The Impact of Treasury Single Account on the Liquidity of Banks in Nigeria

Opeyemi O. Ajetunmobi\textsuperscript{a} Kehinde Adesina\textsuperscript{a} Samuel O. Faboyede\textsuperscript{b} B. Peter Adejana\textsuperscript{a}

\textsuperscript{a} Department of Accounting, College of Business and Social Sciences, Covenant University, Nigeria.
\textsuperscript{b} Corresponding Author, Ph.D., Department of Accounting, College of Business and Social Sciences, Covenant University, Nigeria, samuel.faboyede@covenantuniversity.edu.ng

Keywords

Jel Classification
G28, G21, G31.

Abstract
The existence of numerous corrupt practices in the Nigerian Public Accounting System has led to the inauguration of Treasury Single Account (TSA). This paper assesses the impact of TSA implementation on the liquidity base of banks in Nigeria. Fifteen (15) listed banks were used as sample size for this study. Data was obtained by the use of annual reports and it was examined using Descriptive statistics and Paired sample t-test. The results obtained confirmed that the implementation of Treasury Single Account impacted negatively on the liquidity base of banks in Nigeria. Also, there is significant difference in the Profit after Tax (PAT) of Banks in Nigeria before and after Treasury Single Account (TSA) Adoption. It was recommended that if the policy is executed it will lead to the prompt payment of all income going into the nation’s purse without the intermediation of multiple banking arrangements.
1.0 Introduction

The economic status of any nation depends on how stable their banking industry is. In other words, any issue that affects banks has an impact on the economy of the nation. Until the introduction of Treasury Single Account (TSA) in Nigeria in 2012, Government Ministries, Departments and Agencies (MDA) which generate revenue, had multiple accounts in commercial banks, use part of the revenue generated to fund their operations and then remit the surplus to the federation account. As a result, agencies pay into government account what they deem fit and as a result short pay government. The adoption and full application of Treasury Single Account (TSA) by any administration, especially in a dwindling economy cannot be over-emphasized because it encourages transparency and accountability in government parastatals.

Jonah Otunla a former accountant general of the federation before the advent of TSA in Nigeria stated that “There were more than 10,000 bank accounts in multiple banks, which made it impossible to establish government consolidated cash position at any point in time. It led to pockets of idle cash balances held in Ministries, Departments and Agencies accounts (MDA’s) when government was out borrowing money.” (Obinna, 2015:52). A Treasury Single Account is a precondition for efficient fund management and is a productive instrument for the ministry of finance/treasury to establish oversight and centralized control over government’s cash resources. This is due to the fact that a Treasury Single Account is principally to ensure accountability of government revenue, enhance transparency and avoid expropriation of public funds. The Treasury Single Account, which shall be maintained at Nigeria’s apex bank (CBN) will unite the government policy for better cash resources management and ensure the best usage of government funds Boulder (2015).

According to IMF, (2010), 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. Oyedele (2015) posited that a vital subject in the past was the delayed payment of income collected on behalf of government as some Ministries Departments and Agencies do business with those funds for their selfish gains at the detriment of infrastructural development and budget execution by the government.

In light of the above, this paper aims to investigate the relationship between adoption of Treasury Single Account and liquidity of banks in Nigeria.

Hypothesis 1

H₀: There is no remarkable distinction in the liquidity of Banks in Nigeria before and after Treasury Single Account (TSA) Adoption.

H₁: There is a remarkable distinction in the liquidity of Banks in Nigeria before and after Treasury Single Account (TSA) Adoption.
Hypothesis 2

H₀: There is no remarkable distinction in the Profit after Tax (PAT) of Banks in Nigeria before and after Treasury Single Account (TSA) Adoption

H₁: There is a remarkable distinction in the Profit after Tax (PAT) of Banks in Nigeria before and after Treasury Single Account (TSA) Adoption.

2.0 Literature Review

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 (Lienert, 2009).

