

SECTORAL BANK CREDIT AND ECONOMIC DEVELOPMENT: EVIDENCE FROM NIGERIA

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ABSTRACT	KEY WORDS
<p>The debate on the issue of sectoral bank credit and economic development has over the years drawn attention of academicians and policy makers across nations with varying opinion motivated our interest in re-examining the link between sectoral bank credit and economic development in Nigeria from 1986 to 2021 using the Autoregressive Distributive Lag (ARDL) along with its associated long run bond test and the Granger causality test as estimation techniques. Bank credit to Agricultural Sector (SCAS), Manufacturing Sector (SCMS), Mining and Quarrying Sector (SCMQ) and General Commerce and Trade (SCTG) were the sectors considered while Per Capita Income (PCI) proxied economic development. Pre-estimation was done with the aid of unit root test which showed fractional integration order necessitating the need for the use of ARDL as stated earlier and further finds revealed absence of long run equilibrium association among sectoral bank credit and economic development while insignificant negative link was observed between sectoral bank credit to agriculture and trade and general commerce and positive insignificant link between sectoral bank credit to manufacturing sector and mining and quarrying sector. The causality result showed absence of causality among agricultural and manufacturing sectors with economic development, unidirectional causality between mining and quarrying economic development and bidirectional causality with between trade and general commerce and economic development. The study recommends the need for proper awareness on the important of agricultural sector and trade and general commerce role in the development of the economy and as such the need for more credit to be directed to those sectors and that proper policy measures be put in place to ensure that credits given to these sectors are not diverted for use in other areas.</p>	<p>Sectoral Credit, Economic Development, Financial Intermediation, Capital Formation, Finance-Led Growth.</p>

Introduction

The role of financial institution in economic development of a nation cannot be undermined given their intermediation function and its stability exerts crucial role in national development as evidence of correlation among credit market and growth exist in academic literatures (Duican & Pop, 2015). Prominent feature of modern economy is financial institution who borrow from ultimate lenders and lend to ultimate borrowers (Chant, 1992). Financial institution intermediation role can foster economic growth by increasing savings and promoting capital accumulation (Idachaba el ta, 2019) and financial institution as an essential tool in economic performance has since been argued for by Schumpeter in 1911 (Majeed & Iftikhar, 2020). They stressed further that Benavenga and Smith (1990) and Greenwood and Jovanvic (1990) argued for close link of financial progress and economic performance. Banks have existed since early times taking deposits from individual households and making loans to economic agents requiring capital (Allen & Santomero, 1997) and they have become crucial sector in world economic segments as US commerce department defined it as sub-sector of financial industry with subsectors focusing on insurance, venture capital, asset management among others (Hall, 2023). It is a critical sector in the financial institution which mainly takes deposit from customers and channel same mobilized fund to borrowers in the form of loan and advances at a fee. The banking sector is a major source for business community financing and its role in growth and development of economies is vital (Majeed & Iftikhar, 2020) as credit generated by banks is a critical funding source for an economy especially the private sector (Abubakar & Kassim, 2016).

It has virtually appeared to be true in all economies with the exception of emerging economies that financial institutions like banking and insurance play leading role in resource allocation (Allen & Santomero, 1997). As a financial institution, banks perform intermediation role by channeling fund from people who have and do not put them to productive use to people who will within the economy (Idachaba el ta, 2019). Traditional role of bank centers on deposit collection, lending to customers, acting as referee and agent among others (Onuoha, 2013) and prominent among these roles played by banks is the credit creation ability of these banks which have the capacity to exert growth and development in an economy as they serve as the major source for capital formation in an economy.

For development to take place, there should be a strong, vibrant financial institution to support growth of the economy and society at large (Thaci, 2022). Economic growth is channeled to improving capacity of production in an economy by utilizing resources available for risk minimization and elimination of bottlenecks that might hinder investment (Fapetu & Obalade, 2015) while economic development refers to the sustained, concerted actions of policymakers and communities that improve the standard of living and economic health of a specific area. It involves various factors and encompasses both quantitative and qualitative improvements in economic indicators, infrastructure, technology, education, healthcare, and other aspects of human well-being.

