

FINANCIAL SECTOR PERFORMANCE AND NIGERIA'S ECONOMIC GROWTH: AN EMPIRICAL EVALUATION OF PRE AND POST SAP REFORMS ERA (1960 – 2024)

¹DR. TIM NWACHUKWU *,²DR. AZUBUIKE E AGUGUA ³NANCY ELENDU IBANGA,
⁴UGOCHUKWU IHESIE

¹Department of Banking & Finance, K. O. Mbadiwe University, Ideato

^{2,3,4}Department of Economics, K. O. Mbadiwe University

* Corresponding author; tim.nwachukwu.komu.edu.ng

ABSTRACT

This study examined the relationship between Financial Sector Performance and Nigerian's Economic Growth, proxy by GDP, taking an empirical analysis of the Pre SAP & Post SAP Financial Sector Reforms [1960 – 2024]. Selected indicators/ variables of financial sector performance that were used include; real interest rate [INT], the ratio of broad money supply to GDP [MSGD], the ratio of private sector credit to GDP [PSGD] and ratio of total deposits of deposit money banks to GDP [TDGD]. The long run relationship among the variables were examined using Johansen Co-integration Test. Test for Stationarity was conducted using the Augmented Dickey- Fuller [ADF] Unit Root Test. The Test for Causality was done using the Pair – Wise Granger Causality Test. The test of difference between two Means was conducted to examine the Statistical Significance of each selected Variable in both periods. The ordinary least square regression method was employed to capture the relationship between Financial Sector Performance and Nigeria Economic Growth [GDP]. For a comparative analyses, there were Two Multiple Regression analysis thus; the first for, Pre – SAP Period ;1960 – 1986 [the period when the economy was regulated by the government] and the second, the Post- SAP Period; 1987 – 2024 [the period of deregulation and other reforms]. This was to enable the study establish a relationship between a Financial Sector performance variable and economic growth in each period, then compare the Statistical significance in both periods. The findings reveal that the relationship between Financial sector performance and Nigeria's economic growth is more significant in the Post- SAP Period, but not remarkably better than the Pre- SAP Period over the Pre-SAP Period, this can be attributed to other variables not included in the study. Thus, the study recommends among others that, the Monetary authorities should direct their efforts towards achieving a positive real interest rate and lowering lending rate in Nigeria. This is to ensure that reforms that are complimentary do not work on the opposite direction. Furthermore, the study recommends that, the Monetary authorities should avoid drastic policy reversal especially on matters affecting the total deposits of deposit money banks. Rather, it should concentrate efforts in fine-tuning the exiting policy measures, which will further enhance the assets of banks and its operation. This measure, we believe, will go a long way at enhancing fund's mobilization in the country, thus spurring the economic growth.

Keywords: SAP, BROAD MONEY, ADF, DEREGULATION, FINANCIAL SECTOR, GDP.

BACK GROUND TO THE STUDY

Financial sector reform can be defined as a set of policy measures designed to transform the financial system and its structures with the view to achieving a deregulating market-oriented system within an appropriate regulatory framework. It is also the introduction of market-based procedures for monetary control, the promotion of competition in the financial sector, and the relaxation of restrictions on capital flows (Waqabaca, 2022). According to Okpara (2023), reforms result from a need for reoriented, repositioning and revitalizing an existing status quo bedecked with bottlenecks that inhibit institutional smooth running and growth. The dynamic nature and uncertainties in human endeavours call for innovations and reforms that aim at addressing weak corporate governance, risk management, operational inefficiencies, undercapitalisation and so on in order to meet with the requirements of the economy and the globe at large.

One of the most important tasks before developing countries is to achieve higher rates of economic growth. The financial sector of any economy in the world plays a vital role in the development and growth of the economy. The development of this sector determines how it will be able to effectively and efficiently discharge its major role of mobilizing fund from the surplus units to the deficit units of the economy.

