EFFECTS OF TREASURY SINGLE ACCOUNT (TSA) CENTRALIZATION OF REVENUE AND CASH MANAGEMENT ON FINANCIAL ACCOUNTABILITY IN THE PLATEAU STATE PUBLIC SECTOR

Aaron Mwelsen Pyelshak ✉

Department of Accounting, Faculty of Management Sciences, University of Jos, Nigeria

aronipyel@yahoo.com

Ambrose A. Okwoli, PhD, FCNA, FCTI

Department of Accounting, Faculty of Management Sciences, University of Jos, Nigeria

Mary A. Ogenyi, PhD, FCA

Department of Accounting, Faculty of Management Sciences, University of Jos, Nigeria

ogenyim@unijos.edu.ng

Abstract

Promoting transparency, accountability, and a commitment to ethical standards, mitigate the negative effects of abuse of office in the public sector and create an environment that prioritizes fairness and excellence. The absence of effective financial accountability, results to unbridled corruption, gross abuse of office, high cost of doing business or project, leadership not committed to building democratic institutions, godfatherism instead of merit in appointments and employments, weak judicial system, and retardation of leadership development. Despite efforts in fighting corruption and challenges of transparency and accountability, in the public sector, independence, and effectiveness, there is still a significant problem as it undermines the protection of public rights, hampers the resolution of disputes related to public matters, and fosters an environment where legal remedies for office grievances may be inadequate or delayed. This study examined the effects of TSA Centralization of Revenue and Cash

Management on Financial Accountability in Plateau State. The study population comprises of all the 551 senior staff members in the Ministry of Finance, Ministry of Budget and planning, Office of the Accountant General, Office of the Auditor General, and Office the Auditor General of Local Governments of Plateau State. The study used Krejcie and Morgan for sample size determination. The sample size for this study is 226. This study used the primary data collection method and the instrument for data collection in this study was questionnaire using a cross-sectional data from primary sources. The result showed that TSA centralization of revenue (TCR) has a positive and significant influence on financial accountability (FA) and TSA cash management (TCM) has a positive and significant influence on financial accountability (FA). The study recommended among others that there is need for the government to promote accountability in various contexts, including government, business, and non-profit organizations. TSA aligns with established principles of transparency, rule-setting, and oversight.
Keywords: Financial Accountability, TSA Centralization of Revenue, Cash Management, PLS-SEM

INTRODUCTION

The issue of accountability in the public sector of Nigeria especially Plateau State has been on the decline over time, given to total disregard for transparency and integrity in the country (Salaudeen, Ibikunle & Chima, 2023). Promoting transparency, accountability, and a commitment to ethical standards, mitigate the negative effects of abuse of office in the public sector and create an environment that prioritizes fairness and excellence (Alabi et al., 2023). The absence of effective financial accountability, results to unbridled corruption, gross abuse of office, high cost of doing business or project, leadership not committed to building democratic institutions, godfatherism instead of merit in appointments and employments, weak judicial system, and retardation of leadership development.

According to World Bank funded State Fiscal Transparency, Accountability and Sustainability (SFTAS) Program, an analysis of the 36 states and FCT's performances in 2024 shows a nosedive in comparison with previous years. In 2022, Ekiti, Kaduna and Taraba scored 58.7%, 58.3% and 54.1% respectively. They also ranked highest in 2024, but Plateau state was found to rank among the lowest states in Nigeria. The states that performed below expectations are Taraba (12.00%), Plateau (8.72%), and the Federal Capital Territory (2.58%) occupy the lower end of the ranking, indicating serious governance, transparency and accountability issues (The State of Transparency and Integrity of Public Institutions in Nigeria -TSTIPIN, 2024).

Despite efforts in fighting corruption and challenges of transparency and accountability, in the public sector, independence, and effectiveness needed to uphold the rule of law, provide

fair and timely justice, and ensure accountability within government activities. There is still a significant problem as it undermines the protection of public rights, hampers the resolution of disputes related to public matters, and fosters an environment where legal remedies for office grievances may be inadequate or delayed. Public institutions face challenges in seeking redress for issues such as unfair treatment, discrimination, or violations of public freedom.

The Treasury Single Account (TSA) is a unified structure for consolidating government cash resources. It was established to promote accountability, facilitate efficient cash management, and minimize costs for the government. Several studies have been conducted on TSA and financial accountability. Abdulrahman, Sani, and Bello (2021) carried out a study to determine whether the introduction of a Treasury Single Account (TSA) has minimized fraud perpetration in Nigeria with particular reference to federal MDAs in Sokoto. The findings showed that the implementation of the TSA has significantly helped to reduce fraud, stop revenue leakage, and consolidate the nation's government cash reserves. Bagau (2022) investigated the effect of a treasury single account on the financial management of federal ministries in Nigeria. The finding showed that TSA has a significant effect on financial management proxies and treasury single account is expected to improve cash management, revenue leakages, accountability and transparency in the system. Most studies on TSA and financial management have been on Federal Universities in Nigeria, and Nigeria's Public Sector, however, TSA's specific effect on financial accountability within Plateau State's Ministries, Departments, and Agencies (MDAs) has not been studied. Therefore, this study investigated effect of TSA Centralization of Revenue and Cash Management on Financial Accountability in Plateau State.

Research Questions

The following research questions are used to guide the study.

1. What is the effect of TSA centralisation of revenue on financial accountability in Plateau State?
2. What is the effect of TSA cash management on financial accountability in Plateau State?

Objectives

The following specific objectives were targeted:

1. To examine the effect of TSA centralization of revenue on financial accountability in Plateau State.
2. To investigate the effect of TSA cash management on financial accountability in Plateau State.

