Impact of Treasury Single Account on Public Finance Management in Nigeria. Pre and Post Implementation Analysis

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Abstract
This study examined the impact of Treasury Single Account (TSA) on the public finance management in Nigeria. The study investigated how the implementation of TSA in Nigeria affected revenue collection, public cash management, federation account allocation and corruption control in Nigeria. The paper used secondary data collected from Central Bank of Nigeria statistical bulletin and transparency international from 2010-2014 (pre adoption period) to 2015-2019 (post-adoption period). T-test statistical technique was employed to analyze the data. The findings of the study revealed that TSA has a negative and insignificant effect on government revenue, public cash management, federal account allocation, as well as corruption control in Nigeria. The study recommends that government should strengthen the system of implementation of TSA in Nigeria and all resources of leakages to total government revenue should be investigated forensically and such loopholes filled. Moreover government should devise other means of cash management and reduce so much reliance on TSA implementation.

INTRODUCTION
Background of the Study
The Treasury Singly Account (TSA) is a public accounting system that collects all government revenues, receipts, and income into a single account collected by the central bank. As per Onyekpere (2015), TSA is a bank account or collection of linked accounts through which the government transacts all receipts and payments and gets a consolidated cash position at any opined time.

Treasury Single Account (TSA) has been utilised in several countries, including the US, UK, and developing nations like Indonesia and India. The Federal Government of Nigeria proposed TSA in 2012 under President Goodluck Jonathan. TSA payment pilot studies with several ministries, departments, and agencies (MDAs) were cancelled in 2012. In February 2015, President Buhari fully implemented TSA for all federal government MDAs to combine inflows from all government agencies into a single Central Bank of Nigeria account.

Before TSA in Nigeria, government ministries, parastatals, and agencies paid and received monies into many commercial bank accounts. Most MDAs fail to remit a percentage of their revenue to the federation account and keep the rest for office maintenance.

Some MDAs operate like autonomous empires, remitting only a portion of their revenue to the government treasury and leaving the rest in commercial banks. The government borrowed excessively to fund its budget because it was unaware of idle wealth. The economic problems caused by several accounts led to TSA's implementation. The CBN holds all government revenue, income, and inflows in a consolidated revenue account mandated by the federal government. MDAs must send CBN revenue from commercial banks. Commercial banks deposit MDA funds into the CBN's consolidated revenue account each day. Banks will no longer keep idle MDA cash, preventing financial leaks. In his study, Adeolu (2015) opined that keeping TSA will improve cash management by eliminating idle funds at numerous commercial banks and reinforcing profit collection and payment reporting.

Public finance management includes revenue generation, allocation, and expenditure management in government ministries, departments, parastatals, and agencies to ensure efficient and effective delivery of public goods and services. Yusuf (2016) believes "institutionalisation of TSA has the power of bunging financial loopholes, hence boosting accountability and transparency in the financial systems of public sector entities."

Ajala (2017) states that sound public financial management is essential to the public sector's goals because it improves public service outcomes, operational and strategic decision making, long-term sustainability of public services, public trust in the sector's performance, and efficient and effective use of public funds.

Public finances can be used to offer goods and services to support government policy goals; deliver public services through staff and/or government-owned structures; provide grants and subsidies to institutions and organisations; and pay workers and retirees (Anisiuba, 2017). TSA allowed the Nigerian government to transfer all money collected by Ministries, Departments, and Agencies from commercial banks to the Consolidated Revenue Account with the Central Bank of Nigeria, increasing its revenue base. This study examined how TSA implementation affected Nigerian public budget management.

Statement of the Problem
TSA was created as a cash management tool for the government. The acceptance and implementation of TSA will stop the public accounting scenario of fragmented accounts for government revenues, incomes, and receipts, which has led to leakage of lawful income that would have been deposited into the federation account. This study compares government financial activity before and after TSA implementation in Nigeria to see if TSA enhanced public budget management. This study assesses Treasury Single Account's impact on Nigeria's public financial management. However, this study will analyse the effects of Treasury Single Account (TSA) on government revenue collection, public cash management, federation account distribution, and corruption control.

