Effect of TSA on Solvency of Listed Deposit Money Banks in Nigeria

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ABSTRACT

The study examines the effect of treasury single account policy on solvency of listed Deposit Money Banks in Nigeria. The study is vital as it portrays the extent to which treasury single account adoption has influence the solvency of listed deposit money banks in Nigeria. In order to determine the relationship between treasury single account and solvency of banks, some key proxy variables were used in the study, namely debt ratio, debt equity ratio, interest cover ratio and net worth ratio as a measurement for solvency while TSA adoption was proxy by Pre Adoption and Post Adoption. Four hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using Wilcoxon statistical test tool. The research design used is Ex Post Facto design and data for the study were obtained from the NSE Factbook. The findings of the study show that institutionalization of Treasury Single Account has significantly affected the solvency of banks at 5% level of significance. This goes further to confirm that TSA has compelled the deposit money banks into their normal core retail banking due to the withdrawal of government's funds from the sector. The study however recommended that banks need to re-awakened to the reality of financial intermediation and look inwards to face the core retail banking for which they were licensed for; instigate strategic and formidable marketing plans to attract deposits from private individuals, business organizations, charitable organization, etc which will boost and increase their liquid assets and investments.

Keywords: Treasury Single Account, Solvency and Deposit Money Banks.

1.0 Introduction

The background of Treasury Single Account (TSA) is in line with the presidential Order No. 55 (2011), which stipulated that the Bureau of Treasury (BTR) will institute a Treasury Single Account to receive and remit collections of internal revenue taxes/customs duties from Bureau of

Internal Revenue / Bureau of Customs, authorized money depositing banks and also National Government Agencies from authorized government depository banks. The Treasury Single Account will be maintained at the Central Bank of Nigeria, shall tally with the policy of government on control of its cash resources and financial management and will also allow the unionism of the structure of bank accounts of the government to ease consolidation and optimal dispensation of cash resources of the government as cited in Ofor, Omaliko and Okoli (2017).

Adebisi and Okike (2016) notes that TSA is an accounting system in the public sector where all government revenue made are paid into a single account at the Central Bank. TSA is however, considered to be an efficient and effective means of managing government revenue generation and thus provide and enforce sufficient self-control mechanism on revenue generation and budget implementation using a daily return of account balances of Ministries, Departments and Agencies in CBN.

As opined by Yusuf (2016), TSA policy was institutionalized to block financial leakages, prevent mismanagement and promote transparency on government's revenue, unifies all government accounts, enabling it prevent revenue loss and mismanagement by those agencies generating revenue.

TSA is deemed to institute transparency and accountability in the sector's financial management. Organizational secrecy around the management of public finances shall be annulled and the agencies generating revenue have been short changed of the Treasury due to them due to institutionalization of TSA. The implementation of TSA has introduced into the economy, financial efficiency at all level of government treasuries and finances (Chukwurah, Iheanacho & Okechukwu, 2015).

1.1 Statement of Problem

The recent study of Kanu (2016) on the effect of TSA implementation on liquidity of banks argues that the implementation of Treasury Single Account in the public accounting system impacted negatively on the liquidity base of banking sector in Nigeria. Also the study of Isaac (2015) found similar finding with that of Kanu (2016).

Lucy (2017) on Impact of TSA implementation on Banks Liquidity in Nigeria found that TSA has an adverse effect and impact on the current ratio of banks in Nigeria. With the institutionalization of TSA, the working capital of banks has significantly reduced. Current assets have significantly reduced, thus impairing the current ratio structure of banks. This significantly threatens liquidity. This implies that TSA implementation has an adverse significant effect and impact on the ability of banks to meet short term financial obligations.

This is in tandem with the prior expectation of Abe (2015) who noted that banks will now go back to their core business of lending to the economy as TSA has adversely affected the liquidity of banks.

The recent study of Awaja (2016) also embraced the adoption of TSA that it has significantly and positively influenced banks liquidity and TSA is in the greater interest of the states, as it paves the way for the timely payment and capturing of all government revenue in a single government

treasury account, with no intermediation of multiple banking arrangements as had been the case. Embracing the TSA scheme could help reduce the mismanagement of public funds by agencies generating revenue, as well as check excess liquidity, high interest rates, inflation and round-tripping of the government deposits. The use of proliferated and multiple bank accounts left room for the misappropriation of huge sums of money belonging to all levels of government in the country.

