

Empirical Review of the Impact of Treasury Single Account on Bank Profitability

Chizoba Nweke, Ugwuanyi, J. E. and Onuoha, K. C.

Caritas University, Amorji-Nike, Enugu

Corresponding Author: Chizoba Nweke

Abstract

This study is on the impact of treasury single account on bank profitability. A case study of Union Bank, UBA and Zenith (2015-2021). The specific objectives of the study are to ascertain to examine the effect of liquidity ratio (post-TSA) on deposit money bank profitability in Nigeria, to investigate the effect of capital adequacy ratio (post-TSA) on deposit money bank profitability in Nigeria and to determine the effect of loans (post-TSA) on deposit money bank profitability in Nigeria. The study was mainly underpinned on stakeholder theory. The results revealed that return on assets is influenced by liquidity ratio. The extent of the influence exerted on return on assets by liquidity is significant and positive. It also shows that return on assets is influenced by capital adequacy ratio. The extent of the influence exerted on return on assets by capital adequacy ratio is positive and significant. The study maintains that irrespective of the perceived difficulties created by the introduction of TSA to banks in Nigeria, banks still put up their houses together and maintain a balance in these three parameters. Hence this study concludes that the adoption of treasury single account has enhanced the profitability of banks in Nigeria. Accordingly, the study recommends that deposit money banks should avoid over-reliance of government funds and source for funds from other sectors of the economy.

Keywords: Treasury, Account, Bank, Profitability and Stakeholder

INTRODUCTION

The treasury single account is a public accounting system whereby government receipt, revenue, and income are collected into one single account. The Central bank of Nigeria is responsible for the maintenance and management of such accounts. Before 2015, the majority of ministries departments and Agencies (MDAs) in Nigeria operates multiple bank accounts for keeping funds earned as revenue. The background of treasury single account (TSA) all started by an Executive order NO 55b (2011), of which stated that the bureau of treasury shall operate treasury single account (TSA) to receive remittance of collections of internally generated revenue such as taxes/customs duties from the bureau of internal revenue (BIR)/Bureau of Customs (BOC), authorized agents banks as well as other National Government Agencies from authorized government depository banks. The TSA which shall be maintained by the central bank of Nigeria (CBN), is expected to be in line with the policies of the government of greater financial management and control of its cash resources and allow the unification of the structure of government bank accounts to enable consolidation and optimum utilization of government cash resources. (Bailder, 2015).

Ndubuaka, Ohaegbu, and Nina (2015), convincingly argued that the banking sector is the engine of any nation's economy. One of the major indications of the economic status of any nation depends on how stable their banking industry is. In other words, an issue that affects banks also has an impact on the economy of the nation (Kanu, 2016). In Nigeria, commercial banks have been the custodians of government funds. The banking system in Nigeria has experienced several reforms and policies, some favorable, others unfavorable. Many banks did not survive these reforms. Until the introduction of TSA, government Ministries, Departments, and Agencies (MDA's) operated in multiplicity various accounts in the commercial banks. The MDA's use part of the funds they generated to fund their operation and remitted the residual balance to the federation account. This resulted in leakages, embezzlement of funds, and inadequate budgetary and financial planning. However, the highest beneficiaries of this situation were the depository banks who relied on deposits from government agencies and lent back to the government at high-interest rates. The banks, however, were somehow satisfied with this trend as they no longer mobilized funds from other sectors of the economy.

Also, before TSA came into existence, Nigeria had a fragmented banking arrangement for revenue and payment transactions. There were more than 10,000 bank accounts in multiple depository banks which made it impossible to establish a government consolidated cash position at any point in time. It led to loads of idle cash balances held in MDA's account when the government was out borrowing money (Obinna, 2015). (Yusuf, 2016) added that "the implementation of Treasury Single Account will help ensure proper cash management by eliminating idle funds usually left with different commercial banks and in a way enhance reconciliation of revenue collection and payment".

The second option allows MDA's to properly handle their financial functions. The first arrangement is majorly embraced by the countries of the West African Economic and Monetary Union (WAEMU) because of the capacity levels of their personnel and their financial management information systems. Centralized TSA is easier to execute due to the limited Information technology (IT) knowledge and capacity of their manpower. However, the decentralized TSA could enhance the commercial banks' stability, foster their going concern status and promote citizens' ability to access financial services from the banks involved.

