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FINANCIAL DEEPENING AND COMMERCIAL BANKS PERFORMNCE: EVIDENCE FROM NIGERIA

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ABSTRACT

The work was aimed at determining the financial deepening impact on commercial bank performance in Nigeria. Financial deepening was decomposed into credit allocation to private sector as a ratio of GDP, money supply as a ratio of gross domestic product and total loan to deposit ratio while net interest margin was used as proxy for commercial bank performance. Data was sourced from the CBN statistical bulletin and the world bank data base from 2000 to 2022. The Augmented Dickey Fuller unit root test was used in determining stationarity of the data which were not stationary after first differencing hence giving room for the application of the ARDL bond test to determine the short and long run relationship between the implicated variables while the Granger causality test was used to determine the causality between financial deepening and commercial bank performance. The results revealed nonexistence of short run relation but existence of long run relationship was observed while a unidirectional relation between credit allocated to private sector ratio to GDP and net interest margin why no causality was recorded between other variables studied. The work recommends need for commercial banks to improve on their financial deepening activities so as to broaden their financial services operations and more so, policy makers should step in and ensure commercial banking broaden their financial deepening to accommodate individuals and the business world entirely.

KEYWORDS

Financial Deepening Commercial Bank Performance, Credit given to Private Sector, Money Supply, GDP.

Introduction

Commercial banks are key aspect of financial organization and are at the center in financial intermediation as they connect the deficit economic agents of an economy to the surplus economic agents for a cost thereby facilitating process of capital formation in an economy. Yusuff and Olaniran-Akinyele (2015) puts it clear that the commercial bank performs the intermediation function by taking deposit from their customers and use such to make loans of different maturity at varying rate of interest. This role makes them a key player in the entire financial system and to ensure adequate and stable financial system operation in an economy, it has to be deepened as Musau (2022) clearly stated that for commercial banks to efficiently perform their intermediation role and liquidity provision, hey must be stable.

Financial deepening is seen as a process by which availability of financial services complexity is increased within an economy. It involves the expansion and diversification of financial institutions, products, and markets, as well as the improvement of financial infrastructure, such as payment systems and credit reporting. Awonuga el ta (2021) sees it as the process and capacity of providing a broad range of financial services. It is a multidimensional process through which financial institutions and markets provides range of services and instruments that allows for effective and efficient deposit mobilization and vibrant payment system (Tiwari, Sahay and Sayeh ,2012) and has become inevitable in light of changing environment within the world (Oluwumi, Lateef, and Oladeji, 2017).

Financial deepening has several positive effects to an economy, including increasing access to credit, promoting savings, improve management of risk, and facilitating economic growth. It can also contribute in financial stability by reducing the likelihood of systemic crises and increasing the resilience of the financial system. Governments and policymakers can promote financial deepening by implementing policies that encourage competition and innovation in the financial sector, improving financial regulation and supervision, and investing in financial infrastructure. However, financial deepening also carries risks, such as increased financial sector complexity and the potential for financial instability, so policymakers must balance the benefits and risks of financial deepening in their decisions.

Financial systems in most countries especially the developing economies has deepened considerably over the years but most are still far below the level reached by much more developed nations (Sahay, 2015). Onipe el ta (2015) stressed that sound financial system is essential for macroeconomic stability and that vibrant financial market plays key roles in capital formation and hence engendering economic growth and development. Macharia and Mungai (2021) stressed that a high level of financial deepening may influence the effectiveness and profitability of banks through competitiveness which may result in more proficient resources distribution and hence expand investment.

Bank performance on the other hand, refers to the ability of bank management to transform available resources into profit or ability of management to return assets with a reasonable margin. Series of economic literatures has over the years paid great attention to bank performance given the important role they play in an economy. Bank performance according to Jacob and Jaap (2008) is expressed in terms of competition, efficiency, productivity and profitability. They stressed further that literatures have tried to measure those unobservable variables through different methods and non has been entirely conclusive or unchallenged and that apart from theoretical short comings, a practical problem is that different methods produce different estimates.