Objectives of the Study

In specific terms, the paper attempts to:

1. Ascertain the relationship between real interest rate (INT) and the growth rate of GDP in Nigeria.
2. Investigate whether a significant relationship exists between the ratio of broad money supply to GDP (MSGD) and the growth rate of GDP in Nigeria.
3. Evaluate the extent of the relationship that exists between the ratio of Private Sector credit to GDP (PSGD) and the growth rate of GDP in Nigeria.
4. Determine the relationship between the ratio of total deposits of deposit money banks to GDP (TDGD) and the growth rate of GDP in Nigeria.
5. Find out whether there is a significant difference in the level of economic growth in Nigeria in the Pre-SAP reforms periods.
6. Empirically test whether a significant Granger Causality relationship exists between real interest rate (INT) and the growth rate of GDP in Nigeria.
7. Examine whether a significant causal relationship exists between the ratio of broad money supply to GDP (MSGD) and the growth rate of GDP in Nigeria.

Research Hypotheses

H₀1: There is no significant relationship between real interest rate (INT) and the growth rate of GDP in Nigeria.

H₀2: There is no significant relationship between the ratio of broad money supply to GDP (MSGD) and the growth rate of GDP in Nigeria.

H₀3: There is no significant relationship between the ratio of private sector credit to GDP (PSGD) and the growth rate of GDP in Nigeria.

H₀4: There is no significant relationship between the ratio of total deposits of deposit money banks to GDP (TDGD) and the growth rate of GDP in Nigeria.

H₀5: There is no significant difference in the level of economic growth in Nigeria during the Pre and Post-SAP reforms periods.

H₀6: There is no significant Granger Causality relationship between real interest rate (INT) and the growth rate of GDP in Nigeria.

H₀7: The ratio of broad money supply to GDP (MSGD) does not significant Granger-cause the growth of GDP in Nigeria.

Theoretical Framework

A substantial body of literature has been devoted to the link between financial sector reforms and economic growth. Usually, a discussion of the financial sector reforms and economic growth begins with the path-breaking works of Mckinnon (2000) and Shaw (2010). Prior to their studies, there had been a general consensus that there is a positive relationship between the financial sector development and economic growth. While Schumpeter (2000) agreed that financial institutions provide efficient means of mobilizing and allocating funds in the economy and hence assist in the economic development process, he did not perceive the financial sector development as being the cause of economic development. Robinson (2022) has called the financial sector the handmaiden of economic development. In other words, the financial sector is a passive sector that only responds to the needs of the real sector and hence tends to grow as the real economy grows.

However, the works of Mckinnon (2000) and Shaw (2010) came up with the argument that the financial sector can be more than a handmaiden to real economy, that in fact it can be the major driver of economic growth and development if it can only be relieved of its own fetters. The Mckinnon-Shaw hypothesis postulates that government control and intervention in the financial system, limits the operation of market mechanisms, leads to financial repression, investment is represented by a shortage of savings, which results from administered real interest rates at below market-clearing levels. Liberalizing the financial sector however, causes real interest rates to rise, thus generating more domestic savings and investment.

Theories of Financial Deepening and Economic Growth

Financial deepening refers to the increased provision of financial services with a wider choice of services geared to the development of all levels of society. The World Bank (2023) further contends that financial deepening encompasses the increase in the stock of financial assets. From this perspective, financial deepening implies the ability of financial institutions in general, to effectively mobilize financial resources for development. This view accepts the fact that a financial system's contribution to the economy depends on the quality and quantity of its services and the efficiency with which it performs them.

Popiel (2021) conducted one of the most elaborate studies on financial deepening. According to him, financial markets are deep from a qualitative standpoint when:

1. They offer savers and investors a broad range of financial instruments which differ in terms of liquidity, yields, maturities and degree of risk including debt instruments, equity instruments and in between quasi-equity instruments.
2. They encompass a diversity of sub-markets, trading in different financial instruments.
3. Mature, domestic financial markets are integrated into the international financial markets.
4. Are linked together through financial instruments.
5. Finally, the markets are linked together through various financial institutions which function as market makers and financial intermediaries.