In Nigeria, commercial banks have been the custodians of government funds. The banking system in Nigeria has experienced several reforms and policies, some favorable, others unfavorable. Many banks did not survive these reforms. For instance, the order by the President of the federal republic of Nigeria was that all revenues due to the Federal Government or any of the agencies of the federal government of Nigeria must be paid into the treasury single account and maintained by the central bank of Nigeria (CBN, 2015). The idea seems a welcome development in Nigeria as it is aimed at fighting fraud and the level of corruption in Nigeria. Corruption has become a major issue in the growth and development of the Nigerian economy. Nigeria is a country that is blessed with good resources but due to the high level of corruption, the country loses very poorly. According to the director of the center for social justice, a civil society group based in Abuja by the name Eze Onyekpere defined TSA as a process and as a tool for the effective and efficient management of the finances, banking, and cash position of the federal government of Nigeria. Eze Onyekpere stated again that it pools and unifies all government accounts through a single treasury account. Among the issue of treasury single account, there are some other advantages which are legion.

The consolidation into TSA made it possible for the timely capture and payment of all revenue due to the federal government into the government coffers

without the intermediation arrangement of multiple banking (Vanguard Editorial, 2015) Notwithstanding some of the worries raised against the TSA issues and prospects, most Nigerians seem to be pleased with the implementation of TSA. It is widely believed that business entrepreneurs that the scattering of government funds in different commercial banks serve as a conduit for the continuous fraudulent activities by government officials in the MDAs according to John Ocheni. The people thought about this new method, is that the leakages would be blocked and openness and accountability enhanced in the running of government businesses. These leakages that used to be there in the system where most people used money as they want and decided what to return and when to return the money to the government will no more be there. With this, there will be better control and management of government revenue.

Statement of the Problem

Treasury single account (TSA) was initially proposed by the Federal Government's Economic Reform and Governance Programme in 2004 but the initiative was jettisoned in 2005 as a result of banking firms' significant pressure. The policy was re-initiated in 2014 by the Administration of Goodluck Ebele Jonathan, which set February 2015 as the implementation deadline. The idea of TSA implementation was still discarded due to massive pressure from the banking industry that it could hurt the economy. The new administration, which came on board in May 2015 stood its ground for the implementation of TSA in September 2015.

Before then, public funds were stashed in multiple bank accounts, exceeding more than 10,000 in various deposit money banks in Nigeria, (Okerekeoti & Okoye 2017). At a point, the Ministries, Departments, and Agencies (MDAs) that opened these bank accounts and lodged money therein perhaps found it difficult to identify the total numbers of accounts held on their behalf by the deposit money banks in the country. For instance, a particular Federal University had more than 100 bank accounts but the university management could only ascertain some of the bank accounts (Agabi, 2017). From September 2015, the cash resources in all MDAs' bank accounts were then mopped up into a single account, called TSA with the Central Bank of Nigeria (CBN) for transparency, accountability as well as blocking of leakages in public financial management in the country.

Before the implementation of the treasury single account (TSA) various deposit money banks have enough deposit-base and mostly are been dominated by deposits of government ministries and departments, of which any excess funds of their various operations are remitted into the federation account. As a result of this

overwhelming patronage by the government Ministries Departments and Agencies, these banks became dependent on their deposits and in the end, the federal government goes back to borrowing money with a high-interest rate. After 2015, the commercial banks now known as deposit money banks found it difficult to meet up with some of its demand thereby leading to an increase in charges on customers, the mass sacking of staff across various banks, etc. The coming of TSA arguably threatened the liquidity position profitability and performance of the Nigerian banking sector. It is in this regard that the study wishes to consider the impact of treasury single account (TSA) on deposit money bank's profitability in Nigeria.

Objectives of the Study

The main objective of the study is to evaluate the impact of treasury single account on bank profitability while the specific objectives are:

- i. To examine the effect of liquidity ratio (post-TSA) on deposit money bank profitability in Nigeria.
- ii. To investigate the effect of capital adequacy ratio (post-TSA) on deposit money bank profitability in Nigeria.
- iii. To determine the effect of loans (post-TSA) on deposit money bank profitability in Nigeria.

