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IMPACT OF BANK CREDIT ON ECONOMIC GROWTH OF NIGERIA

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Abstract

This research work empirically examines the impact s of Bank Credit on Economic Growth Nigeria, from 1980 to 2019. The research made use of secondary data which were collected from the Central Bank of Nigeria Statistical Bulletin. The lag criteria test was carried out to determine the number of lags to be used, stationary test was also carried out using ADF statistics, co-integration test was carried out to test for long run relationship. Since the co-integration test shows long run relationship, the Ordinary Least Squares Regression Techniques (OLS) were employed in the analysis of the data. The Bank Credit and money supply variables were statistically significant The Cash Ratio and (CR) variable has a positive sign which implies that the relationship between The Cash Ratio and the monetary policy ratio were not statistically significant. The result of the coefficient of determination (R^2) shows that 98 percent of the total variation in Gross Domestic Product was explained by changes in the explanatory variables. The policy implication is that any time the government through the Central Bank wants to increase economic growth; it has to increase Bank credit and money supply. Base on the findings made in the course of this study. The study recommends that government through the Central Bank should encourage economic growth by increasing Bank credit and money supply. The Federal Government should direct financial institution to direct their loan and advances to deficient sector so as to encourage even growth and development in the economy.

Key word: Bank Credit, Cash Ratio, Economic Growth, Money Supply,

Introduction

The hottest debate of the 21st century is on how to get the economy of the developed, emerging and developing countries to a point of climax. The concern of this study is the bank credit (which is regulated by the monetary policy authority or committee) of the Nigerian economy. Therefore, any economy whose desire is to achieve economic growth needs to handle bank credit (.i.e. monetary policy or monetary sector) with utmost seriousness (personal communication 2019). Monetary sector is also known as financial institutions and/or financial institutions comprise of money and capital markets. Money market is a place where short term credit facilities are traded (CBN 2011). Moreover, capital market is a place where medium and long-term credit facilities are traded. Financial institutions are: Central Bank as the apex, Deposit Money Banks (.i.e., commercial and merchant banks), while, the capital market comprises the securities and exchange commission as the apex, Nigeria stock exchange, insurance, multi-national companies, etc. (.i.e., developmental banks) (okafor, ezeaku&ugwuegbe 2016; Patrick, Celestine, Ikenna&Amalachukwu 2018).

Bank's credits are the deposits of the general public, which is a liability to the bank. Which in turnthe banks lend to the potentialcustomers as assets of the bank. In other words, banks are intermediaries between the surplus units and deficit units. By this important function , the banks are the engine of economic growth. Mohammed 2017: kolapo, ojo&olaniyan 2018). Therefore, the contribution of bank credits to the growth of the informal sector of the Nigerian economy cannot be under-stated considering the contribution of this sector to the overall growth of the Nigerian economy (Benson 2017; Ubesie, Onuaguluchi&Mbah 2017; Onoh&Nwachukwu 2017).It is statistically reported that over 70% of Nigerian population are employed in the informal sector which has enormous economic growth potential (CBN 2018). Also, the availability of credit facilities to these economic drivers in no small way help to harness their growth potential which in turn contribute significantly to the growth of the economy(Mohammed 2017; Benson 2017). According to Adenugha (2015) financial or credit development can foster economic growth by raising savings, improving efficiency of loan-able funds and promoting capital accumulation. Banking system credit in Nigeria assumed a new dimension and was transformed by the recapitalization and consolidation of banks which restructured them for better performance. Access to bank credit or financing improved commensurately in response to competing and the healthy state of soundness of the attained (Kolapo, Ojo&Olaniyan 2018).

These banking Credits are, for all practical purposes, the same as Money. They cannot, of course, be exported like money: but for all internal purposes they produce the same effects as an equal amount of money. They are, in fact, Capital created out of nothing (Macleod as cited in Gbadebo, Adekunle, Muritala, &Fadeyi 2017). In old times, when a customer goes to a banker for a loan, the banker, if he agreed, handed him out so many of his own notes; now when a customer goes to a banker for a loan, the banker gives him a credit in his books, i.e. adds to the depotis on the liability side of the balance sheet (Withers as cited in Gbadebo, Adekunle, Muritala, &Fadeyi 2017).