Review of Empirical Studies

In the light of the theoretical controversy on the role of financial sector on economic growth, several authors have empirically investigated the link between financial sector reforms and economic growth in developed & less developed countries.

In their study Adekunle, Salami & Adedipe [2020], examined the impact of financial sector development and economic growth in Nigeria. The OLS method of analysis was employed, in the study, they used, ratio of liquidity liabilities to GDP [M2GDP], real interest rate [INTR], ratio credits to private sector GDP [RGDP], while economic growth was measured by the real GDP [RGDP]. The finds that only the real interest rate is negatively related. All the explanatory variables are statistically insignificant.

Again, Nzotta & Okereke [2019], studied financial deepening and economic growth in Nigeria, using data covering the period between 1990 and 2010, the study found that financial deepening did not support economic growth in Nigeria. Also, Iganiga [2020], Adelakun [2019], Samson/ Elias [2020], Osuji & Chigbu [2024], also, Oiravowote /Eshenake 2022 All did a study on different topics on financial sector performance, financial sector deepening, impact of financial sector and economic growth at various periods, using different econometrics tools.

Summary of Empirical Review

From the theoretical and empirical survey, it becomes apparent that the relationship between financial sector performance and economic growth is controversial. While the result of most of these empirical studies are consistent with a number of earlier studies reviewed in literature that found financial sector variables positively affecting economic growth, some studies has argued that there exist negative relationships between these variables and economic growth. Some of the empirical works that showed positive relationships include the studies by: Osuji & Chigbu (2024), Adekunle, Salami and Adedipe (2022), Oriavowote and Eshenake (2024), Samson and Elias (2020), Adelakun (2019), Emmanuel and Adegboyega (2022), Odeniran and Udejaja (2020), Balago (2024), Madichie, Maduka, Oguanobi, & Ekesiobi (2021) etc.

Other studies that showed negative relationships between these variables and economic growth include the studies by: Okwo, Eze & Ugwunta (2022), Nnanna (2024), Hakeem (2019), Olofin and Udoma (2018).

Indd Nigeria, in particular, existing studies have not been able to provide concrete evidence on the impact of financial sector reforms on economic growth. The dearth of conclusive evidence on this issue can be ascribed to the fact that financial sector reform is not an old phenomenon in Nigeria. Most studies were conducted at the early phase of reforms; when it was rather difficult to measure the effectiveness of financial reform.

It is therefore in the light of this controversy that this study becomes imperative. Using recent data, this paper empirically investigates the impact of financial sector reforms on the economic growth of Nigeria.

Model Specification

The dependent variable is the growth of Gross Domestic Product (GDPR). It will be regressed (as the regress and) against the selected financial sector performance indicators described

above ie Real Interest Rate (INT), ratio of broad money to GDP (MSGDP), ratio of private sector credit to GDP (PSGD) and ratio of total deposits of deposit money banks to GDP (TDGD). They are the explanatory variables and will serve as the regressors or independent variables. If we are to assume proximately a linear relationship between the dependent and the explanatory variables, we can represent this implicit relationship functionally as;

$$Y_i = f(X_1, X_2, X_3, X_4) \dots \dots \dots 1.0$$

Where;

Y= Gross Domestic Product (GDPR)

X₁ = Real Interest Rate (INT)

X₂ = Ratio of broad money supply to GDP (MSGD)

X₃ = Ratio of private sector credit to GDP (PSGD)

X₄ = Ratio of total deposits of deposit money banks to GDP (TDGD)

And the estimated form of the equation as linear specification is:

$$Y_i = a_0 + a_1INT + a_2MSGD + a_3PSGD + a_4TDGD + \mu \dots \dots \dots 2.0$$

The model in equation 2 above will be transformed to a linear logarithmic equation form thus:

$$\text{Log}Y_i = a_0 + a_1\text{logINT} + a_2\text{logMSGD} + a_3\text{logPSGD} + a_4\text{logTDGD} + \mu \dots \dots \dots 3.0$$

Where;

Log = Log function

a₀ = Intercept

a_s = Coefficients or parameters to be estimated.