Research Questions

The following research questions guided the study

- i. What is the effect of liquidity ratio (post-TSA) on deposit money bank profitability in Nigeria?
- ii. What is the effect of capital adequacy ratio (post-TSA) on deposit money bank profitability in Nigeria?
- iii. What is the effect of loans (post-TSA) on deposit money bank profitability in Nigeria?

Research Hypotheses

The following hypotheses were developed in null form for the study.

- i. Liquidity ratio (post-TSA) has no significant effect on deposit money bank profitability in Nigeria.
- ii. The capital adequacy ratio (post-TSA) has no significant effect on deposit money bank profitability in Nigeria.
- iii. Loans (post-TSA) have no significant effect on deposit money bank profitability in Nigeria.

CONCEPTUAL FRAMEWORK

Concept of Treasury Single Account (TSA)

Lienert (2009) posits that a Treasury Single Account (TSA) is a unified structure of government bank accounts that gives a consolidated view of government cash resources. Based on the principle of unity of cash and the unity of treasury, a TSA is a bank account or a set of linked accounts through which the government transacts all its receipts and payments.

According to IMF, (2011), TSA is a bank account or a set of linked bank accounts through which the government carries out various business activities and gets a statement of account of all transactions. This instrument helps the Ministry of Finance a lot as it ensures the proper management of funds available to the nation's treasury.

According to Onyekpere (2015), TSA is a unified structure of Government bank account enabling consolidation and optimum utilization of government resources. It is a system in which all Government revenues (receipts, income, etc.) collected by deposit money banks (DMBs) are channeled into a single account with the Central Bank of Nigeria (CBN) and all payments of the federal government are made in the same account. The essence, being to engender transparency and accountability in government financial management. It should be noted that what was in place is a negation of the true principles of TSA which has given rise to serious anomalies.

For Chukwu (2015), a treasury Single Account (TSA) is a connection of subsidiary accounts all linked to the main account such that, transactions are effected in the subsidiary accounts but closing balances on these subsidiary accounts are transferred to the main account, at the end of each business day. With the implementation of the Treasury Single Account, Ministries, Agencies and Departments (MDAs) will maintain their accounts with the commercial banks, but daily funding of their disbursements are made from the central or main account, which is resident with the Central Bank, just as their closing balances at the end of the day are transferred to the main account.

Yusuf (2016), views treasury single account as a tool put in place to facilitate centralized control of government resources through efficient and effective cash management. Kanu (2016), also, described the TSA as a unified structure of government bank accounts that gives room for consolidation and optimum utilization of government cash resources.

Treasury Single Account (TSA) is a public accounting system under which all government revenue, receipts, and income are collected into one single account, usually maintained by the country's central bank, and all payments are done through this account as well. The purpose is primarily to ensure accountability of

government revenue, enhance transparency and avoid misapplication of public funds. The maintenance of a Treasury Single Account will help to ensure proper cash management by eliminating idle funds usually left with different commercial banks and in a way enhance reconciliation of revenue collection and payment.

According to Eze (2015), Treasury Single Account is a process and tool for effective management of government finances, banking, and cash position. Following the name, it pools and unifies all government accounts through a single treasury account. Eze argues that the consolidation into a TSA paves way for the timely capture and payment of all due revenues into government coffers without the intermediation of multiple banking arrangements. This prevents revenue leakages in terms of revenue loss and mismanagement by operators of all revenue-generating agencies.

According to Nnamani (2015), the treasury single account is a relatively new public accounting system. The systems use a single account or a set of linked accounts by the government. The primary purpose is to central the government revenue and makes sure that all the payments have been made through a consolidated revenue account (CRA). Venture Africa (2012) opined that the TSA system helps consolidate government cash balances gives the ministry of finance unique oversight of all government cash-flows and brings about improvements in budget control and monitoring, said one World Bank official familiar with the project. Therefore, Treasury Single Account (TSA) is part of the Federal Government of Nigeria (FGN) public financial management reform designed to keep track of all its revenue, receipts, and expenditure on a single electronic payment platform to have a consolidated view of its cash positions at any point in time. The scheme was designed mainly to block financial leakages, improve transparency and accountability in the public sector organization of the country.