As it can be seen from the empirical literature reviewed (see also appendix 4), extensive studies have been done on effect of TSA on liquidity of deposit money banks in Nigeria. For instance, the studies of (Kanu, 2016; Abe, 2015; Awaja, 2016; Lucy, 2017; Oluware, 2015; Tako, 2016) etc, the studies examined the effect of TSA on liquidity of deposit money banks in Nigeria. From the best of our knowledge, no study had been done on effect of TSA on solvency of listed deposit money banks in Nigeria. Liquidity and Solvency however are two important aspects of overall banks management as a firm may be at liquidity and be insolvent so as a firm may be solvent and not at liquidity. Thus the study becomes a necessity in order to fill this gap.

Umeka and Chidoka (2016) also pointed out that over the years, banks have been the custodians of the Nigerian government fund as the engine of the nation's economy, however, the maintenance of a single account will deprive banks of the free flow of governments funds from ministries held by them (estimated at about N2.2 trillion at the beginning of the first quarter of 2015). When such amount of money leaves the system, it is likely that banks may have solvency challenges. And from the best of our knowledge, no study has addressed this issue.

Against this backdrop, this study is geared towards examining the effect of TSA on solvency of deposit money banks in Nigeria.

1.2 Objective of the Study

The main objective of this study is to examine the effect of Treasury Single Account on Solvency of listed Deposit Money Banks in Nigeria. Specific objectives are:

1   To examine the effect of TSA adoption on Debt Ratio of Deposit Money Banks in Nigeria.

1. To determine the effect of TSA adoption on Debt Equity Ratio of Deposit Money Banks in Nigeria.

2. To ascertain the effect of TSA adoption on Interest Coverage Ratio of Deposit Money Banks in Nigeria.

3. To examine the effect of TSA adoption on Net Worth Ratio of Deposit Money Banks in Nigeria.

1.3 Research Questions

1. To what extent does the adoption of TSA influence Debt Ratio of Deposit Money Banks in Nigeria?

2. What is the effect of TSA adoption on Debt Equity Ratio of Deposit Money Banks in Nigeria?

3. To what extent does the adoption of TSA affect Interest Coverage Ratio of Deposit Money Banks in Nigeria?

4. What is the effect of TSA adoption on Net Worth Ratio of Deposit Money Banks in Nigeria?

1.4 Hypotheses

In view of the objective of the study, the following hypotheses were formulated as thus;

H$_{01}$: The adoption of TSA has no significant effect on Debt Ratio of Deposit Money Banks.

H$_{02}$: The adoption of TSA has no significant effect on Debt Equity Ratio of Deposit Money Banks.

H$_{03}$: The adoption of TSA has no significant effect on Interest Coverage Ratio of Deposit Money Banks.

H$_{04}$: The adoption of TSA has no significant effect on Net Worth Ratio of Deposit Money Banks.

2.0 Review of Related Literature

This chapter deals with theoretical examination of all the relevant issues and variables inherent in the study. The review of literature undertaken for the purpose of this research aims at x-raying the opinion of experts and writers on the area of Treasury Single Account and Solvency.

2.1 Conceptual Framework

2.1.1 Treasury Single Account (TSA)

Adebisi and Okike (2016) views TSA as an accounting system in the public sector where all government revenue made are paid into a single account at the Central Bank. TSA is considered to be an efficient and effective means of managing government revenue generation and thus provide and enforce sufficient self-control mechanism on revenue generation and budget implementation using a daily return of account balances of Ministries, Departments and Agencies in CBN.

Lucy (2017) also sees TSA as one of the financial policies initiated by the federal government of Nigeria to integrate all the revenue from all the MDAs in the country by which all revenues go into one account called TSA maintained with the CBN. The policy was introduced to reduce the multiple bank accounts operated by MDAs and also to promote transparency and accountability among all organs of the government

2.1.2 Solvency

Ahmad (2016) sees solvency as a measure of the ability of a company to meet its long term debts. It provides an assessment of the likelihood of a company to continue congregating its debt obligations. Solvency ratios are however used to indicate the ability of the bank to cover its long term obligation, whereas a liquidity ratio is the ability to cover short term (current) obligation.

