



Treasury Single Account (TSA) and Federally Collected Revenue (FCR) in Nigeria: A pre-post analytical review

¹Oluyemi Ayodele OLONITE, ²EMMANUEL-ADEYEFA Olayinka, ³ADESANYA Oluwafemi Valentine, ⁴ALE Solomon Akintayo and ⁵John Olorunleke AJEWOLE

¹Department of Accounting, Faculty of Administration, University of Abuja, Federal Capital Territory (FCT), Abuja. P.M.B. 117, Nigeria

²Insurance Department, Faculty of Business, Rufus Giwa Polytechnic, Owo, Ondo State, Nigeria

³Department of Accountancy, Federal Polytechnic, Ado Ekiti, Nigeria

⁴National Open University of Nigeria, Jabi, Abuja, Nigeria

⁵Department of Accounting, Faculty of Management Sciences, University of Abuja, FCT, Abuja P.M.B. 117, Nigeria

Corresponding Author: Oluyemi Ayodele OLONITE

Abstract

This research paper analysed the link between the implementation of Treasury Single Account (TSA) and the total revenue collected by the federal government of Nigeria. The data used were collected from the CBN Statistical Bulletin and annual reports of various issues from the second quarter in 2011 up to the third quarter in 2019. The retrieved data were employed in running the analysis which involved descriptive statistics, mean difference test and the t-sampled test. The result of the study indicates that the implementation of TSA has a negative influence on the aggregated revenue collected by the federal government, however, it is statistically significant as the probability value is less than 0.05. It is therefore recommended that improvement be made to modify TSA to suite the Nigerian context, and that the federal government should diversify its revenue centers into agriculture and Information Communication Technology (ICT) in order to augment the total revenue and the government should establish more regulations and procedure to ensure accurate remita-keeping of receipts and revenue deposited into the TSA account.

Keywords: Federally collected revenue, CBN statistical bulletin, OTPFEG/D, treasury single account

Introduction

The federal government of Nigeria adopted the implementation of TSA (Treasury Single Account) so as to address corruption, accountability and lack of transparency problem. The implementation of the TSA is expected to reduce the number of bank accounts used by the Ministries, Departments and Agencies by consolidation the federal government funds into a single controlled account managed by the CBN (Central Bank of Nigeria). TSA is a new public accounting system, which involves having a single account or a combination of related accounts managed by the government and processed through a Consolidated Revenue Account (Odewole, 2016) ^[10].

The advent of TSA is to limit the amount of bank accounts used by government organizations and guarantee openness and responsibility in controlling public funds. Akande (2016) ^[2] noted this covers the accumulation of revenue

from difference revenue sources and the dispersing of money for both government and citizen payments. Bashir (2016) ^[3] pointed out that the Remita payroll Module can be utilized to disburse wages to staff through the TSA. The implementation of TSA was intended to improve fiscal accountability and reduce the potential for misuse of funds. This system requires any budget not utilized by MDAs to remitted into the TSA account.

Studies conducted by Akande (2016) ^[2] and Bashir and Isa (2016) ^[3] showed that the precursor of the present (TSA) was first launched in 2012 with 217 MDAS being examined as an example. This program was able to save government funds of over 500 billion naira that would have otherwise been wasted and the Nigerian government seeing this, adopted it in 2016. The Nigerian Federal Government utilizes different sources of income in order to fund their operations. These sources include the sales of crude oil,

taxes (individual and corporate income taxes, the excise tax, and estate and gift taxes), payments from departments and agencies, and federal allotments. The most significant source of income is generated from the sales of crude oil (Adebisi & Okike, 2016) ^[3]. The implications of the utilization of TSA in federal government revenue remain to be seen. It is suggested that TSA could be an effective way to manage federal revenue allowing for the monitoring and controlling of budgeting and revenue through the daily combination of account balances from multiple MDAs into one account (Adebisi & Okike, 2016) ^[1]. It is unclear whether this new system has had a positive or negative impact on federal government revenue, as there are varying opinions in support and against its implementation. Mrs. Zainab Shamsuna Ahmed, Nigeria's Minister of Finance, has confirmed that the nation plans to finance the 2019 budget through a combination of domestic and international borrowing in a 50:50 ratio (Reuters.com, 2019). Therefore, it is uncertain if the TSA has achieved its purpose in Nigeria.