μ = Stochastic variable or error term incorporating other factors that are not included in the model.

INT, MSGD, PSGD and TDGD = Explanatory variables.

In order to compare economic growth in Nigeria in the Pre-SAP reform period with growth in the Post-SAP reform period, the test of difference between two means will be used to test hypothesis five.

Method of Data Analysis

The Ordinary Least Square (OLS) method of multiple regression is adopted as the basic technique of analysis to estimate the model of the study. For a comparative analysis, there will be two multiple regression analysis thus: Pre-SAP reform period: 1960 – 1986 (period when the economy was regulated by the government) – [see Data, Appendix A], and Post-SAP reform period: 1987 – 2024 (period of deregulation and other reforms)- [see Data Appendix B]. This will enable the study to establish a relationship between financial sector variables and economic growth in each period, then compare their statistical significance in both periods. By so doing, the relationship between the financial sector performance and Economic Growth in Nigeria will be established.

The data will be analysed using; the Augmented Dickey Fuller Test, [Johansen & Juselius, 2013], the Johansen Co-integration Test [Harris, R.J.D., 2020], the Granger-Causality Test [Engel & C.W.J. Granger, 2016] & [Granger, CWJ & Newbold, P. 2016]. and the Test of Difference between two Means [Durbin, 2014] / Bugg D. & Henderson, et al [2010].

Test of statistical adequacy, such as R-square, the adjusted R-squared, t-statistic, F-statistic and Durbin-Watson will be carried out to assess the relative significance of the variables, the desirability and reliability of model-estimation parameters, [Agugua, 2022].

Data Analysis

Before estimation, we perform an analysis of the data for the two periods and they are presented below:

A. Pre-SAP reform period

Test for Stationary using Augmented Dickey Fuller unit root test

Table 1: Stationary Test Results:

Variable	At level	At 1 st difference	At 2 nd difference	Order of Integration
Log (GDPR)		-7.056609		1(1)
Log INT		-6.239783		1(1)
Log MSGD		-6.147005		1(1)
Log PSGD		-4.868187		1(1)
Log TDGD		-6.359089		1(1)
Mackinnon Critical Value 5% = -2.986225				

SOURCE: E-view Ver 7

Decision Rule

The result of Stationary using Augmented Dickey Fuller unit root test shows that INT, MSGD, PSGD AND TDGD are stationary at first difference.

Test for Long Run Relationship using Johanson Co-integration Test

Table 2: Co-integration Test Result

Data 05/19/24 Time: 21:24

Sample (adjusted): 1963 1986

Included observations: 17 after adjustments

Trend assumption: Linear deterministic trend

Series: LOG(GDPR) LOG(INT) LOG(MSGD) LOG(PSGD) LOG(TDGD)

Lags interval (in first differences): 1 to 1

Unrestricted Co-integration Rank Test (Trace)

Hypotesized No. of CE(s)	Eigenvalue	Trace statistic	0.05 Critical Value	Prob
None*	0.982666	120.8143	69.81889	0.0000
At most 1	0.891006	51.87759	47.85613	0.0200
At most 2	0.430785	14.19768	29.79707	0.8293
At most 3	0.185643	4.618242	15.49471	0.8479
At most 4	0.064154	1.127175	3.841466	0.2884

Trace test indicates 2 co-integrating eqn.(s) at the 0.05 level

*denotes rejection of the hypothesis at the 0.05 level

Mackinnon-HaugMichelis (1999) p-values. **Source: E-View Ver. 7

The result shows that the trace statistics value is greater than the 0.05 critical value at 2 co-integration equations at the 0.05 level of significance. This means that there is a long run relationship among the variables of the model.