The process of liberalization, financial institution deregulations and globalizing financial markets and institutions and technological advancement have significantly changed operation of banking environment leading to enhanced competition and created the necessary prerequisite for the evaluation of bank performance (Buriak, 2014). Continuous performance of banks is useful in the growth development of a nation's economy and given this, the net interest margin which measures the net return on bank assets will be used as proxy to commercial bank performance. It refers to ratio of interest income less interest expenses divided by earning assets. Enad and Gerinda (2022) puts it clearly that by using economic ratios, investors can know bank performance and stressed further that comparison in form of ratio produces statistics which are more objective when measuring performance.

Financial deepening is the process of increasing the availability and complexity of financial services in an economy as earlier stated. It involves the expansion and diversification of financial institutions, products, and markets, as well as the improvement of financial infrastructure. Studies like Olaniran-Akinyele (2019) and Awonuga el ta (2021) used equity and asset returns to measure bank performance in their studies. Onipe el ta (2015) worked on financial broadening and performance of Nigerian economy performance which brought about a gap in literature. Given this, this work tends investigate the impact of financial deepening on the performance of commercial banks using the net interest margin as proxy for commercial bank performance given that the above literatures used return on asset and return on equity as measures for bank performance while financial deepening variables employed for this study included money supply and private sector credit as ratios of gross domestic product and total bank loan to deposit ratios which is a measure of the banks liquidity.

From the foregoing, the study will aim to adequately investigate short and long run equilibrium among financial deepening and performance of commercial bank in Nigeria and to further examine direction of the causality if any existing among them.

Literature Review

Theoretical review

There are several theories that attempt to explain the process of financial deepening. The following are some of the most commonly cited:

The Finance-Growth Nexus Theory: This theory suggests that financial deepening is a key driver of growth. It argues that an increase in financial intermediation can lead to greater investment and capital accumulation, which can promote economic growth. Heber (2008) argued that the notion of financial development playing a leading role in economic growth have its origin from Schumpeter and have been firmly established by wide range of academic literatures. This is necessitated through the intermediation function carried out by the financial institutions. Attah-Botehwey, Awadzie and Agbeoyezi (2022) argued that financial intermediation theory suggest that financial intermediation can overcome market failure. With such growth can be envisaged.

The Supply-Leading Hypothesis: This theory proposes that financial deepening is driven by changes in the supply of financial services. It suggests that financial deepening occurs when financial institutions develop new products and services that meet the needs of borrowers and savers. Adeyeye el ta (2015) stressed that economic growth is reliant on how well the financial sector is deepened and that as financial sector deepens, there is increase in the supply of financial services. They stressed further that the route through which financial deepening promotes economic growth is explained in the supply-leading hypothesis.

The Demand-Following Hypothesis: This theory suggests that financial deepening is driven by changes in the demand for financial services. It argues that financial institutions respond to changes in the demand for financial services by developing new products and services. In other words, the demand-following hypothesis stress that it is economic development that leads to the growth of the financial sector. Magaji, Darma and Igwe (2021) stressed that in Patrick's view, it depends on the stage of development of the economy, with supply-leading occurring at the early stage of economic development and demand-following at the later stage of economic development.

The Institutional Theory of Financial Development: This theory suggests that financial deepening is driven by changes in the institutional environment, such as changes in the legal and regulatory framework. It argues that a well-functioning institutional environment is necessary for financial deepening to occur. Ozili (2023) stressed that understanding financial inclusion in the context of formal and informal institutions is important because institutional factors such as enduring rules, practices, law and structures can influence people's decision making and also influence how they engage with formal financial services. It can influence people's decision on how to access formal financial services, and it can have positive or negative implications for the level of financial inclusion in society.

The Financial Repression Theory: This theory suggests that financial deepening is inhibited by government policies that repress the financial sector. It argues that financial repression, such as interest rate controls, can lead to a reduction in financial intermediation and inhibit financial deepening.

Overall, these theories provide different perspectives on the drivers of financial deepening, and they highlight the importance of factors such as economic growth, supply and demand, institutions, and government policies in promoting financial development.

Conceptual review

The components of financial deepening include:

Financial institutions: This includes banks, credit unions, insurance companies, and other financial intermediaries that provide financial services to individuals and businesses.