Isaac and Kanu conducted separate studies in 2015 and 2016 that indicated the implementation of the Treasury Single Account (TSA) had no major influence on the Nigerian economy or revenue. This conclusion was in disagreement with Yusuf's research from 2016 on the impact of TSA on financial management in the public sector of Nigeria. Thus, this current study was conducted to examine the relationship between the Treasury Single Account and Federally Collected Revenue in Nigeria.

This study examined the potential link between TSA and Total Federal Revenue in Nigeria. The study employed data set for the second period in 2011 up to the third period in 2019. The hypothesis of the study is stated in null form: The link between TSA and Federally Collected Revenue is negative and not statistically significant.

2. Materials and Methods

Modern Monetary Theory (MMT): Udo and Esara (2016) ^[14] asserted that, MMT suggests the unifying on revenue, that is, TSA be implemented to gather all government revenue in a single account. The CBN would manage the TSA. Also Transactions between government and non-government entities are classified as vertical transactions, as noted by Modern Monetary Theory, the government sector includes the treasury and the central bank, and the non-government sector is composed of private individuals, businesses, foreign buyers, and sellers in which all revenues from these stakeholders and MDAs should be managed in one federal account. (Éric & Wray, 2013) ^[5].

Olonite Theory of Public Finance and Economic Growth/Development (OTPFEG/D): The OTPFEG/D concluded that not all government spending leads to economic growth. Consumption expenditures such as recurrent and transfer spending do not promote growth, while capital expenditure does. For this reason, recurrent spending should be kept to a minimum, while capital expenditure should be increased in certain areas to promote growth. This approach is in line with Erik Lindhal's public finance management theory from 1919, and cutting oil subsidies and non-performing functions is beneficial to economic growth. Encouraging Public Private Partnerships could help to lower recurring expenses and expand

investment.

The concept of Public Finance Management suggests that governments should be economically responsible and make use of their financial resources wisely in order to benefit their citizens. Additionally, it stresses the need for the government to create a system to guarantee the avoidance of public funds being exploited or misapplied for personal interests (Udo & Esara, 2016) ^[14]. This entails allocating resources, rating programs, organizing budgets, and managing resources effectively (Bashir, 2016) ^[3]. This is carried out so that any misuse of public money is thwarted.

This study supports the Modern Money Theory (MMT) and Olonite Theory of Public Finance and Economic Growth/Development (OTPFEG/D)

The study carried out by Ofurum and Ahuche (2018) ^[11] adopted a pre-post design for a period of 8 years (2013-2017). A Paired Samples Analysis was employed to evaluate the data and the results revealed that the introduction of TSA had a notable influence on Federally Collected Revenue, leading to a decrease in revenue.

Oguntodu, Alalade, and Adekunle (2016) ^[12] conducted a study to analyze the connection between the TSA and Nigeria economic performance. They employed the use of data from the statistical bulletin as reported by CBN from 1999 to 2015 was the source of the data, and Gross Domestic Product (GDP) was the dependent variable. The findings indicated that TSA has a beneficial effect on economic growth in Nigeria. However, it was noted that a balanced pre-post comparison should be taken into consideration, as the TSA was only implemented in 2015, leaving the pre-scope from 1999 to 2015 with an imbalance to the post-scope of 2015-2016 (17 years compared to 2 years).

Olonite (2021) ^[13] asserted that effective public finance on either the capital or the recurrent expenditure is rooted in the ability of the government to harness its revenue at the optimum level and by encourage the "Olonite Accountstamics" in the transformation of its manual ways to working digital database management to encapsulate all its revenue centers. The Olonite Accountstamics affirms strongly the emergence of Statistics, Economics and Accounting as a single model for economic/organizational Growth and Development (Olonite 2021) ^[13].

