Innovations

# Treasury Single Account and Performance of Deposit Money Banks in Nigeria

**Ibechukwu Modesta Nwakaego[1], Ofoegbu Grace N.[1] & Chukwu Benjamin Ibe[2]**

[1]Department of Accountancy, Faculty of Business Administration, University of Nigeria Enugu Campus

[2]Department of Management, Faculty of Business Administration, University of Nigeria Enugu Campus

Corresponding Author: **Chukwu Benjamin Ibe**

***Abstract**: The study investigated the effect Treasury Single Account (TSA) and Performance of Deposit Money Banks (DMBs) in Nigeria from 2007 to 2022. The specific objectives are to: assess the effect of TSAon the loan portfolios and credit intermediation of all the DMBs; evaluate the effect TSAon return on the net interest margin of DMBs; ascertain the effect of TSA on the deposit mobilization DMBs, determine the effect of TSA on liquidity ratio of DMBs, and ascertain the effect TSA on the return on assets of DMBs in Nigeria. The investigation employed the expost-facto research design. The population of the study comprises all the twenty four (24)DMBs in Nigeria. Time series data used for the study were obtained from the Central Bank of Nigeria Statistical financial Bulletin,World Bank, and Federal Reserve Bank of St Louis for the period of 16 years (2007-2022). The type of data collected were financial performance data; and these were analysed using E-View as well as SPSS Version 27. All the hypotheses were tested at 5% level of significance. The result of the hypotheses tested showed that the implementation of TSA had significant effect: on loan portfolios and credit intermediation extended by DMBs(t = 9.730, p-value = 0.000), on net interest margin of deposit money banks (t = 10.833, p – value = 0.000), on deposit mobilization capabilities of DMBs(t=5.757, p-value = 0.000), on liquidity ratio of DMBs(t=9.068, p-value = 0.000), and on return on assets of deposit money banks in Nigeria (t=14.682, p-value = 0.000). It was concluded that TSA had significant effect on the performance of DMBs in Nigeria. Among others, we recommend that DMBs should actively seek to diversify their funding sources beyond government deposits.*

***Keywords:** Loan portfolio, Return on asset, Deposit mobilization, Liquidity ratio, Net interest margin*

# 1. Introduction

## 1.1 Background of the Study

TSA is an economic policy that ensures all government revenues from the various Ministries, Department and Agencies (MDAs) are put in one account which is consolidated with the Central Bank of Nigeria (CBN); from which all government expenditures are made. This policy which has been in existence in other parts of the world, was introduced and partially implemented in 2012 by the President Goodluck Jonathan.

The Federal Government of Nigeria (FGN) commenced the first phase of the implementation of the TSA in January 2012 as part of the Economic Reforms and Governance Project (ERGP), the impact of which was not felt by banks as the mandatory remittance of inflows to CBN was not enforced. Originally, the TSAwasintended to ensure the optimum use of cash resources and to reduce government borrowing. The first phase started with the payment element which enabled selected Ministries, Departments and Agencies (MDAs) to draw payments from single account or designated accounts with the CBN. The full implementation of the TSA, which brought in the e-collection segment of the scheme took place in September 2015 (CBN, 2016).

The aim of the Treasury Single Account policy is to minimize or completely block all financial leakages in order to promote transparency and reduce the level of mismanagement of government's revenue. However, it has met with mixed reactions because whereas the government of the day is able to take full charge and control over its financial resources, other stakeholders, such as Deposit Money Banks (DMBs) decry of the negative effect on their cash holding, with a consequential effect on their performances.

### 1.2.1 Statement of the problem

Before 2015, Government Ministries, Departments and Agencies (MDAs) operated multiplicity of accounts in Deposit Money Banks (DMBs). This gave rise to embezzlement and misappropriation of funds among these MDAs officials. As a result, the Federal Government of Nigeria (FGN) introduced the Treasury Single Account (TSA). The aim of TSA is to fight fraud, corruption and to block all the financial leakagesas well as to boast transparency, accountability and minimization of cost on government spending.

Therefore, TSAinherently aimed to promote transparency, accountability, and efficient management of public funds. However, its implementation has raised some concerns about its effects on Deposit Money Banks (DMBs) in Nigeria. This is essentially because it has led to a significant reduction in government deposits with DMBs, resulting in a substantial decrease in their liquidity. This reduction in liquidity has affected the ability of DMBs to provide credit facilities to their customers, and by extension affects their performance. Besides, the TSA policy has led to a decrease in the cash reserves of DMBs, making it difficult for them to meet their short-term obligations.

