

Adoption of Treasury Single Account (TSA) and Economic Growth of Nigeria: A Reappraisal

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Abstract

The study reappraised the effect of Treasury Single Account (TSA) on economic growth of Nigeria. The major objective was to ascertain whether there is a significant relationship between Federal Government total revenue within the TSA period and the Gross Domestic Product of Nigeria. Other objective was to investigate the difference existing between Federal Government total revenue Pre and Post TSA periods in Nigeria. The research design for this study was expo-facto. The work adopted secondary data generated from CBN Statistical Bulletin. The data used were those of Federal Government total revenue and Nominal GDP from 1981_ 2021. Ordinary Least Square analysis techniques was employed and run on E- views 10 for the regression analysis while T-test was adopted for the Pre-Post analysis in addition to other diagnostic techniques applied in the study. Results showed that there is a significant relationship between FG total revenue within the TSA period and GDP; it was also revealed that there is a significant difference in FG total revenue between the Pre TSA and Post TSA periods. This study recommended among others that Implementation of Treasury Single Accounts (TSA) policy should be sustained across all sectors of the economy; no doubt it will improve economic growth of the country and also that other loopholes should be avoided through TSA to further enhance the GDP of the country.

Keywords: Total revenue, Gross Domestic Product, Treasury Single Account, Economic growth, Regression analysis

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1.0 Introduction

Government operated Ministries, Departments and Agencies (MDAs) maintain different and several accounts in banks prior to the introduction of TSA, which has led to cases of embezzlement, misappropriation and inadequate financial planning (Ndubuaku et al, 2017).

Most of these MDAs utilized these funds for the running of their ministries while the balance is remitted to government coffers. Government of Nigeria established the Treasury Single Account (TSA) to mitigate some of the cases resulting from the multiplicity of accounts by MDAs and subsequent non remittance and embezzlement of the collected funds,

According to Owie et al (2018), Treasury Single Account is a single account managed by the Central bank of Nigeria, from where all funds collected on behalf of federal government are lodged while all payments of the country are processed through it. Salman and Adeseye (2017) noted that the TSA is backed up constitutionally as Section 80 (1) of the 1999 Nigerian constitution sees TSA as a single account or Consolidated Revenue Fund of the Federation where all Federal government collected revenues and other monies which excludes revenues or other monies payable into any other public fund of the Federation shall be paid into.

Akpan, Effiong and Ele (2012) opined that lack or inconsistent policies that drive economic growth creates a retarded or poor growth in the economy. Also, formulation and adoption of policies that brings improvement in the society forms part of the bricks that seals the relationship between entrepreneurship and economic growth. These policies include but not limited to the adoption of Treasury Single Account (TSA) in Nigeria.

TSA tries to ensure that there are more funds and revenue for government to meet its responsibilities, improve standard of living of the people and stimulates economic growth. Regrettably, even after many years of implementing the TSA policy which many authors have adjudged to be a driver of economic growth, the economy

of Nigeria still experience retarded and poor growth and even passing through serious recession at the moment.

Different authors have attempted to study the possible effect of the adoption of Treasury Single Account on the economy of Nigeria with different results emanating from such studies. While some authors (Ahmed-Gamgum & Ahmed, 2018; Owie et al, 2018; Ezinado, 2020 and Effiong & Obun, 2020) have found a positive and significant effect of the introduction of TSA on Nigerian economy, other authors (Osagioduwa, 2019; Nkanbia-Davis & Penu, 2022; Effiong & Obun, 2020 and Amaefule & Barigbon, 2019) have found negative or insignificant impact of the introduction of TSA on the economy of Nigeria. Others show variant results on the study.

Cumulating the mixed results from the literature and the variation in the expected outcome of Nigerian economy, calls for the need for a study to seek among other issues, a re-evaluation of the effect of the introduction of Treasury Single Account on the economic growth of Nigeria.

The study therefore aims at finding out whether a significant relationship exists between total Federal government revenue within the TSA period and the economic growth of the country and also to evaluate whether significant difference exist between Pre TSA FG total revenue and Post TSA FG total revenue for the periods 2008 to 2021 with 2008 to 2014 representing the Pre TSA periods while 2015 to 2021 serves as the Post TSA periods.