2.1.1 Treasury Single Account (TSA) in Nigeria

The Treasury Single Account (TSA) policy was introduced to block financial leakages, promote transparency and prevent mismanagement of government's revenue, unifies all government accounts, enabling it prevent revenue loss and mismanagement by revenue-generating agencies (Bashir, 2016). Firstly is a unified structure of government bank accounts enabling consolidation and optimal utilization of government cash resources. Through this bank account or set of linked bank accounts, the government transacts all its receipts and payments and gets a consolidated view of its cash position at any given time. The intention of implementing this account was for the benefits of Federation ruled by democracy.

In 2012, it was on record that government ran a pilot scheme for a single account using 217 ministries, department and agencies as a test case. The exercise saved Nigeria about N500 billion in frivolous spending. The success of the pilot motivated the government to implement fully TSA, leading to the directives to banks to provide the technology platform that will help to accommodate the TSA as it facilitates timely and more complete accounting reports (Gwarzo, 2016).

Section 80 (1) of the 1999 Constitution as amended states that “all revenue or other money raised or received by the Federation (not being revenue or other money payable under this Constitution or any Act of the National Assembly into any other public fund of the Federation established for a specific purpose) shall be paid into and form one Consolidated Revenue Fund of the Federation”. Successive governments have continued to operate multiple accounts for the collection and spending of revenue, thereby disregarding the provision of the constitution which require the remittance of all the revenue into a single account.

2.1.2 Benefits of Treasury Single Account (TSA)

(Pattanayak, 2010) in a The International Consortium on Governmental Financial Management (ICGFM) seminar elaborated on TSA and its usefulness for any government. According to him TSA aids cash management, and facilitates other functions such as handling payment from all spending...
units separately, unlike the multiple bank account system. TSA a single account comprising of linked up accounts or can be seen as network of account s operated as one, this account is usually operated by the country's central bank. It is also a unified structure of government bank accounts that gives a consolidated view of government cash resources. The emphasis is placed of the mode of operation as well as the cash control advantage and elimination of idle funds it has.

**Table 1: The Benefits of the Treasury Single Account (TSA) include**

<table>
<thead>
<tr>
<th></th>
<th>Benefit</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensures complete, real-time information on government cash resources</td>
</tr>
<tr>
<td>2</td>
<td>Helps preparation of accurate and reliable cash flow forecasts</td>
</tr>
<tr>
<td>3</td>
<td>Optimizes the cost of government operations</td>
</tr>
<tr>
<td>4</td>
<td>Facilitates efficient payment mechanisms</td>
</tr>
<tr>
<td>5</td>
<td>Improves operational and appropriation control during budget execution</td>
</tr>
<tr>
<td>6</td>
<td>Enhances efficiency and timeliness of bank reconciliation</td>
</tr>
</tbody>
</table>

*Source: ICGFM, 2010*

**2.1.3 How Treasury Single Account (TSA) Works**

The TSA structure can contain ledger sub-accounts in a single banking institution (not necessarily a central bank), and can accommodate external zero-balance accounts (ZBAs) in a number of commercial banks. Second, no other government agency operates bank accounts outside the oversight of the treasury. Options for accessing and operating the TSA are mainly dependent upon institutional structures and payment settlement systems. Third, the consolidation of government cash resources should be comprehensive and encompass all government cash resources, both budgetary and corresponding cash flows are subject to budgetary control or not (Yusuf & Chiejina, 2015). The Central Bank opened a Consolidated Revenue Account to receive all government revenue and effect payments through this account. All Ministries, Departments, and Agencies are expected to remit money collected in to this account through the individual commercial banks who act as collection agents. Although, commercial banks will continue to maintain revenue collection accounts for Ministries, Departments, and Agencies but all monies collected by these banks will have to be remitted to the Consolidated Revenue Accounts with the CBN at the end of each banking day.

