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Impact of Treasury Single Account (TSA) on the Financial Performance of Deposit Money Banks (DMBs) in Nigeria: A Pre-Post Analysis

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Abstract

The implementation of Treasury Single Account (TSA) in Nigeria ushered in some drastic changes such that Central Bank of Nigeria (CBN) takes over the custodian of public fund and Deposit Money Banks (DMBs) serve as collecting agent throughout the federation. This seems to be affecting the liquidity state of DMBs. A bank with high liquidity problem might not be able to withstand negative shocks and contribute to the stability of the financial system. An in-depth analysis of the impact of TSA on the profitability of Money Deposit banks will not only clarify the disaggregated findings reported by previous studies, but also provide suggestions on how DMBs could improve their liquidity state. Based on incremental and stakeholders' theory, this research examines the impact of Treasury Single Account (TSA) on the Profitability of Deposit Money Banks (DMBs) in Nigeria. Out of all the listed Deposit Money Banks (DMBs) in Nigeria, purposive sampling technique was used to select all the 6 Systematically Important Banks (SIB) and data were collected on four indicators of profitability of banks such as Earning per Share (EPS), Profit after Tax (PAT), Return on Equity (ROE) and Return on Assets for the period of 6 years divided into Pre-TSA (2012-2014) and Post-TSA (2015-2017). It was discovered that through the analysis carried out via paired sampled t-test that TSA exerts a positive insignificant impact on all the indicators of profitability covered by this study except Profit after Tax (PAT) that has a negative insignificant impact. Finally, it was recommended that managers of DMBs should work out modalities that will foster the embracement of the core values of the banking system to collect depositors' funds, keep them safe and engage in intermediation to create wealth and jobs for the economy. Consequently, overdependence on government fund for operational activities should be discouraged.

Keywords

TSA, Financial Performance, DMBs, Return on Assets, Earnings per Share, Return on Equity, Profit after Tax

1. Introduction

World over, the banking sector is indispensable to the growth and development of every nation. They ensure resources mobilization and play a pivotal role in the allocation process. [1] submitted that firms in the banking sector are the main source of financial revolution and efficiency in the economy. This, therefore, informs that poor performance of banks in terms of low profitability would grossly affect the economic development of a nation. Profitability is used as a measurement for banks' performance because it evaluates the efficiency with which shareholders' resources are transformed into profit [2].

In the banking industry, the performance of banks is better measured using Profit after Tax (PAT) that revolves the net profit earned by a firm after the deduction of all expenses like depreciation, interest, and tax. Return on Assets (ROA) is used to indicate the extent to which firms in the banking industry are able to effectively and efficiently manage their assets to generate profits [3]. Return on Equity (ROE) reflects how effectively bank management is able to use shareholders' funds, and Earnings per Share (EPS) represents the portion of a company's earnings, net of taxes and preferred stock dividends, which is allocated to each share of common stock [4].

In Nigeria, Deposit Money Banks (DBMs) seem to fall short of expectations of their customers and their anticipated contributions to economic development. In this wise, [1] submitted that facing DBMs in Nigeria are demanding competitions and liquidity declination engendered by technology innovation, regulatory requirements and most importantly government financial reform like Treasury Single Account (TSA). All these appear to have a negative effect on the profitability of Deposit Money Banks in Nigeria as they are relieved of the custodian of public funds that caused extreme liquidity.

TSA is a public accounting system under which all government revenue collected into one single account, usually maintained by the country's Central Bank [5]. TSA relived DBMs of the management of the cash resources of Ministries, Departments, and Agencies (MDAs) and created a hole in their liquidity base. As noted by [6], the idea of TSA came into existence when some agencies refused to declare and remit 25 percent of the annual revenue they generated into the treasury as demanded by law. It was introduced for the purpose of uniting all inflows from the country's MDAs into a single account at the Central Bank of Nigeria.