Financial markets: These include stock markets, bond markets, commodity markets, and foreign exchange markets, which facilitate the trading of financial assets.

Financial instruments: These are financial products such as stocks, bonds, derivatives, and other securities that are used to transfer risk and allocate capital.

Financial infrastructure: This includes payment systems, credit bureaus, and other institutions and mechanisms that support the functioning of the financial system.

Financial regulation and supervision: This refers to the policies and oversight that are put in place to ensure the safety and stability of the financial system.

Together, these components work to deepen the availability and complexity of financial services, which can promote economic growth and development by facilitating access to credit, encouraging savings and investment, and improving risk management.

The challenge of financial deepening refers to the obstacles or difficulties encountered in the process of expanding and improving the financial system of a country or region. Some of the key challenges associated with financial deepening include:

Limited access to financial services: Many individuals and businesses, particularly in developing economies, still face barriers in accessing formal financial services such as bank accounts, credit facilities, insurance, and investment opportunities. Addressing the issue of financial exclusion is crucial for achieving financial deepening.

Weak institutional frameworks: Inadequate legal and regulatory frameworks can hinder financial deepening efforts. This includes weak enforcement of financial regulations, lack of transparency, and insufficient investor protection measures. Strengthening institutions and creating an enabling environment for financial activities are essential for sustainable financial deepening.

Underdeveloped financial infrastructure: In some regions, the infrastructure necessary for efficient financial intermediation may be underdeveloped. This includes the lack of reliable payment systems, limited availability of credit information, and insufficient collateral frameworks. Developing robust financial infrastructure is vital for expanding the reach and efficiency of financial services.

Low financial literacy: Limited financial literacy and awareness among individuals and businesses can impede financial deepening. Without understanding basic financial concepts, individuals may be hesitant to engage with formal financial institutions or make informed financial decisions. Enhancing financial education programs can help address this challenge.

Macroeconomic instability: Economic instability, high inflation rates, volatile exchange rates, and inadequate fiscal policies can undermine financial deepening efforts. A stable macroeconomic environment is crucial for fostering confidence in the financial system and encouraging investment and savings.

Risk management and prudential regulations: Effective risk management practices and prudential regulations are essential for maintaining financial stability during the process of financial deepening. Inadequate risk assessment and management can lead to excessive risk-taking, instability, and potential systemic crises.

Addressing these challenges requires coordinated efforts from governments, financial institutions, regulatory bodies, and other stakeholders to foster an inclusive, resilient, and well-functioning financial system that benefits individuals, businesses, and the overall economy.

2.2.2 Commercial Bank Performance

Commercial bank performance refers to how well a bank is performing in terms of profitability, efficiency, liquidity, asset quality, and capital adequacy. The following are some key performance indicators that are commonly used to assess commercial bank performance:

Return on Assets (ROA): This measures a bank's profitability by calculating the net income generated by the bank as a percentage of its total assets. A higher ROA indicates better profitability.

Return on Equity (ROE): This measures a bank's profitability by calculating the net income generated by the bank as a percentage of its total equity. A higher ROE indicates better profitability.

Net Interest Margin (NIM): This measures a bank's ability to generate income from its core business of lending and borrowing money. It is calculated as the difference between the interest income earned on loans and other assets and the interest expense paid on deposits and other liabilities.

Efficiency Ratio: This measures a bank's efficiency by calculating the percentage of its total operating expenses that are required to generate one dollar of revenue. A lower efficiency ratio indicates better efficiency.

Loan Loss Provision (LLP) Ratio: This measures a bank's asset quality by calculating the percentage of its total loans that are set aside as provisions for potential loan losses. A lower LLP ratio indicates better asset quality.

Capital Adequacy Ratio (CAR): This measures a bank's ability to absorb losses by comparing its capital to its risk-weighted assets. A higher CAR indicates better capital adequacy.

Overall, a well-performing commercial bank should have strong profitability, efficiency, liquidity, asset quality, and capital adequacy, as these factors are all critical to maintaining the long-term health and stability of the bank.