**2.1.4 Liquidity**

The concept of Liquidity has been a source of worry to the management of firms of the uncertainty of the future. Liquidity is a financial term that means the amount of capital that is available for investment. Today, most of this capital is credit, not cash. That's because the large financial institutions that do most investments prefer using borrowed money. Liquidity can be defined as the state or condition of a business organization which determines its ability to honour or discharge its maturing obligations.
Liquidity can be defined as the state or conditions of a business organization which determines its ability to honour or discharge its maturing obligations. These maturing obligations are composed of current liabilities and long term debts. (Olagunju, Adeyanju & Olabode, 2011:28).

Liquid assets are composed of cash and bank balances, debtors, balances held with CBN, balances held with other banks in Nigeria, balances held with offices & branches outside Nigeria. Liquidity is the ability of a firm to meet all obligations without endangering its financial conditions. Eljelly (2004) affirmed that the crucial part in managing working capital is required by maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligations. Liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack of or excess liquidity to meet its short term compulsions.

A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business. (Bhunia, 2010). Dilemma in liquidity management is to achieve desired trade-off between liquidity and profitability (Raheman & Nasr, 2007). Referring theory of risk and return, investment with more risk will result to more return. Thus, firms with high liquidity of working capital may have low risk than low profitability. The issue here is in managing working capital, firm must take into consideration all the items in both accounts and to balance the risk and return (Lee & Kang, 2008). Liquidity will help a firm to avoid a situation where a firm will be forced to liquidate with its attendant problems of selling assets at distressed prices and the extra fees paid to lawyers, trustees in bankruptcy and liquidators on liquidation.

2.2 Theoretical Framework

A number of different theories of socioeconomic accounting were borrowed to form sound foundation to substantiate Treasury Single Account adoption and implementation. Examples are:

**Stakeholder Theory:** It assumed that adoption of Treasury Single Account by the federal government is as a result of the pressure from stakeholders/citizens majorly against corruption. It suggested that the government will responds to the concerns and expectations of powerful stakeholders/citizens and some of the responses will be in the form of strategic opinions. Stakeholders’ theory provides rich insights into the factors that motivate government in relation to the adoption and implementation of Treasury Single Account.

**Public Finance Management Theory:** 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

**Modern Money Theory (MMT):** It a theory that theorized how monetarily sovereign governments operate and their impacts on the economy. It shows that it is relevant to aggregate
the central bank and the treasury into a government sector that finances itself through monetary creation such that financial position of the treasury and the central bank are so intertwined that both of them are constantly in contact in order to make fiscal and monetary policy run smoothly. For the purpose of this study we used the Public Finance Management Theory. Accordingly, many theories have been developed over the years concerning bank liquidity. They are liquid asset theory, the shiftability theory, the anticipate income and liability management theory (Nwankwo, 2004), Fry, Goodhart and Ameida, (1996).

1. **Liquidity assets theory**: it argues that banks must hold large amount of liquid assets as reserves against possible demands for payment, the original intent being prudent cushion in the face of uncertainty. The theory is defective in at least two important respects. There is, first the problem of determining accurately the quantity of notes that might be presented at any one time. The theory is also, grossly deficient in a world of active money markets and purchased funding where the flow of funds can shift with considerable speed and banks are increasingly dependent on the market.

2. **Commercial bills or loans theory**: it states that bank funds should principally be invested in short term self liquidating loans for working capital purposes confined to financing the movement of goods through the successive stages of the production circle-production, transportation, storage distribution and consumption.

3. **Shiftability theory**: according to this theory, the liquidity of a bank is sustained if it holds assets that could be shifted or sold to either the lender or the investors for cash. The implication of this will be manifested in the type of collateral that would be acceptable to banks against possible loan default. In essence, such collateral must be marketable and should be converted into cash without delay if when necessary. Hence, this theory subjugates loan decision to the overriding goals of ensuring adequate liquidity of the bank. In contrast to the commercial loan doctrine which emphasized maturity, the degree of shiftability or marketability of loans and investments provided the liquidity base for bank operations under the shiftability doctrine (Ariyo, 2005:35).