From the foregoing, we propose that the impact of TSA on the performance of DMBs in Nigeria is a subject of concern that requires investigation. Therefore, this study seeks to investigate the effect of TSA on the performance of DMBs in Nigeria.

## 1.3 The Objectives of the Study

The broad objective of the study is to investigate the effect of treasury single account on the performance of Deposit Money Banks in Nigeria. However, the specific objectives are to:

i Assess the effect of treasury single account on the loan portfolios and credit intermediation of all the DMBsin Nigeria.

ii Evaluate the effect treasury single account on return on the net interest margin of DMBsin Nigeria.

iii. Ascertain the effect of treasury single account on the deposit mobilization DMBsin Nigeria

iv. Determine the effect of treasury single account on liquidity ratio of deposit money banks in Nigeria.

v. Ascertain the effect treasury single account on the return on assets of DMBs in Nigeria.

## 1.4 Research Hypotheses

$H0_1$: The implementation of TSA has no significant effect on loan portfolios and credit intermediation extended by deposit money banks in Nigeria.

$H0_2$: The implementation of TSA has no significant effect on net interest margin of deposit money banks in Nigeria.

$H0_3$: The implementation of TSA has no significant impact on deposit mobilization of deposit money banks in Nigeria.

$H0_4$: The implementation of TSA has no significant effect on liquidity ratio of deposit money banks in Nigeria.

$H0_5$: The implementation of TSA has no significant effect on return on assetsof deposit money banks in Nigeria.

## 2. Review of Related Literature

### 2.1 Treasury Single Account

Akande (2016) states that TSA is an account that links all government revenues all over the federation into the federal government consolidated revenue fund account which is currently domiciled at the CBN via Remita e-collection payment system. Kanu (2016), Eme and Chukwurah (2015), noted that the central objectives behind the introduction of TSA were to engender accountability of government funds, and to avoid undue misappropriation of funds.

Oyedele (2015) also defined a Treasury Single Account as a unified structure of government bank accounts that gives a consolidated view of government cash resources. Yusuf (2015) opined that Treasury Single Account is a unified structure of government bank accounts enabling consolidation and optimal utilization of government cash resources.

**i. Loan portfolio and credit intermediation**

Hamisu, (2011) notes that credit creation involves huge risks to both the lender and the borrower. The risk of a trading partner not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of bank's business. On the other hand, a bank with high credit risk has high bankruptcy risk that puts the depositors in jeopardy. In a bid to survive and maintain adequate profit level in this highly competitive environment, banks have tended to take excessive risks. But then the increasing tendency for greater risk taking has resulted in insolvency and failure of a large number of the banks.

**ii. Return on Net Interest Margin (NIM)**

How well a bank manages its assets and liabilities is affected by the spread between costs on its liabilities. This spread is exactly what the net interest margin measures. Hence, Barik & Raje (2019) state that NIM is a necessary indicator for banking sector' effectiveness. It reflects the cost of conducting intermediation as well as the healthiness of banking sector.

**iii. Deposit mobilization**

Banson (2013), posits that deposit mobilization is the collection of cash or funds by a financial institution from the public through its current, savings and fixed amounts and other specialized schemes. To mobilize enough deposits, banks should present various kind of deposit schemes to attract customers.

**iv. Liquidity Ratio**

Liquidity ratio is defined as the percentage of total deposit liabilities which commercial banks as required by law to keep liquid. Cash is an exchange of liquidity requirement, which can be influential on fund management as soon as the commercial bank began lending out deposits. This is so because they had to take rational decision on the prudent level of cash reserves necessary to meet the demand of depositors. It is the central bank that control and fix liquidity ratio in a particular country.

The original of liquidity ratio was to provide commercial bank with cash in some proportion to deposit so as to assure depositors of convertibility for their deposits in cash (Yahaya,2019).

### v. Return on Assets

Return on Assets (ROA) is a measure of firm's performance that provides relevant information to the stakeholders of the DMBs through the annual published audited financial statement of how well a company uses its assets to generate income. The ROA shows the ability of the bank's management to generate revenue by utilizing bank assets at their disposal. It also shows the efficient use of the resources of the company in creating income. A higher ROA means a higher level of firm performance. The use of ROA in measuring financial performance of a firm has been adopted by a variety of researchers. Some of the researchers like Orumo (2018)adopted this measure in their empirical studies.

