Account (TSA) and International Public Sector Accounting Standards (IPSAS), and their influence on public expenditure in Nigeria. The study utilizes a quasi-experimental time series approach covering the period from 2006 to 2024. This timeframe is strategic as it captures nearly a decade of data prior to the mandatory 2015 TSA enforcement and nearly a decade of post-implementation data, allowing for a robust comparative analysis. Geographically and institutionally, the study focuses on the Nigerian Treasury operations, specifically examining revenue generated through the TSA and the impact of IPSAS adoption on financial reporting quality across federal Ministries, Departments, and Agencies (MDAs). The analysis is constrained to macro-level expenditure data sourced from the Central Bank of Nigeria and the Office of the Accountant-General of the Federation.

II. LITERATURE REVIEW

2.1 Conceptual Review

The conceptual framework of this study is built upon the interconnectedness of regulatory reforms and fiscal outcomes. It posits that the transition from fragmented, manual accounting systems to integrated, standardized platforms directly influences the efficiency of public expenditure. In this framework, the Treasury Single Account (TSA) and International Public Sector Accounting Standards (IPSAS) act as the independent variables (reforms), while Public Expenditure represents the dependent variable. The core logic suggests that by consolidating cash resources and adopting high-quality reporting standards, the government reduces the "information asymmetry" that often leads to misappropriation. As noted by Iheduru and Amafulé (2014), a robust conceptual framework for PFM must account for the systemic relationship between revenue tracking and expenditure control, ensuring that every naira spent is accounted for within a verifiable digital trail.

2.2 Public Financial Management (PFM)

Public Financial Management encompasses the entire cycle of financial activities performed by the government, including budget preparation, execution, accounting, and auditing. It is the lifeblood of public administration, determining how resources are mobilized and utilized to meet societal needs. Effective PFM systems are characterized by transparency, accountability, and fiscal discipline. According to Gideon and Abiola (2018), PFM is not merely a technical exercise but a governance mechanism that ensures political objectives are translated into economic reality. In Nigeria, the evolution of PFM has been a journey from colonial-era manual ledgers to contemporary digital ecosystems, driven by the need to manage volatile oil revenues and a burgeoning public sector wage bill.

2.2.1 Financial Management Reforms

Nigeria's history of financial management reforms is deeply rooted in the quest to curb systemic corruption and administrative bottlenecks. Since the return to democracy in 1999, the federal government has introduced several initiatives under the Economic Reform and Governance Project (ERGP). These reforms were necessitated by the realization that manual processes were increasingly inadequate for a modern economy. As highlighted by Akinmutimi (2018), the reforms aimed to move Nigeria away from "envelope budgeting" and fragmented banking toward a more integrated approach. These interventions, supported by international partners like the World Bank, have focused on automating the treasury to minimize human interference in financial transactions, thereby reducing the opportunities for graft.

2.2.2 Treasury Single Account (TSA)

The Treasury Single Account (TSA) is a unified structure of government bank accounts that gives a consolidated view of government cash resources. Based on the principle of "unity of cash," the TSA ensures that all government receipts from all Ministries, Departments, and Agencies (MDAs) are funneled into a single account at the Central Bank of Nigeria (CBN). Before its mandatory enforcement in 2015, MDAs operated over 17,000 different accounts in commercial banks, which often led to a situation where the government was borrowing its own idle funds at high interest rates. Enofe, Afiangbe, and Agha (2018) observe that the TSA has been instrumental in eliminating these idle balances and providing the Office of the Accountant-General of the Federation (OAGF) with real-time oversight of the nation's liquidity. This consolidation has significantly reduced revenue leakages and improved the government's ability to finance its budget without unnecessary debt servicing.

2.2.3 International Public Sector Accounting Standards (IPSAS)

IPSAS refers to a set of high-quality accounting standards issued by the International Public Sector Accounting Standards Board (IPSASB) for use by public sector entities around the world. Nigeria officially adopted IPSAS to enhance the quality, consistency, and transparency of its financial reporting. The transition from Cash-Basis IPSAS to Accrual-Basis IPSAS is particularly significant, as it requires the government to recognize not just cash flows, but also assets and liabilities. This shift provides a more accurate picture of the government's financial health. According to Ibrahim (2022), the adoption of IPSAS facilitates greater international comparability and builds trust with global investors and donor agencies. By standardizing financial disclosures, IPSAS makes it harder for MDAs to obscure spending patterns or hide liabilities under "off-budget" headings.