In 2017, Ndubuaku, Ohaegbu, and Nina conducted a study to determine the effect of the Treasury Single Account (TSA) on banking performance in Nigeria. Descriptive and ex post facto research designs were applied to 24 commercial banks, and data was collected from the Central Bank of Nigeria Statistical Bulletin between 2010 and 2015. OLS Regression and correlation analysis were used to analyze the data and the results showed a negative influence on Credit to private sector, Deposit Mobilization, and Loans and advances. The authors proposed that banks should reduce their reliance on government funds and search for alternative sources of funding to combat this.

Bashir (2016) ^[3] conducted a Pearson Correlation Technique to explore the impacts of TSA on Public Finance Management in Nigeria. The outcomes demonstrated that TSA was successful in helping to avoid financial losses, boost transparency, and improve accountability in public financial management. Nevertheless, it was recommended that Bashir (2016) ^[3] should have acquired more of the data

from secondary sources and that the analysis should have included figures and data.

Udo and Esara (2016) [14] carried out a descriptive cross-sectional survey to look into the potential benefits of introducing and using TSA by Nigerian state governments. A sample of 133 Professional Accountants in Akwa-Ibom State was chosen using purposive sampling, based on Taro Yamane's formula. Descriptive and t-test statistics were used to analyze the responses to the questionnaire. The results of the study indicated that implementing and making full use of TSA by the state governments would be beneficial.

Studies have been done to look into the effects of the Treasury Single Account (TSA) on Federally Collected Revenue in Nigeria. However, the outcomes are based on the opinions of individuals rather than the actual government revenue data from the Central Bank of Nigeria. As an example, Udo and Esara (2016) [14] used 200 Professional Accountants from Akwa Ibom State to assess the rewards of the TSA to Nigerian states, while Bashir (2016) [3] used judgement sampling to pick a sample size of 72 to evaluate the influence of the TSA on public finance management and Gross Domestic Product in Nigeria.

This study examines the influence of the Treasury Single Account (TSA) on Federally Collected Revenue (FCR) through a pre-post research design. Data was collected from the Central Bank of Nigeria quarterly, spanning from the first quarter of 2011 to the third quarter of 2019, with a total of 17 observations taken. A Paired Sample t-test was used to analyze the data, comparing the FCR before and after the implementation of the TSA, in order to measure the impact of it.

3. Results

Table 1: Descriptive Statistics of Federally Collected Revenue before the Treasury Single Account Implementation

Mean	2285.71
Standard Error	154.3554596
Median	2613.36
Standard Deviation	636.4238638
Sample Variance	405035.3345
Kurtosis	-0.623365265
Skewness	-0.935332602
Range	1863.73
Minimum	1044.89
Maximum	2908.62
Sum	38857.07
Count	17

Source: SPSS 25 Result

Table 1 indicates that the skewness of the Federally Collected Revenue before TSA is negative. Skewness is a means of quantifying the lack of symmetry in the probability distribution of a particular variable, the data is skewed in a positive direction when the figure is higher than 0, and if it is less than zero, the data is skewed in a negative direction (SPSS 25 Guide, 2022).

The Kurtosis measures the normality of a distribution. According to the SPSS 25 Guide, 2022, the range for Kurtosis is -3 to + 3. Any value greater than +3 is a sign of outliers. The Federally Collected Revenue Kurtosis value, before the Treasury Single Account Implementation has a value of -0.623365265; this means that it falls between the benchmark of -3 to +3 range.

Table 2: Descriptive Statistics of Federally Collected Revenue after the Treasury Single Account Implementation

Mean	1951.148824
Standard Error	115.5634021
Median	2040.59
Mode	2309.78
Standard Deviation	476.4801134
Sample Variance	227033.2985
Kurtosis	-1.173746664
Skewness	-0.246762288
Range	1581.64
Minimum	1118.56
Maximum	2700.2
Sum	33169.53
Count	17

Source: SPSS 25 Result

The Skewness of the Federally Collected Revenue after the Treasury Single Account Implementation is negative, which is determined by the Skewness measure. This measure is used to assess the asymmetry of a random variable's probability distribution relative to its mean. When the Skewness value is higher than 0, the distribution is said to be positively skewed, while a value lower than 0 implies a negative skew. (SPSS 25 Guide, 2022).