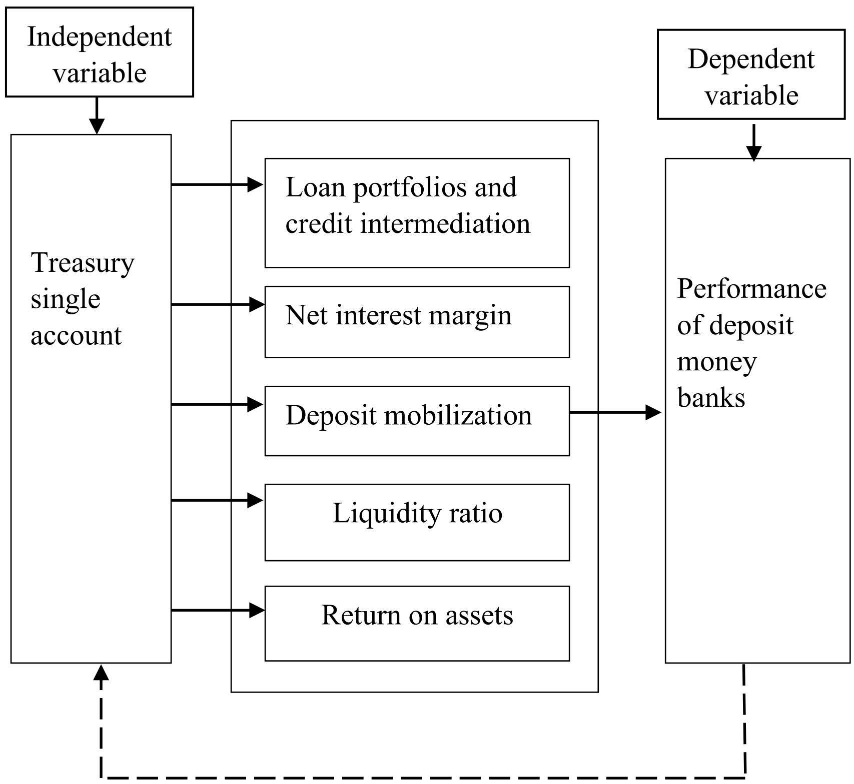


**Figure 2.1 Conceptual Framework of the Effect of TSA on Performance of DMBs in Nigeria.**
**Source:** Researcher, 2025.

## 2.2 Theoretical Framework

**i) Unity of Cash Principles:** According to Dr. A. Premchand in 1957 defined unity of cash principle as the concentration of all government cash receipts and payments into a single account, so that the government's cash position is reflected in one consolidated balance, and all transactions are routed through this account. The key elements of unity of cash principles are consolidation of all government cash receipts and payments into a single account, centralization of account should be maintained by the central treasury or ministry of finance.

**ii) Unity of Treasury Principle**

Sir Richard Hopkins in 1932 propounded the unity of treasury principles in his book "Public Finance and the Treasury" posits that all government financial transactions should be concentrated into a single, centralized treasury account. This centralization ensures unified management of government finances, enabling efficient control, accurate accounting, and consolidated reporting. By integrating all receipts and payments, the treasury maintains a comprehensive overview of government finances, facilitating better decision-making, transparency, and accountability

## 2.3 Empirical Review

### i. Effect of treasury single account on the loan portfolios and credit intermediation

Adewole et al (2019) examined the relationship between financial intermediation in deposit money banks and the Nigerian economy. A systematization literary approach for solving the problem is Regression Analysis. Secondary data was sourced from Central Bank of Nigeria Statistical Bulletin. The results of findings within the years of analysis (2000-2017) indicated that there was significant relationship between Total Bank Credit and monetary policy indices on deposit money banks in Nigeria.

Oloba et al (2017) studied the effect of the TSA system on the Nigerian financial system and economic growth. Data used in the study were gathered through secondary sources from the financial reports (balance sheet and profit and loss account reports) of five (5) major deposit money banks (DMBs) in Nigeria. The authors used the descriptive statistical method in analyzing the data. Based on the analysis, the study concluded that, TSA does not have a significant negative impact on the Nigerian financial institutions as most of the institutions are still very stable and buoyant financially.

### ii) Effect of treasury single account on return on the net interest margin.

Onuorah (2017) examined the effect of implementation of Federal Government Treasury Single Account (TSA) Deposits and commercial banks performance in Nigeria from the period 2012 to 2016 using time series data. Trend analysis (bar charts) and SPSS 7.0 software descriptive statistics and least square test were used as tools of data analysis. The study then found and concluded that the implementation of TSA in the public sector deposits (Demand, Time and Savings) deposit accounting system did not impact significantly on the performance of the commercial banks.