Test for Causality using the Pair Wise Granger Causality Test

Table 3: Granger Causality test results:

Pairwise Granger Causality Tests Data: 05/19/24 Time: 21:24 Sample: 1960 – 1986 Lags: 2			
Null Hypothesis	Obs	F-Statistic	Prob
INT does not Granger cause GDPR GDPR does not Granger cause INT	24	0.64808 1.03501	0.5342 0.3744
MSGD does not Granger cause GDPR GDPR does not Granger cause MSGD	24	0.22027 1.06093	0.8043 0.3658
INT does not Granger cause GDP GDP does not Granger cause INT	24	0.77466 5.07245	0.4749 0.0172*
MSGD does not Granger cause GDP GDP does not Granger cause MSGD	25	0.12262 6.74280	0.8853 0.0058*
PSGD does not Granger cause GDP GDP does not Granger cause PSGD	25	0.36244 12.0161	0.7005 0.0004*
TDGD does not Granger cause GDP GDP does not Granger cause TDGD	25	0.56476 5.06777	0.5773 0.0166*
PSGD does not Granger cause INT INT does not Granger cause PSGD	24	4.33798 6.41126	0.0281* 0.0075*

SOURCE: E-view Ver 7

Note: * = a directional causality at 5% level

From the result, we find out empirically that:

GDP Granger cause INT – (Uni-directional causality)

GDP Granger cause MSGD – (Uni-directional causality)

GDP Granger cause PSGD – (Uni-directional causality)

GDP Granger cause TDGD – (Uni-directional causality)

PSGD Granger cause INT – (Bi-directional causality)

This is so because the probability values of these variables are less than 0.05,

While no directional causality was noticed between the rests of the variables including INT and MSGD stated in the hypothesis. This is so because the probability values of these variables are greater than 0.05.

B. POST-SAP reform period

Test for stationarity using Augmented Dickey Fuller and unit root test

Table 4: Stationarity Test Results:

Variance	At level	At difference 1 st	At 2 nd difference	Order of integration
Log GDPR		-6.260356		1(1)

Log INT		-4.699302		1(1)
Log MSGD		-4.764885		1(1)
Log PSGD		-5.334356		1(1)
Log TDGD		-4.538830		1(1)
Mackinnon critical value 5% = -2998064				

SOURCE: E-view Ver 7

Decision Rule:

The result of the stationarity shows that all the variables are stationary at first difference.

Test for long run relationship using Johanson co-integration test.

Table 5: Co-integration test result:

Data 05/19/24 Time: 21:02

Sample (adjusted): 1990 2024

Included observations: 32 after adjustments

Trend assumption: Linear deterministic trend

Series: LOG(GDPR) LOG(INT) LOG(MSGD) LOG(PSGD) LOG(TDGD)

Lags interval (in first differences): 1 to 1

Unrestricted Co-integration Rank Test (Trace)

Hypotesized No. of CE(s)	Eigenvalue	Trace statistic	0.05 Critical value	Prob
None	0.891490	81.47755	69.81889	0.0044
At most 1	0.579552	32.61747	47.85613	0.5780
At most 2	0.398482	13.55588	29.79707	0.8646
At most 3	0.102233	2.373319	15.49471	0.9882
At most 4	3.39E-05	0.000746	3.841466	0.9791

Trace test indicates 1 co-integrating eqn.(s) at 0.05 level

*denotes rejection of the hypothesis at the 0.05 level

**Mackinnon-Haug-Michelis (1999) p-values.

The result shows that the trace statistic value is greater than the 0.05 critical values at one co-integration equation at the 0.05 level. This means that there is a long run relationship among the variables of the model.