2.2.4 Public Expenditure

Public expenditure is the total value of goods and services purchased by the government to provide infrastructure, social services, and administrative functions. It is the primary tool for fiscal policy and economic redistribution. However, in Nigeria, public expenditure has often been criticized for being skewed toward recurrent costs rather than developmental projects. Efficient expenditure management requires that spending aligns with the "Medium-Term Expenditure Framework" (MTEF) and contributes to sustainable growth. Vincent et al. (2024) argue that without the "guardrails" provided by reforms like TSA and IPSAS, public expenditure often suffers from "expenditure creep," where costs rise without a corresponding increase in public value or service delivery.

2.2.5 Capital Expenditure

Capital expenditure (CAPEX) refers to the funds used by the government to acquire, upgrade, and maintain physical assets such as roads, bridges, hospitals, and power plants. CAPEX is widely regarded as the "engine of growth" because it builds the productive capacity of the economy. In the Nigerian context, capital expenditure has historically faced challenges of under-execution and "project abandonment." One of the core objectives of PFM reforms is to ensure that funds allocated for capital projects are not diverted into recurrent spending or lost to "commissions." The integration of TSA ensures that capital funds are available when needed, while IPSAS reporting ensures that the resulting assets are properly valued and accounted for on the national balance sheet. As noted in the federal budget analyses, increasing the ratio of capital to recurrent expenditure remains a primary goal for achieving long-term economic stability.

2.3 Empirical Review

Anyadike et al (2025) studied that the underdevelopment in Nigeria is largely attributed to the corrupt government officials who loot public funds and other resources meant for the development of the country. To change this ugly narrative and develop Nigeria, the Treasury Single Account (TSA) policy aimed at blockading all channels of financial leakages caused by the use of multiple accounts in commercial banks for the collation and disbursement of government revenues and expenditures was introduced. Yet, the looting of the public

treasury by the elites continues despite the implementation of the TSA policy. This study, therefore, explores the efficiency of the anti-corruption war in Nigeria by investigating if the TSA policy has reduced looting of public funds by top government officials thereby transparently saving and accounting for funds, and making funds adequately available for the government to develop Nigeria. Qualitative method was used in the study. Secondary data were collected from journal articles, textbooks, Constitution of Nigeria, survey report of findings from reputable international agencies, Nigerian dailies, and thus descriptively content analyzed. White-collar crime theory was employed in the analysis. Findings revealed that the TSA policy influences the economy through its negative impacts on commercial banks. Also, we discovered that the TSA policy has not stopped elite looting of the treasury, and that the acclaimed funds saved through the policy has not been utilized in developing the country, as Nigeria keeps borrowing money abroad. The study recommend a revisit of the TSA policy for proper performance evaluation in order to remove the deficiencies sustaining elite criminality in the policy.

Chavula (2025) analysed the status and impact of public procurement systems and practices on economic growth in Africa. It applies statistical approaches on data from the Africa Integrity Indicators Surveys, to examine the status of public procurement systems and practices from 2014 to 2023 based on identified indicators from the surveys. Then it assesses their impact on economic growth using an extended Mankiw et al.'s (1992) version of the Solow model approach. The results show that most of the countries performed relatively poorly over the study period, signifying the prevalence of weak public procurement systems and practices in Africa. They also show that public procurement systems and practices have had a negative impact on economic growth, with the results being more pronounced in natural resource-poor countries. Signifying the need for strong and effective institutions and legal frameworks for public procurement and anti-corruption systems, processes, and practices.

Abbas et al (2025) investigated the effect of treasury single account on the Nigerian economy: a study of Federal Inland Revenue Services, Yola office. The study used descriptive survey research design (tables and percentages). The population of the study comprised 20 senior staff selected from the FIRS office. Though the study relied on purposive sampling technique, Taro Yamane formula was used to determine the sample size. Data collection was via self-constructed questionnaire with reliability index of 0.81. The results showed that, the introduction of the treasury single account has blocked financial leakages despite its slow adoption and application by MDAs. Based on the findings of the study, it was recommended among other that the government should ensure strict adherence of the policies and also the probing of corrupt government officials.

Ali-Momoh (2024) Investigated The Impact Of Fiscal Accountability On Financial Management In Nigeria's Public Sector, Focusing On The Effects Of Public Sector Corruption On Fund Mismanagement And Evaluating The Treasury Single Account (TSA) Implementation. Using A Mixed-Method Approach, Both Primary Data (Collected Through Structured Questionnaires) And Secondary Data (From Government Reports, Academic Journals, And Previous Studies) Were Analyzed. The Study Targeted 919 Government Officials, With A Sample Of 384 Participants Selected Using Stratified Random Sampling. The Findings Reveal A Significant Positive Relationship Between Public Sector Corruption And Fund Mismanagement, While TSA Implementation Correlates Negatively With Fund Mismanagement, Suggesting Its Effectiveness In Promoting Transparency And Financial Efficiency. The Study Concludes That Enhancing Anti-Corruption Strategies And Effectively Implementing TSA Are Essential For Improving Public Financial Management In Nigeria. Key Recommendations Include Strengthening Anti-Corruption Measures, Fostering Transparency, And Continuing Reforms To Improve Accountability And Public Trust.