Therefore, this study is centered on investigating the link between sectoral bank loan and economy development in Nigeria. Economic development will be proxied by per capita income while bank loan to agricultural sector, manufacturing sector, mining and quarrying and trade and general commerce will be the study's indicators for sectoral credit.

2.0 Literature Review

2.1 Concepts of Sectoral Bank Credit

The concept of sectoral bank credit refers to the allocation of loans and financial resources by banks to different sectors of the economy. Banks play a crucial role in the economic development of a country

by providing funds to various sectors, such as agriculture, industry, services, and others. The goal is to support and promote the growth of these sectors, which, in turn, contributes to overall economic development. The allocation of credit to different sectors is influenced by various factors, including government policies, economic conditions, and the risk-return profile of each sector. Effective sectoral credit allocation is important for achieving balanced economic development and addressing the specific needs of different segments of the economy.

2.1.2 Concepts of Economic Development

Economic development refers to the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a specific area. It involves improvement in overall quality of life. The concept goes beyond mere economic growth, which focuses solely on the increase in the production of goods and services. It emphasizes over-all well-being of individual within an economy such as their education levels, healthcare, and life expectancy which are crucial in assessing economic development. Economic development centers on poverty reduction which involves creating opportunities for employment, income generation, and improving access to basic services for the entire populations and it should be sustainable, ensuring that the present generation's needs are met without compromising the ability of future generations to meet their own needs. This includes considerations for environmental sustainability and social equity. Economic development is a complex and multifaceted process that requires a combination of strategic planning, effective policies, and collaboration among various stakeholders, including government, businesses, non-profit organizations, and communities. It seeks not only to increase the overall wealth of a region but also to improve the quality of life for its residents.

2.2 Conceptual Link Between Sectoral Bank Credit and Economic Development

Sectoral bank credit and economic development are crucial aspect of a country's financial system and overall economic health. The relationship among them is intricate and multifaceted, involving various stakeholders and factors. Sectoral bank credit plays a pivotal role in facilitating capital formation by providing funds for businesses and industries which enables investments in physical and human capital that contributes to economic development as businesses rely on bank loans for expanding operations, investing in new technologies, and enhancing productivity, all of which contribute to overall economic growth and development. Availability of credit to different sectors stimulates economic activities and fosters job creation of which businesses that have access to bank credit are better positioned to expand their operations, leading to increased employment opportunities across the economy. Bank credit supports research and development activities by providing funds for innovation and the adoption of new technologies that can lead to increased productivity and competitiveness in various sectors, driving economic development. More so, sector-specific credit can contribute to infrastructure development, which is crucial for economic progress. For example, credit extended to the construction sector can fund the development of roads, ports, and other essential facilities that enhance overall economic efficiency. Additionally, agriculture is a significant sector in many economies and bank credit to the agricultural sector supports farmers in purchasing equipment, seeds, and fertilizers, contributing to increased agricultural productivity. This, in turn, has a positive impact on food security and hence development. The conceptual link between sectoral bank credit and economic development revolves around the idea that an efficient and well-allocated flow of credit across various sectors contributes to

increased production, employment, innovation, and infrastructure development, ultimately fostering sustainable economic development which effective financial intermediation and a supportive policy framework are essential components of this relationship.

2.3 Theoretical Underpinning

Financial Intermediation Theory: - Financial intermediation theory is a framework that explores the role of financial intermediaries in the economy. Financial intermediaries are institutions or entities that act as middlemen between savers and borrowers in the financial system. The theory aims to understand the functions, benefits, and challenges associated with these intermediaries and understanding the roles played by financial intermediaries is found in different models of intermediation theory (Allen & Santomero, 1997). Financial intermediaries facilitate the flow of funds between savers (those with excess funds) and borrowers (those in need of funds). This process helps allocate resources efficiently in the economy. Assets are reallocated through sequence of transactions which often includes major institutions viewed as intermediaries and the understanding of asset market decentralization needs understanding of intermediation determinants (Bethune, et al., 2019). Banks through their deposit mobilization and lending ability is considered a major intermediary in the financial system and through their intermediation function, capital is accumulated for investment purposes.

