Effects Of Nigerian Financial System on Financial Management in Public Sector

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Abstract
The study examined the effects of Nigerian financial system on financial management in public sector. Ex-post-facto design was adopted. "Two hypotheses were formulated and tested at 0.05 level of significance. The study employed secondary data obtained from annual CBN bulletin between 2010 and 2022. The data gathered was analyzed using ordinary least square regression technique via E-views version 9." Findings revealed that financial inclusion index and stock market performance has a significant relationship with financial accountability in the Nigerian public sector. It was recommended that since financial inclusion index and stock market performance has been shown to have a significant relationship with financial accountability in the public sector in Nigeria, hence, there is need for the government to strengthen its all-necessary practices, procedures and mechanisms that will improve financial inclusion and stock market performance.

Keywords: *Nigerian Financial System, Financial Management, Public Sector*

1. Introduction

In the complex tapestry of modern economies, the financial system of any nation plays a pivotal role, serving as the lifeblood that sustains economic activities and facilitates the allocation of resources. In Nigeria, a nation of rich cultural diversity and vast economic potential, the financial system holds a unique and paramount position within the framework of its public sector financial management. This intriguing interplay between the Nigerian financial system and the management of public finances represents a subject of critical importance, one that warrants meticulous examination and thoughtful analysis (Junaidu & Aminu, 2015).
Nigeria, as the most populous nation in Africa and one of the continent's largest economies, possesses a financial system characterized by a blend of traditional and modern institutions. From the Central Bank of Nigeria to an array of commercial banks, insurance companies, and capital market entities, the country's financial ecosystem exhibits a diverse and evolving landscape. This system is tasked with mobilizing savings, allocating capital, facilitating trade, and underpinning the monetary policies that drive economic growth (Young et al., 2022). However, it is essential to recognize that this intricate web of financial institutions does not operate in isolation; it is intrinsically linked to the fiscal machinery of the Nigerian public sector.

The public sector is the framework that government uses to discharge its primary responsibility of providing social amenities and infrastructure. As the world experience rapid changes due to the effects of globalisation by increasing the interconnectivity of multi-national and multi-lateral institutions, there is therefore, an increased need to emphasize the role of government in addressing the multifaceted challenges in society (Young et al., 2022). Junaidu and Aminu (2015) argued that the public sector is an institution in charge of administering a country's resources on behalf of the people who possess those resources. However, much is desired of the activities of the public sector in terms of financial accountability especially in the Nigerian context. The public sector of Nigeria, encompassing various tiers of government, government agencies, and parastatals, represents a colossal economic force that influences the livelihoods of millions. Financial management within the public sector is a dynamic and multifaceted endeavor, as it involves the allocation and utilization of public resources to meet the diverse needs of the Nigerian populace. It provides the platform that accommodates the interplay between the financial system and public sector financial management. The public sector relies on the financial system for revenue collection, fund disbursement, and investment management.

The art of making budget managing public finances and spending is known as financial management (FM), and the public sector is in charge of pooling a sizable amount of resources to achieve a variety of public benefits. The intricacy and expectations associated with this duty are substantial (Hedger & De-Renzio, 2010). According to Jack (2013), financial management is a crucial instrument that assists the public sector in managing funds in a methodical, effective, transparent, and legal manner. As a result, the three (3) pillars of public sector financial management are resource allocation (receiving the money), regulating delivery (using the money), and accountability (reporting on the money). Financial Management (FM) is the term for the legal or regulatory processes used to manage public funds through the budgeting process, which includes the formulation, implementation, reporting, and analysis phases. As is customary in the literature, the majority of writers tend to concentrate on the expenditure side, oblivious to the fact that government spending should be determined from the income forecast and predictions. However, as the administration of public finances typically rests on both the revenue and spending sides, this study takes into account both factors (Potter & Diamond, 2019).

This intricate dance between the Nigerian financial system and public sector financial management brings forth a host of challenges and opportunities. There is a dearth of studies that addresses the challenges that features both Nigeria financial System and financial management of the public sector in Nigeria. Hence, this study examined the effects of Nigerian financial system on financial management in public sector.

Statement of the Problem

The research problem central to this study revolves around elucidating the intricate relationship between the Nigerian financial system and financial management practices within the public sector. It necessitates an in-depth examination of how the various components of the financial system, capital markets, comprising banking institutions, regulatory mechanisms, and financial intermediaries, interplay with financial management in the public sector in Nigeria. This investigation seeks to uncover the relationship between financial inclusion index and stock market performance as measures of financial system against financial accountability index as a measure of financial management in Nigerian public sector.