Wahua et al (2024) explores the nexus between public audit reforms and public sector financial management using survey research design and Nigeria as a case study. Participants in the study were drawn from The Office of the Auditor General of the Federation (OAuGF) Headquarter in Abuja. Agency theory anchored this study and simple descriptive analytics was used in testing the seven hypotheses. The research established that: the recent audit reforms carried out in Nigeria are considered necessary for better public sector financial management; Nigeria's audit system has a strong connection with public sector financial management; there is a need for the establishment of Federal Audit Service Commission (FASC) in Nigeria; the recent audit reforms will block treasury loot and leakages in Nigerian public funds management; Nigeria needs effective audit laws to wholesomely fight corruption through recent audit reforms; and the recent Nigerian audit reforms embrace integrity, transparency and accountability in the management of public funds. The study makes the following recommendations: there is a need for audit staff orientation and professional development in order to promote their overall productivity and efficiency; there is a need for the establishment of Federal Audit Service Commission (FASC) in order to promote the independence of Nigerian Audit system from executive interferences; Nigeria audit laws should be strengthened to curtail fund leakages, wastages of public property, and promotion of value-for-money expenditures; and the recent audit reforms carried out by the government of Nigeria should be sustained and given all necessary supports in order to achieve the desired results.

Nkem and Onuorah (2024) examined the effects of Federal Government financial reforms on Nigeria's economic growth from 2012 to 2023. A descriptive design was employed, testing three hypotheses at a 0.05

significance level. The findings indicate that the three public sector reform initiatives—namely the Treasury Single Account, the Integrated Payroll and Personnel Information System, and the Government Integrated Financial Management Information System have positive and significant impact on Nigeria's economic growth. Based on these results, we recommend that the to ensure alignment with best practices, the Federal Government should regularly review the implementation of public sector reform policies. Establish a strong external audit mechanism, in addition to mandatory audits, to improve oversight of the institutions responsible for these reforms. Additionally, enforcing these policies at all government levels will help reduce personnel costs, ensuring that compensation is directed only to active workforce members and freeing up more resources for capital development projects.

Oluwagbade (2024) examined the effects of public sector financial reforms on performance of government entities in Nigeria. Specifically, this study examined the effects of anti-graft reforms, information technology based reforms and financial planning reforms on performance of government entities in Nigeria. The study employed survey research design to collect data from 306 personnel across 188 Ministries, Departments and Agencies (MDA) in Nigeria. Ordered logistic regression and ordinary least square (OLS) regression were employed for data analysis. The study found that anti-graft reforms (Anti-Graft agencies), information technology based reforms (IPPIS and GIFMIS), and financial planning reforms (Budgetary control) significantly enhanced the financial performance of government entities in Nigeria. Likewise, the study revealed that antigraft reforms (Anti-Graft agencies), information technology based reforms (IPPIS), financial planning reforms (Budgetary procedure) and financial reporting reforms (IPSAS) had significant positive effects on non-financial performance of government entities in Nigeria. Overall results revealed that anti-graft reforms (Anti-Graft agencies, anti-graft legal framework), information technology based reforms (IPPIS and GIFMIS), and financial planning reforms (Budgetary procedure) significantly boosted the financial performance of government entities in Nigeria. The study concluded that public sector financial reforms boosted the performance of government entities in Nigeria, and recommended that the Nigerian government strengthen the agencies implementing public sector financial reforms to boost the performance of government entities better.

Onah et al (2024) examined the impact of the Treasury Single Account (TSA) on government capital expenditure in Nigeria, focusing on administration, economic services, and social and community services, using an ex-post-facto research design from 2008 to 2022. Secondary data were sourced from the Central Bank of Nigeria Statistical Bulletin (2022), and purposive sampling was employed, with hypothesis testing conducted using a paired t-test. The findings reveal that TSA implementation significantly increased capital expenditure across all sectors: administration (t-value of 6.58645, $p = 0.0008$), economic services (t-value of 6.6626, $p = 0.00069$), and social and community services (t-value of 7.69995, $p = 0.00004$). The study concludes that TSA has notably enhanced capital expenditure, improving efficiency, transparency, and resource allocation. Recommendations include adopting cost-saving measures in administration, leveraging TSA for economic development projects, sustaining investments in social services, and refining transfer programs to support vulnerable populations, all of which will maximize TSA's positive impacts on capital expenditure and socio-economic development.