Capital Formation Theory: - Eckans and Lefebvre (1962) argued that economic and development issue must be analyzed within capital theory framework. Capital formation theory refers to the study and analysis of the process by which a society accumulates and increases its capital stock over time. Capital, in this context, refers to the produced means of production, such as machinery, equipment, buildings, and infrastructure, that contribute to economic output and development. It leads to national income increase, employment generation, enhanced living standard and general increase in output level (Onwiodiokit & Otolorin, 2021) and central to capital formation is the concept of savings and investment. Real investment within an economy is acceptable means of accumulating capital in an economy which intend to enhance its output (Ajose & Oyedokun, 2018). Savings represent the portion of income that is not consumed and is instead set aside for investment. Investment, on the other hand, involves using saved resources to create or acquire capital goods.

Finance-Led Growth Hypothesis: - The Finance-Led Growth Hypothesis is an economic theory that suggests that financial development and the growth of the financial sector play a crucial role in driving economic growth. This hypothesis posits that a well-functioning and efficient financial system can positively impact economic performance by facilitating the allocation of resources, fostering savings and investment, and promoting innovation and production as essential channel through which financial development transmit to growth (Madsen & Ang, 2016). Ajisafe and Okunade (2020) emphasized that increase in financial development enhance domestic investment and as such exerts economic growth and development. Financial intermediaries such as banks and other financial institutions roles in mobilizing savings from households and channeling them towards productive investments is essential in the finance-led growth theory as efficient financial intermediation is believed to enhance the efficiency of capital allocation in the economy. Levine (2004) stressed that financial system may influence savings, investments, innovation in technology and growth in the long-run and hence the

finance-led growth hypothesis become a necessary theoretical link between bank credit and economic growth.

2.4 Empirical Review

Okoyan and Eze (2021) examined correlation between sectoral loan and bank performance in Nigeria from 1990 to 2018 using cointegration and ECM techniques of analysis. Agricultural, manufacturing and mining were the sectors studied and interest rate as control variable and bank performance proxied by asset return. Findings showed linear insignificant effect of sectoral loan on asset return while interest rate as control variable showed negative effect.

Joseph (2020) examined bank credit effect on Tanzanian's economic growth from 1993 to 2017 using causality, VEM and cointegration test and reported absence causality among bank credit and Tanzanian's economic growth and in the long-run, bank credit exhibit positive significant influence on economic growth.

From 1982 to 2017, Majeed and Iftikhar (2020) investigated influence of banking sector loan on sectoral and sub-sectoral level of Pakistan economic growth and reported private sector bank loan to have insignificant positive effect on economic growth and that agricultural sector is not positively influenced while industrial sector is positively influenced as they rely more on bank loan.

Idachaba el ta (2019) investigated bank credit influence on the economy of Nigeria between 1980 and 2017 using regression analysis. Bank loan to public sector, private sector and lending rate were the study's independent variables while GDP proxied Nigerian economy. Findings revealed bank loan to private sector positively influenced Nigerian economy while lending rate and public sector loan showed negative influence. Results further revealed presences of long-run equilibrium relationship between bank credit and Nigerian economy.

Between 1986 and 2015, Stephen and Rodiat (2019) investigated sectoral bank credit allocation and growth of Nigerian economy using cointegration, VECM and FMOLS analytical techniques. Production sector, services sector, general commerce and other sectors were the considered sector by the study while GDP proxied economic growth. Findings showed presences of long-run association among studied variables and that credit given to production sector were positively significant with economic growth while general commerce, services and others negatively influenced growth.

Nwanji and Okoli (2018) examined link between DMBs sectoral credit allocation and Nigeria's economic growth from 1980 to 2014 using VECM and causality test estimation method and reported sectoral credit to production to positive significant influence on Nigeria's economic growth and other variables to negatively correlate with growth while no causality was recorded between sectoral credit allocation and economic growth in Nigeria.