The study makes remarkable contribution to the body of knowledge by broadening the scope of literature on this area through including a study that aims at not just answering the question of whether the introduction of Treasury Single Account influences the growth of the Nigerian economy but also to decipher whether there is difference in the total revenues realized within the TSA period and before the adoption of TSA. Secondly, the study achieved the aim of the study using broader economic techniques that involves a mixture OLS technique and T-test technique than what is obtainable in previous studies in this area.

The following sections of this study take care of the review of literature relating to the subject, methodology adopted for the study, results and discussion and the summary and conclusion of the study which includes limiting elements in the study and specific areas for further studies.

2.0 Review of related literature

2.1.1. Concept of Treasury Single Account (TSA)

According to CBN (2015), Treasury Single Account is a single account platform under the management of Central Bank where all public and government generated funds are paid into and all payments made from the same account. All MDAs are mandated to remit all their revenue collection to the TSA through their DMBs who serve as the collection agent that will ensure a daily remittance the revenue collected by the MDAs to the consolidated revenue accounts with the CBN at the end of each working day (Nwolisa et al, 2020). The objectives of Treasury Single Account adoption in Nigeria include among others; the provision of greater transparency in the public financial system; assist in gaining greater clarity to national financing needs and public debt management; Increase in fiscal savings (less transaction charges, more revenue) etc.

Oloba et al (2017) outlined some of the problems experienced in carrying out TSA to include that Commercial banks will lose a greater portion of the funds of MDAs in their custody with the implementation; due to fall in the deposits due to banks, they will be pushed to reduce their lenders and at such affect private investments etc.

2.1.2. Concept of economic growth

Economic growth is defined as a steady increase in a country's productive capacity as measured by comparing the gross national product of one year to the previous year, as well as an increase in per capita national output or net national product over time, which occurs when a country's production capability frontier shifts outward (Salami, Apelogun, Omidiya & Ojoye, 2015). It can be measured in nominal or real (inflation-adjusted) terms. Although other metrics are occasionally employed, aggregate economic growth is usually measured in terms of Gross National Product (GNP) or Real Gross Domestic Product (RGDP). The production activities at different levels necessitated industrial growth and further increase government revenue generation to households and government.

2.1.3. TSA and Gross Domestic Product (GDP)

Oloba et al (2017) stated that TSA has no negative effects on the level of investment and economic growth. Their view is contrary to the opinions of several experts and the current economic recession being witnessed in the country's economy. Ofor et al (2017) reiterated also that the institutionalization of TSA has significantly affected and improved the performance of federal government MDAs and the economy at large as they have confirmed the capacity of treasury single account to block financial loopholes in revenue generation and promote transparency and accountability.

On the contrary, Nkanbia-Davies et al (2022) revealed that TSA has an insignificant negative influence on GDP and concluded that TSA implementation has not contributed positively to GDP in Nigeria.

2.2. Theoretical framework

Several theories relating to the impact of the Treasury Single Account adoption on economic growth in Nigeria have been reviewed to ascertain the theoretical proposition and how they support or contradict the empirical results of this study. Some of the theories reviewed in this study include:

- a) Modern money theory
- b) Public finance management theory

2.2.1. Modern money theory

Modern Money Theory which is also known as Dubbed Modern Money Theory was propounded by Bill Mitchell, Warren Mosler and L Randah Wray around 1992. Modern money theory tries to explain that governments of a nation need to consolidate its Central Bank and treasury in a way that through monetary creation, the public sector can finance itself so that the financial stand of the Central bank and that of the treasury will be so interwoven such that both can constantly connect together to run both fiscal and monetary policies effectively (Onodi et al, 2020).

Effiong & Obun (2020) acknowledged that the Modern money theory accounts for all transactions of government to non government sector and group such transactions as vertical transactions. MMT describes the practical uses of fiat currency in a public monopoly on money by sovereign monetary authorities (Mitchell et al, 2019). The theory is based on the notion of functional finance such that governments should set whatever fiscal positions are consistent with price stability and full employment, irrespective of debt/ deficit levels.