**iii) Effect of treasury single account on the deposit mobilization**

Ndubuaku et al (2017) examined how the introduction of Treasury Single Account has affected banks Credit to private sector, Deposit Mobilization, and Loans and advances in their study "Impact of Treasury Single Account on the Performance of the Banking Sector in Nigeria". The study employed descriptive and ex-post facto research design. The population of the study was made up of the 24 commercial banks in Nigeria. The study concludes that the introduction of Treasury Single Account significantly reduced Credit to private sector, Deposit Mobilization, and Loans and advances.

Benjamin et al (2020) examined the effect of Treasury Single Account (TSA) implementation on the financial performance of commercial banks in Nigeria. The study employed expo-facto survey research design and seven big commercial banks in Nigeria. First Bank of Nigeria, Zenith Bank, Access Bank, UBA, Union Bank, Diamond Bank and Fidelity Bank were usedfor this study. Secondary data were gathered through CBN statistical bulletin from 2013 to 2017 (that is two years before and two years after implementation of TSA). Customers' deposit was used as proxy for independent variable (Treasury Single Account), while profit after tax, return on equity and return on assets are proxies for dependent variable (financial performance). The findings obtained from the statistical testing of the hypotheses of this study show that customers' deposit has a significant effect on profit after tax, return on assets and return on equity of commercial banks in Nigeria.

**iv) Effect of treasury single account on liquidity ratio of deposit money banks.**

Clementina (2016) conducted a study on the Effect of Treasury Single Account on the Liquidity of Base and Performance of the Banking Sector. The main objective of the study was to find out the influence of TSA on the liquidity base and performance of the banking sector in Nigeria. The study made use of mainly Primary data from ten (10) randomly selected banks'. Questionnaire were administered to the Management staff of the ten (10) banks selected for the study. The results obtained confirmed that the implementation of Treasury Single Account in the public accounting system impacted negatively on the liquidity base and the performance of banking sector in Nigeria.

**v) Effect of treasury single account on the return on assets of deposit money banks**

Halit et al (2019) analyzed the effects of capital adequacy on the return of assets to the banking sector in Kosovo. Based on the results, they concluded that capital adequacy has a positive impact on asset returns and has a significant relationship. In addition, other factors have had a positive and negative impact on the return of commercial banks' assets in Kosovo.

Akinroluyo&Adeoti (2022) investigated the effect of capital adequacy onReturn on Asset (ROA) of Deposit Money Bank's (DMB) in Nigeria. Their result showed that CTA has statistical significant effect on profit margin of the selected banks within the period.

## 3. Methodology

The investigation employed the expost-facto research design. This is because the researcher had no control over the data variables used in the investigation. This study made use of econometric procedure in estimating the effect of treasury single account on performance of deposit money banks in Nigeria.
The population of this study comprises all the twenty-four (24) Deposit Money Banks in Nigeria. The justification for this was to ascertained the macroeconomic effects of the TSA on the performance of these banks within the period under investigation(2007-2022).The choice of this range of period is for the comparative analysis of pre-TSA and post –TSA on performance of DMBs in Nigeria.

Time series data used for the study were obtained from the Central Bank of Nigeria Statistical financial Bulletin, World Bank, and Federal Reserve Bank of St Louis for the period of 16 years (2007-2022).The type of data collected were financial performance data; and these wereanalysed using E-View as well as SPSS Version 27. All the hypotheses were tested at 5% level of significance which implies that we reject the null hypothesis (Ho) if the p-value < 0.05.

## 4. Data Presentation and Analyses

### 4.1 Data Presentation

The secondary data utilized for the analyses can be found in table 4.1. These datawere obtained from the Financial Statistics of the Central Bank of Nigeria (CBN) Statistical Bulletin, World Bank, and Federal Reserve Bank of St Louis for the period of 16 years (2007-2022). The data were made up of two dispensations of the Treasury Single Account (TSA) 2007 – 2014 being 8 years represents the pre-TSA dispensation while 2015 to 2022 being another 8 years represents the post-TSA dispensation.