From 1994 to 2015, Paul (2017) assessed link between sectoral allocation of bank credit by commercial banks and economic growth in Nigeria using VECM, cointegration and causality tests as estimation techniques. Results revealed presence of cointegration equation implying presence of long-run association among variables. Further findings showed that growth of Nigerian economy is a significant positive function of commercial bank credit to manufacturing, general serves and agricultural sectors in Nigeria while causality test revealed bidirectional causality between agricultural sector and economic growth and a unidirectional causality between manufacturing sector credit and economic growth.

Abubakar and Kassim (2016) examined influence of sectoral bank loan in Malaysia using quarterly data between 1997 and 2014. ARDL and ECM estimation technique was employed and the study reported bank loan to have uneven effect on economic growth of Malaysia in the short-run for manufacturing and quarrying and mining sectors while no effect was recorded in the agricultural sector and a higher effect of bank loan was observed in the construction and services sector in the long-run compared to short-run the study stated.

Duican ana Pop (2015) investigated influence of credit activities on economic growth of Romania from 2005 to 2014 using the panel EGLS cross-sectional random effect with GDP as dependent variable while bank credit as independent variable. Findings revealed significant influence of bank credit on Romania's GDP evolution.

Fapetu and obadele (2015) examined sectoral allocation of bank credit and economic growth in Nigeria for 52years period with emphasis on three eras namely inclusive regulation (1960-1985), deregulation era (1986-1995) and guided regulation (1986-2010). Production sector, general commerce, services and others were the sector considered while real GDP proxied economic growth and OLS employed as estimation technique. The study reported bank credit to government and professionals to be positive and significantly relate with economic growth in the deregulation era as well bank loan to production and other sectors in the guided deregulation era and no influence in the era of deregulation.

Using quarterly data from 2000 to 2014, Olowofeso et al (2015) investigated influence of private sector bank loan on economic growth of Nigeria using the FMOLS as estimation technique. Private sector bank credit, capital formation grossed, exchange rate, government expenditure total and lending rate prime were the study's explanatory variables while real GDP was the explained variable. Findings revealed significant positive influence of private sector bank loan on economic growth and also presence of long-run equilibrium relationship. The study reported further that increased lending rate represses growth.

From 1981 to 2011, Onuorah (2013) examined the link among bank credit and economic growth in Nigeria using cointegration, VAR and causality test as estimation techniques. Credit to production sector, credit to general commerce, credit to services sector and others were the study's independent variables while dependent variables was GDP. Findings reveals presence of long-run relationship among variables studied and that causality flowed from GDP to all the independent variables signifying a unidirectional causality and as well presences of short-run relationship among the variables.

3.0 Materials and Methods

3.1 Research Design

The expo-facto research design was adopted because the study was based historical data published by the Central Bank of Nigerian (CBN) statistical bulleting for the variables under study covering 1986 to 2021.

3.2 Data and Variable Description

Table 3.1 Data on Per Capital Income (PCI), Sectoral Credit to Agricultural Sector (SCAS), Sectoral Credit to Manufacturing Sector (SCMS), Sectoral Credit to Mining and Quarrying (SCMQ) and Sectoral Credit to Trade and General Commerce (SCTG) in Billion from 1986 to 2021.