Research Hypotheses

1. TSA centralization of revenue has no significant effect on financial accountability in Plateau State.

2. TSA cash management has no significant effect on financial accountability in Plateau State.

LITERATURE REVIEW

Conceptual Review

The Treasury Single Account (TSA) refers to a unified system where government agencies and departments maintain a single account for all their financial transactions, consolidating their funds into a central treasury maintained by the Central Bank of Nigeria (CBN). This allows for better cash flow management, reduces the fragmentation of government funds, and enhances financial oversight (Uchenu, 2022). According to Obara, Ordu and Obara, (2022) a Treasury Single Account (TSA) is a centralized government bank account that consolidates and manages all government funds, including revenue collections, payments, and cash balances. It aims to improve transparency, cash management, and accountability in the financial operations of the government.

Allison and Ndukwe (2021) defined a Treasury Single Account (TSA) as "a financial policy that requires government entities to transfer their funds from commercial banks to a single account held by the central treasury in the central bank to ensure that all government revenue and expenditure are captured in a single consolidated account facilitating better monitoring, control, and tracking of public funds". The Treasury Single Account (TSA) is therefore a mechanism that centralizes government cash resources and transactions, eliminating multiple accounts held by government agencies. It improves the efficiency of cash management by providing a real-time view of the government's cash position, reducing borrowing costs, and minimizing idle cash balances (Nwokike, Achufusi, Chidolue & Okonkwo, 2022).

Treasury Single Account (TSA) is also a cash management system that enables the government to have a unified view of its cash resources and transactions. By consolidating government funds into a single account, it enhances financial control, minimizes the risk of misappropriation, and promotes accountability in the management of public funds (Okeke, 2023). The Treasury Single Account (TSA) is a financial policy and banking arrangement adopted by governments to consolidate and manage all government funds in a single account or a limited number of accounts held by the central treasury or a designated financial institution.

Centralization of Government Revenue: To consolidate all government revenue into a single account, typically held at the Central Bank of Nigeria (CBN). Centralization helps streamline revenue collection processes, reduces fragmentation, and provides a unified view of the government's financial position, making it easier to manage and allocate resources (Mbah, Ugwuanyi & Chukwuebuka, 2023).

Efficient Cash Management: To optimize the management of government cash resources by consolidating and efficiently deploying funds. Efficient cash management ensures that government funds are utilized effectively, reduces idle balances, and minimizes the cost associated with holding excess cash or resorting to borrowing (Eshemogie & Obiweluozor, 2023).

Technical Challenges: Implementing a TSA often involves complex technical processes, including the integration of various financial systems. Technical challenges such as inadequate infrastructure, incompatible systems, and data migration issues can impede a smooth transition (Okeke, 2023).

Transition Costs: The initial costs associated with implementing a TSA, including the development of new infrastructure, staff training, and technology upgrades, can be substantial. Governments may face challenges in securing the necessary funding for these upfront costs (Glorious & Abdulwaheed, 2023).

Political and Stakeholder Resistance: Political considerations and resistance from various stakeholders, including powerful interest groups, can hinder the successful implementation of a TSA. Political will and support are crucial for overcoming these challenges (Okeke, Ezeala, Okoye & Egbunike, 2023).

Legal and Regulatory Framework: In some cases, the existing legal and regulatory framework may need to be adjusted to accommodate the changes introduced by a TSA. Delays or difficulties in amending these frameworks can pose challenges to implementation (Okeke, Ezeala, Okoye & Egbunike, 2023).

Technology Risks and Cybersecurity: Increased reliance on technology for financial transactions introduces risks such as cybersecurity threats and system vulnerabilities. Governments must invest in robust cybersecurity measures to protect sensitive financial data (Okeke, Ezeala, Okoye & Egbunike, 2023).

Financial Accountability

Accountability entails the practice of being open, transparent, and accessible in the actions and operations of individuals or organizations. According to Kearns (2022), accountability refers to the obligation of individuals or organizations to provide explanations or

justifications for their actions, decisions, and the outcomes they produce. It involves being responsible and answerable for one's conduct and the consequences that arise from it. In the public sector, accountability has been linked to the powers of the state to make public officeholders render their stewardship (Okwoli, 2008). It involves providing clear and comprehensive information about processes, decisions, and the use of resources to enable scrutiny and evaluation by relevant stakeholders (Schmidt & Wood, 2019). This view is shared by Bracci (2023) that accountability involves taking ownership and accepting the consequences of one's actions, decisions, or duties. It means acknowledging and fulfilling the obligations and roles entrusted to an individual or organization, ensuring that tasks are carried out effectively and ethically. Accountability encompasses being trustworthy and reliable in fulfilling commitments and obligations. It involves demonstrating integrity, honesty, and ethical behaviour in all actions and interactions, thereby building trust with stakeholders and fostering confidence in the accountability process (Karsono, 2023).

Accountability refers to the principle that individuals or organizations should be held accountable for the outcomes and impacts of their actions (Okwoli, 2004). It involves evaluating performance, measuring results, and holding responsible parties liable for the consequences, both positive and negative, that arise from their decisions or activities (Urquía-Grande Estébanez & Alcaraz-Quiles, 2022). Financial accountability is conceptualized as the perception of public officeholders of their obligation to be held responsible for their decisions and actions when utilizing public funds (Diansari, Musah & Binti-Othman, 2023). According to Maimako (2005), the financial accountability cycle provides that the Executive arm of the government collects, disburses, and prepares the accounts of government. It is on this premise that Abubakar and Jugu (2023) assert that financial accountability is geared towards ensuring that there is control over fraudulent practices, defalcation, and embezzlement.