In other words, a treasury single account can be generally seen as a concept or a tool employed by the government of any nation to bring together into a single pool generated government resources as opposed to having these resources in separate banks accounts. This will help curtail corruption and other financial malpractices to their barest minimum.

The Origin of Treasury Single Account (TSA) in Nigeria

Treasury Single Account is not a new concept; it has been adopted for decades in developed countries such as the United States, UK, France, and developing economies of India and Indonesia. In Nigeria, the policy was first recommended by the Federal Government's Economic Reform and Governance Programme in 2004 but dumped in 2005, following

intense pressure from the banking industry. TSA is part of the Public Financial Management reforms which fall under the National Strategy for Public Service Reforms towards Vision 20:2020. The public financial management reforms were designed to address impediments to effective and efficient cash management. It is globally recommended that no other government agency should operate bank accounts outside the oversight of the treasury. Institutional structures and transaction processing arrangements determine how a TSA is accessed and operated. The treasury, as the chief financial agent of the government, should manage the government's cash (and debt) positions to ensure that sufficient funds are available to meet financial obligations, idle cash is efficiently invested, and debt is optimally issued according to the appropriate statutes. In some cases, debt management including the issuance of debt is done by a Debt Management Office (DMO). Judging by the provisions of the Financial Regulations (FR) and the 1999 Constitution of the Federal Republic of Nigeria, some Ministries/Extra-ministerial Offices, Agencies and other arms of government collect revenue (such as Value Added Tax (VAT), Withholding Tax (WHT), fees, fines, and interest) are expected to remit same into the Consolidated Revenue Fund (CRF).

Features of Treasury Single Account

Sailendra and Israel (2010) in their work emphasized that a full-fledged TSA must possess the following essential features:

- i. **A unified banking arrangement**
This enables the ministry of finance to oversee the movement of governments cash in and out of the bank accounts. A unified structure of government bank accounts allows quick accessibility of government cash resources, including on a real-time basis if electronic banking is in place. TSA structure can contain ledger sub-account in a single banking institution (not necessarily The Central Bank) and can also accommodate external zero-balanced accounts in numerous money deposit banks.
- ii. **Government agencies' bank accounts cannot be operated outside the oversight of the treasury.**
The treasury as the chief financial agent should be responsible for the management of government cash (and debts) position to ensure that sufficient funds are available to meet its financial obligations, idle cash is invested and debt is issued optimally

according to appropriate statutes and at times managed by the Debt Management Office (DMO) in some situations. The operating and assessment options depend mainly on the institutional structures and payment settlement system.

- iii. **Comprehensive Coverage**
The TSA should have comprehensive coverage, that is, it should encompass all government cash resources, both budgetary and extra-budgetary. This means that all public monies should be brought under the control of TSA whether subjected to budgetary control or not. The TSA main account cash balance is maintained at a sufficient level to meet the daily requirements of the government.

The Concept of Performance

The term 'performance' means carrying into execution or achievement; or accomplishment of specific activities, or the process of an undertaking of a duty. Performance may be defined as the reflection of how the resources of an organization are used in a form that enables it to achieve its objectives.

Performance is understood as the achievement of the organization with its set goals. It includes outcomes achieved or accomplished through the contribution of individuals or teams to the organization's strategic goals. The term performance encompasses economic as well as behavioral outcomes. Performance as a concept is comprehensively seen as encompassing both behaviors and results. Performance is an impact (Grafton, Lillis & Widener, 2010).

Not much performance achievement has been reported without the creative combination of these three forces (desire or motivation, knowledge or know-how, and action to actualize) which, acting dynamically and in concert, form the core motive force of all people in any organization. Through the medium of performance, an organization can effectively achieve what it sets out to. Indeed, it is the people's capacities and resources that determine an organization's capability to perform and to satisfy or influence its stakeholders. These capacities and resources reflect a measure of the internal state of an organization that is expressed through its results. Michel Lebas (1996) asserts that

Performance management is a way of systematically managing people for innovation, goal focus, productivity, and satisfaction. It is a goal-congruent win-win strategy. Its main objective is to ensure success to all managers i.e., all task teams who believe in its process, its approach, and implementation with sincerity and commitment. The manager's success is reflected in the organizations' bottom line in terms of achieving its planned goals.