Test for Causality using the Pair Wise Granger Causality test

Table 6 : Granger Causality test results:

Pairwise Granger Causality Tests Data: 05/19/24 Time: 20:50 Sample: 1987 – 2014 Lags: 2			
Null Hypothesis	Obs	F-Statistic	Prob
INT does not Granger cause GDPR	25	0.74933	0.4855
GDPR does not Granger cause INT		0.22469	0.8008
MSGD does not Granger cause GDPR	25	1.14167	0.3392
GDPR does not Granger cause MSGD		0.62190	0.5470
TDGD does not Granger cause GDP	25	3.42590	0.0394*
GDP does not Granger cause TDGD		0.81227	0.5036

MSGD does not Granger cause INT	25	4.36839	0.0177*
INT does not Granger cause MSGD		0.78630	0.5171

SOURCE: E-view Ver 7

Note: * = a directional causality at 5% level

From the result, we find out empirically that
 TDGD Granger cause GDP (Uni-directional causality)
 MSGD Granger cause INT (Uni-directional causality)

Discussion of findings

Table 7: Comparing the Pre-SAP reform and Post-SAP reform periods.

PRE-SAP PERIOD				POST-SAP PERIOD		
Variables	Coefficient	t-statistic	prob-value	Coefficient	t-statistic	prob-value
Log INT	-0.173667	-0.237937	(0.8146)	-1.586952	-2.663815	(0.0145)*
Log MSGD	-3.986767	-1.633439	(0.1197)	-4.027160	1.291167	(0.2107)
Log PSGD	-3.276186	-3.500577	(0.0026)*	-0.223442	0.198512	(0.8446)
Log TDGD	6.693018	4.345903	(0.0004)*	2.354440	0.820622	(0.4211)
Adjusted R squared		0.702262	0.667236			
Akaike info criterion		1.627909	3.155936			
Schwarz criterion		1.874786	3.397878			
Dubin Watson		2.11184	1.537282			
S.D dependent Var		0.910243	1.865764			

Note: * = the variable is significant at 5% level

A close look at the analysis reviews that within the Pre-SAP era, two variables PSGD and TDGD are statistically significant while in that of Post-SAP era, it is only real interest rate that is statistically significant.

Again, the result shows that there is a negative relationship between INT (real interest rate), MSGD (ratio of broad money supply to GDP), PSGD (ratio of private sector credit to GDP) and GDPR within the Pre-SAP and Post-SAP reform periods. This does not agree with the a priori expectations as stated above.

The contrary relationship between real interest rate and GDPR in the two periods could be due to the high cost of borrowing which might have denied investors access to the credit. Ordinarily, economic growth hinges on the availability and accessibility of loans at the right price. Consequently, investment spending would be discouraged so long as the expected net return on investment fails to yield a profitable income. This is consistent with the findings of Iganiga (2020), Adelakun (2021) and Adekunle, Salami & Adedipe (2022).

The inverse and insignificant relationship of the ratio of broad money supply to GDP (MSGD) in the two periods could mean that the level of financial deepening is too low to sustain growth in the economy. There is likely a lack of alignment between the two aggregates. In other words, broad money is not rising at same rate with GDP. It could also be said that the financial sector reforms in Nigeria did not achieve the purpose of financial deepening that is expected to affect economic growth positively. This agrees with the findings of Nzotta and

Okereke (2019) and Iganiga (2020). These findings again corroborate the result of the granger causality test in both the Pre and Post- SAP reform periods where we found no evidence of any granger causality relationship between the variables tested in hypothesis seven.

The negative relationship between the ratio of private sector credit to GDP in the two periods is an indication that credit to the private sector has not played the desired role in generating the desired level of economic growth in Nigeria (Oriavwote & Eshenale 2022). This could be attributed to the high cost of borrowing and the difficulty by the private sector to provide the collaterals required by the financial institutions. Again, it is also possible that investors could obtain the loans and invest it in unproductive projects.