It was under the administration of President Muhamadu Buhari that it was fully implemented. In February 2015, the central bank of Nigeria (CBN) issued a circular directing all deposit money banks to implement the Remita e-collection platform. The Remita e-collection is a technology platform developed by system specs, which was adopted by the Central Bank of Nigeria (CBN) for the collection and remittance of governments funds to a consolidated account domiciled with the central bank of Nigeria (CBN) [7]. This marked the beginning of the implementation of the treasury single account system in Nigeria [8].

Undoubtedly, before the introduction of Treasury Single Account (TSA), Deposit Money Banks (DBMs) is the custodian of public funds with many duplicated accounts. However, the implementation of TSA ushered in some drastic changes such that the Central Bank of Nigeria (CBN) is now the sole custodian of public fund and DMBs serve as collecting agent throughout the federation. This seems to be the genesis of the liquidity problem most DMBs have been experiencing over the last four (4) years. A bank with high liquidity problem might not be able to withstand negative shocks and contribute to the stability of the financial system. This informs that liquidity is germane to the profitability of banks. [9] opined that the full implementation of the TSA will not be hurting banks. It will only hurt establishments that purport and pretend to be banks but have failed, refused and neglected to understand banking and do what bankers do elsewhere.

Since the implementation of TSA, a lot of studies have been carried out on its impact on the liquidity and profitability of Deposit Money Banks (DBMs) in Nigeria with disaggregated findings. While studies like [1] [10] [11] reported no significant effect of TSA on the profitability of banks studies like [6] [8] [12] [13] [14] [15] and [16] reported a significant effect of TSA on the profitability of banks. These disaggregated findings necessities similar study of this nature. In the same vein, none of these studies used four (4) indicators of the profitability of banks and this constitutes the uniqueness of this present study. Based on these premises, this study was designed to examine the impact of the Treasury Single Account (TSA) on the Profitability of Deposit Money Banks (DMBs) in Nigeria: a pre-post analysis.

The timeliness of this study is found on the financial crunch that overwhelmed the whole banking industry thus affecting their performance level. The rest of the paper is divided into four sections. Section 2 covers the review of the literature, Section 3 centers on the research methodology, Section 4 presents and discusses the results of the analysis, Section 5 covers the conclusion and recommendations while the last section, Section 6, covers suggestions for further studies.

2. Literature Review

2.1. Treasury Single Account

Prior to 2015, particularly September 2015, cash resources of all MDAs are being kept and managed by Deposit Money Banks (DMBs) and this breeds leakages in public financial management in the country. To curb this and ensure transparency and accountability of public offices saddled with the management of public resources, Treasury Single Account (TSA), where public funds are being managed centrally by the Central Bank of Nigeria (CBN) was introduced. Treasury single account is a unifying account that envelops all the government accounts. It ensures the remittance of cash balances into a single account with the aim of fostering probity and blocking of leakages in public financial management in the country.

TSA is a public accounting system under which all government revenue collected into one single account, usually maintained by the country's Central Bank [5]. Expanding this definition of TSA, [17] opined that TSA is a unified structure of government bank accounts enabling consolidation and optimal utilization of government cash resources. These definitions revealed the end point of TSA, which is to pool all government revenues into a single account and ensure optimal and judicious utilization for economic development. The maintenance of TSA is expected to eliminate idle funds and improve the operational activities of other MDAs through the redistribution of revenues.

[18] posits that TSA is a network of subsidiary accounts that are linked to the main account such that, transactions are effected in the subsidiary accounts but closing balances transferred to the main account at the closing of the operational activities of each day. [19] opined that a treasury single account is a unified structure of government bank accounts that gives a consolidated view of government cash resources. It, therefore, means that based on the principle of unity of cash and the unity of treasury, a treasury single account is a bank account or a set of linked accounts through which the government transacts all its receipts and payments.