Conceptual Review

Treasury Single Account (TSA)
TSA is a public accounting system in which all government revenue, receipts, and income are collected into a single account, usually held by the country's Central Bank, and all payments

are made through this account as well (Otemu, 2016). The Treasury Single Account (TSA) is a unified structure of government bank accounts that allows for the consolidation and effective utilisation of government cash resources. TSA is not a new concept; it has been used in various wealthy countries such as the United States of America and the United Kingdom, as well as developing countries such as Indonesia and India.

TSA and Government Revenue Collection

Revenue is defined as all monies generated by the federal, state, and local governments to pay their expenditures during a fiscal year. Government revenue is divided into two categories: oil revenue and non-oil revenue. Oil revenue includes revenue from crude oil sales, petroleum taxes, royalties, and so on, whereas non-oil revenue includes tax collections, charges, miscellaneous revenues, utility revenue, and insurance trust revenue for all funds and agencies of a government.

Treasury Single Account is a government accounting system that ensures all public revenue revenues and proceeds are collected into a single account (Ejoh, 2020). Ajala (2017) opines that all government revenue is normally paid into the consolidated revenue fund, but this fund did not capture idle funds, which allowed for corruption and forced the government to borrow money to finance its budget deficits despite the fact that a large amount of money is idle in various banks.

Public Cash Management

According to Mike (2004), government cash management is the strategy and associated processes for managing the government's short-term cash flows and cash balances cost effectively, both inside government and between government and other sectors. Public cash management entails mobilising resources and ensuring their optimal utilisation. Kabiru (2019) submits that public finance management encompasses all operations in government involved in resource generation, resource allocation, and spending management in order to achieve efficient and effective delivery of public goods and services.

Treasury single account is a public accounting system in which all government revenue, receipts, and income are collected into one single account, which is normally handled by the Central Bank of Nigeria, and all payments are made equitably. The primary aim for establishing TSA is to assure accountability of all government revenue, improve transparency, and prevent misappropriation of cash. One of the objectives of public sector cash management is to manage a public sector organization's cash balances in such a way that the availability of cash not invested in fixed assets or inventory is maximised in order to prevent public sector insolvency.

Public sector companies are considered insolvent when they fail to satisfy obligations by the due date due to a lack of cash, which is why controlling cash is critical for public officers.

Federation Account Allocation

Section 162 of the 1999 Nigerian constitution defines federation account. It receives all federal revenue and distributes it to the federal and state governments and local government councils on the National Assembly's conditions. Most emerging nations, like Nigeria, struggle with resource allocation and business cycle stabilisation. A unified government banking framework is essential for efficient management and control of government cash resources (Iroegbu,

2018). Establishing Treasury Single Account ensures government revenue accountability, transparency, and financial anomalies.

Corruption Control

Corruption is defined as the misuse of entrusted power for personal gain, which includes the providing and taking of bribes or inappropriate gifts, among other things. According to Dovng (2016), as quoted by (Olayemi, 2021), corruption is the use of an official position, resources, or facilities for personal gain, or a probable conflict of interest between public and private benefit. This includes public officials' wrongdoing and is usually addressed by a range of internal restrictions (public service rules and extant rules). Corruption is not a novel concept in public administration; it is a global problem that almost all countries encounter (Osagioduwa, 2019). To combat this heinous crime, numerous steps have been implemented by various governments and administrations at all levels in Nigeria.

TSA is one of President Muhammadu Buhari's outstanding initiatives for combating public sector corruption, accountability, financial discipline, and financial management in Nigeria (John, Amos, Alematu and Patience, 2020).

Corruption's impact on economic progress cannot be overstated. According to Olayemic (2021), the primary impact of corruption is that it causes a drop in economic development and improvement by lowering the moral motivators to invest; it also causes a divestment in such economies.

Theoretical Framework

This study was based on a number of theories of socio-economic and accounting background to form sound foundation to substantiate Treasury Single Account adoption and implementation. This includes:

Modern Money Theory (MMT)

This theory, proposed by Warren Mosler in 1970, investigates how monetary sovereign governments operate and their effects on the economy. MMT questions long-held views about how the government interacts with the economy, the nature of money, the use of taxes, and the significance of budget deficits. "The government should consolidate all government revenue into one Single Account," write Udo et al (2016). Money monetary theory advocates for the simultaneous existence of the Treasury Single Account and the Central Bank of Nigeria, so that the CBN, as the apex bank, is permitted to be in command and control over the TSA (Adeagbo et al, 2019).