The Kurtosis measures the normality of a distribution. According to the SPSS 25 Guide, 2018, the range for Kurtosis is -3 to + 3. Any value greater than +3 is a sign of outliers. The Federally Collected Revenue Kurtosis value after the Treasury Single Account Implementation has a value of -1.173746664; this means that it falls between the benchmark of -3 to +3 range.

Table 3: Test of Difference of Means

Pair 1 FCRb FCRa	Mean	Std. Deviation	Std. Error Mean
	2285.717887	636.4238600	154.3554596
1951.148824	476.4801134	115.5634021	

Source: SPSS 25.0.0.0 Result

Note: FCRb – Federally Collected Mean for the two periods

The mean figure in table 3 shows that FCRb stood at ₦2285.71788 billion, having a standard deviation of ₦636.42386 billion before TSA implementation. The same table 3 also shows that the average mean value of FCRa is ₦1951.148824 billion, with a SD of ₦476.48011 billion. In this vein, the mean figure and the standard deviation of TSA reduced to ₦1951.14882 billion and ₦476.48011 respectively. It is quite clear that the mean of the post-TSA implementation is lower than the mean of the pre-TSA implementation.

Table 4: Hypotheses 1 and 2 Testing

	Paired Difference			T	Df n-1	Sig.
	Mean	Std. Deviation	Std. Error Mean			
Pair 1 FCRA - FCRB	-334.569063	159.943	38.792	-9.332	16	.003

Source: SPSS 25.0.0.0 Result.

The analysis in table 4 shows that the mean is negative with a value of -334.569063, standard deviation stood at 159.943, the standard error mean stood at 38.792 while the significance level (prob.) stood at 0.003.

4. Discussion

The Paired Sample outcome shows TSA implementation in Nigeria, submits a significant effect on the total federal revenue with a mean difference of (-₦334.569) billion. This conclusion is supported by the t-value of -9.332 (SD = -159.943) and p-value of 0.003.

Decision: This study accepts hypothesis 1 (Ho) as the average mean difference in Federally Collected Revenues (FCRA and FCRB) is negative. This study rejects the hypothesis 2 (Ho) since the calculated significance value (probability) is less than 0.05. An analysis of the data showed that TSA's adoption in Nigeria has not expanded the revenue base and generation. FCRB stood at ₦2285.718 billion while after its implementation the mean value decreased to ₦1951.149 billion, which is a difference of ₦334.569 billion.

The findings of this study submits a contrary evidence from what the Federal government had anticipated regarding TSA's adoption and implementation. Additionally, there exists a significant correlation between TSA adoption and implementation and FCR since the p-value is 0.003. This correlation is in line with the research of Ofurum, Oyibo & Ahuche, (2018) ^[11], which suggested a negative but significant relationship between TSA and total federal revenue but disagrees with Oguntodu, *et al.* (2016) ^[12] as they submitted a positive and significant relationship.

5. Conclusion

The pre-post analysis that was conducted on the relationship between TSA and Federally Collected Revenue from 2011 to 2019 showed that implementing the Treasury Single Account has not increased the amount of revenue collected by the Federal government. Nevertheless, a statistically significant correlation was observed.

5.1 Recommendations

1. The Nigerian Government should modify the adopted TSA with different and indigenous settings in Nigeria. TSA was introduced by the developed countries into the developing economies which might not perfectly fit into the developing economies settings as most developing nations lack accurate digital database management.
2. Improvement in the Treasury Single Account operation processes because the present approach only focuses on tracking collections.
3. The Treasury Single Account should not be viewed as a final solution, but rather as a means of consolidating government income; the Nigerian government should look to broaden their sources of revenue to increase the

funds that flow into the Treasury Single Account.

4. Regular evaluations of each revenue-producing areas should be conducted so that those that are not performing optimally are not hidden by those that are excelling.
5. The federal government should ensure that funds deposited into the Treasury Single Account comply with established procedures and that any misappropriation of funds by any agencies is investigated and prosecuted. This could have accounted for the the negative relationship submitted in the study, by a way that actual collected revenues are not remitted into the single account by government officials.

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