Solvency indicates the ability to meet long term financial obligation. It is also viewed traditionally as arising from financing activities where firms borrow to raise cash for operations where liquidity indicates whether an entity will be able to meet its financial obligations in the short- term (Waqas and Mobeen, 2014). Yousigma (2008) also sees solvency as a measure of financial soundness of a business and how well the firm can satisfy its long term obligations.

Key Ratios for Measuring Solvency

Debt Ratio: Debt ratio is mathematically expressed as a measure of solvency through measuring debt level of a business as a percentage of its total assets. It is calculated by dividing total debt of a business by its total assets, if the percentage is too high, it t indicates difficulty for the business to pay off its debts and continue operations (Ahmad, 2016).

Ahmad (2016) see debt ratio as way of measuring the relative use of debt by a company. It is calculate as the ratio of total liabilities to total assets.

This is expressed mathematically as

Debt Ratio =   Total Liabilities   .
                        Total Assets

Debt/Equity Ratio: This is also seen as financial and capital structure ratio. It is a ratio that indicates the relative importance of debt financing in the firm and the risks in such financing (Walsh, 2016). This is expressed mathematically as

Debt/Equity Ratio =   Total Liabilities   .
                             Total Equity

Interest Coverage Ratio: Coverage ratio focuses on the ability of the firm to meet its fixed financial obligations with operating earnings. This debt obligation is defined as all funds committed to debt interest, lease obligations, debt amortization and dividends requirements (Waqas and Mobeen, 2014). It is also called loan safety ratio as it shows number of times fixed interest is covered by net operating profit.

This is expressed mathematically as

Interest Coverage Ratio =   EBIT
                                Interest Expense

Net Worth Ratio:

This is a ratio measuring the solvency of a company. An excessively high net worth ratio may indicate that a company is funding its operations with a disproportionate amount of debt and trade payables. If so, a decline in its business could result in the inability to pay back the debt, which increases the risk of bankruptcy; this means that the shareholders may lose their investment in the company. Thus, an investor relying upon this measurement should also examine company debt levels to see how excessive returns are being generated (Walsh 2016).

Net Worth Ratio =   Total Assets
                         Total Equity

2.2 Theoretical Framework

The theoretical framework which gives the meaning of a word in terms of the theories on Treasury Single account and solvency established in this study is theory of TSA and trade off theory of liquidity.

2.2.1 The Theory of TSA

The theory of TSA was set up by the central bank of Nig. CBN (2014) communiqué. No 94 of the monetary policy committee meeting. This was backed up by the Business and   Economic development   report generated on April 2015. It was however bordered on how to promote transparency and accountability among organs of government in order to promote accountability, block financial leakages and transparency in the Public financial system of the economy.

Every Ministries, Departments, and Agencies and Extra Ministerial Departments according to the provinces of TSA theory are required to remit money collected in this account through the deposit money banks who are the collection agents. Although, deposit money banks still keep revenues accounts for Ministries, Departments, and Agencies (MDAs) and Extra Ministerial Departments but all the treasuries collected by the deposit money banks are paid to the Consolidated Revenue Accounts (CRF) maintained with the CBN daily. Also, Ministries, Departments, and Agencies and Extra Ministerial Departments cash balance with the money deposit banks will have nil balance daily by remitting all the treasuries collected to the Treasury Single Account. This as a result restricts money deposit banks from having access to multiple deposits resulting from multiple accounts.

The pilot TSA scheme commenced in 2015 using a unison structure of accounting for 217 government ministries, departments and agencies (MDA's) for accountability and transparency in public fund management. Payments through TSA follow an electronic system, with direct payments or deposits to the bank account of the beneficiary MDA (Onuorah and Chigbu 2016).

2.2.2 Trade off Theory of Liquidity

Trade off theory of liquidity was propounded in the year 1986 by Jensen. Under perfect capital market assumptions, holding cash does not create nor destroy value. The trade-off theory states that firms target an optimal level of liquidity to equate or balance the benefit and cost of holding cash. The cost of holding cash includes; low rate of return of assets because of liquidity premium and possibly tax disadvantage.