2.2.2. Public finance management theory

The theory of Public finance management propounded around the 1940's, owes much to the work of J. M. Keynes who queried the adequacy of demand in the classical system and saw a role of government in maintaining aggregate demand at its full employment level.

This theory assumed that all aspects of financial resources mobilization and expenditure should be well managed in government for the benefits of the citizenry. It includes resources mobilization, prioritization of programmes, the budgetary process, efficient management of resources and exercising control to guide against threats. Treasury Single Account (TSA) primarily is to avoid misapplication of public funds.

The theory also stresses that government's revenue should be well mobilized to disallow the looting of such into private pockets and these consist of resources prioritization, the budgetary process, efficient management of resources etc (Ajugwe, 2020).

2.3. Empirical review

Effiong & Obun (2020) assessed Treasury Single Account and Economic growth of Nigeria. Data on GDP, Per Capita Income, Non Oil Revenue, Custom and Excise Duties and Ministry based Revenue were raised for the period 2013-2018. The collected data were analyzed using Ordinary Least Square test and the result shows that TSA affects economic growth in both positive and negative ways.

Amaefule & Barigbon (2019) reviewed TSA and the performance of Federal Government of Nigeria. The study was a Pre-Post analysis that used secondary data on government revenue, capital investment and external reserve. The collected data for the pre and post periods were analyzed using T-test and the findings show that TSA has a significant negative effect on revenue and an insignificant negative effect on capital investment and external reserves of the Federal Government of Nigeria.

Oguntode, Adekunle and Adeqie (2018) analyzed treasury single accounts and Nigeria's economy between 1999 and 2015. Secondary data was employed for the research work, CBN statistical bulletin (1999-2015) was analyzed using the OLS estimator. The result showed that the TSA has a positive significant impact on the country's economic growth but this impact is limited by various factors, one of them being the recent implementation of the policy in Nigeria which made the discovering of historical data difficult.

Oloba et al (2017) assessed the TSA system, financial system and economic growth in Nigeria. The study made use of secondary data on Assets, loans, income and deposits of 5 banks in Nigeria for 2014 and 2015 accounting year. The data collected were analyzed using simple frequency, percentages and Chi-square test. The outcome of the test revealed that TSA does not have so much negative impact on the Nigerian financial institutions as most of them are still very stable and financially buoyant.

Ofor et al (2017) examined the effect of TSA on the performances of MDAs in Nigeria. The study used primary data through 75 respondents were sampled and questionnaire administered to them. Data collected from the administration of questionnaire on the respondents were analyzed using the Wilcoxon Sign test and the results show that TSA significantly affected and improved the performance of MDAs and also that TSA is capable of blocking financial loopholes in the system.

3.0. Methodology

The study adopted ex-post research design where time series secondary data on the variables for both the Pre TSA and Post TSA periods were used. Data on total Federal Government revenue which is the measure for Treasury Single Account and Gross Domestic Product which proxies economic growth were sourced from Central Bank of Nigeria Statistical bulletin for the periods 2008 to 2021 for the Pre-Post study and 1981 to 2021 for the regression analysis. The selected periods give an equal time frame for a Pre-Post study on the effect of TSA adoption on the economic growth of Nigeria.

The population of the study comprises the entire Nigerian economy thereby making the sample size equal to

the population. The study therefore adopted the census sampling method in its sample size determination as it will make use of the entire population of the study.

3.1 Model specification

In line with the outcome of the studies of Effiong & Obun (2020), this study adapts the following functional models:

$$\text{NOMGDP} = f(\text{TFCR}) \quad (1)$$

The mathematical representation of the function to factor in the stochastic error term is stated as:

$$\text{NOMGDP}_t = b_0 + b_1 \text{FGTRV}_t + (t) \quad (2)$$

Where, GDP and FGTRV represent gross domestic product and Federal Government total revenue respectively at different time periods (t).