Theoretical Literature

Keynesian Theory on Bank Credits

Keynesian Theory in 1936, John Maynard Keynes published his "General Theory of Employment, Interest and Money" and initiated the Keynesian Revolution. From the Keynesian mechanism, monetary policy works by influencing interest rate which influences investment decisions of financial institutions such as banks and the public and consequently, output and income via the multiplies process (Amacher&Ulbrich as cited in Onoh&Nwachukwu 2017). Keynes posited that government had the responsibility to undertake actions to stabilize the economy and maintain full employment and economic growth, using fiscal policies. He therefore recommends a proper blend of monetary and fiscal policies as at some occasions, monetary policy could fail to achieve its objective (Osisanwo 2017).

We introduce the interaction of money and credit in the imperfect credit market model. We define Money here as cash money and demand deposits. Cash money is in the hands of the public, and demand deposits are in the commercial banks. Cash money also constitutes part of the bank credit that has been monetized by entrepreneurs. The entrepreneurs monetize the bank credit when they convert it into a final means of payments. We also treat cash money and bank credit is substitutes; thus, high cash money holdings reduces the lending capacity of the banks and consequently the bank credit supply; and reduced bank credit supply will make the bank credit increasingly costly. If credit is costly, the entrepreneurs will like to hold high cash balances; hence, high transaction costs associated with obtaining and supplying bank credit increase the demand for cash money. The other link we introduce is the central bank money that filters into economy through the bank credit. And the banks convert into credit the part of central bank advances that have been monetized and deposited back into the banks. In this process, the central bank money acts as an explanatory variable for the bank credit supply (Orimogunje 2019).

Empirical Literature

Bank credit is geared toward achieving the aggregate growth of output and economic performance. Eburajolo and Aisien (2019) examined the effect of commercial bank sectorial credit to the manufacturing and agricultural sub-sectors on economic growth in Nigeria with time series data from 1981 to 2015, using co-integration and error correction mechanism for the empirical work. A three equation model was specified to analyze this study, and the variables include; real GDP, bank sectorial credit to manufacturing and agriculture subsectors, monetary policy rate, financial market development, sourced from CBN statistical bulletin and also the interaction variables,. The variables were tested or unit root using the Augmented Dickey Fuller approach and were found to be stationary. The empirical result revealed that commercial bank credit to the manufacturing the agricultural subsectors significantly affects economic growth in Nigeria both in the short run and in the long run.

Innocent, Ademola, and Glory (2019) examined the influence of bank credits on the Nigerian economy using time series data covering the period from 1980 to 2017. Gross domestic product was used as proxy for the economy while credits to the private sector, public sector and prime lending rate were used as proxies of Banks credits. Unit root test was used to test stationary which reveals that all the variables were stationary at first difference. The regression analysis result shows that credit to the private sector have positive effect on Nigerian economy while credit to public sector and prime lending rate have negative effect on the Nigerian economy. The result of co-integration test presented reveals that there exist among the variables co-integration which means long-run analysis.

Orimogunje (2019) investigated the role of bank credit in the economic growth of Nigeria and inflation rate. Macroeconomic variables which include Domestic credit (DC), Net domestic credit (DOMCRE), Gross domestic product (GDP) and inflation were used. The data were collected from the Central Bank of Nigeria's data and statistical report (2018), Central Bank of Nigeria statistical bulletin (2018), World development indicators (2018) and National Bureau of Statistics (2018) for the 1996-2014) period. In the empirical analysis at first descriptive statistics and graphics were used. For the econometric methods Granger causality test were used. The result shows that Domestic Credit and Net Domestic Credit have a statistical significant relationship on gross domestic product but no significant relationship on inflation.