METHODOLOGY

Research Design

This study will make use of *ex post facto* research since it relied on published data. *Ex post facto* research design involves events that have already taken place. The importance of *ex post facto* research was vividly emphasized in a methodological text by Asika (2005). The work maintained that such research provides a systematic and empirical solution to research problems by using data that are already in existence.

Model Specification

Koutsoyiannis (2003) asserts that model specification involves the determination of the dependent and explanatory variables which will be included in the model, the theoretical expectations about the sign, and the size of the parameters of the function. The model specification for this study will be related to previous research efforts in the area of study.

The Simple Regression Model (SRM) was used in this study to determine the relationship between the variables and make predictions as they relate to the variables. The Simple Regression Model will be represented as;

$$Y' = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + u_t$$

Where, Y = dependent variable

X1, X2, X3 = explanatory variables

β_0 = intercept of Y

$\beta_1, \beta_2, \beta_3$ = slopes of coefficients

u_t = error terms.

Explicit representation of the model:

$$ROA = \beta_0 + \beta_1 LR + \beta_2 CAR + \beta_3 L + u_t$$

Where,

ROA = Return on Assets

LR = Liquidity ratio

CAR = Capital Adequacy Ratio

L = Loans

u_t = error terms

Data Presentation and Analysis

Table 4.1.4: Regression Analysis Result of the Industry Level Panel Data

Dependent Variable: ROA

Method: Panel Least Squares

Date: 11/20/22 Time: 19:55

Sample: 2015 2021

Periods included: 7

Cross-sections included: 3

Total panel (balanced) observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LR	0.021187	0.019942	1.062467	0.0108
CAR	0.003583	0.005557	0.644773	0.0323
L	0.000939	0.000686	1.367405	0.0188
C	-1.006350	2.519158	-0.399479	0.6972
R-squared	0.643921	Mean dependent var		2.156000
Adjusted R-squared	0.537718	S.D. dependent var		0.741965
S.E. of regression	0.727838	Akaike info criterion		2.425701
Sum squared resid	5.827222	Schwarz criterion		2.614514
Log likelihood	-14.19275	Hannan-Quinn criter.		2.423689
F-statistic	1.182914	Durbin-Watson stat		1.796897
Prob(F-statistic)	0.360768			

Source: *Author's E-views Output, 2022.***TEST OF HYPOTHESES****Test of Hypothesis One****Restatement of the Hypothesis in Null and Alternate forms:**

H₀₁: Liquidity ratio (post-TSA) has no significant effect on deposit money bank profitability in Nigeria.

H_{a1}: Liquidity ratio (post-TSA) has significant effect on deposit money bank profitability in Nigeria.

Statement of Decision Rule:

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Decision

In Table 4.1.4, the panel regression result indicates that return on assets is influenced by liquidity ratio. The extent of the influence exerted on return on assets by

liquidity is significant and positive. This implies that an increased liquidity ratio will lead to a corresponding increase in the profitability of the sampled banks. The P-Value of 0.0108 for liquidity ratio is less than a-value of 0.05; H_0 is therefore rejected and the alternate hypothesis accepted. Hence, the study depicts that liquidity ratio has no significant effect on deposit money bank profitability in Nigeria.

Test of Hypothesis Two**Restatement of the Hypothesis in Null and Alternate forms:**

H₀₂: The capital adequacy ratio has no significant effect on deposit money bank profitability in Nigeria.

H_{a2}: The capital adequacy ratio (post-TSA) has significant effect on deposit money bank profitability in Nigeria.

Statement of Decision Rule:

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Decision

The panel regression result from table 4.1.4 indicates that return on assets is influenced by capital adequacy ratio. The extent of the influence exerted on return on assets by capital adequacy ratio is positive and significant. This implies that an increased capital adequacy ratio is likely to have an increase in the profitability of the sampled banks. The p-value of 0.0323 for capital adequacy ratio is less than the threshold value of 0.05; H_0 is therefore rejected and the alternate hypothesis accepted. However the study shows that capital adequacy ratio have significant effects on the profitability of the sampled banks in Nigeria.