Financial Accountability means being responsible and accountable for any financial resources one is entrusted with. We consider this opinion appropriate for this study because it provides a pragmatic approach to measure the construct of accountability. Particularly, as it emphasizes the utilisation of public funds that can easily be measured. Accountability in this study is limited to financial accountability.

Theoretical Review

Accountability Theory

The accountability theory was originally developed by Tetlock and Lerner in 1999, and has been effectively applied in organizational research. Accountability theory is a study that explores the principles, mechanisms, and processes through which individuals, organizations,

and institutions are held responsible for their actions, decisions, and performance. It encompasses a range of perspectives and approaches within disciplines such as political science, public administration, management, and sociology. The theory seeks to promote accountability in various contexts, including government, business, and non-profit organizations. Scholars from various disciplines have contributed to the development of accountability theory.

Vance, Lowry, and Eggett (2013), explain that a useful way to understand accountability is to distinguish between its two most prevalent uses: (1) as a virtue and (2) as a mechanism. As a virtue, accountability is seen as a quality in which a person displays a willingness to accept responsibility, a desirable trait in public officials, government agencies, or firms; hence, in this use, accountability is a positive feature of an entity. As a mechanism, accountability is seen as a process in which a person has a potential obligation to explain his or her actions to another party who has the right to pass judgment on the actions as well as to subject the person to potential consequences for his or her actions. Accountability theory focuses on the process of accountability (Eargle, Vance & Lowry, 2013). Accountability theory proposes several mechanisms that increase accountability perceptions, including the presence of another person, identifiability, and expectation of evaluation (Radin, 2006). Recent research has shown that Information Technology (IT) design artifacts of systems can manipulate the four core components of accountability theory and thus improve employees' felt accountability toward organizational system security without disruptive interventions or training: (1) identifiability, (2) expectation of evaluation, (3) awareness of monitoring, and (4) social presence (Vance, Lowry & Eggett, 2015).

Critics of accountability theory, such as Erdogan, Sparrowe, Liden, and Dunegan (2004), argued that it oversimplifies complex organizational dynamics by placing undue emphasis on measurable outcomes and numerical indicators as the primary means of evaluating performance. They contend that this approach neglects the qualitative aspects of decision-making and fails to consider the intricate interplay of contextual factors that influence outcomes. Moreover, accountability theory is criticized for fostering a narrow focus on short-term goals and discouraging long-term strategic thinking, as organizations may prioritize easily quantifiable results at the expense of broader, more nuanced objectives (Gomez-Mejia, Berrone & Franco-Santos, 2014).

Detractors also highlight concerns about the potential for accountability measures to incentivize unethical behaviour or the manipulation of performance metrics, as individuals and organizations may prioritize meeting numerical targets over genuine improvements in effectiveness or ethical conduct. The accountability theory is highly related to the study on the effect of the Treasury Single Account (TSA) on financial accountability, as it provides a

theoretical framework to understand and evaluate the mechanisms through which the implementation of TSA influences accountability dynamics. Drawing on accountability theory allows researchers to examine the obligations, responsibilities, and answerability of key actors within the state's financial management structure, exploring how TSA aligns with established principles of transparency, rule-setting, and oversight.

Additionally, the theory helps identify potential challenges and gaps in accountability that may arise during the TSA implementation, shedding light on the interplay between formal accountability mechanisms and the practical implications at the state level. By grounding the study in accountability theory, researchers can offer a comprehensive analysis that informs policymakers, practitioners, and stakeholders in Plateau State about the effectiveness and areas of improvement in achieving financial accountability objectives through TSA implementation.

Empirical Review

Sambo (2023) "Role of Treasury Single Account in Enhancing Transparency, Good Governance and Curbing Corrupt Practices in the Nigerian Public Service". The aim of the study was to investigate the role played by TSA in the promotion of transparency, good governance, and preventing corrupt practices. The study used documented sources for assembling data involving the existing body of literature after thoroughly identifying the clear gap for contribution to knowledge. The sources obtained were discussed using empiricism where statistical data were analysed on the impact of TSA on preventing leakages and corrupt practices. The study discovered that the introduction of TSA in the Nigerian public service was a good reform and a success in minimizing dubious transactions, corrupt practices, and the operation of suspicious redundant accounts by Ministries, Departments, and Agencies (MDAs) of Government. The difference between this study and the current study is in terms of their variables and location.

Edoh, Agbe, Ochai, and Idoko (2023) "The influence of the Treasury Single Account (TSA) policy on the administration of public universities in North Eastern Nigeria". The aim of the study was to investigate the influence of Treasury Single Account (TSA) policy implementation on promoting financial transparency and accountability on the administration of public universities in North Eastern Nigeria. The instrument for data collection was a structured questionnaire. The reliability of the instrument was estimated using the Cronbach Alpha statistic and an overall reliability coefficient of 0.84 was obtained. The data was analyzed using Means, Standard Deviation and Chi-Square Statistical methods. The findings of the study revealed that creating an automated monitoring system to monitor the investment income of public universities, using a customized fee teller monitoring system, and creating an automated

monitoring system to maintain privacy in endowment funds facilitates the administration of public universities. It further revealed that the Treasury Single Account policy allows the government to aggregate all its revenues into one account for easy oversight and reduces costs associated with maintaining multiple accounts in the administration of public universities. This study applied chi-square method, which is on comparison, while the current study applied regression to determine the effect of TSA on financial accountability.

Durodola, Salman, Kolawole, and Ibrahim (2023) "The impact of Treasury Single Account (TSA) on revenue generation, transparency, and accountability: evidence from the Nigerian federal road safety corps". The questionnaires were distributed to the staff of the federal road safety corps in Niger State, Nigeria. The study employed ordered logit regression to analyze the data obtained. The findings revealed that TSA improves revenue generation, and promote transparency and accountability. The study is related to this present research as it deals with Treasury Single Account on revenue generation, transparency, and accountability but differs in variable and geographical locations.