**Table 4.1: Data Used for the Analyses**

| Year | Loan Portfolios (₦' Billions) | Net Interest Margin (%) | Deposit Mobilization (₦' Billions) | Liquidity Ratio (%) | Return on Assets (%) |
|---|---|---|---|---|---|
| 2007 | 4813.49 | 6.63 | 1674.56 | 41.56 | 3.2 |
| 2008 | 7799.4 | 6.63 | 2945.16 | 37.72 | 2.5 |
| 2009 | 8912.14 | 2.53 | 2658.06 | 26.39 | 8.9 |
| 2010 | 7706.43 | 2.24 | 2536.32 | 27.39 | 3.9 |
| 2011 | 7312.73 | 11.92 | 3134.99 | 42.02 | 2.6 |
| 2012 | 8150.03 | 9.36 | 4057.63 | 49.72 | 2.8 |
| 2013 | 10005.59 | 7.72 | 5812.56 | 46.23 | 2.5 |
| 2014 | 12889.42 | 7.12 | 6797.93 | 38.27 | 2.4 |
| 2015 | 13086.2 | 6.7 | 6271.16 | 42.35 | 2.1 |
| 2016 | 16117.29 | 5.65 | 6484.68 | 45.95 | 1.5 |
| 2017 | 15740.59 | 7.4 | 7961.57 | 54.79 | 1.8 |
| 2018 | 15134.2 | 6.17 | 8990.04 | 65.04 | 1.9 |
| 2019 | 17187.77 | 5.87 | 10021.31 | 104.2 | 1.5 |
| 2020 | 20373.49 | 4.72 | 15229.73 | 67.6 | 1.4 |
| 2021 | 24378.19 | 3.6 | 17346.13 | 61.2 | 1.32 |
| 2022 | 29445.87 | 3.43 | 22233.43 | 53.01 | 2.19 |

**Sources:** Financial Statistics of Central Bank of Nigeria (CBN) Statistical Bulletin, World Bank, and Federal Reserve Bank of St Louis

The loan portfolios of Nigerian banks have exhibited a steady upward trajectory, rising from ₦4813.49 billion in 2007 to ₦29445.87billion in 2022. This increase signifies the banks' enhanced lending capabilities alongside a growing demand for credit within the economy. The net interest margin (NIM) has experienced considerable fluctuations throughout the years. It commenced at 6.63% in 2007, reached a peak of 11.92% in 2011, and subsequently declined to 3.43% by 2022. The reduction in NIM, particularly after 2011, indicates heightened competition among banks and possibly lower interest rates on loans, which may affect profitability. Additionally, deposit mobilization has risen significantly, from ₦1674.56 billion in 2007 to ₦22233.43billion in 2022. This trend reflects the banks' robust ability to attract deposits, which is vital for financing their loan portfolios. The liquidity ratio has displayed variability, starting at 41.56% in 2007, peaking at 104.2% in 2019, and then declining to 53.01% in 2022. A high liquidity ratio suggests that banks maintain a substantial buffer to fulfill short-term obligations, which is essential for ensuring financial stability. The return on assets (ROA) has undergone notable fluctuations, beginning at 3.2% in 2007, peaking at 3.9% in 2010, and falling to 1.32% in 2021. However, the ROA rebounded to 2.19% in 2022, indicating a degree of improvement in profitability in relation to total assets.

**4.2 Descriptive Statistics**

**Tabe 4.2: Pre -TSA Policy Era in Nigeria (2007 – 2014)**

| | **Loan Portfolio** | **Net Interest Margin** | **Deposit Mobilization** | **Liquidity Ratio** | **Return on Assets** |
|---|---|---|---|---|---|
| **Mean** | 8448.654 | 6.768750 | 3702.151 | 38.66250 | 3.600000 |
| **Median** | 7974.715 | 6.875000 | 3040.075 | 39.91500 | 2.700000 |
| **Maximum** | 12889.42 | 11.92000 | 6797.930 | 49.72000 | 8.900000 |
| **Minimum** | 4813.490 | 2.240000 | 1674.560 | 26.39000 | 2.400000 |
| **Std. Dev.** | 2327.648 | 3.224754 | 1757.399 | 8.262908 | 2.198701 |
| **Skewness** | 0.499369 | -0.063996 | 0.772071 | -0.388241 | 2.053748 |
| **Kurtosis** | 3.179145 | 2.254827 | 2.260589 | 2.005412 | 5.557324 |
| **Jarque-Bera** | 0.343190 | 0.190555 | 0.977034 | 0.530710 | 7.803811 |
| **Probability** | 0.842320 | 0.909121 | 0.613536 | 0.766934 | 0.020203 |
| **Sum** | 67589.23 | 54.15000 | 29617.21 | 309.3000 | 28.80000 |
| **Sum Sq. Dev.** | 37925616 | 72.79329 | 21619159 | 477.9296 | 33.84000 |
| **Observations** | 8 | 8 | 8 | 8 | 8 |

**Source:** Researcher's Computation Using E –views

The provided data represent key financial indicators of deposit money banks in Nigeria before the introduction of the Treasury Single Account (TSA) policy between 2007 and 2014.