Objectives of the Study

The study examined the effects of Nigerian financial system on financial management in public sector. The study specifically aims to achieve the following:

1) Determine the relationship between financial inclusion index and financial accountability in the public sector.
2) Determine the relationship between stock market performance and financial accountability in the public sector.

Research Questions

The under listed research questions were developed to guide the study:

1) What is the relationship between financial inclusion index and financial accountability in the public sector?
2) What is the relationship between stock market performance and financial accountability in the public sector?

Hypotheses

At the 0.05 level of statistical significance, the subsequent null hypotheses were developed and tested:

$H0_1$: Financial inclusion index has no significant relationship with financial accountability in the public sector.

$H0_2$: Stock market performance has no significant relationship with financial accountability in the public sector.

2. Literature Review

2.1 Conceptual Review

Nigerian Financial System

The Nigerian financial structure consolidates money related business areas (money and capital business areas), financial establishments including the authoritative and managerial trained professionals, improvement finance associations (Metropolitan Progression Bank, Nigerian Cultivating and Country Cooperatives bank) and other cash foundations (protection office, annuity holds, finance associations, Organization de change, and Fundamental Home credit Establishments), among others (Onah, 2021). It also offers money related instruments (for instance storehouse bills, safe verifications, public bank confirmations).

The design of the Nigerian Monetary Framework has experienced striking changes, going from their proprietorship structure, the length and broadness of monetary instruments used to the quantity of foundations laid out, administrative and administrative systems as well as the in general macroeconomic climate inside which they work. Another element of the Nigerian Financial System is the interactions between the people and things that make up the economy. Commercial banks are the most significant financial organisations in Nigeria for encouraging and mobilising savings as well as channelling money into lucrative investment units.

In order to distribute resources to those who could be more productive and to invest those resources, the financial system provides a foundation for financial infrastructure.

The financial system makes resource and capital transfers more efficient. Any economy that has one monetary foundation with more information than different members might encounter issues with wasteful monetary asset portion and data unevenness. If the information asymmetry issue is resolved, the financial system maintains a balance between those with money to invest and those in need of money. Direct money, as the training is named, takes into account the immediate development of money from surplus units (for the most part families) to deficiency units (fundamentally organizations, states, and a few families), however it is lumbering for both a definitive contributor of assets and a definitive shopper of assets.

Financial Inclusion Index (FII)
According to Allen et al. (2016), “financial inclusion is the usage of formal financial services.” Another definition of financial inclusion is the ease with which all economic players may get and use the formal financial system (Sahay et al., 2015; Sarma, 2008). Financial inclusion is another term for offering individuals easily accessible financial services (Ozili, 2018).
The degree to which people and companies may access and use financial services is referred to as financial inclusion and products that are affordable and appropriate to their needs. In Nigeria, like many other developing economies, achieving widespread financial inclusion has been a critical policy goal (Onah, 2021). The Financial Inclusion Index serves as a valuable metric to assess the progress made in this regard.
The Nigerian government and regulatory authorities have implemented a series of “initiatives to enhance financial inclusion, such as the National Financial Inclusion Strategy (NFIS)” and the deployment of mobile banking and digital payment systems. These efforts have yielded substantial results, with a noticeable increase in the number of individuals and businesses gaining access to formal financial services.
However, challenges remain, particularly in reaching underserved and rural populations. A comprehensive analysis of the Financial Inclusion Index can provide insights into the effectiveness of these initiatives and the extent to which they have penetrated the public sector. Increased financial inclusion within the public sector can have a transformative impact on financial management practices by improving transparency, efficiency, and accountability.
Stock Market Performance (SMP)
The stock market plays a pivotal role in mobilizing capital for both public and private sector enterprises. In the context of the public sector, government-owned enterprises often list their shares on stock exchanges to raise funds for infrastructure projects and other developmental initiatives. The performance of these public sector stocks is intertwined with the broader health of the Nigerian stock market (Osisioma, 2018). Stock market performance serves as a compelling proxy for the broader financial market system in Nigeria, encapsulating a complex web of economic indicators, investor sentiment, regulatory frameworks, and the country's overall financial health.
The Nigerian Exchange Group (NGX) is a prominent institution that facilitates the trading of securities, including those issued by public sector entities. The performance of public sector stocks is impacted by a variety of circumstances, such as the state of the economy, government policies, and investor sentiment. Additionally, the level of financial inclusion within the public sector can affect investor participation and the demand for these stocks.
Financial Management in Public Sector
Osisioma (2018) claims that the business capability of monetary administration is liable for dispensing the accessible monetary assets to amplify corporate execution and profit from speculation. Experts in monetary administration sort out, plan, and oversee business exchanges. Osisoma said that monetary administration in the public area alludes to the assortment, organization, and utilization of public supports across the entire economy. Through the various Services, Divisions, and Organizations (MDAs) of the public authority, this capability is effectively done. The monetary specialists, who are in many cases bookkeepers and finance managers, are in charge of allocating funds, managing finances, regulating expenditures, and making wise decisions.
According to Onah (2021), the public sector is the area of the economy that is made up of all governmental levels and government-controlled businesses. Private businesses, nonprofit organisations, and homes are excluded. An economy's public sector offers a variety of governmental services, such as transportation, education, healthcare, law enforcement, and the armed forces. In Nigeria, the federal, state, and municipal governments all have important roles