YEAR	PCI	SCAS	SCMS	SCMQ	SCTG
1986	2250	1.83	4.48	0.21	1.48
1987	2652.6	2.43	4.96	0.25	1.83
1988	3455.6	3.07	6.08	0.23	1.73
1989	429.1	3.47	6.67	0.27	1.82
1990	4917.54	4.22	7.88	0.36	2.05
1991	5739.4	5.01	10.91	0.54	2.75
1992	8487.44	6.98	15.4	0.76	3.04
1993	11206.21	10.75	23.11	1.42	3.62
1994	15630.23	17.76	34.82	-	4.22
1995	27272.25	25.28	58.09	12.07	4.53
1996	35308.93	33.26	72.24	15.05	4.98
1997	37346.68	27.94	82.82	20.61	6.66
1998	39171.57	27.18	96.73	22.85	13.49
1999	44827.17	31.05	115.76	24.68	7.61
2000	52643.98	41.03	141.29	32.29	19.44
2001	62036.26	55.85	206.89	70.48	33
2002	83721.29	59.85	233.47	70.17	16.37
2003	95277.54	62.1	294.31	95.98	29.77
2004	124253.7	67.74	332.11	131.06	18.77
2005	153869.7	48.56	352.04	172.53	25.31
2006	208911.4	49.39	445.79	251.48	34.53
2007	226768.7	149.58	487.58	490.71	26.71
2008	253928.2	106.35	932.8	846.94	34.47
2009	267572	135.7	993.46	1,190.73	31.35
2010	326045.8	128.41	987.64	1,178.10	26.43
2011	366260.4	255.21	1,053.21	1,295.30	52.69
2012	411849.3	316.36	1,068.34	1,771.50	66.55
2013	448257.1	343.7	1,179.69	2,155.86	220.07
2014	493915.5	478.91	1,647.45	18.22	1,045.19
2015	511620.4	449.31	1,736.19	11.71	985.69
2016	539740.6	525.95	2,215.74	21.28	984.9
2017	583554.3	528.24	2,171.37	25.25	1,023.78
2018	628756	610.15	2,230.15	20.69	1,076.72
2019	565917.65	772.38	2,622.54	11.31	1,247.37
2020	579492.08	1,049.68	3,191.37	11.88	1,343.59
2021	589430	1,457.82	4,089.29	23.64	1,708.38

Source: CBN Statistical Bulletin and World Bank Database

3.3 Model Specification

With minor modifications, the model specification utilized in this investigation is derived from the research conducted by Olowofeso et al (2015), we state our model as follows;

$$\text{Economic development} = f(\text{Sectoral Bank Credit}) \quad 3.1$$

Bringing the various sector and as well our proxy for economic development, we have;

$$\text{PCI} = f(\text{SCAS}, \text{SCMS}, \text{SCMQ}, \text{SCTG}) \quad 3.2$$

For estimation purpose, the model is rewritten as;

$$\text{PCI}_t = \delta_0 + \delta_1 \text{SCAS}_t + \delta_2 \text{SCMS}_t + \delta_3 \text{SCBMQ}_t + \delta_4 \text{SCBTG}_t + \epsilon_t \quad 3.4$$

Where,

PCI = Per Capita Income

SCMS = Sectoral Credit to manufacturing sector

SCAS = Sectoral Credit to agricultural sector

SCMQ = Sectoral Credit to mining and quarrying sector

SCTG = Sectoral Credit to trade/general commerce sector

ϵ_t = Error term of the estimate

3.4 Methods of Data Analysis

This study has been aimed at investigated correlation among sectoral bank credit and economic development of Nigeria. To ascertain that, the following statistical tools with the aid of econometric software (Eviews 10) was employed to support our analysis. The Augmented Dickey Fuller (ADF) unit root is used to determine the stationarity of our data set. It is accepted that the series is stationary should the ADF test statistics be greater than the given critical values at 1%, 5% and 10% levels of significance respectively and the Autoregressive distributive lag (ARDL) and its associated long run bond test was applied to determine the short and long run relationship since there was presence of fractional integration in our variables. The Granger causality test was used to determine the causal relationship between our explained and explanatory variables.

4.0 Presentation of Results

4.1 Unit Root Test

The Augmented Dickey Fuller unit root test was employed to determine the stationarity of our employed variables. The table below shows the result of Augmented Dickey Fuller unit root test.

Table 4.1 Unit Root Test Result

Variables	ADF Statistic	Mackinnon Critical value at			Probability	Order of Integration
		1%	5%	10%		
PCI	4.282182	3.639407	2.951125	2.61430	0.0019	I(1)
SCAS	0.373151	3.639407	2.951125	2.61430	0.9028	I(0)
SCMS	1.867333	3.639407	2.951125	2.61430	0.3431	I(0)
SCMQ	5.746720	3.661661	2.96411	2.61916	0.0001	I(1)
SCTG	4.750387	3.639407	2.951125	2.61430	0.0005	I(1)

From the above table, we noticed a fractional order of integration as Per Capital Income (PCI), Sectoral Credit to Mining and Quarrying (SCMQ) and Sectoral Credit to Trade and General Commerce (SCTG)

were integrated in the order of I(1) while Sectoral Credit to Agricultural Sector (SCAS) and Sectoral Credit to Manufacturing Sector (SCMS) were integrated in order of I(0) prompting the application of Autoregressive Distributive Lag (ARDL) and its associated long run bond test for further estimation.