From table 4.2, we can observe that the mean loan portfolio is ₦8,448.65 million, with a median of ₦7,974.72 million. The maximum loan portfolio is ₦12,889.42 million, while the minimum is ₦4,813.49 million. The standard deviation of ₦2,327.65 million indicates moderate variability in loan portfolios across the banks. The positive skewness of 0.499369 suggests that the distribution has a longer right tail, with a few banks having higher loan portfolios. The average NIM is 6.77%, with a median of 6.88%. The maximum NIM is 11.92%, and the minimum is 2.24%. The standard deviation of 3.22% indicates a relatively high variability in NIM across the banks. The negative skewness of-0.063996 suggests that the distribution has a longer left tail, with a few banks having lower NIM. The mean deposit mobilization is ₦3,702.15 million, with a median of ₦3,040.08 million. The maximum deposit mobilization is ₦6,797.93 million, while the minimum is ₦1,674.56 million. The standard deviation of ₦1,757.40 million indicates moderate variability in deposit mobilization across the banks. The positive skewness of 0.772071 suggests that the distribution has a longer right tail, with a few banks having higher deposit mobilization. The average liquidity ratio is 38.66%, with a median of 39.92%. The maximum liquidity ratio is 49.72%, and the minimum is 26.39%. The standard deviation of 8.26% indicates moderate variability in liquidity ratios across the banks. The negative skewness of -0.388241 suggests that the distribution has a longer left tail, with a few banks having lower liquidity ratios. The mean ROA is 3.60%, with a median of 2.70%. The maximum ROA is 8.90%, and the minimum is 2.40%. The standard deviation of 2.20% indicates a relatively high variability in ROA across the banks. The positive skewness of 2.05 suggests that the distribution has a longer right tail, with a few banks having higher ROA. Overall, the data shows moderate to high variability in the financial indicators across the deposit money banks during the 2007-2014 period before the introduction of the TSA policy. The skewness values indicate that the distributions are not perfectly symmetrical, with a few banks having significantly higher or lower values compared to the majority.

**Table 4.3: Post TSA Policy Era in Nigeria (2015 – 2022)**

| | Loan Portfolio | Net Interest Margin | Deposit Mobilization | Liquidity Ratio | Return on Assets |
|---|---|---|---|---|---|
| **Mean** | 18932.95 | 5.442500 | 11817.26 | 61.76750 | 1.713750 |
| **Median** | 16652.53 | 5.760000 | 9505.675 | 57.99500 | 1.650000 |
| **Maximum** | 29445.87 | 7.400000 | 22233.43 | 104.2000 | 2.190000 |
| **Minimum** | 13086.20 | 3.430000 | 6271.160 | 42.35000 | 1.320000 |
| **Std. Dev.** | 5503.597 | 1.421023 | 5806.284 | 19.26573 | 0.330149 |
| **Skewness** | 0.926659 | -0.256621 | 0.726302 | 1.374194 | 0.260081 |
| **Kurtosis** | 2.607251 | 1.829791 | 2.139157 | 4.095845 | 1.550982 |
| **Jarque-Bera** | 1.196346 | 0.544268 | 0.950370 | 2.918171 | 0.790074 |
| **Probability** | 0.549815 | 0.761752 | 0.621770 | 0.232449 | 0.673655 |
| **Sum** | 151463.6 | 43.54000 | 94538.05 | 494.1400 | 13.71000 |
| **Sum Sq. Dev.** | 2.12E+08 | 14.13515 | 2.36E+08 | 2598.178 | 0.762988 |
| **Observations** | 8 | 8 | 8 | 8 | 8 |