in the provision of public services, including healthcare, education, and the construction of infrastructure.

Financial Accountability Index

According to Hampton (2019), financial accountability refers to the process of "ensuring good stewardship of resources, which incorporates a lawful and moral obligation regarding ensuring that public cash are utilized for public purposes and that the best worth is acknowledged while utilizing public assets." In the broadest sense, it involves the savvy the board of restricted assets in the economy and effective resource allocation.

This definition is applicable:

• Determining fiscal policies and priorities: Communities or the nation's political authorities set general policies and programmes through this procedure, and then they approve funding through the budget to carry out those policies. In order to effectively structure the economy, it also entails the formulation of revenue expectations and strategies for income creation.

• Ensuring judicious administration of public finances for purposes lawfully authorised by authorised authorities and ensuring that the money allotted for various initiatives across the economy is used appropriately for its intended purpose.

• Providing the organisational framework and controls necessary to carry out the defined fiscal and financial tasks and obligations in an efficient manner.

2.2 Theoretical Review

Theory of Financial Control

The theory of financial control was initiated by George P. Marsh in 1864 but was recently elaborated by Ostman (2007). This theory of financial control principally states that the most important uses of financial instruments for organisations are those that are already accessible and available. The idea of financial controls for organisations naturally focuses on the organisation, allowing for many latitudinal perspectives. The first focus of the theory is on individuals (in this study, the employees in the public service) and what activities they do for their organization (in this study, public institutions). The second focus of this study is on how the organization is structured (in this study, the bureaucratization) and the interrelationships among the different structures of the organization (the public service in this study). The last focus of the study dwells on the internal control system in the organization (in the public sector in this study) and the procedures and rules instituted to ensure its success. According to this theory, these three aspects work together to ensure the efficient and effective functioning of organizations (that is, the public sector). Financial control theory therefore provides an assurance to the leadership on the accuracy of the accounting data used in decision-making. It delineates the aspects of financial control such as public sector audit, budgetary control and procurement process that are relevant towards maintaining high levels of financial accountability.

2.3 Empirical Review

Bulama (2023) examined whether financial control has any effect on "financial accountability in the public sector in North East Nigeria." The specific objective was to assess the effect of public sector audit, budgetary control, and procurement processes on "financial accountability of the public sector in North East Nigeria." The study employed a cross-sectional research design on a sample size of 128 employees selected from the Office of the Auditor General of the six states in North East Nigeria while questionnaire was used for data collection. The multiple regression analysis conducted revealed that while public sector audit and procurement processes has a significant positive effect on "financial accountability in the public sector in North East Nigeria, budgetary control was found to have no significant effect on financial accountability." The study recommended that state governments should strengthen their audit procedures and mechanism as a sound public sector audit framework will help improve financial accountability. The study also recommended that the procurement processes in all the states in Nigeria should be improved upon and legislated. In that way, the public sector in Nigeria will have better financial accountability.

Alobari (2017) looked at financial management and the public sector with an emphasis on the reforms' historical tendencies, their challenges, and the potential for more transparency, less corruption, and ethical principles in the public sector. In the study, a descriptive survey design was used. By using stratified random sampling to pick ten (10) federal ministries in Abia State, a questionnaire was utilised to collect data from the main source. Each of the ten (10) federal ministries had its unique sample size. The data were analysed statistically using the Chi-square method. The study's findings revealed a strong correlation between public financial management changes and increased openness, less corruption, and enhanced ethical standards in the public sector, according to the majority of the respondents. In order to guarantee that corruption is eliminated in the public sector, it is advised by the research, among other things, that the financial management rules and laws, including fines, must be enforced.