4.2 Autoregressive Distributive Lag (ARDL) Test

The below table shows the result of our ARDL test which was employed for further estimation in a bid to determine the short run association among our variables given their fractional order of integration.

Table 4.2 Result of Autoregressive Distributive Lag (ARDL) Test

Dependent Variable: PCI
Method: ARDL
Date: 02/01/24 Time: 19:22
Sample (adjusted): 1987 2021
Included observations: 34 after adjustments
Dependent lags: 1 (Fixed)
Dynamic regressors (0 lag, fixed):
Fixed regressors: SCAS SCMS SCMQ SCTG C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
PCI(-1)	1.010618	0.104039	9.713869	0.0000
SCAS	-88.53960	77.63415	-1.140472	0.2638
SCMS	29.20997	29.65565	0.984972	0.3331
SCMQ	12.24038	18.54373	0.660082	0.5146
SCTG	-4.021066	55.42073	-0.072555	0.9427
C	7974.017	5814.035	1.371512	0.1811
R-squared	0.992787	Mean dependent var	229254.0	
Adjusted R-squared	0.991499	S.D. dependent var	224325.4	
S.E. of regression	20682.51	Akaike info criterion	22.87075	
Sum squared resid	1.20E+10	Schwarz criterion	23.14011	
Log likelihood	-382.8027	Hannan-Quinn criter.	22.96261	
F-statistic	770.8153	Durbin-Watson stat	2.253750	
Prob(F-statistic)	0.000000			

From above table, we observed from the global statistics that the sectoral bank credit employed jointly contributed to about 99.2% variation in our economic development represented by Per Capital Income (PCI) and that when adjustment was made, the variation became 99.1% as seen I the adjusted R-square. The Durbin Watson statistics was 2.253750 which falls within the acceptable region of 2, suggesting the need not to worry about serial correction problem while the F-Statistics was significant at 5% significant level suggesting that the model has a global utility. From the upper region of our table above termed the relative statistics, we observed that sectoral credit to agricultural and trade and general commerce sectors were insignificantly negative while ank credit to manufacturing sector and mining and quarrying sector showed a positive coefficient.

4.3 ARDL Long Run Bond Test

The long run bond test is carried to out help us determine the long run equilibrium association among our variables. Below table represents the result of our long run bond test.

Table 4.3 Result of ARDL Long Run Bond Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
Asymptotic: n=1000				
F-statistic	1.289389	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	34	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

From the above table, we observed absence of a long run equilibrium association among sectoral bank credit and economic development in Nigeria given the observed F-statistics to be lesser than the observed asymptotic values at 10%, 5%, 2.5%, and 1% respectively.

4.4 Granger Causality Test

The Granger causality test is carried out to help us ascertained the direction of causality between the various sectoral bank credit employed and economic development. In other words, it is employed to helps know if the variables support/promote each other in the growth process.

Table 4.4 Granger Causality Test Result

Pairwise Granger Causality Tests

Date: 02/01/24 Time: 20:31

Sample: 1986 2021

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
SCAS does not Granger Cause PCI	34	2.14545	0.1352
PCI does not Granger Cause SCAS		2.14456	0.1353
SCMS does not Granger Cause PCI	34	0.60904	0.5507
PCI does not Granger Cause SCMS		1.69880	0.2006
SCMQ does not Granger Cause PCI	31	3.21911	0.0564
PCI does not Granger Cause SCMQ		0.66637	0.5221
SCTG does not Granger Cause PCI	34	4.08755	0.0273
PCI does not Granger Cause SCTG		3.42494	0.0462

From the above, we observed absence of causality among sectoral bank credit to agricultural sector and economic development as well between sectoral bank to manufacturing sector and economic development while a unidirectional causality was observed between sectoral bank credit to mining and quarrying and economic development. A bidirectional causality was recorded between sectoral bank credit to trade and general commerce and economic development.