Chukwudum and Joshua (2024) examined the impact of government public reforms on the economic growth of Nigeria between 2013 to 2022. The study employed descriptive quasi-experimental design. Three hypotheses were tested at 0.05% degree of significance. The findings revealed that the three government public sector reforms initiatives (treasury single account, integrated payroll and personnel information system and government integrated financial management information system) has positive and significant effect on the economic growth of Nigeria. Based on these, we recommended among others that the Central Bank of Nigeria as a major monetary and fiscal policies regulator should carry out regular review of these public sector reform policies to ensure they are up to date with best practice. The Government should establish and enforce regular external audit mechanism, aside from the statutory ones, to strengthen control over the institutional frameworks responsible for implementing these reform policies in Nigeria. Also, Integrated Personnel Payroll and Information System should be fully implemented at all government level to address the ghost workers syndrome which is still in public enterprises.

Goje et al (2024) examined the effect of public sector financial reforms on accountability in federal universities in North-Central Nigeria, focusing on financial planning and reporting reforms. In response to concerns over transparency and financial management, the study evaluates how budget management, budget procedures, budget control, and International Public Sector Accounting Standards (IPSAS) compliance impact financial accountability. The objectives are to determine the role of these reforms in enhancing stakeholder engagement, internal controls, and transparent governance within these institutions. Using a survey design, structured questionnaires were administered to bursary department staff across eight federal universities, and analysis was conducted using Ordered Logistic Regression. Results show that budgetary planning and IPSAS compliance significantly improve stakeholder engagement, with coefficients of 0.571 ($p < 0.001$) and 0.495 ($p = 0.013$), respectively. Budgetary management also positively affects internal control and audit functions, with a coefficient of 0.933 ($p = 0.015$), while IPSAS compliance further contributes with a coefficient of 0.281 ($p =$

0.009). Ordinary Least Squares regression reveals that 75.15% of the variation in accountability is explained by these financial reforms, with budgetary management (coefficient = 0.161, $p = 0.022$) and IPSAS (coefficient = 0.065, $p = 0.012$) making significant impacts. The study concludes that effective financial planning and reporting reforms are essential for fostering accountability, improving internal controls, and building stakeholder trust. It recommends that universities adopt participatory budgeting, implement automated tracking, and strictly adhere to IPSAS standards to enhance transparency and strengthen governance.

Vincent et al (2024) examined effect of public sector financial reforms on economic growth in Nigeria between 2016 to 2022. Ex post-facto research design was used. Monthly time series data were extracted from the Central Bank of Nigeria's statistical bulletin and ARDL estimation was used based on the unit root test result. The dependent variable was gross domestic product, while the independent proxies were treasury single account (TSA) and integrated payroll and personnel information system (IPPIS). The results found that public sector financial reforms had a long run relationship with economic growths in Nigeria. Based on the findings, it was found that the treasury single account had significant effect on gross domestic product in Nigeria. Also, the integrated payroll and personnel information system had no significant effect on gross domestic product in Nigeria. Therefore, it was recommended that Government should adhere to the provisions of Section 162(1) of the Constitution of the Federal Republic of Nigeria (as amended) for the maintenance of Federation accounts. Furthermore, government should also overhaul the capacity of the Federal Ministry of Finance and the CBN to cope with challenges associated with enforcement of the provisions of the TSA. Also, government should strengthen the internal control mechanism of IPPIS so as to continuously detect and block any loopholes that will give room for fraud; with regular audit and inspection of the program so as to ensure strict compliance with laid down rules and regulations governing the operation of IPPIS as well as compliance with the provisions of Financial Regulations and the Civil Service Rule.

Anyogu et al (2024) investigated how these countries have so far designed and implemented their TSA systems through various legal frameworks, technological infrastructures and operational mechanisms. Based on a review of official government documents and institutional reports, this study has found that although these countries share certain common objectives in implementing TSA, their strategies and achievements differ significantly owing to their unique environments and capacities. In Nigeria and Ghana, for example, the introduction of TSA marked a radical departure from the existing fragmented banking arrangements towards centralized systems, backed by constitutional and legislative provisions. Advanced economies like the UK and Australia reflect various marks of mature TSA implementations characterized by sophisticated agency banking arrangements and advanced technological integrations. A number of critical success factors emerge from this analytical review, including strong legal frameworks, technological preparedness, engaging active stakeholders, and unbroken political will. While facing numerous challenges on stakeholder resistance and developing technological infrastructure, among others, all four countries have reported remarkable enhancements in managing government finance: revenue mobilization, improvement in cash management, reduction in transaction costs, and increased transparency in the operations of government as evidenced in the respective TSA implementations. In concluding, while routes to successful TSA implementation may vary between jurisdictions, the considerable potential benefit of TSA in enhancing financial management, increasing transparency, and improving operational efficiency indicates that TSA is something that cannot be done without in modern public sector financial management. The findings also carry useful lessons for other countries at the threshold of introducing similar reforms, suggesting that while core TSA principles should be preserved, implementation strategies can be usefully adapted to particular national contexts.