Edoh, Agbe, Ochai, and Idoko (2023) "The influence of the Treasury Single Account (TSA) policy on the administration of public universities in North Eastern Nigeria". The aim of the study was to investigate the influence of Treasury Single Account (TSA) policy implementation on promoting financial transparency and accountability on the administration of public universities in North Eastern Nigeria. The instrument for data collection was a structured questionnaire. The reliability of the instrument was estimated using the Cronbach Alpha statistic and an overall reliability coefficient of 0.84 was obtained. The data was analyzed using Means, Standard Deviation and Chi-Square Statistical methods. The findings of the study revealed that creating an automated monitoring system to monitor the investment income of public universities, using a customized fee teller monitoring system, and creating an automated monitoring system to maintain privacy in endowment funds facilitates the administration of public universities. It further revealed that the Treasury Single Account policy allows the government to aggregate all its revenues into one account for easy oversight and reduces costs associated with maintaining multiple accounts in the administration of public universities. This study applied chi-square method, which is on comparison, while the current study applied regression to determine the effect of TSA on financial accountability.

Okeke (2023) "Effect of Treasury Single Account (TSA) on the financial management of Federal Universities in South East, Nigeria". The aim of the study was to ascertain the effect of treasury single account (TSA) on the financial management of Federal Universities in South East, Nigeria. Data were collected through the questionnaire instrument. The data were analysed through a simple linear regression method. The study findings show that treasury

single account (TSA) was statistically significant and related to revenue leakage in Federal Universities in South East, Nigeria. Also, Treasury Single Account (TSA) was significant and positively affects the financial accountability of Federal Universities in South East, Nigeria. The study is related to the current study as they both deal with treasury single account as a form of government financial management tool and accountability. The difference is the location and establishments.

Amahalu, Ezenwaka, Obi, and Okudo (2022) "The relationship between Treasury Single Account and Accountability in Nigeria's Public Sector with a focus on South-East and South-South Nigeria". The study objective was to ascertain the relationship between the Treasury Single Account and Accountability in the Nigerian Public Sector, with a focus on South-East and South-South Nigeria. This study adopted a questionnaire instrument to collect data. Inferential statistics using Spearman's Correlation, Paired, and T-Test statistical methods were employed to test the hypotheses. The specific findings revealed that there is a significant positive relationship between Transactions Workflow Management and Accountability; there is a significant positive relationship between Chart of Accounts Management and Accountability; there is a significant positive relationship between Treasury Management and Accountability; there is a significant positive relationship between Transactions Monitoring and Accountability. The study is related to the current study as they both deal with treasury single account as a form of government financial management tool and accountability. They differ in method of analysis. While, this study is a comparative study, the current study is an effect study.

Bagua (2022) "Effect of a Treasury Single Account on the financial management of federal ministries in Nigeria". The specific objectives were to examine the effect of Treasury Single Account on proper cash management of federal ministries, to assess the role of treasury single account in reducing financial leakages of federal ministries, and to ascertain the impact of treasury single account in enhancing accountability and transparency in federal ministries in Nigeria. Questionnaire instrument of data collection were distributed to 26 federal ministries. The study adopted simple correlation analysis method to analyse the data. It was discovered based on the finding of the study that TSA has a significant effect on financial management proxies combined. The study concluded that a treasury single account expectedly improves cash management, revenue leakages, accountability, and transparency in the system. This study is focused on Federal Ministries, while the current study is on financial accountability in Plateau State. Another difference is the method of analysis, in which this study applied chi-square analysis while the current study adopted regression analysis.

Ibama and Ibama (2021) "Treasury Single Account (TSA) implementation enigma in Public University administration in Nigeria". The aim of the study was to examine the Treasury

Single Account (TSA) implementation enigma in Public University administration in Nigeria. In achieving this, questionnaires and personal interviews were used as methods of data collection. Data were analyzed using simple percentage and frequency distribution methods. The study revealed that the allocation of budget in Nigeria affect the educational sector despite the delay in the allocation of funds to public universities; these allocated budget by the federal government influences development in these public universities and it actualizes the daily activities of these public universities in Nigeria in the implementation of TSA may have a negative effect on the management administration of these public universities because of the non-release of budgeted funds or undue delay in the release of approved funds. The study is related to the current study as they both deal with treasury single account. However, they differ in term of geographical location.

METHODOLOGY

Research Design

This study adopted the cross-sectional and field survey to enable the collection of data for both the dependent and the independent variables at the same point in time. This design provides a snapshot of the population's status at the time of data collection (Abduh, Alawiyah, Apriansyah, Sirodj & Afgani, 2023).

Population and Sampling

The study population comprises of all the 551 senior staff members in the Ministry of Finance, Ministry of Budget and planning, Office of the Accountant General, Office of the Auditor General, and Office the Auditor General of Local Governments of Plateau State. The study used Krejcie and Morgan (1970) table for sample size determination. The sample size for this study is 226. This study employed a random sampling technique.

Method of Data Collection and Analysis

This study used the primary data collection method and the instrument for data collection in this study was questionnaire using a cross-sectional data from primary sources. The nature of the questionnaire used for this study was a four-point likert style and closed ended. The responses were assessed using four points, namely 1 Strongly Agree (SA), 2 Agree (A), 3 Disagree (D) and 4 Strongly Disagree (SD). The questionnaire is wholly new because the testable variables are completely distinct from common ones that have been tested. Tests of validity and reliability were conducted to confirm the suitability of the instrument. The data collected were analysed with SPSS version 27.0, by applying multiple linear regression.