In the opinion of [13], TSA is a federal government financial policy with a singular aim of pooling all the revenue from all MDAs into a single account managed by the apex bank. This connotes that TSA in Nigeria is an account managed by the Central Bank of Nigeria (CBN) and not Money Deposit Banks (DMBs). TSA is a process and tool for effective management of the government's finances, banking and cash position [8]. It pools and unifies all government accounts through a single treasury account.

2.2. Models of Treasury Single Account

According to [20], there are two modes of TSA namely centralized model, decentralized model, and hybrid model. A centralized Treasury Single Account (TSA), is an unpluralized account, maintained by the apex bank of a country, where all government revenues are pooled. Expatiating this, [12] noted that centralized TSA is the account through which the payment orders of MDAs, as contained in their financial plans, are approved and payment is effected. World over, countries like Brazil, France, New Zealand, Russia, and United Income are operating a centralized TSA.

On the other hand, a decentralized (distributed) TSA, is singular account being maintained by the apex bank, with zero bank account of MDAs managed by the deposit money banks. In other words, [21] observed that a distributed model of TSA is a single account with many independent zero bank accounts with the deposit money banks in a way that cash balances of MDAs are transferred to TSA at the end of the operational activities of each day. That's, no idle funds should be left over. It is a model through which revenue remittance is done to a single account and payment orders are made from the same account [12]. Among the countries operating a decentralized TSA are United States, Sweden, Cambodia, and Indonesia to mention just a few.

An arrangement where a centralized and distributed TSA model is synchronized and used to promote accountability and transparency among MDAs is known as the Hybrid arrangement (2018). It is a model that allows revenue and expenditure of MDAs pass through TSA with minor left with the deposit money banks. Countries like India, Australia and Peru are known to be operating a combination of distributed and centralized TSA model.

2.3. Banks' Financial Performance

Performance is a word that originates from the old French word "Parfournir"; whose meaning is to carry out, bring through, to do or to bring forth. It is an act of implementing, performing, fulfilling and achieving of the given tasks that need to be measured against defined sets of precision [22]. In the opinion of [23], it refers to the measurements of the company's activities, policies and operational results in financial terms. It, therefore, means that performance is used to check an organization's financial position. Attesting to this, [24] submits that banks' financial performance is the process of measuring the results of a firm's operations and policies in monetary terms. It means the degree with which financial objectives of firms are being achieved.

Profitability means the organization's ability to satisfactory generate returns on the shareholders' fund. Over the years, the established proxies with which the profitability of firms in the banking industry is ascertained are Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS) and Profit after Tax (PAT). Return on Assets (ROA) is used to indicate the extent to which firm in the banking industry are able to effectively and efficiently manage its assets to generate profits [3]. Put differently, it measures how judiciously the resources of firms are used to generate the expected income level. It is the division of a firm's net income by its total assets.

Return on Equity (ROE), according to [24], measures the profit generated from the shareholders' fund. It reveals the competency of the management team of firms in the banking industry to profitably manage the shareholders' resources. It is the ratio of Net Income after Taxes divided by Total Equity Capital. ROE reflects how effectively bank management is using shareholders' funds. Thus, the better the ROE, the more effective the management in utilizing the shareholders capital. Earnings per Share (EPS) represents the portion of a company's earnings, net of taxes and preferred stock dividends, that is allocated to each share of common stock [4]. According to [22], earnings per share serve as an indicator of a company's profitability.

PAT is the net profit earned by a firm after the deduction of all expenses like depreciation, interest, and tax. A company's after-tax profit margin is significant because it shows how well a company controls its cost [25]. A high after-tax profit margin generally indicates that a company runs efficiently, providing more value, in the form of profits, to shareholders. Overall, the profitability of firms in the banking industry is indispensable to their survival, as existing and potential shareholders are majorly interested in the profit level which is significant to the growth of the organization.