4.2 Results Discussions

From the results, we observed that sectoral credit to agricultural and trade and general commerce sectors were insignificantly negative implying that bank credit to agricultural sector and trade and general commerce sectors are not important in predicting development of Nigerian economy during the period covered by the study and that and as such, we can say that they do not contribute to the development of Nigerian economy as seen in the work of Stenphen and Rodiat (2019) who reported negative influence of sectoral credit to general commerce on growth as well Nwanji and Okoli (2018) and Abukar and Kassim (2016) who reported no effect of sectoral bank credit on agricultural sector while bank credit to manufacturing sector and mining and quarrying sector showed a positive coefficient suggesting that bank credit to manufacturing sector and mining and quarrying sector are important tools in predicting economic development of Nigeria and that they have the tendency of exerting development in Nigeria. Though they were insignificant but their positive coefficient suggests their potency in exerting development in Nigeria as seen in Majeed and Iftikhar (2020) who reported insignificant positive influence of private sector bank loan on Pakistan economic growth and Okoyan and Eze (2021) which reported insignificant linear influence of sectoral loan on Bank performance in Nigeria.

The causality result revealed absence of causality among sectoral bank credit to agricultural sector and economic development as well between sectoral bank credit to manufacturing sector and economic development as seen in Joseph (2020) who reported absence of causality among bank loan and growth in Tanzania while a unidirectional causality was observed between sectoral bank credit to mining and quarrying and economic development as seen in Paul (2017) with causality flowing from mining and quarrying sector bank credit to economic development implying that bank credit to mining and

quarrying sector promotes/ support economic development while economic development on the other hand do not support/promote credit to mining and quarrying. Furthermore, a bidirectional causality was recorded between sectoral bank credit to trade and general commerce and economic development as also in Paul (2017) suggesting that causality flows both ways between trade and general commerce bank credit and economic development. In other words, it implies that bank credit to trade and general commerce and economic growth promotes/support each other in their growth process in the sense that bank credit to trade and general commerce spore economic development and economic development on the other hand spore bank credit to trade and general commerce.

5.0 Conclusion and Recommendations

5.1 Conclusions

The study was centered on investigating the link among sectoral bank credit an economic growth in Nigeria and using expo facto research design and some selected statistical tools for estimation purpose and we concludes from our results that there was no equilibrium long run relationship between sectoral bank credit and economic development in Nigeria as seen in our long run bond test and further that sectoral bank credit to agricultural sector and trade and general commerce sector were insignificant and as well influenced economic growth negatively in Nigeria during the period covered by the study while sectoral bank credit to manufacturing sector and mining and quarrying sector were positive and insignificant suggesting that sectoral bank credit to manufacturing and mining and quarrying sector influenced economic development positively in Nigeria during the period covered by the study. From our causality result, we conclude that there is no causality among sectoral bank loan to agricultural sector and manufacturing sector, a unidirectional causality flowing from bank loan to mining and quarrying sector to economic development while a bidirectional causality was observed between bank credit to trade and general commerce and economic development in Nigeria during the period covered by the study.

5.2 Recommendations

From the above conclusions, we recommend the need for proper awareness of the important of agricultural and trade and general commerce sector role in economic development of a nations and as such encourage bank to lend for investments in those key sectors secondly, the need to ensure that credits granted to each sectors are actually invested on projects in those sectors to avoid diversion of such credit for personal use as appropriate implementation of those credit in the specific sectors will help them to have significant influence on economic development.