Model Specification

The multiple regression equation specified is:

$$fa_i = \beta_0 + \beta_1 tcr_i + \beta_2 tcm_i + \varepsilon_i$$

Where;

fa = financial accountability (the dependent variable)

tcr = TSA centralisation of revenue (the independent variable)

tcm = TSA cash management (the independent variable)

B_0 = Constant or intercept

β_{1i}, and β_{2i} = Coefficients of the independent variables

ε_i = Error term

Decision Rule

The decision rule is: Reject H_{01}-H_{05} if p value < 0.05, otherwise Accept H_{01}-H_{05}

Assumptions

Normality, multicollinearity, Homoskedasticity, and No autocorrelation

RESULTS AND DISCUSSION

Response Rate

In this study, a total of Two hundred and Twenty-Six (226) copies of questionnaire were administered, only a total of Two hundred and Eighteen (218) copies were retrieved for analysis. This gives a percentage of 96.5 response rate.

Data Cleansing

The data for this study was subjected to data cleaning tests (missing values, out of range and reliability) and certified for the final analysis. There are no out-of-range values. This means that all the value range for this study is within 1-4. No value was found outside the 1-4 range. The percentage of missing value was (0.0%) since the percentage of missing values is zero percent less than twenty percent (20%) as indicated by Hair, Black, Babin, Anderson and Tatham (2006) and Scheffer (2002), the missing values are negligible. Content and construct validity tests were applied to this study to determine the validity of the research instrument. The formula of content validity ratio is:

CVR=(Ne - N/2)/(N/2),

Where; CVR = Content Validity Ratio; Ne = the number of panelists indicating "essential"

N = the total number of panelists

Average CVR for the 5 experts is 0.8+0.7+0.8+0.7+0.8+0.7+0.8=5.3/7=0.75714. The result indicated that the questionnaire has good content validity.

Construct validity is tested in two dimensions: convergent and discriminant validity. Results revealed that all the standardised factor loadings (standard regression weights) were above the minimum cut off point and the average variance extracted was greater than 0.5. Discriminant validity was assessed as recommended by Fornell and Larker (1981). The discriminant validity was assessed by the average variance extracted for each construct compared with the corresponding correlation. Hence, a confirmation of the discriminant validity for each construct used in this study.

Reliability of Variables

Table 1: Reliability Results

Code	Number	Reliability	Remark
Tcr	9	0.984	High
tcm	9	0.765	High
fa	6	0.758	High

The reliability test indicated that since the values (0.984, 0.765, and 0.758) Cronbach Alpha values are higher than the benchmark value of 0.7, it can be indicated that the instrument for data collection is reliable.

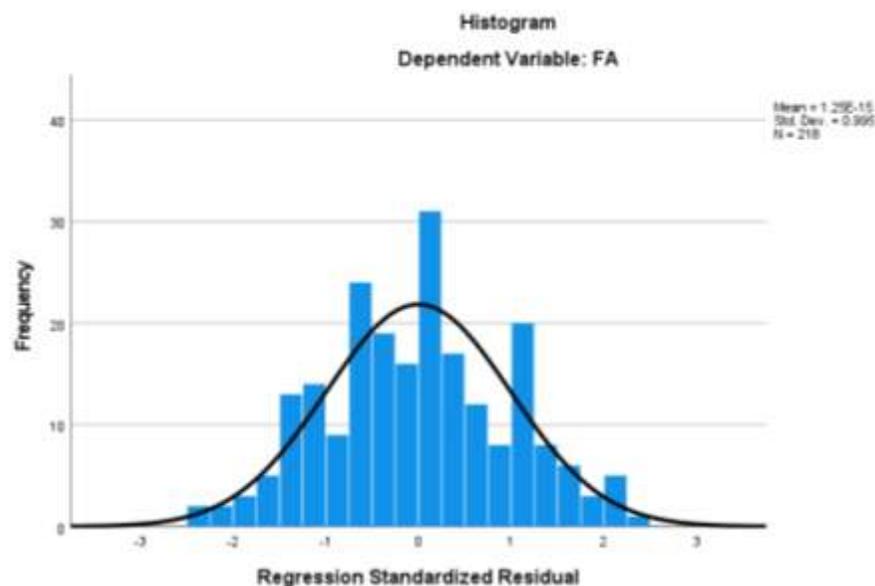**Assumptions of the Linear Regression**
Normality

Figure 1: Normality test

Normality test was conducted using the histogram. The study conducted, a normality test for all the dependent variables. Figures 1 shows the histogram for a test of normality. The histogram provides a useful graphical representation of the data. From the diagrams, the histograms show that the data follows a normal distribution given that the bell-shaped curve is symmetric.

Multicollinearity Test

Table 2: Multicollinearity Test

		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	TCR	.935	1.070
	TCM	.935	1.070