Utilising data from the global findex indicators, Ozili (2022) examined how far Nigeria has embraced financial inclusion. The findings demonstrate that Nigeria made strides in a variety of financial inclusion initiatives during the initial years of the effort in 2014. According to the demographic group analysis, women, the poorest males, older men, and those without college degrees all had lower financial inclusion indices in 2017 than everyone else. Financial inclusion may face challenges in the years after 2014, according to the reported decline in this area in 2017.

2.4 Research Gap

The literature reviewed showed that several studies have been done on financial management in the public sector, but there is none or little research evidence on the true position of the effect of Nigerian financial system on financial management in Nigerian public sector between the years of 2010 and 2022. This present study is geared towards filling the aforementioned gaps.

3. Methodology

Ex-post facto research design, which enables data extraction from firm records, was used for this study. The information used was extracted from yearly reports, a secondary source, to get it from central bank of Nigeria data bank between 2010 and 2022. Measures of Nigerian Financial system (Financial inclusion index (FII) and Stock market performance (FMP) was derived from Maimako (2005), Anane et al. (2019) and Ozuomba (2019) while financial accountability index measures were developed from Avery and Obah (2018) and Onuorah and Appah (2012).

The economic model used in the study (which was in line with what is mostly found in the literature) is given as:

FAI= f (FII, SMP) …………. (1)

$FAIt = \beta_0 + \beta 1\ FII_t + \beta 2 SMPI_t + \varepsilon \ldots$ (2)

Variables Definition and Measurement

FAI= Financial Accountability index extracted from CBN Annual Bulletin (2010-2022)

FII=Financial Inclusion Index extracted from CBN Annual Bulletin (2010-2022)

SMP= Stock Market Performance extracted from CBN Annual Bulletin (2010-2022)

"β1 – β2 are the coefficient of the parameter estimate.

$\beta 0$ the intercept

ε = error term"

Method of Data Analysis

The data were analysed using E-views version 9 statistics and the ordinary least squares approach. The study measures the extent using the adjusted coefficient of determination (adj. R2) to which financial system Financial Inclusion Index and Stock Market Performance associates with the accountability index of public sector in Nigeria between 2010 and 2022. For the decision criterion: If the "p-value < 0.05, then the null hypothesis was rejected implying that the variable does not contribute to explaining the variation in the dependent variable." The reverse was the case for p-values > 0.05. In such cases, the null hypotheses are accepted while the alternative rejected.

4. Results and Analysis

Table 1: Descriptive Statistics

	FAI	FII	SMP
Mean	0.3462	0.488333	0.560000
Median	.325409	0.670000	0.670000
Maximum	.583409	0.830000	0.810000
Minimum	.1309	0.550000	0.130000
Std. Dev.	.2109	0.111788	0.256982
Skewness	0.399321	0.203165	-0.835297
Kurtosis	2.359156	1.612439	2.212003
Jarque-Bera	0.262128	0.522608	0.852956
Probability	0.877162	0.770047	0.652804
Sum	0.5710	4.130000	3.360000
Sum Sq. Dev.	.28018	0.062483	0.330200
Observations	13	13	13

E-view Output (2023)

The average value of FAI was approximately .34. FII and SMP averaged 0.488333 and 0.560000 respectively. This shows that the accountability index and financial inclusion index are still below the world-bank bench mark.

Table 2: Correlation matrix of the selected variables

	FAI	FII	SMP
FAI	1		
FII	0.1574	1	
SMP	0.0609	0.3858	1

FAI was positively correlated with FII and SMP respectively.

Hypothesis 1

$H0_1$: Financial inclusion index has no significant relationship with financial accountability in the public sector.

Table 3: Regression Analysis on Financial inclusion index and financial accountability

Dependent Variable: FAI
Method: Least Squares
Date: 09/07/23 Time: 16:35
Sample: 2010 2022

Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.338774	0.094005	3.603779	0.0041
FII	0.001253	0.002369	0.528746	0.0075

R-squared	0.247860	Mean dependent var	0.386923
Adjusted R-squared	0.213870	S.D. dependent var	0.081587
S.E. of regression	0.084152	Akaike info criterion	-1.971746
Sum squared resid	0.077897	Schwarz criterion	-1.884831
Log likelihood	14.81635	Hannan-Quinn criter.	-1.989611
F-statistic	0.279572	Durbin-Watson stat	1.707218
Prob(F-statistic)	0.007485		

Using an R-squared value changed to 0.2138, the dependent variable's variation may be explained by a factor of 24.78 percent. The idea that all of the regression coefficients are zero is disproved by the F-statistic of 0.27495 (p. F-statistics and an adjusted R2 for the regression model imply that the model has a strong fit and can account for FAI variations. A positive coefficient and t-statistic are present for our variable of interest (FII) "[t-statistic (0.528746), p (0.075.05)]. The null hypothesis is rejected. As a result, financial inclusion index has a significant relationship with financial accountability in the public sector in Nigeria."