2.4. Deposit Money Banks and Treasury Single Account (TSA) in Nigeria

Literature affirmed that the liquidity crunch being experienced by firms in the banking industry lately could be attributed to the implementation of the Treasury Single Account (TSA). Through TSA, the custodian of government revenue of all MDAs is transferred to the apex bank of the country, Central Bank of Nigeria. This greatly shakes the liquidity pillars of banks and in turn affects their profitability. Ndubuaku, Ohaegbu, and Nina (2017) noted that TSA generated much fear in the banking industry even before its implementation. The fear is that with the high Monetary Policy Rate at 13%, Cash Reserve Ratio (CRR) at 20% and 75% available for private and public sector deposits respectively, its implementation would not be favorable to banks.

Full implementation of TSA will not only affect the liquidity of banks, but it will also affect their profit level [26] [27]. Higher liquidity will engender higher operational activities which will, in turn, improve the profit base. Expanding this, [28] submitted that 2.2 trillion that left the deposit money bank in 2015 as a result of TSA grossly affect the whole economy and not only the banking sector. This could be the reason why some scholars argued that full implantation of TSA did not take into consideration of other vital sectors of the economy, the banking sector, in particular, that could improve the living standard of people.

However, [9] opined that the full implementation of the TSA will not be hurting banks. It will only hurt establishments that purport and pretend to be banks but have failed, refused and neglected to understand banking and do what bankers do elsewhere. It is an opportunity for banks to refocus on the original purposes for which they were set up to collect depositors' funds, keep them safe; engage in intermediation to create wealth and jobs for the economy and in the process earn a profit for themselves.

2.5. Operations of Treasury Single Account (TSA) in Nigeria

The totality of the operations of TSA is to ensure that all government revenue is concentrated in a single purse, being managed by the central bank. Directly or indirectly, all revenue generated by all the states of the federation and the federal capital is united into a single account. The summary of the operations as adapted from [29] is given in Table 1.

The relevance of these operations to the firms in the banking industry stems from the fact that the pooling together of all the government revenue leaves banks with limited cash for operational activities, as much of these banks depend on public fund for survival rather than the generation of deposits from the private sector which constitutes one of the cruxes of the banking industry. A bank is considered liquid when it has the needed cash resources for daily operations and loan-related transactions. The liquidity of banks determines their performance level. It was on this basis that the study was developed to ascertain if the introduction of TSA that grossly affect the liquidity of banks as discovered by [30] affect their performance level.

Table 1. Operation of treasury single account in Nigeria.

1	MDAs fully funded through the federal government budget	All ministries, departments, agencies and foreign missions etc.	All collection from these agencies should be paid directly into the TSA (e-collection) and expenditure should be drawn from CRF based on annual budget.
2	MDAs partially funded through federal government budget, but generate another revenue	Teaching hospitals, medical center, federal tertiary institutions.	All revenue except (union dues) should be collected and paid to TSA. Subaccounts linked to TSA should be maintained. They will be allowed access to funds based on the approved budget.
3	MDAs not funded through the federal budget but expected to pay an operating surplus of 25% of gross earnings to the CRF	SEC, CBN, FAAN, NCC, NCAA, NPA, NIMASA, NDIC, NSC, CAC etc.	All revenue except union dues should be collected and paid to TSA. Subaccounts linked to TSA should be maintained. They will be allowed access to funds based on the approved budget.
4	MDAs that are funded through the federation account	NNPC, NCS, FIRS, MMSD, DPR	All federation revenue generated by these agencies should be paid into the federation account, while all independent revenue generated by them should be paid into the TSA. Federal government share of the federation account should be paid into the CRF. Approved cost of collection should be deducted from federation account to meet budgeted expenditure statutorily.
5	Agencies funded by the special accounts (levies)	NSC, RMRDC, PTDF, NITDA, etc.	Sub-accounts linked to TSA should be maintained at CBN. Access to funds should be allowed based on the approved budget.
6	Profit-oriented public corporations/business enterprises.	BOI, NEXIM, BOA, Transcorp Hilton, etc.	Dividends from these agencies should be paid into the TSA.
7	Revenue generated under public-private partnership	Production of international passports, seaport concession arrangement, etc.	Sub-accounts linked to TSA should be maintained at the TSA, Federal government portion of the revenue collected should be paid into TSA and partner's portion should be paid to the partner's account.
8	MDAs with revolving fund and project accounts	Drug revolving funds such as teaching hospitals, universities. Fertilizer revolving fund, roll-back, malaria, sure-p, etc.	Project account (revolving funds) should be maintained at CBN. Revenue collected from these agencies should be paid to the TSA. Access to funding should be allowed based on the approved budget.