Conceptual Link Between Financial Deepening and Commercial Bank Performance

There is a close link between financial deepening and commercial bank performance. Financial deepening creates opportunities for commercial banks to expand their operations and increase their profitability. As financial systems become more developed and sophisticated, commercial banks can access a wider range of funding sources and financial instruments, which allows them to diversify their portfolios and manage risk more effectively. In turn, this can lead to improved financial performance. Financial deepening creates opportunities for commercial banks to expand their operations, diversify their portfolios, and increase their profitability. As financial systems become more sophisticated, commercial banks can access a wider range of funding sources and financial instruments, which allows them to manage risk more effectively and earn higher returns. Financial deepening can also increase competition in the banking sector, which can improve efficiency and drive innovation. This can lead to better customer service, lower costs, and increased profitability for commercial banks.

In turn, commercial bank performance is a key driver of financial deepening. Commercial banks play a crucial role in the financial system by providing loans, deposits, and other financial services to individuals and businesses. As commercial banks become more profitable and efficient, they are better able to provide these services, which can lead to increased financial inclusion and broader access to financial services. Therefore, financial deepening and commercial bank performance are mutually reinforcing. Financial deepening can create opportunities for commercial banks to improve their performance, and strong commercial bank performance can, in turn, drive further financial deepening.

Furthermore, financial deepening can improve the overall creditworthiness of the economy, which can reduce credit risk for commercial banks. As more individuals and businesses gain access to financial services, they are more likely to save and invest, which can boost economic growth and stability. This can result in a more favorable operating environment for commercial banks and better performance. It can improve the overall creditworthiness of the economy, which can reduce credit risk for commercial banks. As more individuals and businesses gain access to financial services, they are more likely to save and invest, which can boost economic growth and stability. This can result in a more favorable operating environment for commercial banks and better performance. Financial deepening and commercial bank performance are closely linked. Financial deepening can create opportunities for commercial banks to expand their operations, diversify their portfolios, and improve their risk management, which can lead to improved financial performance.

Empirical Reviews

Determined to study financial deepening influence on profitability commercial banks in Nigeria, Yusuf and Olaniran-Akinyele (2019) used return on asset and return on equity to measure deposit money bank performance while credit granted to private sector, market capitalization and total bank deposit as ratio of GDP were the study's variables for financial deepening. They adopted analytical tools of ARDL bound test, cointegration, unit root as well the descriptive statistics in their analysis. They observed through their ARDL analysis that market capitalization ratio to GDP were indirect and significant in long run but direct and significant in short run. They explained further that long run analysis result revealed credit granted to the private sector ratio to GDP and ROA indicates indirect and insignificant relationship and concluded financial deepening to affect financial performance of commercial bank in Nigeria.

In a study aimed at examining financial deepening effect on financial performance of Nigeria deposit money bank, Awonuga el ta (2021) adopted the panel regression analysis and used profitability, net interest margin, return on equity and return on asset as variables of bank performance while variables for financial deepening includes ratio of individual credit granted to private sector to total bank asset and ratio of total liability to total asset. They reported a mixed result which revealed financial deepening to have significantly impact on the performance indicators employed for deposit taking banks.

Onipe el ta (2015) examined the tie among financial system broadening and economic performance used money supply and credit granted to private sector as financial system broadening while performance of the economy was proxied by GDP. They used SPSS 22 software and employed the ordinary least square regression analysis and the descriptive statistics and results revealed money supply to have positive significant impact on Nigeria economy while credit granted to private sector showed significant negative impact on economic performance of Nigeria. They concluded that money supply positively correlates economic performance.

In a bid to determine financial deepening effect on Kenya's commercial bank performance, Macharia and Mungai (2021) adopted the descriptive research design the 43 commercial banks in Kenya as their case study. Analytical tools employed by the study includes; descriptive statistics, correlation analysis and the Analysis of Variance (ANOVA). Variables of Financial deepening employed by the study includes; interest rate, government policies and access to bank deposit. The results of the study revealed interest rate insignificantly and negatively impact financial Kenya's commercial bank performance while government policies and access to bank deposit had a positive and significant impact on financial performance of commercial banks in Kenya. They concluded that all variables except interest rate positively and significantly affect Kenya's commercial bank financial performance.