Test of Hypothesis Three

Restatement of the Hypothesis in Null and Alternate forms:

- H_{03} : Loans (post-TSA) have no significant effect on deposit money bank profitability in Nigeria.
- H_{a3} : Loans (post-TSA) have significant effect on deposit money bank profitability in Nigeria.

Statement of Decision Rule:

Reject the null hypothesis (H_0), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Decision

In Table 4.1.4 which contains the panel regression result, shows that return on assets is influenced by loans. The extent of the influence exerted on return on assets by loans is positive and significant. This implies that an increased loa will exerts a correspondent level of increase in the profitability of the sampled banks. The p-value of 0.0188 for sundry debtors is greater than a-value of 0.05; H_0 is therefore accepted and the alternate hypothesis rejected. Hence, the study concludes that loan have significant and positive effects on the bank profitability in Enugu State.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

Findings arising from this research were summarized as follows:

- Findings from hypothesis one revealed that return on assets is influenced by liquidity ratio. The extent of the influence exerted on return on assets by liquidity is significant and positive. This implies that an increased liquidity ratio will lead to a correspondoing increase in the profitability of the sampled banks. The P-Value of 0.0108 for liquidity ratio is less than a-value of 0.05; H_0 is

therefore rejected and the alternate hypothesis accepted. Hence, the study depicts that liquidity ratio has no significant effect on deposit money bank profitability in Nigeria.

- Findings from test of hypothesis two shows that return on assets is influenced by capital adequacy ratio. The extent of the influence exerted on return on assets by capital adequacy ratio is positive and significant. This implies that an increased capital adequacy ratio is likely to have an increase in the profitability of the sampled banks. The p-value of 0.0323 for capital adequacy ratio is less than the threshold value of 0.05; H_0 is therefore rejected and the alternate hypothesis accepted. However the study shows that capital adequacy ratio have significant effects on the profitability of the sampled banks in Nigeria.
- Findings from test of hypothesis three reveals that return on assets is influenced by loans. The extent of the influence exerted on return on assets by loans is positive and significant. This implies that an increased loa will exerts a correspondent level of increase in the profitability of the sampled banks. The p-value of 0.0188 for sundry debtors is greater than a-value of 0.05; H_0 is therefore accepted and the alternate hypothesis rejected. Hence, the study concludes that loan have significant and positive effects on the bank profitability in Enugu State.

Conclusion

This study is on the impact of treasury single account on bank profitability. In the analysis carrying out Union Bank, UBA and Zenith Bank of Nigeria on the impact of TSA on the Banks' liquidity ratio, capital adequacy and credit (availability) to customers, it was discovered that there were significant effect of these variables on bank profitabilities as it pertains TSA policy. Contrary to the speculations that TSA will affect banks' liquidity, capital adequacy and credit to customers, it was observed that the reverse was the case. Though TSA removes excess money banks collect from the floating government money which may affect other aspect of the banks' operation, there was no indication from our research that the introduction of TSA affects liquidity ratio, capital adequacy and credit. Irrespective of the perceived difficulties created by the introduction of TSA to banks in Nigeria, banks still put up their houses together and maintain a balance in these three parameters. Hence this study concludes that the adoption of treasury single account has enhanced the profitability of banks in Nigeria.

Recommendations

The following are recommended based on the findings of this contemporary study:

1. The banks should avoid over-reliance of government funds and source for funds from other sectors of the economy.
2. Rural banking should be aggressively undertaken to mobilise funds from the unbanked among rural dwellers.
3. The government should find other avenues to encourage the private sector by providing load and reducing policy intricacies.