Hypothesis 2

$H0_2$: Stock market performance has no significant relationship with financial accountability in the public sector.

Table 4: Regression analysis on Stock market performance and financial accountability

Dependent Variable: FAI
Method: Least Squares
Date: 09/07/23 Time: 16:36
Sample: 2010 2022
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.353414	0.167191	2.113837	0.0582
SMP	0.002874	0.014196	0.702448	0.0433

R-squared	0.371200	Mean dependent var	0.386923
Adjusted R-squared	0.316860	S.D. dependent var	0.081587
S.E. of regression	0.085056	Akaike info criterion	-1.950367

Sum squared resid	0.079580	Schwarz criterion	-1.863452
Log likelihood	14.67739	Hannan-Quinn criter.	-1.968232
F-statistic	0.490985	Durbin-Watson stat	1.744059
Prob(F-statistic)	0.043363		

SOURCE: EVIEW OUTPUT, (2023)

The model accounted for around 37.12 percent of the variation in the dependent variable, according to its modified R-squared value, which was approximately 0.3712. The F-statistic was 0.4909 (p. 05) to test the null hypothesis that all regression coefficients are equal to zero. The volatility of the FAI variations is explained by the "F-statistics and modified R2 for the regression, which appear to be a good fit for the entire model. For our variable of interest (SMP), a positive and statistically significant t-statistic (t-statistic 0.702448, 0.04433<0.05)" was discovered; hence the null hypothesis was rejected. Stock market performance has a significant relationship with financial accountability in the public sector.

4. Discussion of Findings

The discussion of findings was done based on the variables of the study.

Financial Inclusion Index and financial Accountability Index

The results revealed that financial inclusion index has weak positive relationship with financial accountability index. Also, the study revealed that financial inclusion index "has a significant relationship with financial accountability in the public sector." This finding supports that of Ozili (2022), who reported that public audit and budgetary control was found to have a "significant effect on financial accountability index of public sector in Nigeria."

Stock Market Performance and Financial Accountability Index

The results revealed that stock market performance index has strong positive relationship with financial accountability index. Also, the study revealed that stock market performance has a significant relationship with financial accountability in the public sector in Nigeria. This finding supports Ozili (2022) and Bulama (2023), who reported that banking sector was found to have a "significant effect on financial accountability index of public sector in Nigeria." This finding contradicts that of Alobari (2017) who said that public finance management changes had no discernible impact on increased openness, less corruption, or elevated ethical standards in the public sector.

5 Summary, Conclusion and Recommendations

The Nigerian financial system is a dynamic and ever-evolving ecosystem that plays a central role in shaping the nation's economic landscape. With a diverse array of financial institutions, capital markets, and regulatory bodies, the system is instrumental in driving economic growth, fostering financial stability, and promoting public sector development. This study has established that financial inclusion index and stock market performance has a significant relationship with financial accountability in the Nigerian public sector.

Based on these findings, the following recommendations were made:

Financial inclusion index stock market performance has been shown to have a significant relationship with on financial accountability in the public sector in Nigeria, hence, there is need for the government to strengthen its all-necessary practices, procedures and mechanisms that will improve financial inclusion and stock market performance.

Contributions to Knowledge

This study has established the effects of Nigerian financial System on financial management of public sector in Nigeria between the years of 2010 and 2022. This study uniquely established the true picture of financial inclusion index and stock market performance as measures of Nigerian Financial system.

Limitation of the Study

This research work is carried out at the time the researcher is a postgraduate student in the university. Since the researcher must combine the study with other academic activities and tests, the time allowed for the study does not promote wider coverage. However, the credibility of this investigation is not jeopardized.

Suggestion for Further Studies

The study utilised financial inclusion index and stock market performance as a proxy of Nigerian financial system, however further studies could focus other measures. Moderating variables such as size, exchange rate, can also be used to give better insight.

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