3.0 **Methodology**

The study looks at the impact of treasury single account on the liquidity of banks in Nigeria. The study employed time series data for this work. The population of the study is made up of all commercial banks in Nigeria. 15(fifteen) commercial banks were selected as sample for the study because they are quoted on The Nigerian Stock Exchange. Secondary data was collected for the purpose of this study (Banks Annual Reports). The data collected was analyzed using descriptive statistics and paired sample t-tests. Since TSA is a recent phenomenon in the country, the research seeks to know the effect of its adoption on the liquidity of commercial banks since its introduction and full implementation in 2015. For this study, Current ratio has been adopted to measure liquidity. Furthermore, Profit after tax was captured using the banks exact profit after tax.
4.0 Data Analysis and Presentation

Paired Samples Test

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR</td>
<td>1.1493</td>
<td>15</td>
<td>.06541</td>
<td>.01689</td>
</tr>
<tr>
<td>CRDURING</td>
<td>1.0040</td>
<td>15</td>
<td>.40885</td>
<td>.10556</td>
</tr>
</tbody>
</table>

Paired Differences

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>Std. Deviation</th>
<th>Mean</th>
<th>Std. Error Mean</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR – CRDURING</td>
<td>.14533</td>
<td>.42093</td>
<td>.10868</td>
<td>-.08777 to .37844</td>
<td>.37844</td>
<td>1.337</td>
<td>14</td>
<td>.202</td>
</tr>
</tbody>
</table>

A paired-samples t-test was conducted to evaluate the impact of Treasury Single Account on the liquidity of banks. There was a statistically significant decrease ($M = 1.1493$, $SD = 0.06541$) to Time 2 ($M = 1.0040$, $SD = 0.40885$), $t(14) = 1.337$, $p < .0005$ (two-tailed). The mean decrease in Current ratio was 0.1453 with a 95% confidence interval ranging from -.08777 to .37844.

Table 3: Descriptive Statistics

Result of Current Ratio using Paired Sample test after the adoption of TSA

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR</td>
<td>1.1493</td>
<td>15</td>
<td>.06541</td>
<td>.01689</td>
</tr>
<tr>
<td>CRAFTER</td>
<td>.8327</td>
<td>15</td>
<td>.52437</td>
<td>.13539</td>
</tr>
</tbody>
</table>
A paired-samples t-test was conducted to evaluate the impact of Treasury Single Account on the liquidity of banks. There was a statistically significant decrease in Current ratio after TSA Adoption ($M = 1.1493$, $SD = 0.06541$) to Time 2 ($M = .8327$, $SD =.524437$), $t (14) = 2.377, p < .0005$ (two-tailed). The mean decrease in Current ratio 0.3166 with a 95% confidence interval ranging from .3094-.60239.

**Table 4: Descriptive Statistics showing the result of Quick ratio during the year of TSA Adoption**

<table>
<thead>
<tr>
<th>Pair</th>
<th>QR - RCENTQRDURING</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.9693</td>
<td>15</td>
<td>.10840</td>
<td>7.54265</td>
<td>.02799</td>
</tr>
</tbody>
</table>

A paired-samples t-test was conducted to evaluate the impact of Treasury Single Account on the liquidity of banks. There was a statistically significant decrease in quick ratio ($M =.9693$, $SD = .10840$) to Time 2 ($M = 3.0787$, $SD =7.54265$), $t (14) = -1.081, p < .0005$ (two-tailed). The mean decrease in quick ratio of -2.1094 with a 95% confidence interval ranging from -6.29628 to 2.07762.
Table 5: Result of Quick ratio after Treasury Single Account Adoption using Paired Samples test during TSA Adoption

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 QR</td>
<td>.9693</td>
<td>15</td>
<td>.10840</td>
<td>.02799</td>
</tr>
<tr>
<td>QRAFTER</td>
<td>.7133</td>
<td>15</td>
<td>.54206</td>
<td>.13996</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td>Lower</td>
<td>Upper</td>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>Pair 1 QR – QRAFTER</td>
<td>.25600</td>
<td>.52507</td>
<td>.13557</td>
</tr>
</tbody>
</table>