Public Finance Management Theory

This theory which was propounded by Richard A. Musgrave in 1959 encompasses the management of all resources generated in a country by the government for the betterment of the citizenry. It includes generation of resources, ensuring appropriate utilization of resources, budgetary processes and guarding against financial leakages'. Public finance management theory corroborates the findings that all aspects of financial resources mobilization and expenditure should be well managed in government for the benefit of the citizenry.

This study is anchored on public finance management theory which relates to TSA. The main function of TSA is to ensure consolidation and proper management of public funds for the good of the citizenry.

Empirical Review

A good number of people have carried out research on TSA and all come out with various findings:

Ocheni (2016) focused Treasury Single Account: A Catalyst for Nigerian Public Financial Management. Management data was collected from 178 commercial bank and Central Bank of Nigeria top and lower management surveys. Descriptive statistics including mean, mean set, and standard deviations were used to analyse the data and test the hypothesis with the z-test. The findings revealed no substantial difference in respondents' mean scores on how TSA policy will effect the nation's revenue drive, transparency, and corruption combat.

Oti, Igbeng, and Obim (2016) focused the Treasury Single Account's policy impact in Nigeria and proposed fixes. Individuals and institutions were surveyed using questionnaires. Using a survey and exploratory study technique, secondary data were used, obtained, and analysed like primary data. The study revealed a variety of perspectives: bankers complained about the distortion of their liquidity management plan, while the federal government claimed a huge success because it can now comment on its aggregate cash holdings without the drudgery of reaching out to all commercial banks and MDAs with multiple accounts.

An empirical study by Udo and Esara (2016) examined the benefits of the Nigerian state government's approval and full implementation of TSA. Descriptive cross-sectional surveys were employed for the study. 200 Akwa Ibom professional accountants were surveyed. Descriptive and t-test statistics analysed questionnaire data. The discovery shows that state government TSA adoption and full implementation will be very helpful.

Adetula, Adebanjo, Owolabi, and Achugamnu (2017) focused Nigeria's Treasury Single Account Policy and Government Revenue. They used a questionnaire to collect primary data from Lagos State public sector personnel. The results showed that TSA policy has helped collect and remit all government revenue while closely monitoring government expenditure.

Ofor, Omaliko, and Okoli (2017) investigated the Treasury Single Account's impact on Nigerian Ministries, Departments, and Agencies. A questionnaire issued to 75 federal government ministries, departments, and agencies in the Anambra state metropolis provided primary data. Analysis employed the Wilcoxon Sign test. At the 5% significance level, TSA institutionalisation has improved federal government MDA performance.

Salman and Adeseye (2017) polled Ado Ekiti accounting practitioners on TSA's role in public finance management. The study used 50 primary respondents. The study used descriptive and inferential statistics. The study revealed that TSA reduces public fund embezzlement and boosts government revenue.

The Treasury Single Account's impact on Nigeria's public sector fraud control and accountability was examined by Eleng and Ude (2018). 100 selected MDA employees received questionnaires by drop and pick. TSA policing and public-sector fraud reduction were linked via linear regression.

Adeagbo and Oladeji (2019) examined how TSA might reduce leakages and improve accountability of public funds in Nigerian ministries, departments, and agencies. 120 staff members from seven MDAs and institutions completed a judgmental sampling questionnaire. Percentages, mean, and standard deviation were employed for data analysis, while regression

was used for hypothesis testing. The findings showed that TSA combats leaks and improves public money accountability.

Amaefule and Barigbon (2019) examined the Treasury Single Account (TSAimpact)'s on Nigeria's federal government. The study analysed federal government revenue, capital investment, and external reserve before and after TSA implementation. The Central Bank of Nigeria's quarterly statistical report obtained data from before and after TSA implementation. Comparison analysis was done using E-view statistics software version 7.1 and the test of difference of means. The study found that TSA negatively impacts Nigeria's revenue generation, capital investment, and foreign reserve.