The ratio of Total deposits of Deposit money banks to GDP showed a positive relationship in the two periods. This agreed with the a priori expectation.

The results of hypothesis five reveal that there exists a significant difference in the level of economic growth during the pre-SAP and Post SAP reform periods. This is also in line with the a priori expectation.

Conclusion

From the findings, this study concludes that the relationship between financial sector performance and Nigeria's economic growth is significant in the post SAP period but not remarkably better than the Pre-SAP period. It does appear that the significant improvement in GDP in the post SAP period over the pre SAP period could be attributed to other variables not included in the study. The total deposit of deposit money banks showed a positive relationship. But real interest rate, ratio of broad money supply to GDP and the ratio of private sector credit to GDP were negatively related to GDP.

This shows that Nigeria still falls short of achieving the efficiency and depth of full fledged market based financial sector. The unexpected signs of some of the explanatory variables could be attributed to factors such as policy inconsistency, policy mortality etc. infrastructural failure in conjunction with high risk and insecurity could have their own effects on savings and investment and consequent on the Nigerian economic growth process.

Recommendations

In the light of the forgoing, the study recommends the following:

1. The monetary authorities should direct their efforts towards achieving a positive real interest rate and lowering lending rate in Nigeria. This is because economic growth hinges on the availability and accessibility of loans at the right price. Consequently, investment spending would be discouraged so as the expected net returns on investment fail to yield a profitable income.
2. In order to consolidate the gains of the bank capitalisation and consolidation programme, government should avoid drastic policy reversal especially on matters affecting the total deposits of deposit money banks. Rather, it should concentrate efforts in fine-tuning the existing policy measures which will further enhance the assets of banks and its operation, this will go a long way at enhancing fund's mobilisation in the country.

3. The monetary authorities can also improve the level of financial deepening by encouraging the expansion of bank branches to rural communities where greater number of the Nigerian population live. This will lead to greater savings culture among the populace and increased mobilisation of resources for investment loans to the deficit units of the economy.

References

- Adekunle, O.A., Salami, G.O, & Adedipe, O.A, (2022). Impact of financial sector development on the Nigerian economic growth, *American Journal of Business and Management*.2(4).
- Agugua A.E, (2022). *Elements of Econometric Theory – A macroeconomic policy option*. Kricel Publishers, Owerri, Imo State.
- Balago, G.S, (2024). Financial sector development and economic growth in Nigeria. *International Journal of Finance and Accounting*.3(4).253-265.
- Bugg D. Henderson, M.A etal, (2010). *Statistic method in the social sciierth Holland*.
- Durbin J, (2014). *Testing for Serial Correlation in System of Simultaneous Regression Equations Biometrika* Vol. 4.
- Emmanuel. O.O,& Adegboyega. I, (2022). Banks and Economic Growth in Nigeria: A Re-examination of the financial repression Hypothesis. *American Journal of Business and Management*.3(1).1-9.
- Engel P.C. & W.J Granger, (2017). *Spurious Regression in Econometrics Journal of Econometrics*.
- Granger CWT and P. Newbold, (2016).*The Time Series Approach to Econometrics Journal of Development Economics*.
- Hakeem, M.I. (2019). Banking Development, Human Capital and Economic Growth in Sub-Saharan Africa (SSA).*Journal of Economic Studies*. 37(5), 557-577.
- Harris, R.J.D.(2020). *Using Co-integration Analysis in Economics Modelling*, Prentice Hall.
- Johansen & Juselius. (2013). *Maximum Likelihood Estimation and Inference on Co-integration with Application to the demand for money*.
- Madichie, C, Maduka.A, Oguanobi.C. &Ekesiobi.C.(2021). Financial Development and Economic Growth in Nigeria: A reconsideration of Empirical Evidence. *Journal of Sustainable Development* ISSN2222-1700, 5(28), 199-209.