Oluwumi, Lateef and Oladeji (2017) studied financial deepening and performance of selected commercial bank in Nigeria used supply of money and credit granted to private sector ratios of GDP as variables of financial deepening while banks' profitability used to capture commercial bank performance. Their study employed descriptive research design and reported financial deepening components employed to have strong relationship with the banks' profitability as there were stated to be statistically significant. They concluded that the contribution of each variables of financial deepening selected were strong and statistically significant when related to performance of commercial bank.

Kisaka el ta (201) in their determination to study association among mobile banking deepening and Kenya's commercial bank financial performance, adopted the descriptive survey research design and used the 43 commercial banks in Kenya as at 2014 as their study population. They collected secondary data on deposit and other transactions of commercial bank between 2009-2013. They employed Analysis of Variance (ANOVA) with the aid of SPSS statistical package and reported a weak positive association among mobile banking and Kenya's commercial bank financial performance. Assets return was proxy for financial performance while bank deepening variables were number of customers reached through mobile banking, deposit mobilization through mobile banking, volume of transaction through mobile banking and the liquidity measure of commercial banks.

In investigating financial development effect on bank profitability, Ozili and Ndah (2022) collected Nigerian data of global financial indicators through world bank data base for 20 years (1996-2016). Their measure for bank profitability were net interest margin and asset and equity returns while the bank efficiency ratio, regulatory capital ratio and ratio of non-performing loans. They employed the descriptive statistics and correlation as well as the regression analysis with emphasis on robust ordinary least square and the generalized method of moment and reported a negative association among financial system deposit ratio and net interest margin of Nigerian banks which implies that the larger the size of Nigerian financial system, the lower the bank profitability in Nigeria and that all explanatory variables used were significant determinant of bank profitability in Nigeria.

In examining financial deepening effect on deposit mobilization of commercial banking Nigeria, Nwangolo and Ogechi (2018) employed the ex-facto research design and obtained secondary data from the central bank of Nigeria statistical bulletin, published annual financials of the selected banks and the Nigerian bureau of statistics. They proxied commercial bank deposit with total deposit mobilized to total asset while their dependent variables were narrow and broad money supply, credit granted to private sector, money outside the bank and money market development all as a ratio of GDP. Unit root used to determine stationarity of data, the cointegration, granger causality and parsimonious error correction model were employed for their analysis. They reported the absence of causality and presence of long-run association among their variables and conclude that financial deepening has significant impact on bank deposit in Nigeria.

Samuel-Hope, Ehimare and Osuma (2020) examined financial deepening impact on Nigeria's economic growth and used money supply, credit granted to private sector and savings and times deposit all as ratios of GDP while growth was proxied by GDP. They obtained data from central bank of Nigeria statistical bulletin from 1981 to 2018 and used ARDL for their analysis. They reported a long-run association among financial deepening and Nigeria's economic growth and an insignificant association between financial deepening and economic growth.

Ndife and Egungwu (2022) examined financial deepening effect on small and medium scales enterprise performance in Nigeria and sourced secondary data from CBN statistical bulletin and employed descriptive statistics, unit root and the ordinary least square regression technique as their analytical tool. They reported money supply and credit granted to private sector as ratios of GDP to significantly show positive impact on Small and medium scales enterprise performance and concluded financial deepening to have positive impact on retail trading which was their proxy for Small and medium scales enterprise performance.

Methodology

Research Design

This study adopts the hypothetical research design in conjunction with econometric procedure. The researcher sampled three financial deepening variables (money supply and credit given to private sector as ratios of GDP and total bank loan to deposit ratio) from 2000 to 2022 and regressed them on net interest margin. The ARDL was employed to test the existence of long-run association among the explained and explanatory variables.