A paired-samples t-test was conducted to evaluate the impact of Treasury Single Account on the liquidity of banks. There was a statistically significant decrease in quick ratio after TSA Adoption ($M = .9693, SD = .10840$) to Time 2 ($M = .7133, SD = .54206$), $t(14) = 1.888, p < .0005$ (two-tailed). The mean decrease in quick ratio of 0.256 with a 95% confidence interval ranging from -0.3477 to .54677.

Table 6: Result of Profit after Tax during the year of TSA

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 PAT</td>
<td>38009801</td>
<td>13</td>
<td>3446831738</td>
<td>95597912</td>
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<tr>
<td>PATDURING</td>
<td>153.8462</td>
<td>13</td>
<td>5.53025</td>
<td>08.65355</td>
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<tr>
<td></td>
<td>27713871</td>
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<td>4224798677</td>
<td>11717483</td>
</tr>
<tr>
<td></td>
<td>461.5385</td>
<td></td>
<td>7.34801</td>
<td>277.7579</td>
</tr>
</tbody>
</table>

140
Paired Differences

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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<tbody>
<tr>
<td>Lower</td>
<td>Upper</td>
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<td>Upper</td>
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<td>Upper</td>
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<td>Upper</td>
<td>Lower</td>
<td>Upper</td>
<td>Lower</td>
<td>Upper</td>
<td>Lower</td>
</tr>
<tr>
<td>Pair 1</td>
<td>PAT - PATDURING</td>
<td>10295 92969 23076 9</td>
<td>2528762 5972.542 57</td>
<td>70135 2554.4 51978</td>
<td>49852 29745.29082</td>
<td>25577 08912 9.9062 1</td>
<td>1.468 12 .168</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is a significant difference of 0.168 which is greater than .0005 in Profit after tax during the period of adoption of Treasury Single Account (TSA). Furthermore, the banks made profit after tax during the implementation of Treasury Single Account).

**Table 7: Result of PAT after TSA Adoption**

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>t</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Lower</td>
<td>Upper</td>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>Pair 1</td>
<td>PAT - PATAFER</td>
<td>28087 38880 0.000 00</td>
<td>3064810 3738.36 217</td>
</tr>
</tbody>
</table>

There is a significant difference of .003 which is greater than .0005 in Profit after tax after the period of adoption of Treasury Single Account (TSA). Furthermore, the banks made profit after tax during the implementation of Treasury Single Account).

**Conclusion**

The policy will greatly improve the management of government revenue. If it is implemented, it will pave way for the timely payment and capturing of all revenues going into the government treasury, without the intermediation of multiple banking arrangements. Besides, the system will likely reduce the mismanagement of public funds by revenue-generating agencies. It is also
expected to help check excess liquidity, inflation, high interest rates, round-tripping of
government deposits, and the sliding value of the naira.
In view of these benefits, we call for strict compliance with the directive on TSA by the relevant
government organizations. The implementation of the order will, however, require the
cooperation of the National Assembly with the Executive arm to ensure strict compliance by the
MDAs. The fears that have been raised about the implications of the new measure are hardly
necessary.

Recommendations
The implementation of the order will however require the cooperation of the National Assembly
with the Executive arm to ensure strict compliance by the MDAs to make enforcement possible.
Again, The MDAs, in collaboration with the Executive, will also need to be diligent in drawing up
their budgets and presenting them for consideration and passage by the legislature. The financial
regulators, including the CBN, should also be proactive and institute measures to correct any
lapses or negative impact of the policy, as no law or measure is foolproof. The fear that it will
negatively affect commercial banks, and possibly lead to massive job losses, should be addressed.

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prepared by Sailendra Pattanayak and Israel Fainboim, Authorized for distribution by
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