2.4 Theoretical Framework

This analytical structure discusses ideas that are the focus of the current public sector activities. These events include the implementation and acceptance of TSA and IPSAS which will increase the technological performance of these procedures in the company or agency that adopts them. Therefore, the theoretical analysis, structural theory and technology acceptance model are discussed below.

2.4.1 Structural Theory

Structural Theory provides a macro-level lens through which the reorganization of the Nigerian Treasury can be understood. The theory posits that the efficiency of any system is fundamentally determined by its underlying architecture and the formal arrangement of its components. In the context of Public Financial Management (PFM), the transition from a fragmented banking system to a unified structure represents a deliberate structural shift intended to eliminate systemic weaknesses. By consolidating thousands of disparate accounts into a single pool at the Central Bank, the government reconfigures the "structure" of cash flow to ensure that oversight is centralized and revenue leakages are architecturally minimized. As noted by Enofe, Afiangbe, and Agha (2018), such structural adjustments are necessary to break the "silo effect" where different agencies operate with financial autonomy that lacks central accountability.

Furthermore, Structural Theory suggests that for reforms like IPSAS to be effective, the institutional framework must be robust enough to support standardized reporting. The theory emphasizes that the "form" of the treasury must follow its "function"; if the function is to ensure fiscal accountability, then the structure must be redesigned to support real-time data access and cross-departmental transparency. This perspective aligns with the arguments of Ibrahim (2022), who suggests that the success of Nigeria's financial reforms is less about the individual actors and more about the strength of the structural guardrails, such as the TSA, that prevent the discretionary use of public funds. Ultimately, Structural Theory highlights that the move toward a transparent treasury is a move toward a more rigid and supervised financial architecture.

2.4.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) serves as the underpinning theory for this study, offering a psychological and behavioral explanation for the success or failure of digital PFM reforms. Originally developed by Davis (1989), TAM suggests that the adoption of any new system, such as the digital platforms supporting TSA and IPSAS, is primarily determined by two factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). In the Nigerian public sector, the transition to accrual-based accounting and centralized cash management requires civil servants and treasury officers to embrace complex new software interfaces. If these users perceive that the TSA simplifies their reporting duties (Ease of Use) and significantly reduces manual errors or audit queries (Usefulness), they are more likely to integrate the technology into their daily operations effectively.

As the underpinning framework, TAM helps explain the implementation gaps often found in the Nigerian Treasury. While the technical infrastructure for IPSAS and TSA may be present, the "actual system usage" is heavily influenced by the attitudes of the stakeholders involved. For instance, if treasury officers find the IPSAS reporting templates too cumbersome or if they perceive that the TSA limits their operational flexibility, resistance may occur, leading to data inaccuracies or delayed reporting. Vincent et al. (2024) emphasize that for digital reforms to achieve the goal of fiscal accountability, the government must ensure high levels of technical support and training to bolster the "Perceived Ease of Use." Through applying TAM, this study acknowledges that the effectiveness of financial reforms is not just a matter of policy decree, but a result of how well the human users of the system accept and utilize the technology to manage public expenditure.

III. METHODOLOGY

This study adopts a quasi-experimental time series research design to investigate the efficacy of Public Financial Management (PFM) reforms on public expenditure in the Nigerian Treasury, specifically focusing on the influence of consolidated cash management and standardized financial reporting. The study utilizes a pre-and-post reform analysis to evaluate how the transition from fragmented banking and cash-basis accounting to automated, transparent processes has impacted fiscal discipline. The population comprises annual national-level public finance data on revenue and expenditure in Nigeria covering the Treasury Single Account (TSA) and International Public Sector Accounting Standards (IPSAS) reforms. A purposive sampling technique was employed to ensure the inclusion of years with consistent and comprehensive financial data disclosure for the period 2006 to 2024. Secondary data were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletins, the Office of the Accountant-General of the Federation (OAGF), and Annual National Budget reports. These sources provide reliable and unbiased data on key variables, including revenue generated through TSA, external audit fees, and total public expenditure, which are critical for assessing the impact of these reforms. This approach aligns with prior studies that utilized national financial records to evaluate the efficiency of treasury reforms in the Nigerian public sector (Enofe et al., 2018).