Aribaba, Ahmodu, Oladele, Yusuff, and Olaleye (2019) examined the role deposit money banks' loan facilities plays in funding SMEs businesses in Nigeria. The study employed the cross-sectional method of survey research. Ten (10) years financial performance index report of SMEs businesses was extracted from the Central Bank of Nigeria (CBN) statistical bulletin between the periods of 2008 – 2017 were selected. The index captured dependent and independent variables. Gross domestic product (GDP) is a proxy to SMEs while fund deposit, loan facilities and return on equity were proxies to deposit money banks variable. Data collected was analysed using descriptive statistics and ordinary least square techniques. The study revealed the positive coefficient value of 17.19434 and 15.84082 for fund deposit and loan facilities variables; and the negative coefficient value of -3.442694 for the returns on equity variable which affect the growth of SMEs in Nigeria.

Akinunmi (2017) investigated the determinants of banks' profitability in Nigeria using a panel dataset between 2001 and 2015. The results of previous empirical studies are mixed and inconclusive in terms of factors that actually influence the level of bank performance as a result of difference in sample period, estimation techniques, and countries. Design/methodology/approach – Ordinary Least Square and Generalized Method of Moment technique were utilized. Findings – The results show that bank specific factors such as efficiency ration, credit risk and capital adequacy are the key determinants of banks' profitability in the long run.

Okpala, Ezeanolue, and Edoko (2018) investigated the contribution of commercial banks to economic growth in Nigeria using secondary data covering the period of 1980-2016 that were sourced from the Central Bank of

Nigeria (CBN). The analysis of the study was conducted using regression model of the Ordinary Least Square (OLS) technique to ascertain the relationship between financial intermediation (also Including other growth inducing variables) and economic growth in Nigeria. The result show that financial intermediation – our yardstick for commercial banks operation, has a positive and significant impact on economic growth in Nigeria.

Usman, Alimi, and Onayemi (2018) evaluated the effect of bank intermediation on economic growth in Nigeria. Ordinary Lease Squares (OLS) was used to estimate the data obtained. The multiple regression result shows that that loan and advances have positive effect on economic growth. The result of co-integration test using trace statistic suggest a long-run relationship among the variables.It was concluded that financial intermediation by bank hassignificant impact on economic growth of Nigeria.

George-Anokwuru (2018) examined deposit money banks' credit and agricultural sector output in Nigeria from 1985-2015. The parsimonious Error Correction Model results shows that deposit money bank's credit to agricultural sector has a significant effects on economic growth. Serhat, Shahriyar, Elvin, and Mustafa (2018) identified the determinants of bank profitability in 13 post-Soviet countries. Within this scope, annual data between 1996 and 2016 is analyzed by using fixed effects panel regression and the Generalized Method of Moments (GMM). It is concluded that loan amount, non-interest income and economic growth are significant indicators of profitability. This result shows that when non-interest income of the banks increases, such as credit card fees and commission, it affects the financial performance of the banks, positively, and contributes to bank profitability. Another result of this study is that economic growth positively influences bank profitability. This result allowed us to conclude that higher GDP comes with higher bank profitability of the banks in post-Soviet countries. This means that when the ratio of total loans to GDP increases, it affects financial performance of the banks in a negative way.

Kolapo, Ojo, and Olaniyan (2018) scrutinized deposit money banks' credit to private-public sectors and its nexus with economic development in Nigeria over the period 1970-2016. The study employed the Ng-Perron and Augmented Dickey Ruller Breakpoint Unit Root Tests in checking the presence of unit root, and in determining the order of integration of the variables – I(d) in the presence of structural break for each variables respectively, while the T-Y augmented Granger causality test is used to reveal how causal effects flow in this study. Hence, taking account of the effect of structural breaks, we found that bank credits to government secotrs and lending interest rates were stationary series as $p > 0.01$. We also found from the T-Y Granger causality results in its overall sense that the feedback hypothesis by contrast to prior studies holds in the Nigeria in context. The feedback hypothesis establishes that banks' credit and economic development granger cause each other.