References

1. Abubakar, A., & Kassim, C. (2016). Sectoral impact of bank credit in Malaysia: ARDL modelling approach. *Pertanika Journal of Social Science and Humanities*, 24(8), 205-201
2. Ajisafe, R. A., & Okunade, S. O. (2020). Finance-led growth hypothesis and domestic investment in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 11(2), 40-52
3. Ajose, K., & Oyedokun, G. E. (2018). Capital formation and economic growth in Nigeria. *Accounting and Taxation Review*, 2(2), 131-142
4. Allen, F. ,& Santomero, A. M. (1997). The theory of financial intermediation. *Journal of Banking & Finance*, 21(11), 1461-4266, [https://doi.org/10.1016/S0378-4266\(97\)00032-0](https://doi.org/10.1016/S0378-4266(97)00032-0)

5. Bethune, Z., Sultanum, B. & Trachter, N. (2019). An Information-Based Theory of Financial Intermediation. FRB Richmond Working Paper No. 19-12, <https://ssrn.com/abstract=3473118>
6. Chant, J. (1992). The New Theory of Financial Intermediation. In: Dowd, K., Lewis, M.K. (eds) *Current Issues in Financial and Monetary Economics*. Current Issues in Economics. Palgrave, London. https://doi.org/10.1007/978-1-349-21908-7_3
7. Duican, E. R. & Pop, A. (2015). The implication of credit activity on economic growth in Romania. *Procedia Economics and Finance*, 30, 195-201
8. Eckaus, R. S., & Lefebvre, L. (1962). Capital Formation: A Theoretical and Empirical Analysis. *The Review of Economics and Statistics*, 44(2), 113–122. <https://doi.org/10.2307/1928194>
9. Fapetu, O. & Obalade, A. A. (2015). Sectoral allocation of bank credit and economic growth in Nigeria. *International Journal of Academic Research*, 5(6), 161-169
10. Hall, M. (2023). How banking sector impact our economy. Investopedia, <https://www.investopedia.com/ask/answers/032315/what-banking-sector.asp>
11. Idachaba, O. I., Olukoyun, G. A. & Elam, W. G. (2019). Influence of bank credit on the Nigerian economy. *American Economic and Social Review*, 5(10), 1-9
12. Joseph, E. (2020). The Effect of Bank Credit on the Economic Growth of Tanzania. *Journal of Finance and Economics*, 8(5), 211-221. doi: 10.12691/jfe-8-5-2
13. Levine, R. (2004). Finance and growth: theory and evidence. National Bureau of Economic Research Working Paper Series, working paper 10766
14. Madsen, J. B., & Ang, J. B. (2016). Finance-led growth in the OECD since the nineteenth century: how does financial development transmit to growth? *The Review of Economics and Statistics*, 98(3), 552–572. <http://www.jstor.org/stable/24917034>
15. Majeed, S., & Iftikhar, S. F. (2020). Modelling the relationship between banking sector credit and economic growth: a sectoral analysis for Pakistan. *Journal of Economic Corporation and Development*, 41(1), 145-178
16. Nwanji, M. O., & Okorie, G. C. (2018). Deposit money banks sectoral allocation of credit and economic growth in Nigeria. *Gouni Journal of Management and Social Sciences*, 6 (2), 112-123
17. Okoyan, K., & Eze, P. G. (2021). Sectoral Loans and Bank Performance in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 9(2), 81-94
18. Olowofeso, E. O., Adeleke, A.O. & Udoji, A. O. (2015). Impact of private sector credit on economic growth in Nigeria. *CBN Journal of Applied Statistics*, 6(2), 81-101
19. Onuorah, A. C. (2013). Bank credit: an aid to economic growth in Nigeria. *Information and Knowledge Management*, 3(3), 41-50
20. Onwiodiokit, E. A. & Otolorin, G. E. (2021). Capital formation and economic growth in Nigeria: an empirical re-examination. *Bullion*, 45(2), 58-72
21. Paul, N. (2017). Commercial banks' sectoral credit allocation and growth of Nigerian economy: an impact analysis (1994-2015). *International Journal of Arts and Humanities*, 6(4), 144-161
22. Stephen, A. J. & Rodiat, Y. L. (2019). Impact of sectoral allocation of banks' credit on economic growth in Nigeria. *International Journal of Contemporary Accounting Issues (Formerly International Journal of Accounting & Finance)*, The Institute of Chartered Accountants of Nigeria (ICAN), vol. 8(2), 96-113
23. Thaci, I. (2022). Bank loan types and economic growth: literature review. *European Journal of Economics and Business Studies*, 8(2), 156-171.