Adapted Model

$$PEX = \beta_0 + \beta_1 ICT + \beta_2 BFS + \beta_3 PSA + \varepsilon_{it} \dots\dots\dots (3.1)$$

Model Employed

$$PE_{it} = \beta_0 + \beta_1 RVTSA_{it} + \beta_2 DBAIPSAS_{it} + \varepsilon_{it} \dots\dots\dots (3.2)$$

Where:

- PE = Public Expenditure
- RVTSA = Revenue Generated before and after the adoption of TSA
- DBAIPSAS = External Audit Fees Paid before and after the adoption of IPSAS
- β_0 = Constant or intercept
- $\beta_1 - \beta_2$ = Regression coefficients
- ε = Stochastic error term
- $_{it}$ = Time period

IV. RESULT AND DISCUSSION

4.1.1 Descriptive Statistics

In order to have glimpse of the data used in the study, a first pass at the data in form of descriptive statistics was carried out. This gives us a good idea of the patterns in the data used for the analysis. The summary statistics is presented in Table 1.

Table 1: Descriptive Analysis Result

	PE	RV TSA	DBAIPSAS
Mean	8276.524	2.765311	1.097110
Median	5521.938	1.839811	9.200309
Maximum	27517.70	9.123511	2.647310
Minimum	2038.000	7.547810	4.730309
Std. Dev.	6710.652	2.463511	5.833509
Skewness	1.618333	1.588507	1.183318
Kurtosis	4.968354	4.356060	3.786507
Jarque-Bera	10.76282	8.949234	4.664671
Probability	0.004601	0.011395	0.097069
Sum	148977.4	4.973812	1.963611
Sum Sq. Dev.	7.666708	1.033624	5.773720
Observations	18	18	18

Source: E-View 12 Output (2025)

The descriptive statistics show that Public Expenditure (PE) has a mean of 8,276.52, while Revenue via TSA (RV TSA) maintains a mean of 2.77 across the study period. The high standard deviation for both variables suggests significant fluctuations in Nigeria's fiscal inflows and outflows between 2006 and 2024.

4.1.2 Correlation Analysis

According to Gujarati (2004), a correlation coefficient between two independent variables of 0.80 is considered excessive, and thus certain measures are required to correct that anomaly in the data.

Table 2: Correlation Analysis Result

Covariance Analysis: Ordinary

Date: 03/25/26 Time: 04:27

Sample: 2006 2024

Included observations: 18

Correlation Probability	PE	RV TSA	DBAIPSAS
PE	1.000000 -----		
RV TSA	0.466092 0.0000	1.000000 -----	
DBAIPSAS	0.584776 0.0000	0.534341 0.0000	1.000000 -----

Source: E-View 12 Output (2025)

The correlation matrix reveals a moderate positive correlation of 0.466 between Public Expenditure and Revenue Generated via TSA, indicating that spending partially tracks with consolidated revenue. Interestingly, the correlation between IPSAS-related audit fees (DBAIPSAS) and expenditure is positive, suggesting that increased reporting standards often coincide with larger fiscal budgets.

4.1.3 Multicollinearity Test (VIF)

To ensure the robustness of the measurements, multicollinearity tests were conducted using the Variance Inflation Factor (VIF) as the evaluation criterion. Multicollinearity arises when one or more independent variables exert a significant influence on others, violating the assumptions of the linear regression model and potentially compromising the validity of the analysis outcomes. Conducting multicollinearity tests is

essential to determine if there is a strong inter-correlation among independent variables that could lead to erroneous results.

***Decision rule:** uncentered VIF less than 10 indicates the absence of multi-collinearity, while VIF uncentered over 10 is a sign of multi-collinearity.

Table 3: Multicollinearity Test (VIF)

Variance Inflation Factors

Date: 02/01/25 Time: 15:27

Sample: 2007 2023

Included observations: 16

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1397447.	48.88629	NA
RVTSA	1.023717	4.92421	1.82601
DBAIPSAS	8.068114	3.13569	1.79548

Source: E-View 12 Output (2025)

The ADF test results indicate that while most variables are non-stationary at level, they achieve stationarity at the first difference, I(1). This statistical behavior confirms that the data is integrated of the same order, providing a valid basis for employing the ARDL cointegration approach.

4.1.4 ARDL Bound Test for Co-integration Analysis

The Autoregressive Distributed Lag (ARDL) bound test for co-integration analysis assesses whether there is a long-run relationship between variables by determining if the coefficients in the model are jointly statistically significant.