Source: Adapted from Danladi (2015).

2.6. Theoretical Pattern

Theoretically, this study is underpinned by incremental theory by [31] and stakeholders' theory (1984). The incremental theory was postulated on the basis that human beings are complex in nature and their complexity is engulfed by numerous, intractable problem. Worrisomely, they have low resources and analytical skills to solve their problems. Expanding this, [12] submitted that amidst these obvious challenges, people disagree almost in every aspect and there is no sure way to resolve social problems in a satisfying way. To solve this problem ravaging the existence of man, [31] submitted that the government, through the appropriate agency, should not only solve the problems analytically but with the use of "bounded rationality". Bounded reality is termed a united framework through which the complexities of human in relation to unpatriotic acts such as corruption could be curtailed.

Relatively, the nitty-gritty of bounded reality is embedded in the efficacy of the Treasury Single Account (TSA). As noted earlier, the end-point of TSA is to ensure transparency and probity among public office holders, and redistribution of government revenue. The TSA policy is anchored on the incremental model of public policy because it is aimed at increasing government revenue and as a tool to solve manifold problems of social policy such as corruption, no accountability, leakages which have undermined government efforts to fulfill the social contract in delivering public goods to the people. However, this theory has been greatly criticized on the basis that it is not goal oriented. Also, the critics pin-point that the implementation of TSA in Nigeria did not put into consideration firms in the banking industry whose working capital is largely predicted on public funds [12].

Propounded by [32], stakeholders' theory centers on any individuals or groups who can affect the decision of an organization and, are against unpatriotic acts being perpetrated by corrupt public office holders in a nation. Stakeholders are people who have classifiable relationships with the organization. The purpose of an organization is to manage the interest, needs, and viewpoints of its stakeholder. Stakeholder management is a major thought to be fulfilled in an organization [33]. The implementation of Treasury Single Account (TSA) is related to stakeholder theory in that the existence of TSA was as a result of the pressure by stakeholders who can affect or is affected by the achievement of the organization objectives. It relates to the factors that could induce the government to introduce TSA.

2.7. Empirical Review

The implementation of Treasury Single Account (TSA) is in the year 2015 by general Muhamadu Buhari ushered in many studies on how the profitability of firms in the banking industry could be affected. Using the least square method of analysis on a time series data that covered the period of 2012 to 2016, [10] undertook a study on the effect of TSA on commercial banks performance in Nigeria and discovered that implementation of TSA has no significant impact on the performance of commercial banks in Nigeria. While the study under review randomly selected some commercial banks, this present study used Systematically Important Banks (SIB) in Nigeria.

A similar finding was reported by [11] on their study titled impact of Treasury Single Account (TSA) on the performance of banks in Nigeria. The scholars used multivariate data obtained from Diamond bank and First Bank. Using multivariate analysis model in determining the Hotelling's T2 statistic; Mahalanobis D2 statistic and F distribution, the researchers discovered that there was no significant difference between the period before and after the introduction of the TSA policy on the performance of banks in Nigeria. The two banks used as the sample size are too small to generalize the effect of TSA on the profitability of banks in Nigeria. Hence, there is a need for further studies with a larger sample size for better generalization.