3.2 Data estimation techniques

The study adopted a 3 staged estimation procedures comprising the Pre- estimation stage where descriptive statistics and stationarity test were conducted to determine the normality and unit root of the variables respectively. The estimation stage; where Ordinary Least Square (OLS) model was used to test the significant relationship existing among the variables while T-test was also conducted to ascertain the significant difference existing between the variables. Lastly, the post estimation stage; where Breusch-Godfrey LM test and Ramsey Reset test were conducted to determine the presence or absence of positive serial correlation and to detect the possible omission of variables significant in the model respectively.

4.0 Data presentation and analysis of result

The time series data analysis started with the preliminary analyses which are in two parts: Descriptive Statistics and Stationarity test.

4.1. Descriptive statistics

Table 4.1 Descriptive statistics

Variable	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera(P-value)
TFCR	902.0598	978.6936	0.631953	1.857054	19.35855(0.000063)
NOMGDP	9049.454	12469.33	1.345535	3.573711	50.47336(0.000000)

Source: Authors computation using E-views 10.0 (2023).

*TFCR denotes Total Federal Government collected revenue while NOMGDP represents nominal GDP

The result of descriptive statistics in table 4.1 shows that NOMGDP has a mean value of 9,049.45 billion while Total Federal Government revenue has an average value of 902.05 billion. The result also showed that all the variables are positively skewed; TFCR is platykurtic in nature as its value for kurtosis is less than 3. This indicates a lower than normal distribution and also implies that the distributions produce fewer or less extreme outliers than does the normal distribution while NOMGDP is leptokurtic in nature as its value for kurtosis is greater than 3 showing distribution that is higher than normal.

The P-value of the Jarque-Bera test for TFCR and NOMGDP are not normally distributed at 5% level of significance; creating reasons to subject the variables to Unit root test. This shows that at 5% level of significance, the variables are significant and at such, are not normally distributed.

4.2. Stationarity test

Table 4.2: Unit root test

Variables	ADF (Level)	ADF I(1)
TFCR	0.4255	0.0000
NOMGDP	1.0000	0.0031

Source: Authors computation using E-views 10.0 (2023).

Table 4.2 above shows the unit root test results using ADF Unit root tests. From the unit root results, all the variables of TFCR and NOMGDP were non stationary at level at 5% level of significance but were stationary at first difference. This result made way for the adoption of the OLS model for this study, as the model can be accommodated when the series is integrated at same order in the same regression. The stationarity of all the variables at first difference makes the variables suitable for analysis and the outcome suitable for decision making.

4.3. Regression test

The OLS test result is shown below:

Table 4.3: Result of OLS
 NOMGDP and TFCR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNTFCR	0.955337	0.014674	65.10423	0.0000
C	1.019393	0.037155	27.43657	0.0000
R-squared	0.963187	Mean dependent var		3.212648
Adjusted R-squared	0.962959	S.D. dependent var		1.042687
S.E. of regression	0.200675	Akaike info criterion		-0.362138
Sum squared resid	6.523829	Schwarz criterion		-0.324334
Log likelihood	31.69529	Hannan-Quinn criter.		-0.346791
F-statistic	4238.561	Durbin-Watson stat		0.043647
Prob(F-statistic)	0.000000			

Source: E-views 10 panel regression result (2023)

From Table 4.3, the overall regression given by the P-value of the F-statistics (0.000000) is very significant at 5% level of significance while the model is free from autocorrelation with Durbin Watson of 0.04 which is nearer to 2.0. The R^2 value of 0.963 implies that only 96.3% of the variation in economic growth is explained by the adoption of Treasury Single Account while the remaining 3.7% is accounted for by the error term. The model can be properly written as:

$$\text{NOMGDP} = 1.019393 + 0.955337 \text{ TFCR}$$

4.4. Test of Difference (T-test)

Table 4.4: Result of Paired Sample statistics and correlation

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PreTGCR	3957.0214	7	1804.44745	682.01703
PostTGCR	8545.6429	7	1907.65529	721.02593

Source: SPSS 25 t-test result (2023)

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 PreTGCR & PostTGCR	7	.917	.004

Source: SPSS 25 t-test result (2023)

Table 4.4 displayed the outcome of the descriptive statistics of the Total Government Collected Revenue of the various years at Pre TSA periods and Post TSA periods. From the table, the mean of TGCR which is 8545.64 for the Post TSA periods is higher than the mean of the TGCR for the Pre TSA periods. Also, there is a high and positive correlation between the Post TSA TGCR and Pre TSA TGCR with the correlation coefficient shown at 0.917 and the significance level is 0.04.