From table 3, the variance inflation factor (VIF) for the predictors is used to test if there is a strong linear association among them. The result of the multicollinearity shows that there is no multicollinearity among the independent variables, since the values of the VIF are all less than 10 which is the benchmark.
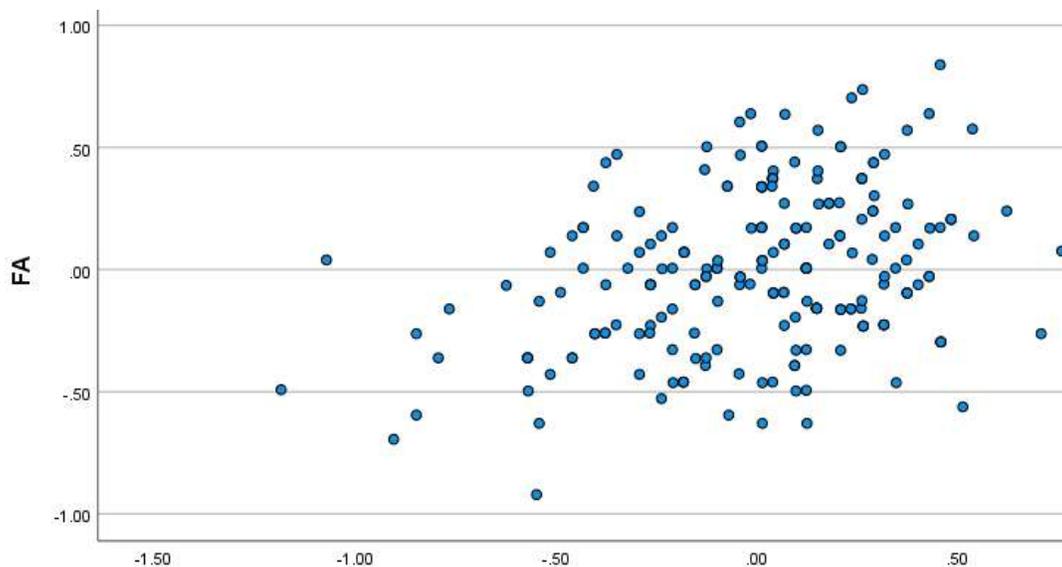
Homoskedasticity

Figure 2: Residual Scatterplot

A Homoscedasticity refers to whether the residuals estimate from the difference between the estimated dependent variable and the real dependent variable are equally distributed, or whether they tend to bunch together at some values, and at other values, spread far apart. This study tested for Homoscedasticity using the scatterplot method. These plots visually depict the relationship between the predicted values or independent variables and the residuals from the regression model. By examining these scatterplots, it can determine whether the spread of residuals remains relatively consistent across different levels of the predictors. If the spread of residuals appears uniform and does not exhibit any discernible patterns (such as a fan shape or widening/narrowing of the spread), it suggests that the assumption of homoscedasticity is met. The scattered dots of the residuals in the graph are patterned from left to right they do not appear at random. It suggested that the assumption of homoscedasticity is met.

Autocorrelation

Table 3: Durbin-Watson Result

Model	Durbin-Watson
1	1.828

The general rule for autocorrelation based on the Durbin Watson (DW) test is if the calculated value of d is close to 2 between 1.5 and 2.5. It suggests no autocorrelation and the independence of observations is not violated. This is because the DW value which is 1.828 and is approximately equal to 2.

Table 4: Regression estimates

	Coeff.	P-value
Constant	1.321	0.001**
Tcr	0.225	0.000**
tcm	0.322	0.000**
r^2	0.199	
N	218	
F*	26.647	0.000**

Dependent Variables: *fa*;   ** significant at 5%

The coefficient of determination r^2=0.199 shows a 19.9% change in financial accountability, is as a result of the changes in TSA centralization of revenue (TCR) and TSA

cash management (TCM). The F- test with a value of 26.647 and p-value of 0.000 shows that there is a strong linear dependency existing among the variables. The F-statistic shows a very good fit, statistically.

As shown in Table 4, the standardized regression result for TSA centralization of revenue (TCR) on financial accountability (FA) is 0.225. This means that TSA centralization of revenue (TCR) has a positive and significant influence on financial accountability (FA). It implies that increase in TSA centralization of revenue (TCR), will lead to increase in the level of financial accountability (FA). A 1% increase in the level of TSA centralization of revenue (TCR) will bring about a 22.5% increase in financial accountability (FA).

Also, the standardized regression result for TSA cash management (TCM) on financial accountability (FA) is 0.322. This means that TSA cash management (TCM) has a positive and significant influence on financial accountability (FA). It implies that increase in TSA cash management (TCM), will lead to increase in the level of financial accountability (FA). A 1% increase in the level of TSA cash management (TCM) will bring about a 32.2% increase in financial accountability (FA).

Test of Hypotheses

Hypothesis One

H_{o1}: TSA centralization of revenue has no significant effect on financial accountability in Plateau State

Given that the p-value 0.000 is less than the significance level of 0.05, we reject the null hypothesis, and accept the alternate hypothesis which states that TSA centralization of revenue has a significant effect on financial accountability in Plateau State.

Hypothesis Two

H_{o2}: TSA cash management has no significant effect on financial accountability in Plateau State. The p-value 0.000 is less than the significance level of 0.05, we reject the null hypothesis, and accept the alternate hypothesis which states that TSA cash management has a significant effect on financial accountability in Plateau State.

Discussion of Findings

TSA centralization of revenue and Financial Accountability

In this hypothesis, we reject the null hypothesis and accept the alternative hypothesis which states that TSA centralization of revenue has a significant effect on financial accountability in Plateau State. This means that Centralization of the TSA helps streamline

revenue collection processes, reduces fragmentation, and provides a unified view of the government's financial position, making it easier to manage and allocate resources thus, bringing about financial accountability. This finding agrees with the works of Amahalu, Ezenwaka, Obi, and Okudo (2022) who found that there is a significant positive relationship between TSA Transactions Workflow Management and Accountability.

Similarly, the finding supported with the work of Okeke (2023) who investigated that treasury single account (TSA) was statistically significant and related to revenue leakage in Federal Universities in South East, Nigeria. Also, Treasury Single Account (TSA) was significant and positively affects the financial accountability of Federal Universities in South East, Nigeria. Likewise, this result is consistent with the works of Edoh, Agbe, Ochai, and Idoko (2023) who revealed that the Treasury Single Account policy allows the government to aggregate all its revenues into one account for easy oversight.