Conversely, the discovery made by [8] on the impact of Treasury Single Account on the Performance of the Banking Sector in Nigeria was different from that of [10] and [11]. Using regression technique to analyze the time series data gathered from the Central Bank of Nigeria (CBN), it was reported that TSA had a significant impact on Credit to the Private Sector, Deposit Mobilization, and Loans and Advances. The study did not particularly center on the indicators of profitability and this is the crux of the study.

Another study was conducted by [12] on the effects of the Treasury Single Account (TSA) on Bank performance in Nigeria. Using Ordinary Least Square (OLS) to analyze the data gathered through the questionnaire, it was discovered that a negative significant relationship exists between TSA and bank profitability. The usage of the questionnaire to determine the extent at which TSA has affected the profitability banks in a single state is too small to generalize what the whole banking sector is experiencing hence, there is a need for further study of this nature to close this gap.

A negative impact of TSA on the performance of banks was equally reported by [13] on the titled the impact of TSA on the liquidity of banks in Nigeria. Ten Deposit Money Banks (DMBs) were sampled and the questionnaire was used to elicit the needed data that was analyzed via Chi-square. In a way of generalizing the outcome of this study, regardless of the analysis method used, this present study used paired sampled t-test to ascertain if the implementation of TSA has impacted the profitability of banks in Nigeria, with a special reference to Systematically Important Banks (SIB) in Nigeria.

Consequently, [14] conducted a study on the impact of TSA implantation on the liquidity of banks in Nigeria on 10 Deposit Money Banks (DBMs) for the period 2010-2015. The analysis carried out via t-test and regression revealed that TSA has negatively impacted the liquidity of banks in Nigeria. Obviously, the study only covered the period before TSA and up to the implementation year, 2015. It might be difficult to ascertain if truly TSA has a negative influence on the liquidity of banks in Nigeria. This gap, therefore, necessitates this present study that covers three years before the implementation of TSA and three years after.

In another related study conducted by [1] on the effect of TSA on performance and survival of Deposit Moneys Banks in Nigeria, the analyzed carried out via paired sampled t-test on six banks' financial statement for two years indicates that Treasury Single Account (TSA) does not affect banks' performance and survival using the two widely used measure of banks performance. This study seems not to be vigorous because it covers only two years. To make the same study vigorous and more recent, this present study covers six years, spanning from 2012-2017 with four indicators of profitability as opposed to two indicators used by the study under review.

Contrary to this, the study carried out by [6] on TSA and Deposit Money Banks in Nigeria revealed that TSA has an effect on liquidity problems in banks. The scholars noted that for banks to thrive and survive the hardship engendered by TSA, should source funds from other sectors of the economy; more than 50% of the population of Nigeria does not have access to financial services. Five (5) banks were selected and a questionnaire was used to elicit the needed data that thereafter analyzed using multiple regression. Instead of primary data, a time series and cross-sectionally data was used in this present study.

A significant difference between the Profit after Tax of 15 selected banks before and after the implementation of TSA was reported by [15]. This paper assessed the impact of TSA implementation on the liquidity base of banks in Nigeria and data was obtained by the use of annual reports and it was examined using Descriptive statistics and Paired sample t-test. In the same vein, [16] reported a similar conclusion that the implementation of treasury single account adversely affects the liquidity of deposit money banks in Nigeria which in turn affect their profit base.

3. Methodology

The ex-post facto research design was adopted for this study because aimed at obtaining important information on the status of the specific phenomenon after some naturally occurring treatment without any manipulation of the situation. Out of all the listed Deposit Money Banks (DMBs) in Nigeria, Purposive sampling technique was used to select all the 6 Systematically Important Banks (SIB). The choice of these banks that covered United Bank for Africa Plc First Bank of Nigeria, Zenith Bank Plc, Access Bank Plc, Guaranty Trust Bank Plc, and Diamond Bank was predicted on their significant role in the Nigeria financial system and their capacity to prevent a systemic collapse of the entire economy. Specifically, data were collected on four indicators of profitability of banks such as Earning per Share (EPS), Profit after Tax (PAT), Return on Equity (ROE) and Return on Assets for the period of 6 years divided into Pre-TSA (2012-2014) and Post-TSA (2015-2017). Descriptively, mean was used to explain the differences in the performance variables of the sampled firms while inferential statistics of paired sampled t-test was used to test if TSA has any effect on the profitability of banks in Nigeria.