Gbegi, Duenya, Moses, and Ipevenor (2019) examined the effect of TSA implementation on accountability, transparency, and public financial management in Nigeria from the perspectives of accounting professionals (AP), academics, and officers (AO). From 790 AP, AA, and AO in Benue State, 266 were selected. Data analysis employed chi-square goodness of fit. TSA implementation has improved accountability, transparency, and public money management in Nigeria, the study found.

Onyemowo, Suleiman, and Okwoli (2019) examined how the Treasury Single Account affects Nigeria's revenue generation cost. Using a survey study, they collected data from 389 personnel of the Accountant General's Office, Auditor General's Office, Central Bank of Nigeria, and Federal Ministry of Finance. Linear regression was used for data analysis. TSA significantly raises revenue-generating costs, according to the study.

Osagioduwa (2019) examined how TSA policy combats public sector corruption in Nigeria. The study sampled 264 respondents and utilised a structured questionnaire to collect primary data. Descriptive statistics analysed the data. The study found that TSA policy combats corruption in Nigeria's public sector and improves public sector company administration. The study recommends adopting TSA strategy across government.

Ivangu, Ganyam, Agbo, and Ola (2020) investigated the impact of TSA on public sector corruption in Nigeria using Transparency International data from 2012 to 2014 (pre-TSA) and 2016 to 2018. (after TSA adoption). Data were analysed using descriptive statistics and paired samples t-tests. The analysis found no substantial change in Nigeria's corruption perception index before and after TSA.

METHODOLOGY
Research Design
The study adopted *ex-post-facto r*esearch design. This is because *ex-post-facto*is based on historical data.The study made use of secondary sources of data. Time series data were collected from Central Bank of Nigeria Statistical Bulletin and transparency international on annual basis from 2010 to 2019 resulting into a total of 10 observations. The data were divided into two periods:
A.   Period before the implementation of TSA (2010 to 2014) and
B.   Period after the implementation of TSA (2015 to 2019).
Analytical Technique
With the help of Microsoft Excel version 2016, a paired sample t-test was utilized as a data analysis tool. The paired sample t-test is a statistical method for determining if the mean difference between two sets of observations is zero. Each subject or entity is measured twice

in a paired sample t-test, resulting in pairs of observations. The suitability of this strategy can be demonstrated by the fact that each data set was divided into two observations: (before TSA implementation and after TSA implementation).The model was specified as follows:

$$t = \frac{\bar{x}_{diff} - 0}{s_{\bar{x}}}$$

$$s_{\bar{x}} = \frac{s_{diff}}{\sqrt{n}} \quad \text{Where;}$$

$\bar{x}_{diff}$ = Sample mean of the differences

n = Sample size (i.e., number of observations)

s_{diff} = Sample standard deviation of the differences

$s_{\bar{x}}$ = Estimated standard error of the mean (s/sqrt(n))

To analyse the respective differences, the mathematical representation of the null and alternative hypotheses is defined as follows;

$H_0: \mu_d = 0$
$H_1: \mu_d \neq 0$ (two-tailed)
$H_1: \mu_d > 0$ (upper-tailed)
$H_1: \mu_d < 0$ (lower-tailed)

The assumptions are as follows:

1. The null hypotheses (H_0) assumes that the true mean difference (μ_d) is equal to zero.
2. The two-tailed alternative hypotheses (H_1) assume that (μ_d) is not equal to zero.
3. The upper-tailed alternative hypotheses (H_1) assume that (μ_d) is greater than zero.
4. The lower-tailed alternative hypotheses (H_1) assume that (μ_d) is less than zero.

DATA ANALYSIS AND DISCUSSION

Data Analysis

Table 4.1.1: Descriptive Statistics for the Focal Variables

	TGR	LIQ	FAA	CPI
Mean	8869.191	18371.33	6945.644	26.14900
Median	9655.795	13904.31	7544.865	26.50000
Maximum	11116.85	42747.31	8515.950	28.00000
Minimum	5616.400	8763.480	4734.360	24.00000
Std. Dev.	1878.762	10767.37	1268.517	1.293492
Skewness	-0.461509	1.236688	-0.465055	-0.390031
Kurtosis	1.774700	3.522813	1.788233	1.961819
Jarque-Bera	0.980550	2.662883	0.972285	0.702633
Probability	0.612458	0.264096	0.614994	0.703761
Sum	88691.91	183713.3	69456.44	261.4900
Sum Sq. Dev.	31767713	1.044409	14482228	15.05809
Observations	10	10	10	10