Gbadebo, Adekunle, Muritala, and Fadeyi (2017) investigated Banks credit and manufacturing growth in Nigeria from 1978 – 2015. The study employed secondary data, which was obtained from Central Bank of Nigeria Statistical bulletin (2015). In the results, three of the coefficient variables, Capital formation (CAP), Capacity utilization (CU) and Commercial bank loans to the manufacturing sector (BLM) are statistically significant at the 5 percent level. This is an indication that these variables determine manufacturing sector's growth in the long run. Crude oil production has positive growth of the manufacturing sector in Nigeria.

Ubesie, Onuaguluchi, and Mbah (2017) examine the effects of deposit money banks' credit to small and medium enterprises. The ordinary least square regression method was used in the analysis of the data after conducting a stationarity test on the variables. The study result indicated that deposit money banks' credit to private sector has significant effect on small and medium scale enterprises growth in Nigeria. Ayman and Khalaf (2017) intended to address the subject to whether performance of commercial banking contributes to economic growth enclosed a period of six years from 2010 to 2015. Using Ordinary Least Square,

the regression outcomes found a significant positive association between measures of bank performance and economic growth. Findings demonstrate that measures of bank performance in particular profitability deposits credits have positive relationship with economic growth as measured by GDP.

Onoh and Nwachukwu (2017) examine the effect of monetary policy instruments on banks credit. The study adopted the ordinary least square (OLS) From the result monetary policy ratio, money supply and cash ratio have positive relationship with loan and advances. That is, the higher the MPR, MSP and CRR, the higher the LADV. In the parsimonious error correction model the test shows that (R2) is 57% implying a fairly fitted relationship between the variables and bank loans and advances. Their study concluded that monetary instruments can work better in the Nigerian banking industry if all the variables can be made to be effective as a combined effect of all the instruments of bank regulations will tend to give a better result.

Osisanwo (2017) examined the impact of financial development on economic growth in Nigeria using annual time series data between 1980 and 2014. The study tested for the unit root and co-integration to determine time series properties of our variables before using ordinary least square estimation technique as evaluate the long-run estimates. The results showed that all the indicators of financial development except private sector credit ratio have positive impact on the economic growth in Nigeria.

Anyanwu, Ananwude, _and Okoye (2017) empirically assessed the impact of commercial banks' lending on economic development of Nigeria from 1986 to 2015. The granger causality result shows that commercial banks' lending has significant impact on gross domestic product. Index of industrial production was not significantly influenced by commercial banks' lending activities. The vector error correction model result shows that commercial banks' lending is a significant factor affecting economic growth.

Innocent, Ademola, and glory (2019) examined the influence of bank credits on the Nigerian economy using time series data covering the period from 1980 to 2017. Gross domestic product was used as proxy for the economy growth while credits to the private sector, public sector and prime lending rate were used as proxies of banks credits. The regression analysis result shows that credit to the private sector have positive effect on Nigerian economy while credit to public sector and prime lending rate have negative effect on the Nigerian economy.

Okaro (2016) evaluates the effects of deposit money banks (DMBs) credit on economic growth and development in Nigeria from 1981-2015. The study adopts multiple regression estimation technique approach using annual time series data from 1981 to 2015. The result of the study shows that total credit by deposit money bank to all sectors of the economy was positively and significantly related with economic growth and development

tseye, Edwin, and ezeaku (2015) investigated, impact of bank credit on economic growth in Nigeria from 1987 to 2012. The study adopted the ex-post facto research design and time series data were collated from the central bank of Nigeria statistical bulletin. The regression results shows that bank credit has positive and significant effects on economic growth.

Furthermore, Ayman and khalaf (2017) investigated the performance of commercial bank on economic growth from 2010 to 2015. Using ordinary least square, the regression outcomes shows a significant positive relationship between bank performance and economic growth.

In addition, Paavo (2017) examine the effects commercial banks credit on economic growth in Namibia. Using quarterly data on GDP as well as various commercial banks development indicators, spanning from the period 2005 - 2016, the study employed the auto-regression distributive lag (ARDL) methodology in determining existence of the short-run and long-rung relationship between banking sector development and economic growth. The study thus concluded that, commercial banks credit has an impact on economic growth in Namibia.