The benefit of holding cash on the other hand is in twofold:

a. The firms save transaction costs in order to raise funds and do not need to liquidate assets to make payments.

b. The firm can use liquid assets to fund its activities and investment if other source of funding is not available or extremely expensive.

According to Jensen, as a theory, the use of trade off model could not be ignored, as it explains that, firms with high leverage attracts high cost of servicing the debt thereby affecting its profitability and it becomes difficult for such firm to raise funds through other sources. Holding cash at that point is not only maintained by the smaller firm but also larger firms.

The study is anchored on both Theory of TSA and Tradeoff Theory of Liquidity. The theory of TSA succinctly explains the phenomenon behind the TSA adoption and also the Pro and Con of TSA. Tradeoff theory of liquidity on the other hand is concerned with the optimal liquidity of firms on the long run (Solvency).

2.3 Empirical Review

Tako (2016) in his study on implication of TSA on banking activities slated that TSA has galvanized most of the activities of banks and has also affected positively banks liquidity. The study established a statistical test tool of Wilcoxon and considered the liquidity of banks prior to and after adoption of TSA. The study however recommended that government should make banking arrangements for efficient management and control of government's cash resource.

Nwankwo (2017) in his study on effect of TSA on Nigerian economy adopted test tool of regression and argues that a government that lacks proper control over its cash resources could pay for its institutional deficiencies in multiple ways. Therefore, study concluded that the implementation of TSA promotes a healthy economic system.

Also the recent study of Bankole and Jeda (2017) Significant positive relationship was found with TSA and liquidity measured using Current ratio, cash ratio, acidic ratio. The study explored statistical tool of Wilcoxon and recommended that banks should go back to their core business of lending which they are licensed for. Employ other means of sourcing funds from other sectors other than relying on governments funds.

Taiwo (2016) in his study on effect of TSA on cash flow of listed banks in Nigerian notes that TSA has positively and significantly affected the operating, financing and investing activities of listed banks in Nigeria. The study however explored a statistical test tool of Wilcoxon with a time series ranging from 2014-2015 by comparing the cash flow (operating, financing and investing activities) of the years. The study however recommended for the listed banks to be engaged more on retail banking since their access excess floats of MDAs are denied.

Kanu (2016) in his study on the effect of TSA implementation on liquidity and performance of banks explored Chi Square test tool and notes that the institutionalization of Treasury Single

Account in the public accounting system impacted negatively on the banks liquidity base and the performance of banking sector in Nigeria.

This is contrary to the recent study of Yusuf (2016) on the effect of TSA on public finance management in Nigeria; used Pearson Correlation Coefficient and argues that the adoption of a Treasury Single Account (TSA) is capable of hedging financial loopholes, promoting transparency and accountability in the public Financial System.

Also the recent study of Ahmed (2016) on TSA as an instrument for financial management prudence used statistical test tool of Chi square and concludes that the system of TSA requires political will, honesty and determination so as to overcome the various challenges bewildered against it and that where all these are met, TSA stands as an instrument for financial prudence and management.

The recent study of Ofor, Omaliko and Okoli (2017) on effect of TSA on performance of MDAs in Nigeria argue that institutionalization of TSA has significantly affected and improved the performance of federal government MDAs at 5% level of significance. The study however explored the test tool of Wilcoxon and recommended that government should enforce the adoption of TSA and make it mandatory for all the MDAs and parastatals to adhere since it improves performance

Jegede, (2015) as slated in his study, majority of the Ministries, Departments, Agencies and Extra Ministerial Departments are against the TSA due to the fear of not having a control of monies they lodged in the bank account of their choices and that some agencies lodged the revenue they collected in fixed deposit accounts where huge interests are been accrued.

The recent study of Umeka and Chidoka (2016) employed regression model and asserted that TSA is likely to cause cash crunch and solvency challenges to the banking sector, who prior to the introduction of the TSA feed fat on the "float" created by the duplicated and unaccounted MDA's accounts in all the Commercial Banks in Nigeria. The study however poised a question which is; what is the impact of this TSA on the banks' solvency in Nigeria?

Adeolu, (2016) also added that the maintenance of TSA will help to ensure proper cash management by eliminating idle funds left with different banks and in a way enhance harmonization and reconciliation of revenue collection and payment. The study however explored the statistical test tool of Friedman's ANOVA and noted significant positive relationship between TSA implementation and cash management. The study however concluded that the adoption of TSA has led to effective cash management.