Source: Microsoft Excel Statistical Software

Table 4.1.1 above reveals the variable description of the time series data collected from the CBN Statistical Bulletin. The normality of the distribution of the data series is shown by the

coefficients of Skewness, Kurtosis coefficients, Jarque-Bera Probability. From Table 4.2.1, the probability of the Jarque-Bera Statistics for all the explanatory variables have insignificant p-values as follows, Total Government Revenue (0.612458), Liquidity (0.264096), Federal Allocation Account (0.614994), and Corruption Control (0.703761). The insignificance of the p-values depicts normal distribution for all the variables. This is further confirmed by the skewness coefficients which is less than or around figure one in all the variables under study. The kurtosis coefficient also provides a second level of confirmation that all the explanatory variables are normally distributed with a Kurtosis coefficient that is less than or around three.

Table 4.1.2: t-Test: Paired Two Sample for Total Government Revenue

t-Test: Paired Two Sample for Means

	TGRAFTER	TGRBEFORE
Mean	7957.6	9780.782
Variance	3672331.485	2192101.366
Observations	5	5
Pearson Correlation	-0.031431913	
Hypothesized Mean Difference	0	
Df	4	
t Stat	-1.658426029	
P(T<=t) one-tail	0.08628541	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.17257082	
t Critical two-tail	2.776445105	

Source: Computed by Researcher Using Microsoft Excel 2016 Software

Table 4.1.2 shows that Total Government Revenue had a mean of ₦9,780.782 before implementation TSA, but had a mean of ₦7,957.6after TSA implementation. Furthermore, the variance in Total Government Revenue before and after TSA implementation was ₦2,192,101.366 and ₦3,672,331.485, respectively. The t-tabulated of 1.6584 is less than the t-calculated of 2.7764 at two-tailed.

Table 4.1.3: t-Test: Paired Two Sample for Liquidity

t-Test: Paired Two Sample for Means

	LIQAFTER	LIQBBEFORE
Mean	18342.994	18399.66
Variance	204055195.8	56799502.2
Observations	5	5
Pearson Correlation	-0.673678267	
Hypothesized Mean Difference	0	
Df	4	
t Stat	-0.006289173	
P(T<=t) one-tail	0.497641579	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.995283159	

t Critical two-tail	2.776445105

Source: Computed by Researcher Using Microsoft Excel 2016 Software

The t-Test result in table 4.1.3 reveals that Liquidity before implementation of TSA has a mean of ₦18,399.66, while the mean after implementation of TSA is ₦18,342.994. Furthermore, a variance of ₦56,799,502.2 and ₦204,055,195.8 was obtained for Liquidity before and after implementation of TSA respectively. At two-tailed, the t-tabulated of 0.0063 is less than the t-calculated of 2.7764.

Table 4.1.4: t-Test: Paired Two Sample for Federal Allocation Account

t-Test: Paired Two Sample for Means

	FAAAFTER	FAABEFORE
Mean	6436.58	7454.708
Variance	1902186.478	1070505.085
Observations	5	5
Pearson Correlation	0.518328856	
Hypothesized Mean Difference	0	
Df	4	
t Stat	-1.86294724	
P(T<=t) one-tail	0.067967947	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.135935894	
t Critical two-tail	2.776445105	

Source: Computed by Researcher Using Microsoft Excel 2016 Software

The t-Test result in table 4.1.4 reveals that Federation account allocation before implementation of TSA has a mean of ₦7,454.708, while the mean after implementation of TSA is ₦6,436.58. Furthermore, a variance of ₦1,070,505.085 and ₦1,902,186.478 was obtained for Federation account allocation before and after implementation of TSA respectively. At two-tailed, the t-tabulated of 1.8629 is greater than the t- calculated of 2.7764.