On the contrary, the finding does not agree with the work of Ibama and Ibama (2021) that TSA have a negative effect on the management administration of these public universities because of the non-release of budgeted funds or undue delay in the release of approved funds. This finding is in agreement with the agency theory since principal-agent relationship commonly exists in various contexts, such as corporate governance, employer-employee relationships, and government institutions. In these relationships, the principal expects the agent to act in the principal's best interests and carry out assigned tasks effectively. This implies that TSA centralization of revenue will promote financial accountability in the public sector.

The result of this study supports the theory of Accountability which explores the principles, mechanisms, and processes through which individuals, organizations, and institutions are held responsible for their actions, decisions, and performance. It encompasses a range of perspectives and approaches within disciplines such as political science, public administration, management, and sociology. The theory seeks to promote accountability in various contexts, including government, business, and non-profit organizations. TSA aligns with established principles of transparency, rule-setting, and oversight. Additionally, the theory helps identify potential challenges and gaps in accountability that may arise during the TSA implementation, shedding light on the interplay between formal accountability mechanisms and the practical implications at the state level.

The implication of this result is that TSA centralization enables real-time monitoring and tracking of government revenues, enhancing transparency and accountability. By consolidating revenues into a single account, TSA minimizes the risk of revenue leakages and misappropriation and enables efficient cash management, allowing governments to optimize cash flows and reduce borrowing costs, and provides a comprehensive view of government

revenues, enabling more accurate budgeting and resource allocation. However, in a situation of negative relationship, TSA over-centralization may potentially undermining the autonomy of line ministries and agencies. TSA reliance on central authority may create bottlenecks and delays in financial decision-making, potentially hindering service delivery.

TSA cash management and Financial Accountability

In this hypothesis, we reject the null hypothesis and accept the alternative hypothesis which states that TSA cash management has significant effect on financial accountability in Plateau State. This means that the management of government cash resources by consolidating and efficiently deploying funds. Efficient cash management ensures that government funds are utilized effectively, reduces idle balances, and minimizes the cost associated with holding excess cash or resorting to borrowing.

This finding is consistent with the work of Bagua (2022) that TSA has a significant effect on financial management proxies combined. The study concluded that a treasury single account expectedly improves cash management, revenue leakages, accountability, and transparency in the system. Again, this finding agrees with the work of Amahalu, Ezenwaka, Obi, and Okudo (2022) that there is a significant positive relationship between Treasury single account Management and Accountability. Correspondingly, this finding agrees with the work of Edoh, Agbe, Ochai, and Idoko (2023) that the Treasury Single Account policy allows the government to aggregate all its revenues into one account for easy oversight.

However, the finding does not agree with the studies of Ibama and Ibama (2021) that TSA have a negative effect on the management administration of these public universities because of the non-release of budgeted funds or undue delay in the release of approved funds. This finding is in line with the accountability theory. This is because TSA cash management is a mechanism of accountability, mechanism of accountability is seen as a process in which a person has a potential obligation to explain his or her actions to another party who has the right to pass judgment on the actions as well as to subject the person to potential consequences for his or her actions.

The result of this study supports the theory of Accountability which explores the principles, mechanisms, and processes through which individuals, organizations, and institutions are held responsible for their actions, decisions, and performance. It encompasses a range of perspectives and approaches within disciplines such as political science, public administration, management, and sociology. The theory seeks to promote accountability in various contexts, including government, business, and non-profit organizations. TSA aligns with established principles of transparency, rule-setting, and oversight. Additionally, the theory helps

identify potential challenges and gaps in accountability that may arise during the TSA implementation, shedding light on the interplay between formal accountability mechanisms and the practical implications at the state level.

This implies that TSA cash management will promote financial accountability in the public sector. TSA cash management has significant implications for financial accountability. While it enhances transparency and reduces the risk of misuse, it also risks over-reliance on central authority and inefficient cash management. Establishing clear cash management policies, implementing robust internal controls, providing regular cash flow reporting, and building capacity and technical expertise are essential for enhancing financial accountability in TSA cash management.

CONCLUDING REMARKS

Conclusion

The study established that TSA centralization of revenue has a significant effect on financial accountability in Plateau State and TSA cash management has a significant effect on financial accountability in Plateau State. This implies that the management of government cash resources by consolidating and efficiently deploying funds. Efficient cash management ensures that government funds are utilized effectively, reduces idle balances, and minimizes the cost associated with holding excess cash or resorting to borrowing. TSA cash management will promote financial accountability in the public sector. TSA cash management has significant implications for financial accountability. While it enhances transparency and reduces the risk of misuse, it also risks over-reliance on central authority and inefficient cash management.

Recommendations

This study recommended that;

1. that government of Plateau state must ensure strict accountability across the public sector so that every public official must be made responsible for his or her actions. It must encompass a range of perspectives and approaches within public sector.

2. there is need for the government to promote accountability in various contexts, including government, business, and non-profit organizations. TSA aligns with established principles of transparency, rule-setting, and oversight.

Limitations of the study

This study is focused on Plateau state public sector; thus, the findings, conclusion and recommendations are not applicable to any other sector outside the state. Another limitation of

this study is seen in the sample size. The sample size may be too small to give an adequate outcome compared to a larger sample size.

REFERENCES

Abdulrahman, B., Sani, A. & Bello, S. S. (2021). Treasury Single Account in Nigeria as a tool for fraud prevention. *European Business and Management, 7*(6), 184-190.

Abduh, M., Alawiyah, T., Apriansyah, G., Sirodj, R. A., & Afgani, M. W. (2023). Survey design: Cross Sectional dalam Penelitian Kualitatif. *Jurnal Pendidikan Sains Dan Komputer, 3*(01), 31-39.