Awaja (2016) in his study on effect of TSA adoption on Nigerian banks liquidity argues that The adoption of the TSA is in the greater interest of the states, as it paves the way for the timely payment and capturing of all government revenue in a single government treasury account, without the intermediation of multiple banking arrangements which had been the case. The study however explored the statistical test tool of Chi-Square and recommended that Moreover, embracing the scheme could help reduce the mismanagement of public funds by revenue-generating agencies, as well as check excess liquidity, high interest rates, inflation and round-tripping of the government

deposits. The use of multiple bank accounts created room for the misappropriation of money belonging to all levels of government in the country.

In the recent study of Udoma (2015) on effect of TSA on Nigerian economy explored a statistical test tool of Wilcoxon and opines that maintenance of TSA will enhance funding government budget rather than depend on Federal allocation. In any economy where the budget is thoroughly and fully funded, the aim certainly must be accomplished. The reversional effect of this should be; improved economic system, social development and political. The study however recommended on strict compliance to TSA adoption.

The study of Adebisi and Okike (2016) on the Adoption of TSA and its effect on revenue leakages of Nigerian states explored a statistical test tool of multiple regression and noted that TSA adoption is an effective tool for combating and curbing revenue leakages in the states. The study however recommended and urged the states that have not adopted TSA to do as it curbs financial leakages.

Onuorah and Chigbu (2016) on their study on federal government TSA deposits and commercial banks performance noted that federal government demand deposit has positive impact on the bank performance in Nigeria. Statistical test tool of OLS was used and the study recommended that there is need for adequate working system of the TSA to be put in good place. Also government should review the TSA policy in order to safeguard the financial situations and conditions of Nigeria.

CBN (2015) reasoned in the same direction with the a priori expectations of Jegede (2015) that the institutionalization of TSA will enable the Ministry of Finance to trail fund flow as no agency of government is allowed to maintain any operational bank account outside the oversight of the ministry of finance. The implementation of the TSA would have a positive effect on the national economic planning and full budgetary implementation; reduce leakages and irregularities in the MDAs.

Adeboyo (2015) reports that the banks have been accused of not carrying on the core retail banking business but are involved in cash round-tripping by taking funds from the government and using the same funds to invest in government bonds and treasury bills, thus making huge returns without risking their capital. With the implementation of the TSA, banks will now conduct proper financial intermediation and find innovative ways of enhancing liquidity and returns. It would be tough at the initial stage but with time, banks will adapt and adjust to it.

3.0 Methodology

The research design used is Causal Comparative Design (Ex Post Facto Design). Causal Comparative Design was used in the study in order to compare the solvency of before the introduction of TSA (year 2012-2014) and that of the solvency of after the introduction of TSA (year 2016-2018) in order to examine the effect of TSA adoption on solvency of the entire quoted banks in Nigeria.

Data generated were collated and analyzed using Wilcoxon statistical test tool operated with SPSS version 20. This is inline and in harmony with the priori expectations of Tako (2016) and Taiwo (2016) whose studies concentrated on effect of TSA on banking activities.

3.1 Operationalization and Measurement of Variables

The dependent variable in this study is Solvency and it was proxied using the variables as shown on the table below:

S/N	Variables	Formula
	Dependent	
1	Debt Ratio	Total Liabilities/Total Assets
2	Debt Equity Ratio	Total Liabilities/Total Equity
3	Interest Cover Ratio	EBIT/Interest
4	Net Worth Ratio	Total Assets/Total Equity
	Independent	
1	TSA	Measured by comparing the above listed variables prior to and after TSA adoption.

This is in harmony with the works of Walsh (2016) and Ahmad (2016).

4.1: Data Presentation

The data (i.e variables) needed for the study was presented on tables and were used in the data analysis of the study.

TEST OF HYPOTHESES

Wilcoxon Statistical Test Tool was developed to test the linear relationship between the dependent and independent variables. It was operated using SPSS version 20 as shown in the table 4.1.1-4.1.4 below:

Table 4.1.1: Result on effect of TSA adoption on Debt Ratio of Deposit Money Banks in Nigeria.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Debt Ratio Prior to TSA Adoption and Debt Ratio After TSA Adoption equals 0.	Related-Samples Wilcoxon Signed Rank Test	.022	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Source: SPSS Computational Result.