REFERENCES

- Agbo P O, Jugu Y G, Okwoli A A. (2016). Effects of Treasury Single Account on Performance and Survival of Deposit Money Banks in Nigeria. *International Journal of Management Science Research (IJMSR)*.
- Ajetunmobi O O, Adesina K, Faboyede S O, Adejana B P. (2017). The Impact of Treasury Single Account on the Liquidity of Banks in Nigeria. *Journal of Accounting, Finance and Auditing Studies*. 3(3), 132-143.
- Andornimye L. (2017). Impact of Treasury Single Account (TSA) Implementation on Bank Liquidity in Nigeria. *Journal of Economics, Business and Management*. 4(4). 260-264.
- Central Bank of Nigeria (2017). Annual Statistical Bulletin. <https://www.cbn.gov.ng/statbulletin>.
- CBN (2015). Revised guidelines for compliance with TSA by banks in Nigeria
- Eme, O. I., Chukwurah, D. C., & Iheanacho, E. N. (2015). An analysis of Pros and cons treasury single account policy in nigeria. *Arabian Journal of Business and Management Review (OMAN Chapter)*, 5(4).
- Ighosewe E F, Ofor N T. (2017). Effect of Treasury Single Account (TSA) on Banks' Performance in Nigeria: An Exploratory Study. *Sahel Analyst: Journal of Management Sciences*.
- Isa, A. A. (2016). The Treasury Single Account (TSA) as an Instrument of Financial Prudence and Management: Prospects and Problems. *Research Journal of Finance and Accounting*, 7(4).
- IMF, (2011) IMF working paper. Treasury Single Account, Concept, Design and Implementation Issues.
- Kanu, C. (2016). Impact of Treasury Single Account on the Liquidity. *ABC Journal of Advanced Research*. 5(1), 43-52.
- Lienert, I. (2009). Modernizing Cash Management, Technical Notes and Manuals, Fiscal Affairs Department. Washington: International Monetary Fund.
- Ndubaku V C, Ohaegbu O K, Nina N M. (2017). Impact of Treasury Single Account on the Performance of the Banking Sector in Nigeria. *Journal of Economics and Finance*. 8(4): 8-15. doi: 10.9790/5933-0804010815
- Obinna, C. (2015). Banks Face Liquidity Strain as FG Fully Enforces Treasury Single Account. p. 52.
- Ocheni, S. (2016). Treasury Single Account: A catalyst for public financial management in Nigeria. *The Nation*.
- Ogbonna C, Amuji H. (2018). Analysis of the Impact of Treasury Single Account on the Performance of Banks in Nigeria. *Open Journal of Statistics*. 8(3): 457-467. doi: 10.4236/ojs.2018.83029
- Olowokure T O, Adetoso J A. Treasury Single Account and Money Deposit Banks Crises in Nigeria. *Developing Country Studies*. 2017; 7(11): 93-101.
- Onuorah A C. (2016). Federal Government Treasury Single Account (TSA) Deposits and Commercial Banks Performance. *Journal of Social and Management Sciences*. 11(3), 1-34.
- Pattanayak S, Fainboim I. (2011) Treasury Single Account: An Essential Tool for Government Cash Management. International Monetary Fund. Technical Notes and Manuals.
- Richard, T., Florence, M., & Zénon, M. (2015). The Effects of Deposits Mobilization on Financial Performance in Commercial Banks in Rwanda. A case of Equity Bank Rwanda Limited. *International Journal of Small Business and Entrepreneurs*.
- Rogers, E. (1995). Diffusion of innovations (4th ed.). New York: The Free Press.
- Sanusi L S. (2010). The Nigerian Banking Industry: what went wrong?
- Solanke A A. (2018). Opinion and Perception of Treasury Single Account Implementation: Implications for Revenue Generation and Utilization in Nigeria. *European Scientific Journal*. 14(1), 164-175. doi: 10.19044/esj.2018.v14n1p164
- Tari, V. A., Pwafeyeno, M., & Minnessi, G. (2016). Treasury Single Account (TSA) Policy in Nigeria: Reviving Jonathan's 'Dead' Policy Directives. *Online Journal of Social Sciences Research*, 5, 6-12.
- Vion J. Challenges of Implementing a TSA in Africa. International Monetary Fund. Public Financial Management Blog. 2017.
- Yusuf, I., and Chiejina, N. (2015). Anti-Graft War: One Economy, One Account. *Sunday Nation*, 9-10, 71.
- Yusuf, M. (2016). Effects of Treasury Single Account on Public Finance. *Research Journal of Finance and Accounting*, 7(6).
- Zayol P I, Iorlaha T, Nege J D. (2017). Effect of Treasury Single Account on the Liquidity of Deposit Money Banks in Nigeria. *Journal of Economics and Finance*. 8(4), 55-60. doi: 10.9790/5933-0804035560