Abubakar, S., & Jugu, Y. G. (2023). Assessing financial management strategies for enhancing financial accountability and performance in local governments in Nigeria. *International Journal of Economics, Commerce and Management United Kingdom, 11* (2), 84-102.

Alabi, T., Fagboro, D. G., & Iredele, O. O. (2023). Whistleblowing practices and corruption perception index: the Nigerian experience in the context of a comparative analysis. *Nigerian Journal of Risk and Insurance, 13*(2), 49-72.

Amahalu, N. N., Ezenwaka, F. A., Obi, J. C., & Okudo, C. L. (2022). Effect of treasury single account on accountability in Nigeria public sector. *International Journal of Management Studies and Social Science Research, 4*(5), 66-76.

Bagau, K. (2022). Effect of treasury single account on financial management of federal ministries in Nigeria. *TSU-International Journal of Accounting and Finance, 1*(2), 127-141.

Diansari, R. E., Musah, A. A., & Binti Othman, J. (2023). Factors affecting village fund management accountability in Indonesia: The moderating role of prosocial behaviour. *Cogent Business & Management, 10*(2), 2219424.

Durodola, S. E., Salman, R. T., Kolawole, K. D., & Ibrahim, S. (2023). Nexus between Treasury Single Account, revenue generation, transparency and accountability: Evidence from Nigerian. *British Journal of Multidisciplinary and Advanced Studies, 4*(4), 1-13.

Eargle, D., Vance, A., & Lowry, P. B. (2013). How moral Intensity and impulsivity moderate the influence of accountability on access policy violations in information systems, Seventh Workshop on Information Security and Privacy 2013 (WISP 2013) at the 2013 International Conference on Information Systems (ICIS 2013), Milan, Italy, December 14.

Edoh, C., Agbe, I. J., Ochai, G. O., & Idoko, A. A. (2023). Influence of treasury single account (TSA) policy on the administration of public universities in North Eastern Nigeria. *International Journal of Research in Education Humanities and Commerce, 2*(4), 178-189.

Glorious, O. O., & Abdulwaheed, J. A. (2023). Effect of Treasury Single Account adoption on financial control in selected South Western States of Nigeria. *Journal of Advance Research in Mobile Computing, 5*(2), 16-26.

Gomez-Mejia, L. R., Berrone, P., & Franco-Santos, M. (2014). *Compensation and organizational performance: Theory, research, and practice*. London: Routledge.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate data analysis* (6thed.). New Jersey: Pearson Prentice Hall.

Karsono, B. (2023). Good corporate governance: Transparency, accountability, responsibility, independency dan fairness (Literature Review). *Dinasti International Journal of Management Science, 4* (5), 811-821.

Kearns, A. J. (2022). *Leadership as stewardship: What does the story of the unjust steward have to say?. In leadership and business ethics Dordrecht*: Springer Netherlands.

Mbah, A, U., Ugwuanyi, U. B., & Chukwuebuka, O. J. (2023). *Effect of Treasury Single*. Abuja: Govt. Press.

Obara, J. P., Ordu, P. A., & Obara, F. U. (2022). Treasury Single Account (TSA) and Economic development in Nigeria: Accounting & Ethical Issues. *International. Journal of Innovation Economics & Development, 7*(1), 46-67.

Okeke, N. L., Ezeala, G., Okoye, N. J., &Egbunike, C. F. (2023). Treasury Single Account (TSA) and cost of governance: Survey of MDAs in Anambra State. *Journal of Governance and Accountability Studies, 3*(1), 1-11.

Okeke, P. C. (2023). Treasury single account and financial management of Federal Universities in South East, Nigeria. *American Journal of Economics and Business Management, 4*(6), 32-52.

Okwoli, A. A. (2004). Towards probity, accountability, and transparency in revenue generation in the Nigerian public sector. *Nigerian Journal of Accounting Research, 1*(1), 1-9.

Okwoli, A. A. (2008). *Elements of public sector accounting. 2nd edition.* Jos: Willota Press Limited.

Nwokike, C., Achufusi, E. U., Chidolue, D. N., & Okonkwo, E. R. (2022). Treasury Single Account and Financial Management of Federal Tertiary Educational Institutions in Anambra State from 2012-2019. *International Journal of Academic and Applied Research (IJAAR), VI,* (8), 123-135.

Radin, B. A. (2006). *Challenging the performance movement: Accountability, complexity, and democratic values.* Georgetown: University Press.

Salaudeen, Y., Ibikunle, J., & Chima, E. (2023). Unethical accounting practices and financial reporting: Evidence from Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences 5*(2), 143-150

Scheffer, J. (2002). Dealing with missing data. *Research letters in the Information and Mathematical Sciences, 3*(1), 153-160.

The State of Transparency and Integrity of Public Institutions in Nigeria (TSTIPIN) (2024). The State of Transparency and Integrity of Public Institutions In Nigeria. www.fiscaltransparency.org

Uchenu, C. A. (2022). Treasury Single Account and Fraud in The Nigerian Public Sector; A Theoretical Overview. *Anspoly Journal of Innovative Development (AJID), 1*(1), 44-53.

Urquía-Grande, E., Estébanez, R. P., & Alcaraz-Quiles, F. J. (2022). Impact of non-profit organizations' accountability: Empirical evidence from the democratic Republic of Congo. World Development Perspectives, 28, 100462.

Vance, A., Lowry, P. B., & Eggett, D. (2013). Using accountability to reduce access policy violations in information systems. *Journal of Management Information Systems (JMIS), 29*(4), 263–289.