Table 4.5: Result of Paired T-test

Paired Samples Test

	Paired Differences 95% Confidence Interval of the Difference Upper	T	df	Sig. (2-tailed)
Pair 1 PreTGCR – PostTGCR	-3881.07832	-15.869	6	.000

Source: SPSS 25 t-test result (2023)

From the table 4.5, the result of the difference of two means tests (Paired T-test) is displayed. This result shows the paired sample test result of the difference between TGCR amount at both the Pre TSA and Post TSA periods. Comparing the Sig (probability) value to the a priori, alpha level ($\alpha = 0.05$), if $P < \alpha$, we reject the null hypothesis of no significant difference. The result presented on Table 4.5 shows that the test is significant at 5% level of significance (0.000) and at such, there is a difference between the federal Government total revenue at both the Pre and Post TSA periods.

4.5 Discussion of findings

The outcome of the regression analysis study shows that there is a significant relationship between Federal

Government Total Revenue within the TSA periods and Gross Domestic Product of Nigeria. This means that the Gross Domestic Product of the country is positively and significantly influenced by the total Federal Government collected revenue of the country. This also implies that the rise in Gross Domestic Product is significantly influenced by Total Government Collected Revenue generated. Also, from the result, a percentage increase in TGCR will lead to 0.95% increase in GDP. This result is supported by the findings of Amaefule & Barigbon (2019), Ofurum et al (2018) and contradicts the studies of Salman & Adeseye (2017) and Yusuf (2016).

The result of the T-test analysis shows that there is a significant difference in the total Government collected revenue between the Pre TSA and Post TSA periods for the country. This implies that the Post TSA period ($M = 8454.64$) TGCR is significantly more than the Pre TSA period ($M = 3957.02$) TGCR showing that the adoption of Treasury Single Account has significantly improve the total Federal Government collected revenue. This result is supported by the findings of Salman & Adeseye (2017) and contradicts the studies of Mbotto et al (2017).

5.0. Conclusion and recommendations

The main objective of the study is to reappraise the effect of the adoption of Treasury Single Account (TSA) on the economic growth of Nigeria. From the outcome of the study above, there is a significant relationship between Federal Government Total Revenue within the TSA periods and Gross Domestic Product of Nigeria. This implies that the Total revenue collected by the Federal Government for the periods under study has both immediate and long run effects on economic growth.

The study also showed that the adoption of TSA improved the total revenue collected by the Federal Government with the Post TSA TFGR been greater than the Pre TSA TFGR. This means that the revenue collected by Federal Government within the TSA periods reflected the impact of the adoption of the TSA policy in Nigeria. The study came to a reasonable conclusion that the adoption of Treasury Single Account has both significant influences on the economic growth of Nigeria and also on the revenue generation capacity of the country implying that other factors held constant, adoption of TSA exerts more influence on the economic growth of the country and also on its capacity to generate revenue.

Based on the above research findings, the study therefore recommends that; implementation of Treasury Single Accounts (TSA) policy should be sustained across all sectors of the economy; no doubt it will improve economic growth of the country. Also, other loopholes should be avoided through TSA to further enhance the GDP of the country.

Scope of the study was limited to only Nigeria, particularly in the area of data collection and analysis, at such; the study was unable to broaden the data scope to her liking. Also, the study did not consider the effect of any control variable and at such the study did not consider the effect of control variable like corruption on the outcome of the model use. In consideration to these limitations, the study suggests that a model that accommodates the relevant Control variable like corruption should be considered in building the model in further studies.

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