The basic hull hypothesis for the paired sampled t-test is that the population mean difference is equal to a hypothesized value,

$$H_0: \mu_{diff} = Hypothesized\ value$$

With three common alternative hypotheses

$$H_a: \mu_{diff} \neq Hypothesized\ value$$

$$H_a: \mu_{diff} < Hypothesized\ value$$

$$H_a: \mu_{diff} > Hypothesized\ value$$

In the most common paired t-test scenario, the hypothesized value is 0, in which the null hypothesis becomes

$$H_0: \mu_{diff} = 0$$

With alternative hypotheses options of,

$$H_a: \mu_{diff} \neq 0$$

$$H_a: \mu_{diff} < 0$$

$$H_a: \mu_{diff} > 0$$

4. Results and Discussions

As earlier stated on four indicators of profitability of banks such as Earning per Share (EPS), Profit after Tax (PAT), Return on Equity (ROE) and Return on Assets for the period of 6 years divided into Pre-TSA (2012-2014) and Post-TSA (2015-2017). Analyzed was done majorly using paired sample t-test.

4.1. Results

Table 2 showed that pair 1 has a mean value of 0.40694 and a standard deviation of 0.38401. Based on the subtraction method, it implies that the Return on Assets (ROA) of the sampled Deposit Money Banks (DMBs) after the implementation of Treasury Single Account (TSA) was 0.40694 higher than ROA reported before the implementation of TSA. The *t-statistics* and *p-value* reported to be 1.836 and 0.208 respectively implies that there is a positive insignificant difference between post and preROA of the sampled Deposit Money Banks (DMBs) in Nigeria. Put

Table 2. Pre-post analysis of return on assets (ROA) of systematically important banks (SIB).

Paired Samples Test									
		Paired Differences					t	df	prob
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	POST-ROA - PRE-ROA	0.40694	0.38401	0.22171	−0.54699	1.36088	1.836	2	0.208

Source: Data analysis, 2019.

differently, TSA exerts a positive insignificant impact on the Return on Assets (ROA) of the sampled Deposit Money Banks (DMBs) in Nigeria for the period covered by this study.

The outcome in Table 3 revealed a mean value of 1.3544 and a standard deviation of 14.97499. Based on the subtraction method, it implies that the Earnings per Share (EPS) of the sampled Deposit Money Banks (DMBs) after the implementation of Treasury Single Account (TSA) was 1.3544 higher than EPS reported before the implementation of TSA. The *t-statistics* and *p-value* reported to be 0.157 and 0.890 respectively implies that there is a positive insignificant difference between post and pre EPS of the sampled Deposit Money Banks (DMBs) in Nigeria. Put differently, TSA exerts a positive insignificant impact on the EPS of the sampled Deposit Money Banks (DMBs) in Nigeria for the period covered by this study.

The outcome in Table 4 revealed a mean value of −1.150 and a standard deviation of 5.3605. Based on the subtraction method, it implies that the Profit after Tax (PAT) of the sampled Deposit Money Banks (DMBs) after the implementation of Treasury Single Account (TSA) was 1.150 lower than PAT reported before the implementation of TSA. The *t-statistics* and *p-value* reported to be 0.3718 and 0.065 respectively implies that there is a negative insignificant difference between post and pre PAT of the sampled Deposit Money Banks (DMBs) in Nigeria. Put differently, TSA exerts a negative insignificant impact on the PAT of the sampled Deposit Money Banks (DMBs) in Nigeria for the period covered by this study.