**Source:** Researcher's Computation Using E -views

The provided data represent key financial indicators of deposit money banks in Nigeria after the introduction of the Treasury Single Account (TSA) policy between 2015 and 2022. This analysis will delve into each financial metric to understand the performance and trends of these banks during this period. The loan portfolio shows a significant increase in both the mean and median compared to the previous period (2007-2014). The maximum loan portfolio of ₦29,445.87 million indicates that some banks have substantially expanded their lending capacity. The standard deviation of ₦5,503.60 million suggests high variability, with certain banks significantly outperforming others. The positive skewness of 0.926659 indicates a distribution with a longer right tail, meaning that a few banks have very high loan portfolios. The average NIM has decreased compared to the previous period, reflecting a possible tightening of interest spreads or increased competition among banks. The median NIM of 5.76% is still relatively healthy, but the maximum of 7.40% indicates that some banks are managing to achieve higher margins. The negative skewness of -0.256621 suggests that while most banks have a similar NIM, a few banks are performing below the average. Deposit mobilization has also increased significantly, with a mean of ₦11,817.26 million. The high standard deviation indicates considerable variability, with some banks attracting significantly more deposits than others. The positive skewness of 0.726302 suggests that while many banks have moderate deposit levels, a few have exceptionally high deposits.The liquidity ratio has improved compared to the earlier period, indicating that banks are maintaining a healthier buffer of liquid assets. The mean liquidity ratio of 61.77% suggests a strong capacity to meet short-term obligations. The maximum liquidity ratio of 104.20% indicates that some banks have excess liquidity, which may be a strategic choice to ensure stability. The positive skewness of 1.374194 indicates that most banks maintain a liquidity ratio above the mean, with a few banks showing exceptionally high ratios.The ROA has decreased compared to the previous period, suggesting that banks may be facing challenges in generating profits relative to their total assets. The mean ROA of 1.71% and a maximum of 2.19% indicate that while some banks are performing well, overall profitability has not significantly improved. The positive skewness of 0.260081 suggests a slight tendency towards higher ROA, but the overall distribution is relatively balanced.Overall, the data indicate that while deposit money banks in Nigeria have grown and improved their liquidity after the introduction of the TSA, they are facing challenges in profitability and managing interest margins. This analysis highlights the need for banks to strategize effectively in a competitive landscape.

### 4.3 Test of Hypotheses

#### 4.3.1Test of Hypothesis One

**$H_{O1}$:** The implementation ofTSA has no significant effect onloan portfolios and credit intermediation extended by deposit money banks in Nigeria.

**$H_{A1}$:** The implementation of TSA has significant effect on loan portfolios and credit intermediation extended by deposit money banks in Nigeria.

In this section of the analysis, the hypotheses of the studywere tested using the One-Sample t-statistics

**Table 4.4**
**One-Sample Test**

| | | | | Test Value = 0 | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig (2-tailed) | Mean Difference | Lower | Upper |
| Loan Portfolio | 9.730 | 7 | .000 | 18932.95000 | 14331.8281 | 23534.0719 |

**Source:** Researcher's Computation Using SPSS Version 27

**Decision Rule**
Reject the null hypothesis (Ho) if the p-value< 0.05; otherwise do not reject.

**Decision**
Since the p-value = 0.000< 0.05we reject the null hypothesis. Then we conclude that the implementation of TSA has significant effect on loan portfolios and credit intermediation extended by deposit money banks in Nigeria.

**4.3.2 Test of Hypothesis Two**
**$H_{O2}$:** The implementation of TSA has no significant effect on net interest margin of deposit money banks in Nigeria
**$H_{A2}$**: The implementation of TSA has significant effect on net interest margin of deposit money banks in Nigeria.

**Table 4.5**
**One-Sample Test**

| | | | | Test Value = 0 | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig (2-tailed) | Mean Difference | Lower | Upper |
| NetInt. Margin | 10.833 | 7 | .000 | 5.44250 | 4.2545 | 6.6305 |

**Source:** Researcher's Computation Using SPSS Version 27

**Decision**
From table 4.5, we can observe that the t-statistic of Net Interest Margin (NIM) yielded 10.833 and this is clearly greater than absolute 2. In addition, the p-

value< 0.05, therefore, we reject the null hypothesis and then conclude that the implementation of TSA has significant effect on net interest margin of deposit money banks in Nigeria.

### 4.3.3 Test of Hypothesis Three

**$H_{O3}$:** The implementation of TSA has no significant impact on deposit mobilization of deposit money banks in Nigeria

**$H_{A3}$:** The implementation of TSA has significant impact on deposit mobilization of deposit money banks in Nigeria.

**Table 4.6**

**One-Sample Test**

| | | | | Test Value = 0 | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig (2-tailed) | Mean Difference | Lower | Upper |
| Deposit Mobilization | 5.757 | 7 | .001 | 11817.25625 | 6963.0813 | 16671.4312 |

**Source:** Researcher's Computation Using SPSS Version 27

**Decision**

From table 4.6, we can observe that the t-statistic of Deposit Mobilization (DM) yielded 5.757. This is clearly greater than absolute 2. In addition, the p-value< 0.05, therefore, we reject the null hypothesis and then conclude that the implementation of TSA has significant impact on deposit mobilization of deposit money banks in Nigeria.

### 4.3.4 Test of Hypothesis Four

**$H_{O4}$:** The implementation of TSA has no significant effect on liquidity ratio of deposit money banks in Nigeria.

**$H_{A4}$:** The implementation of TSA has significant effect on liquidity ratio of deposit money banks in Nigeria.

**Table 4.7**
**One-Sample Test**

| | | | | Test Value = 0 | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig (2-tailed) | Mean Difference | Lower | Upper |
| Liquidity Ratio | 9.068 | 7 | .000 | 61.76750 | 45.6609 | 77.8741 |

**Source:** Researcher's Computation Using SPSS Version 27

**Decision**

From table 4.7,p-value< 0.05, so we reject the null hypothesis and then conclude that the implementation of TSA has significant effect on liquidity ratio of deposit money banks in Nigeria.