Table 4.1.5: t-Test: Paired Two Sample for Corruption Perception Index

t-Test: Paired Two Sample for Means

	CPIAFTER	CPIBEFORE
Mean	26.8	25.498
Variance	0.7	2.00502
Observations	5	5
Pearson Correlation	-0.213556181	
Hypothesized Mean Difference	0	
Df	4	
t Stat	1.624704866	
P(T<=t) one-tail	0.089775028	
t Critical one -tail	2.131846786	
P(T<=t) two-tail	0.179550057	

t Critical two-tail	2.776445105

Source: Computed by Researcher Using Microsoft Excel 2016 Software

The t-Test result in table 4.1.5 reveals that Corruption Perception Index before implementation of TSA has a mean of 25.498, while the mean after implementation of TSA is 26.8. Furthermore, a variance of 2.00502 and 0.7 was obtained for Corruption Perception Index before and after implementation of TSA respectively. At two-tailed, the t-tabulated of 1.6247is greater than the t- calculated of 2.7764.

Test of Hypotheses
Decision Rule: If the P-value is greater than the Alpha Level of 0.05, the null hypothesis of no significant effect will be accepted; if otherwise, reject the null and accept the alternative. Also, if the t-tabulated is less than t-calculated null hypotheses should be accepted.

Hypothesis One: Treasury Single Account has not significantly improved total government revenue in Nigeria.

The t-Test for the paired two samples for means in table 4.2.2 shows a two-tail probability of 0.17257 which is greater than the alpha value of 0.05. Therefore, the null hypothesis is accepted and the alternative hypotheses rejected. The t-tabulated of 1.6584 which is less than t-calculated of 2.7764 also suggest that the null hypotheses should be accepted. This implies that TSA has not significantly improved total government revenue in Nigeria.

Hypothesis Two: Treasury Single Account has not significantly improved Public Cash Management in Nigeria.

The t-Test for the paired two samples for means in table 4.2.3 shows a two-tail probability of 0.9952 which is greater than the alpha value of 0.05. Therefore, the null hypothesis is accepted and the alternative hypotheses rejected. The t-tabulated of 0.0063 which is less than t-calculated of 2.7764 also suggest that the null hypotheses should be accepted. This implies that TSA has not significantly improved public cash management measured by liquidity in Nigeria.

Hypothesis Three: Treasury Single Account has not significantly improved Federal Allocation Account in Nigeria.

The t-Test for the paired two samples for means in table 4.2.4 shows a two-tail probability of 0.1359 which is greater than the alpha value of 0.05. Therefore, the null hypothesis is accepted and the alternative hypotheses rejected. The t-tabulated of 1.8629 which is less than t-calculated of 2.7764 also suggest that the null hypotheses should be accepted. This implies that TSA has not significantly improved federal allocation account in Nigeria.

Hypotheses Four: Treasury Single Account has not significantly reduced Corruption Perception Index of Nigeria.

The t-Test for the paired two samples for means in table 4.2.5 shows a two-tail probability of 0.17955 which is greater than the alpha value of 0.05. Therefore, the null hypothesis is accepted and the alternative hypotheses rejected. The t-tabulated of 1.6247 which is less than t-calculated of 2.7764 also suggest that the null hypotheses should be accepted. This implies that TSA has not significantly improved corruption perception index in Nigeria.

Discussion of Result

TSA and Total Government Revenue

The paired two-sample t-test for the means in Table 4.2.2 reveals that the Treasury Single Account has a negative and insignificant (P-value 0.17257) effect on total government revenue. Before the implementation of TSA, the mean value of total government revenue was ₦9,780.782 billion; after the implementation of TSA, the mean value of total government revenue was ₦7,957.6 billion, representing an ₦1,823.18 billion decrease. The implementation of TSA has not substantially decreased total government revenue in Nigeria.

Amaefule and Barigbon (2019) made similar findings. They studied the effect of treasury single account on the performance of federal government of Nigeria. Implementation of TSA has a significant negative effect on the revenue generation of the federal government of Nigeria and an insignificant effect on federal government's capital investment and external reserve.

TSA and Public Cash Management

The paired two-sample t-test for the means in Table 4.2.3 reveals that the Treasury Single Account has a negative and insignificant (P-value 0.9952) effect on public cash management in Nigeria. Before the implementation of TSA, the mean value of public cash management was ₦9,780.782 billion; after the implementation of TSA, the mean value of public cash management was ₦7,957.6 billion, representing a 56.67 billion decrease. The implementation of TSA has not substantially decreased public cash management in Nigeria.