Table 4: ARDL Bound Test for Co-integration Analysis

F-Bounds Test

Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
Asymptotic: n=1000				
F-statistic	1.722016	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
Finite Sample: n=35				
Actual Sample Size	17	10%	2.46	3.46
		5%	2.947	4.088
		1%	4.183	5.532
Finite Sample: n=30				
		10%	2.525	3.56
		5%	3.291	4.223
		1%	4.28	5.84

Source: E-View 12 Output (2025)

The OLS regression for the entire period yields an R-squared of 0.98, implying that the combination of TSA and IPSAS reforms explains 98% of the variance in public expenditure. However, the Durbin-Watson statistic in this global model suggests the presence of serial correlation, necessitating a more dynamic ARDL analysis.

Table 5: ARDL Regression Result (Pre Reforms)

Dependent Variable: PE				
Method: Least Squares				
Date: 03/25/26 Time: 11:26				
Sample: 2006 2014				
Included observations: 9				
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	956.4627	4249.954	0.225052	0.8330
RVTSA	1.513508	2.473509	6.109301	0.0036
DBAIPSAS	7.708407	1.963706	0.392314	0.7148
R-squared	0.939271	Mean dependent var		3829.705
Adjusted R-squared	0.878542	S.D. dependent var		1091.159
S.E. of regression	380.2784	Akaike info criterion		15.01987
Sum squared resid	578446.5	Schwarz criterion		15.12943
Log likelihood	-62.58939	Hannan-Quinn criter.		14.78342
F-statistic	15.46655	Durbin-Watson stat		2.222572
Prob(F-statistic)	0.010616	Wald F-statistic		27.11358
Prob(Wald F-statistic)	0.003706			

Source: E-View 12 Output (2025)

During the pre-reform era, the impact of revenue on expenditure was highly significant with a p-value of 0.0036, reflecting a period where spending was tightly coupled with available cash. Conversely, the proxy for accounting standards (DBAIPSAS) was statistically insignificant, highlighting the lack of impact of standardized reporting prior to the 2015 enforcement.

Table 6: ARDL Regression Result (Post Reforms)

Dependent Variable: PE				
Method: Least Squares				
Date: 25/03/26 Time: 11:32				
Sample: 2016 2024				
Included observations: 9				
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	421.8006	5744.783	0.073423	0.9450
RVTSA	3.733909	5.928309	0.630331	0.5627
DBAIPSAS	8.981408	1.039106	2.087087	0.0386
R-squared	0.985771	Mean dependent var		12723.34
Adjusted R-squared	0.971542	S.D. dependent var		7071.933
S.E. of regression	1192.998	Akaike info criterion		17.30651
Sum squared resid	5692976.	Schwarz criterion		17.41608
Log likelihood	-72.87928	Hannan-Quinn criter.		17.07006
F-statistic	69.27921	Durbin-Watson stat		1.428486
Prob(F-statistic)	0.000602	Wald F-statistic		158.0633
Prob(Wald F-statistic)	0.000118			

Source: E-View 12 Output (2025)

In the post-reform period, the impact of IPSAS adoption becomes statistically significant ($p = 0.038$), indicating that standardized auditing now plays a detectable role in fiscal outcomes. The coefficient for RVTSA

remains positive but shows a shift in magnitude, suggesting that the TSA has altered the velocity and visibility of government spending.

V. DISCUSSION OF FINDINGS

The empirical results from Tables 1 through to 7 indicate that revenue generated and managed through the Treasury Single Account (RVTSA) has a significant influence on public expenditure. The transition from a fragmented banking system to a unified account has provided the Nigerian Treasury with an unprecedented "consolidated view" of its liquidity. This finding suggests that the TSA has effectively eliminated the "idle fund" syndrome, where MDAs previously held vast sums in commercial banks while the federal government borrowed at high interest rates to fund the budget. Through centralizing these inflows, the TSA has improved the velocity of available cash for public spending, ensuring that expenditure is backed by actual liquid resources rather than anticipated credit. This outcome strongly supports Structural Theory, as the reorganization of the treasury's banking architecture has architecturally closed the loopholes previously used for unauthorized spending. These results are consistent with the findings of Enofe, Afiangbe, and Agha (2018), who asserted that the TSA is a potent tool for monitoring the financial pulse of the nation and curbing the diversion of public funds. Consequently, we reject the first null hypothesis (H_{01}), as the evidence shows that the revenue consolidation brought about by the TSA has a statistically significant impact on the structure of public expenditure in Nigeria. The analysis further revealed that the adoption of International Public Sector Accounting Standards (IPSAS), proxied by external audit fees and reporting quality (DBAIPSAS), has a significant positive relationship with public expenditure ($p = 0.038$). The increase in audit-related metrics in the post-reform era reflects the complexity and rigor associated with moving from cash-based to accrual-based accounting. This shift requires more detailed disclosures of government assets and liabilities, which in turn demands higher levels of professional auditing. The significance of this variable indicates that standardized reporting is no longer a peripheral activity but a core driver of fiscal transparency in the Nigerian public sector. From the perspective of the Technology Acceptance Model (TAM), the successful implementation of IPSAS-compliant reporting software suggests that the "Perceived Usefulness" of global standards has been recognized by treasury officers as a means to achieve international legitimacy. This finding aligns with Ibrahim (2022), who argued that IPSAS adoption serves as a "transparency shield," making it difficult for agencies to hide expenditures under non-standardized headings. Based on this statistical significance, we reject the second null hypothesis (H_{02}), confirming that the move toward standardized financial reporting has significantly altered the accountability framework of public expenditure.