Table 4.1.2: Result on effect of TSA adoption on Debt Equity of Deposit Money Banks in Nigeria.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Debt Equity Ratio Prior to TSA Adoption and Debt Equity Ratio After TSA Adoption equals 0.	Related-Samples Wilcoxon Signed Rank Test	.031	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Source: SPSS Computational Result.

Table 4.1.3: Result on effect of TSA adoption on Interest Cover Ratio of Deposit Money Banks

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Interest Cover Ratio Prior to TSA Adoption and Interest Cover Ratio After TSA Adoption equals 0.	Related-Samples Wilcoxon Signed Rank Test	.031	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Source: SPSS Computational Result.

Table 4.1.4: Result on effect of TSA adoption on Net Worth Ratio of Deposit Money Banks in Nigeria

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Net Worth Ratio Prior to TSA Adoption and Net Worth Ratio After TSA Adoption equals 0.	Related-Samples Wilcoxon Signed Rank Test	.039	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Source: SPSS Computational Result.

4.2: Discussion of Findings

The result of the analysis of the study using Wilcoxon test tool operated with SPSS version 20 is expressed as follows:

H₀: The adoption of TSA has no significant effect on Debt Ratio of Deposit Money Banks in Nigeria.

In view of the above analysis as shown on table 4.1.1, the result shows that there is a significant positive difference in the Debt Ratio of Deposit Money Banks prior to the adoption of TSA and the Debt Ratio of Deposit Money Banks after the adoption which goes further to confirm that Treasury Single Account has compelled the bank of industry into their normal core retail banking. Banks now issue more of debt instruments to meet up with their business activities. This is unlike prior to the adoption of TSAwhere they feed fat on the "float" created by the duplicated and unaccounted MDA's accounts in all the Commercial Banks in Nigeria according to (Umeka and Chidoka 2016) and invest same funds in most of government bonds and treasury bills, thus making huge returns without risking their capital for their means of survival and also to reduce the heavy risk of downsizing their staff.

Thus has actually increased the debt ratio of banks as suggested by the table 4.1.1 with a p-value of 0.022, the test is considered statistically significant. As such the null hypothesis was rejected as suggested by the decision rule shown on table 4.1.1. This is in tandem with the finding of Abe (2015) whose study concentrated on TSA and bank struggle in Nigeria. He notes that banks will now go back to their core business of lending to the economy that TSA implementation has an adverse significant effect and impact on the ability of banks to meet short term financial obligations. This agrees with the TSA theory which suffices that TSA promotes transparency and prevent mismanagement of government's revenue, unifies all government accounts, enabling it prevent loss of revenue and mismanagement by those agencies that generate revenue

H₀₂: The adoption of TSA has no significant effect on Debt Equity Ratio of Deposit Money Banks in Nigeria.

In view of the above analysis as shown on table 4.1.2, the result shows that there is a significant positive difference in the Debt Equity Ratio of Deposit Money Banks prior to the adoption of TSA and the Debt Equity Ratio of Deposit Money Banks after the adoption. This goes further to explain that prior to TSA adoption, banks have access to the floats of proliferated and multiples accounts maintained by MDAs but after the adoption of TSA, the whole of MDAs accounts are singularized and must have a NIL balance at close of work daily. As such, banks scramble for funds to meet up with their investment opportunities and liquidity position. Thus increases the debt equity ratio of banks as suggested by the study as shown on table 4.1.2. With a p-value of 0.031, the test is considered statistically significant. As such the null hypothesis was rejected as suggested by the decision rule shown on table 4.1.2.

This is in agreement with the priori expectations of Oyedokun (2016) on the imperativeness of TSA in Nigeria argues that TSA has a significant impact on liquidity level in the banking system, resulting in a surge in money market rates during the period as banks scrambled for funds to cover their liquidity positions. This agrees with the TSA theory which suffices that TSA promotes transparency and prevent mismanagement of government's revenue, unifies all government accounts, enabling it prevent loss of revenue and mismanagement by those agencies that generate revenue

H03: The adoption of TSA has no significant effect on Interest Cover Ratio of Deposit Money Banks in Nigeria.