Awad and Al karaka (2019) examine the impact of bank lending on economic growth in Palestine. The study employs the augmented Dickey-fuller to test for stationarity in the time series, the johansen co-integration, vector autoregressive model and vector error correction model are employed to identify the long-run and short-run dynamics among the variables, and granger causality test in order to determine the direction of causality. The study finds that a long run relationship exists among the variables and insignificant short run relationship. Also, the study findings show that there is unidirectional causality and runs from GDP to bank lending. The insignificant contribution of bank lending to GDP is attributed to the fact that banks are not highly interested in lending to the production sector of the economy due to the high level of risk.

In the subject matter, the various researcher (Atseye, Edwin, and ezeaku 2015; Okaro 2016; Paavo 2017; awad and AI karaka 2019; innocent, ademola, and Glory 2019) that researched on the impact of bank credit limit their study to certain areas without considering the dimension in the banking sectors. This study machine, cheque book, mobile banking, point of sales, web pay) personal communication, 2019).

The study therefore seeks to add knowledge about credit and economic growth on developing countries looking at Nigeria per se. this is a gap that exists and needs to be filled by the study since the researcher uses quarterly time series data that is the lower frequency series with robust observations and extends the study beyond 2015 to 2018Q4.

Arising from the above, the research questions and specific objectives are generated for the study.

Benson (2017) investigates the impact of bank credit on Nigerian economy growth for the period of 24years (i.e. 1992-2015). The Ordinary Least Square (OLS) estimation technique with the aid of statistical Package variables has insignificant impact on gross domestic product. Based on the f-statistic result, it was also discovered that the joint variables of banks credit have significant impact on gross domestic product for the period under review. The study concluded that bank credit if properly channeled is a catalyst for Nigerian economy growth.

Mohammed (2017) examines the impact of some banking sector indicators (credit facilities, depositors' fund, the number of branches, and interest rate,) on gross domestic product using quarterly data from the period of 2000 to 2015. The empirical model was carried out using ordinary least square regression to prove that output is significantly influenced by boosting banking sector toward growth. the result reveals that banking credits are positively related to economic growth. This indicates that banking industry development tends to improve productive capacity of Palestinian economy as case of supply leading. However, interest rate, customers' deposits and number of branches have not significant impact on economic growth.

Okpala, Ezeanolue, and Edoko (2018) investigates the contribution of commercial banks to economic growth in Nigeria using secondary data covering the period of 1980-2016 that were sourced from the Central Bank of Nigeria (CBN). The analysis of the study was conducted using regression model of the Ordinary least Square (OLS) technique to ascertain the relationship between financial intermediation (also including other growth including variables) and economic growth in Nigeria. The result shows that financial intermediation-our yardstick for commercial banks operation, has a positive and significant impact on economic growth in Nigeria.

Aliyu (2018) critically examines and analyse the effect of Commercial Banks in Economic Development. All sectors of the economy work in an inter-related and inter-dependent whole, therefore any malfunction of one or more sectors of the economy automatically affect the economy as a whole and so it is with the banking sector. Banks have always play an important role in a country's economy all over the world irrespective of it economic and political policies. They are acting not only as the custodian of the wealth of the country but are also major contributors to economic development of countries all over the world. Commercial banks are involved in the process of increasing the wealth of the

economy, particularly the capital goods needed for raising productivity to both developed and developing countries considers the service of the banking sector to enable its economy attain economic growth and development.

Research Methods

This study empirically examines, Impact of Bank Credit on Economic Growth in Nigeria. Data were collected from secondary sources through Central Bank of Nigeria statistical bulletin (Open market operation volume of transactions) covering year 1985 to 2019. The study chose this period because it was the era of major economic and banking sector reforms.The study used multiple linear regression estimation technique to regress the models which measures the Impact of Bank Credit on Economic Growth of Nigeria T-test is used to test the validity of the hypothesis formulated. Both Durbin-Watson and F-Statistics were used to determine the presence of serial correlation and statistical relevance of the models respectively.

Model Specification

The study empirically examine,Impact of Bank Credit on Economic Growth.The explanatory variables for the model are liquidity ratio, money supply, monetary policy ratio, and cash ratio, while dependent variable is Gross Domestic Product (GDP), proxy for economic growth.