**4.3.5 Test of Hypothesis Five**

**$H_{O5:}$** The implementation of TSA has no significant effect on return on assets of deposit money banks in Nigeria.
**$H_{A5}$**: The implementation of TSA has significant effect on return on assets of deposit money banks in Nigeria.

**Table 4.8**
**One-Sample Test**

| | | | | Test Value = 0 | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig (2-tailed) | Mean Difference | Lower | Upper |
| Return on Assets | 14.682 | 7 | .000 | 1.71375 | 1.4377 | 1.9898 |

**Source:** Researcher's Computation Using SPSS Version 27

**Decision**

From table 4.8, p-value <0.05, we reject the null hypothesis (Ho) and then conclude that the implementation of TSA has significant effect on return on assets of deposit money banks in Nigeria.

## 5. Discussion of Findings, Conclusion and Recommendations

### 5.1 Discussion of Findings

The following summarizes the key findings from the analyses:

i. The implementation of TSA has significant effect on loan portfolios and credit intermediation extended by deposit money banks in Nigeria ($t = 9.730$, p-value = 0.000). The TSA led to a reduction in the loan portfolios of DMBs.

ii. The implementation of TSA has significant effect on net interest margin of deposit money banks in Nigeria ($t = 10.833$, p – value = 0.000). The TSA has negatively affected the net interest margins of DMBs. With fewer funds available for lending and increased competition, banks faced challenges in maintaining healthy interest spreads, leading to reduced profitability.

iii. The TSA significantly reduced the deposit mobilization capabilities of DMBs ($t=5.757$, p-value = 0.000).The centralization of government deposits into the TSA diminished the overall deposit base of banks, impacting their liquidity and ability to fund loans.

iv. The implementation of TSA has significant effect on liquidity ratio of deposit money banks in Nigeria ($t=9.068$, p-value = 0.000).The liquidity ratios of DMBs have been adversely affected by the TSA. Reduced government deposits led to lower liquidity levels, making it more challenging for banks to meet short-term obligations and engage in lending.

v. The implementation of TSA has significant effect on return on assets of deposit money banks in Nigeria ($t=14.682$, p-value = 0.000). The TSA has contributed to a decline in the return on assets for DMBs. The constraints on lending and profitability have hindered banks' ability to efficiently convert assets into profits.

### 5.2 Conclusion

The implementation of the Treasury Single Account (TSA) in Nigeria has profoundly influenced the operational dynamics and financial performance of deposit money banks (DMBs). This study has examined various aspects of these impacts, revealing both challenges and opportunities for the banking sector. The TSA has led to a significant decrease in the loan portfolios of DMBs, primarily due to the consolidation of government funds into a single account. This has constrained banks' ability to extend credit, which is essential for economic growth and development. The net interest margins and return on assets of DMBs have been adversely affected, reflecting a decline in profitability. With reduced lending capacity and increased operational costs, banks have struggled to maintain their financial performance. The centralization of government deposits has diminished the deposit base of DMBs, impacting their liquidity and ability to mobilize funds effectively. This has created a tighter credit market, potentially stifling economic activity. The liquidity ratios of banks have been negatively impacted, making it more challenging for them to meet short-term obligations and engage in lending activities. This has raised concerns about the overall stability of the banking sector.

### 5.3 Recommendations

In line with the findings of the study, we make the following recommendations:

i. DMBs should actively seek to diversify their funding sources beyond government deposits. This can include targeting retail and corporate customers to attract more deposits. This is because by reducing reliance on government funds, banks can stabilize their deposit base and improve liquidity, which is essential for lending and operational flexibility.

ii. DMBs should focus on reducing their operating expenses to improve their net interest margin and CBNshould review its monetary policy framework to ensure that it supports the stability of the net interest margin of DMBs.

iii. Banks should focus on building and maintaining strong relationships with customers to increase customer loyalty and retention. This is because a loyal customer base can lead to increased deposits and stable funding, which will help mitigate the impact of reduced government deposits.

iv. DMBs should increase their customer deposit by engaging in aggressive marketing strategy that will attract private individuals and businesses in order to increase the volume of their liquidity.

v. DMBs should focus on improving their operational efficiency to increase their return on assets and explore alternative investment opportunities to improve their returns.

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