Data and variable description

Table 1: represents data on Net Interest Margin (NIM), Money Supply as a Ratio of Gross Domestic Product (MSGDP), Credit to the Private Sector as a ratio Gross Domestic Product (CPSGDP) and Total Bank Loan to Deposit Ratio (TBLBPR)

YEAR	NIM	MSGDP	CPSGPD	TBLDPR
2000	10.6	12.44	7.51	51
2001	10.34	15.41	9.26	65.65
2002	12.12	13.09	8.09	62.78
2003	10.92	14.41	8.09	61.85
2004	7.5	11.76	7.84	68.63
2005	7.3	11.41	7.95	70.8
2006	6.83	12.5	7.54	96.82
2007	6.63	14.79	10.58	83.26
2008	6.63	21.63	19.77	86.91
2009	2.53	22.29	22.75	84.3
2010	2.24	20.01	18.96	52.29
2011	11.91	19.82	15.07	44.77
2012	9.4	21.35	18.31	42.31
2013	7.7	23.14	17.85	37.56
2014	7.1	22.65	18.59	63.61
2015	6.7	21.94	19.64	69.58
2016	5.7	23.65	20.5	79.95
2017	7.4	24.9	19.55	72.84
2018	6.2	23.07	17.54	60.16
2019	5.9	23.52	17.63	58.73
2020	4.7	23.36	18.82	60.33
2021	3.6	22.9	18.67	60.48
2022	5.1	23.21	18.17	59.92

Model Specification

The Finance-Growth nexus theory which suggests that financial deepening is a key driver of growthin an economy. It argues that increase in financial intermediation can lead to greater investment and capital accumulation, which can promote growth. Hence, we hypothesis that;

Commercial bank performance = f (financial deepening) ………………………………………….. (1)

This can be further expressed as follows by introduction net interest Index (NIM) as a proxy for commercial bank performance and bringing in the Money Supply as a ratio of GDP, credit given to private sector as a ratio of GDP and total bank loan to deposit ratio as measures for financial deepening thus giving us a mathematical function as stated below;

NIM = f (MSGDP, CPSGPD, TBLDPR) ………………………………………………………….
(2)

For estimation, the above can be rewritten into;

$NIM = \beta o + \beta_1 MSGDP_t + \beta_2 CPSGDP_t + \beta_3 TBLDPR_t + ... + e$ ………………………………….
(3)

Where:

NIM = Net Interest Margin

MSGDP = Money Supply as ratio of Gross Domestic product

PSGDP = Credit to the Private Sector as ratio of Gross Domestic Product

TBLDPR = Total Bank Loan to Deposit Ratio

β = Beta Coefficient

e = Error Term of the Estimate.

t = Implies that the data are times series

Methods of Data Analysis

The Augmented Dickey Fuller (ADF) unit root with aid of econometric software (Eviews 10) was be employed to help us determine the stationarity of our data set which turns out to be that the data set employed were not stationary after first differencing which warranted us to employed the Autoregressive Distributive Lag and Bond Testing to aid us in determining association among financial deepening and performance of commercial bank in the short and long run. The causality test was further deployed to help us determine the causal association among financial deepening and performance of commercial bank.

Results and Discussions

Test of Unit Root Result

Table 2: Test of Unit Root Result

Variables	ADF Statistic	Mackinnon Critical value at			Probability	Order of Integration
		1%	5%	10%		
NIM	5.076	3.808	3.020	2.60	0.0007	1(1)
CPSGPD	4.376	3.808	3.020	2.60	0.0221	1(1)
MSGDP	3.429	3.808	3.020	2.650	0.0030	1(0)
TBLDPR	3.664	3.857	3.040	2.660	0.0140	1(0)

Extract from E-views 10 Output

Above table showed Net Interest margin and credit given to private sector as a ratio of GDP were stationary in the order of 1(1) at critical values of 1%, 5% and 10% respectively while money supply as a ratio of gross domestic product and total bank loan to deposit ratio were not stationary. Given this, we will employ the Autoregressive Distributive Lag and bound test to enable us determine short and long run association among the variables.