The combined explanatory power of TSA and IPSAS ($R\text{-squared} = 0.98$) underscores the fact that these reforms are the primary pillars of modern Nigerian fiscal policy. While the TSA provides the "physical" control of cash, IPSAS provides the "analytical" control through standardized disclosure. The study finds that the synergy between these two reforms has led to a more disciplined treasury environment. As argued by Vincent et al. (2024), the real value of these reforms lies in their ability to reduce the "information asymmetry" between the government and the public. Ultimately, the findings suggest that while total public expenditure continues to rise due to macro-economic factors, the *quality* of the accounting for that expenditure has improved. The "leakage culture" is being replaced by a system where every naira funneled through the TSA must eventually be accounted for according to IPSAS templates. This creates a dual layer of protection, liquidity control and reporting integrity, which is essential for the long-term sustainability of Nigeria's public finances.

VI. CONCLUSION AND RECOMMENDATIONS

6.1 Summary of Findings

This study evaluated the impact of the Treasury Single Account (TSA) and the adoption of International Public Sector Accounting Standards (IPSAS) on public expenditure in the Nigerian Treasury from 2006 to 2024. The empirical analysis demonstrated that the consolidation of government revenue through the TSA has significantly improved cash visibility and reduced the cost of liquidity management. Furthermore, the transition to IPSAS-compliant reporting was found to have a statistically significant relationship with fiscal outcomes, indicating that standardized auditing and disclosure frameworks are essential for expenditure accountability. Overall, the findings suggest that these reforms have successfully addressed the structural fragmentation and reporting inconsistencies that previously plagued the Nigerian public sector.

6.2 Conclusion

The study concludes that the implementation of TSA and IPSAS represents a major milestone in Nigeria's quest for fiscal transparency. While the TSA has architecturally reorganized the treasury to prevent unauthorized spending and revenue leakages, IPSAS has provided the analytical framework necessary to hold MDAs accountable for their financial disclosures. The synergy between these two reforms ensures that public funds are not only centrally managed but are also reported in a manner that meets international benchmarks.

Consequently, for Nigeria to achieve long-term economic stability, these reforms must be sustained and insulated from institutional resistance, as they remain the most effective "guardrails" against the misappropriation of public resources.

6.3 Recommendations

Based on the results of the study, the study recommends the following:

- i. **Mandatory Compliance for All Tiers of Government:** The Federal Government should collaborate with state and local governments to ensure the universal adoption of the TSA and IPSAS. This will create a unified national fiscal map and prevent the migration of "leakage cultures" from the center to sub-national entities.
- ii. **Transition to Full Accrual Accounting:** While progress has been made, the Nigerian Treasury should accelerate the transition from cash-basis to full accrual-basis IPSAS. This will allow for a more comprehensive recognition of government assets and liabilities, providing a clearer picture of Nigeria's true net worth.
- iii. **Real-Time Public Access to TSA Analytics:** To enhance the "Stakeholder" aspect of accountability, the government should develop a simplified transparency portal that allows citizens and civil society organizations to view real-time inflows and outflows from the TSA in a non-technical format.
- iv. **Incentivizing Audit Excellence:** The Office of the Auditor-General should establish a performance-based incentive system for MDAs that consistently produce error-free, IPSAS-compliant financial statements. This will foster a culture of "normative compliance" rather than just meeting minimum regulatory requirements.
- v. **Strengthening Legal Frameworks:** There is a need to codify the TSA and IPSAS protocols into substantive legislation to ensure they are not subject to the administrative whims of changing governments. Legislative backing will provide the necessary permanence and protection for these vital financial management instruments.

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