The findings were in agreement with findings of Salman and Adeseye (2017) who investigated the role of adopting TSA in public fund management by eliciting the opinion of accountancy practitioners in Ado Ekiti metropolis. The study revealed that TSA reduces mismanagement of public funds and boosts government revenue. The disparity in findings could be because the researchers used primary sources of data while the present study utilized secondary sources of data for analysis.

TSA and Federal Allocation Account

The paired two-sample t-test for the means in Table 4.2.4 reveals that the Treasury Single Account has a negative and insignificant (P-value 0.13593) effect on federal allocation account. Before the implementation of TSA, the mean value of total government revenue was ₦9,780.782 billion; after the implementation of TSA, the mean value of federal allocation account was ₦7,957.6 billion, representing an ₦1,018.13 billion decrease. The implementation of TSA has substantially decreased federal allocation account in Nigeria.

The finding of Adeagbo and Oladeji (2019) did not support this result. They studied the effectiveness of TSA as a tool for preventing leakages and ensuring the accountability of public funds in ministries, departments and agencies of government in Nigeria and revealed that TSA serves as a tool for preventing leakages and enhancing proper accountability of public funds. The disparity in findings could be because the researchers used primary sources of data while the present study utilized secondary sources of data for analysis.

TSA and Corruption Perception Index

The paired two-sample t-test for the means in Table 4.2.5 reveals that the Treasury Single Account has a negative and insignificant (P-value 0.17257) effect on corruption perception

index. Before the implementation of TSA, the mean value of corruption perception index was 25.498; after the implementation of TSA, the mean value of corruption perception index was 26.8, representing a 1.302 increase. The implementation of TSA has increased Nigeria's score in global corruption perception index. This shows that other than fund misappropriation in the country, other factors are responsible for the consistent rise in global perception index in Nigeria.

The finding is contrary with the findings of Ibrahim, Odunayo and Tijani (2019). They investigated treasury single account as an antidote to corruption in Nigeria and showed that there is a relationship between the antidote to corruption in Nigeria and treasury single account measured as financial accountability and transparency, cash management, elimination of monopoly and discretion, facilitates revenue collection and payments as well as frauds prevention were significantly positive.

Summary of Findings

This is the summary of findings from the data analysis:
  i.   Treasury Single Account has a negative (₦1,823.18 billion decrease) and insignificant (P-value 0.17257) effect on total government revenue in Nigeria.
  ii.   Treasury Single Account has a negative (₦56.67 billion decrease) and insignificant (P-value 0.9952) effect on public cash management in Nigeria.
  iii.   Treasury Single Account has a negative (₦1,018.13 billion decrease) and insignificant (P-value 0.13593) effect on federal allocation account in Nigeria.
  iv.   Treasury Single Account has a negative (1.302 increase) and insignificant (P-value 0.17257) effect on corruption perception index in Nigeria.

Conclusion

TSA policy, if properly implemented, will go a long way toward closing recognized financial leakages in revenue production, reducing corruption, and promoting transparency and accountability in the public financial system. It will also make it possible for all income going into the government treasury to be paid and captured on time, without the need for numerous banking arrangements. The strategy will also allow the central government to know its cash status at any time without difficulty. The system will most likely reduce government deposit round-tripping.

The study concludes that the implementation of Treasury Single Account has had a negative effect on total federal government revenue, cash management, and federal allocation account in Nigeria, based on the results of the pre-post analysis conducted on the effect of TSA on public financial management in Nigeria. Other variables, such as a drop in the world oil price, can also contribute to a loss in total government revenue. The amount of income tax and value added tax collected by the corporation has dramatically increased. TSA implementation has also resulted in an improvement in Nigeria's worldwide perception index score, rather than a decrease. This demonstrates TSA's failure to reduce corruption in Nigeria.

Recommendation

Consequent to the findings of this study, the researcher made the following recommendations:

i.   The government should strengthen the system of implementation of TSA in Nigeria. All the sources of leakages to total government revenue should be investigated forensically and such loopholes filled.

ii. They should devise other means of cash management in Nigeria, and reduce the so much reliant on TSA implementation.

iii. They should ensure that all the committee members of federation accounts allocation are proficient in public sector accounting and auditing. This will enable them set basic system of internal control to prevent financial leakages.

iv. Other factors that increase corruption perception index should be investigated and curbed.

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