In view of the above analysis as shown on table 4.1.3, the result shows that there is a significant negative difference in the Interest Cover Ratio of Deposit Money Banks prior to the adoption of TSA and the Interest Cover Ratio of Deposit Money Banks after the adoption.

This goes further to confirm that prior to TSA adoption, banks have access to the floats of proliferated and multiples accounts maintained by MDAs but after the adoption of TSA, the whole of MDAs accounts are singularized and must have a NIL balance at close of work daily. As such, banks issue more of debt instruments in order to meet up with their investment opportunities and business activities with huge interest. Thus however decreases the Interest Cover Ratio of banks as suggested by the study as shown on table 4.1.3. With a p-value of 0.031, the test is considered statistically significant. As such the null hypothesis was rejected as suggested by the decision rule shown on table 4.1.3.

This is in agreement with the priori expectations of Oyedokun (2016) on the imperativeness of TSA in Nigeria who argues that TSA has an impact on liquidity level in the banking system, resulting in a surge in money market rates during the period as banks scrambled for funds to cover their liquidity positions. This agrees with the TSA theory which suffices that TSA promotes transparency and prevent mismanagement of government's revenue, unifies all government accounts, enabling it prevent loss of revenue and mismanagement by those agencies that generate revenue

H04: The adoption of TSA has no significant effect on Net Worth Ratio of Deposit Money Banks in Nigeria.

In view of the above analysis as shown on table 4.1.4, the result shows that there is a significant positive difference in the Net Worth Ratio of Deposit Money Banks prior to the adoption of TSA and the Net Worth Ratio of Deposit Money Banks after the adoption. With a p-value of 0.039, the test is considered statistically significant. As such the null hypothesis was rejected as suggested by the decision rule shown on table 4.1.4.

5.1 Conclusion

With the introduction of TSA, governments' money had been withdrawn from banks. Thus banks scramble for funds to meet up with their business activities. Banks also issue more of debt instruments which have significantly increased the debt ratio and debt equity ratio of banks. Interest cover ratio which assesses the safety of loan on the other hand has reduced significantly

due to huge fixed interest charges. The study however concluded that the adoption of TSA has significantly affected the solvency of deposit money banks in Nigeria.

5.2: Recommendation

1. Since the adoption of TSA has increased the Debt Ratio of banks, banks however need to create more strategic and formidable marketing plans to secure and attract deposits from private individuals, business organizations, charity organization, religious organizations, etc. which will increase their liquid assets and investments. Thus would help to maintain solvency.

2. Deposit Money Banks need to re-awakened to the reality of financial intermediation and adapt swiftly and look inwards to face the core functions for which they were licensed for and source funds from other sectors of the economy. Thus will however balance the debt/equity of the banks. CBN should also visit and revisit the guidelines and put in place measures to correct any lapses this policy may have on the banking sector.

3. Banks also need more staff to go on deposit mobilization which will increase their interest cover ratio. The study is positive that banks that know their business will always survive, due to the fact that the big oil companies also bank with the banks.

4. Banks need to conduct proper financial intermediation and find innovative ways of enhancing liquidity and returns. It would be tough at the initial stage but with time, banks will adapt and adjust to it. With thus, there will be stability in networth of banks.

5.3: Contribution to Knowledge

➢ From the literature reviewed, extensive studies have been done on effect of TSA on liquidity of deposit money banks in Nigeria. For instance the studies of (Kanu, 2016; Abe, 2015; Awaja, 2016; Lucy, 2017; Oluware, 2015; Tako, 2016) and many others, but none had been done on effect of TSA on solvency of listed deposit money banks in Nigerian. Liquidity and Solvency however are two important aspects of overall banks management as a firm may be at liquidity and be insolvent so as a firm may be insolvent and not at liquidity. The present study however addressed and filled the gap

➢ The study used all the listed deposit money banks on NSE without sampling which creates room for generalization error. Thus the study contributed to knowledge through methodology.

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Acknowledgement

Professor Nwadialor E and Professor Ifurueze are highly acknowledged and appreciated for their positive contribution in seeing this research through. Secondly, all the staff of Accountancy department of Anambra State Polytechnic, Awka and Nnamdi Azikiwe University, Awka are highly appreciated too for their earnest contribution in this work.