Autoregressive Distributive Lag and Bounds Test Result

Table 3: Autoregressive Distributive Lag and Bounds Test Result

ARDL Long Run Form and Bounds Test
Dependent Variable: D(NIM)
Selected Model: ARDL(2)
Case 2: Restricted Constant and No Trend
Date: 05/20/23 Time: 11:18
Sample: 2000 2022
Included observations: 21

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.51286	4.804301	2.396364	0.0300
NIM(-1)*	-0.915579	0.226809	-4.036785	0.0011
D(NIM(-1))	0.285146	0.207893	1.371602	0.1904
CPSGPD	-0.586723	0.283408	-2.070243	0.0561
MSGDP	0.341244	0.317641	1.074307	0.2997
TBLDPR	-0.040124	0.032900	-1.219560	0.2415

* p-value incompatible with t-Bounds distribution.

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.57440	4.296792	2.926461	0.0104

EC = NIM - (12.5744)

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	8.152351	10%	3.8	3.8
K	0	5%	4.6	4.6
		2.5%	5.39	5.39
		1%	6.44	6.44
			Finite Sample: n=35	
Actual Sample Size	21			
		10%	3.98	3.98
		5%	4.945	4.945
		1%	7.35	7.35
			Finite Sample: n=30	
		10%	4.025	4.025
		5%	5.07	5.07
		1%	7.595	7.595

Source: Extract from E-views 10 Output

Above result showed he absence of short run association among financial deepening and commercial banks performance in Nigeria as all the implicated variables were seen to be insignificant. The result further reveals presence of long run association among financial deepening and commercial bank performance which agreed with the study of Samuel-Hope, Ehimeru and Osuma (2020) and Ogechi (2018). The result further reveals that money supply as a ratio of GDP was positive but insignificant which agrees the findings of Onipe el ta (2015) while credit given to private sector as a ratio of GDP and total bank loan to deposit ratio were both negative and insignificant as also seen in Onipe el ta (2015) which implies that financial deepening variables employed do not bring about an increase in commercial banks net interest margin which is used as proxy for commercial banks performance in Nigeria. It can be further stated that the findings on the research work on financial deepening and commercial bank performance reported a mixed result as seen above which is online with the statement of Awonuga el ta (2021) which reported a mixed result in their study.

Granger Causality Test Result

Table 2: Granger Causality Test Result

Pairwise Granger Causality Tests
Date: 05/20/23 Time: 11:05
Sample: 2000 2022
Lags: 4

Null Hypothesis:	Obs	F-Statistic	Prob.
CPSGPD does not Granger Cause NIM	19	6.33187	0.0083
NIM does not Granger Cause CPSGPD		1.50836	0.2720
MSGDP does not Granger Cause NIM	19	2.57833	0.1023
NIM does not Granger Cause MSGDP		1.01382	0.4453
TBLDPR does not Granger Cause NIM	19	1.46197	0.2846
NIM does not Granger Cause TBLDPR		1.63481	0.2405

Source: Extract from E-views 10 Output

From the above table, we observed a unidirectional causality between credit given to private sector and net interest margin which implies that credit given to private sector as a ratio of GDP promotes commercial banks performance while no causality was recorded among other variables implicated in our study which agrees with the study of Ogechi (2018) which reported the absence of causality in their study.

Conclusions

The aim of this work has been to determine financial deepening impact on commercial bank performance in Nigeria. Financial deepening was measured with credit to private sector as ratio to GDP, money supply as ratio to GDP and total loan to deposit ratio as reported by the central bank of Nigerian statistical bulletin while commercial bank performance was proxied with commercial banks net interest margin as published by world bank. Stationarity of data employed were not able to be determined after first differencing which gave rise to using of Autoregressive Distributive Lag and bond testing to enable us determine short and long run association among financial deepening and commercial bank performance. The result showed absence of short run association and presence of long run association among financial deepening and commercial bank performance in Nigeria while no causality was recorded except credit given to private sector as ratio of GDP which showed a unidirectional causality with net interest margin. Hence, the work concludes on existence of relationship among financial deepening and performance of commercial bank performance in the long run.

Recommendations

Having concluded on the existence of long run association among financial deepening and performance of commercial bank in Nigeria and that no short run relationship was observed, as well no causality flowing between the implicated variables, the work recommends that commercial banks improve on their financial deepening variables so as to broaden their financial services operations and secondly, policy makers should step in and ensure that commercial banking financial deepening is well broaden to accommodate individuals and the business world entirely.

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