Table 3. Pre-post analysis of earning per share of systematically important banks (SIB).

Paired Samples Test									
		Paired Differences					t	df	prob
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	POST-EPS - PRE-EPS	1.35444	14.97499	8.64581	−35.84549	38.55438	0.157	2	0.890

Source: Data analysis, 2019.

Table 4. Pre-post analysis of profit after tax of systematically important banks (SIB).

Paired Samples Test									
		Paired Differences					t	df	prob
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	POST-PAT - PRE-PAT	−1.15073	5.3605	3.0949	−2.4823	1.8089	−3.718	2	0.065

Source: Data analysis, 2019.

Consequently, Table 5 revealed a mean value of 1.72556 and a standard deviation of 6.24461. Based on the subtraction method, it implies that the Return on Equity (ROE) of the sampled Deposit Money Banks (DMBs) after the implementation of Treasury Single Account (TSA) was 1.72556 higher than ROE reported before the implementation of TSA. The *t-statistics* and *p-value* reported to be 0.479 and 0.679 respectively implies that there is a positive insignificant difference between post and preEPS of the sampled Deposit Money Banks (DMBs) in Nigeria. Put differently, TSA exerts a positive insignificant impact on the ROE of the sampled Deposit Money Banks (DMBs) in Nigeria for the period covered by this study.

4.2. Discussion of Findings

This study has revealed the effect of the Treasury Single Account (TSA) on the financial performance of Deposit Money Banks (DMBs) in Nigeria with a special interest in Systematically Important Banks (SIB). It was discovered through the analysis carried out via paired sampled t-test that TSA exerts a positive insignificant impact on all the indicators of profitability covered by this study except Profit after Tax (PAT) that has a negative insignificant impact. The corollary of this discovery is that has not negatively affected the profitability of Deposit Money Banks (DMBs) in Nigeria except for PAT. The reason for this might be attributed to the effort of the banks to refocus on the original purposes for which they were set up to collect depositors' funds, keep them safe; engage in intermediation to create wealth and jobs for the economy and in the process earn a profit for themselves. This outcome gave credence to the findings of [1] [10] [11]. They discovered that there was no significant difference in the performance of DMBs in Nigeria before and after the implementation of TSA. However, the outcome of this study failed to corroborate the discovery made by [6] [8] [12] [13] [14], that there was a significant difference in the performance of DMBs in Nigeria before and after the implementation of TSA.

5. Conclusion and Recommendations

Some scholars affirmed that the full implementation of TSA would not affect

Table 5. Pre-post analysis of return on equity (ROE) of systematically important banks (SIB).

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Prob
					Lower	Upper			
Pair 1	POST-ROE - PRE-ROE	1.72556	6.24461	3.60533	−13.78691	17.23802	0.479	2	0.679

Source: Data analysis, 2019.

DMBs except those that failed, refused and neglected to understand banking and do what bankers do elsewhere. Based on these premises, the study was designed empirically to examine the impact of the Treasury Single Account (TSA) on the Profitability of Deposit Money Banks (DMBs) in Nigeria. In relation to the discovery made, it was concluded that there was no significant difference in the profitability of DMBs before and after the implementation of TSA. In other words, it was concluded that TSA has no significant impact on the financial performance of DMBs in Nigeria. It was recommended that managers of DMBs should work out modalities that will foster the embracement of the core values of the banking system to collect depositors' funds, keep them safe and engage in intermediation to create wealth and jobs for the economy. Consequently, over-dependence on government fund for operational activities must be discouraged. Bank managers should be proactive in decision making, and they should maintain good, lasting customer relationships that could engender an increase in the number of their customers. This might improve its liquidity base.

6. Suggestions

This study only covered 6 banks out of all the quoted banks in Nigeria hence; this study may be more accurate in the future by increasing the sample size. As in this study, the financial report of 6 Systematically Important Banks (SIB) were considered, other studies can be conducted considering other Deposit Money Banks (DMBs).

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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