Equation 1 in functional form

The functional form of the model is stated below as follows:

GDP = f (B C, M_2, CR, MPR)……1

Where,

GDP = Gross Domestic Product

BC = Bank Credit

M_2 = Broad Money Supply

CR = Cash Ratio

MPR = Money Policy Ratio

The operational form of 3.4 above is

$GDP = a_1 + a_1BC + a_2M_2 + a_3Cr + a_4MPR + U_i$..2

A prior expectation

$a_2$and $a_3 > 0$, a_1, a_4 and $a_5 < 0$

Where,

a_1 = intercept or constant

a_1 a_2 a_3 anda_4 are parameters to be estimated

U_i = Error Term

Data Presentation and Analysis

This section adopts the estimation technique and deals with the analysis of results. The Gross Domestic Product model was formulated to estimate the data. This study span from the period 1980 – 2019. This research study made use of secondary data which were obtained from the Central Bank of Nigeria (CBN), Statistical Bulletin 2019.

Lag Selection Order

Table 4.0, reports the lag length selection for the model**.** The Johansen co-integration technique requires us to specify the lag order and the deterministic trend assumption for the model. The lag order for the model is chosen using the information criteria approach. The Lag order selection criteria are Schwarz Bayesian criterion (SBIC), Akaike information criterion (AIC), Hanna-Quinn Information Criterion (HQIC), Final Predictor Error (FPE) and Likelihood Ratio (LR). Lag order 5 are simultaneously generated by LR, FPE, AIC, HQIC, while the lag length generated by Schwarz Bayesian criterion (SBIC) was 4. The model is estimated using the stochastic trend assumption at lag order **5.**

Table 1: Selection-order criteria

Selection-order criteria

Sample: 1980 - 2019 Number of obs = 39

lag	LR	FPE	AIC	HQIC	SBIC
0		2578.58	10.6929	10.7006	10.7119
1	252.22	550.267	9.14828	9.16376	9.1864

2	47.927	414.43	8.86478	8.88799	8.92196
3	17.029	377.715	8.77201	8.80296	8.84824
4	8.3679	363.159	8.7327	8.77139	8.828*
5	3.9804*	358.752*	8.72047*	8.7669*	8.83483
6	.21941	362.724	8.73147	8.78563	8.86488

Source: Author's Regression Result, 2021

Unit Root Test

Granger and Newbold (1974) and Granger (1986) have demonstrated that if time series variables are non-stationary, all regression results will differ from the conventional theory of regression coefficient and will therefore be spurious and misleading. To get over this problem, we tested for stationarity of the time series data. The Augmented Dickey Fuller (ADF) test was used to investigate whether variables used in this study have a unit root or not.

Table 2: Results of Augmented Dickey Fuller (ADF) Unit Root Test

Variable	**At levels**	**1st difference**	**Order of integration**
GDP	-1.7748	7.0232**	1(1)
BC	-0.6654	-7.6460	1(1)
M_2	-2.2399	-3.6613*	1(1)
CR	-2.7220	-7.5752**	1(1)
MPR	-1.3824	-4.6553	1(1)

Source: Author's Regression Result.

Co-integration Test

In this study the co-integration test was carried out using unrestricted intercepts and no trends in Vector auto-regression using Reduced Rank Procedure developed by Johansen (1998). This method detects the number of co-integrating vectors in a non stationary time series and allows for hypothesis testing regarding the elements of co-integrating vectors. We used the maximum likelihood Eigenvalue Test to determine the number of co-integrating vectors (co-integration relationship) amongst the variables in the estimate. The Johansen Co-integration result is presented below.

Table 3: Johansen Co-integration Result.

Cointegration with unrestricted intercepts and no trends in the VAR
Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix
****

observations from 1980 to 2019. Order of VAR = 2.
List of variables included in the cointegrating vector:
GDP BCM2 CRMPR
List of eigenvalues in descending order:
.28571 .18419 .068333 .034379 .2943E-4

Null	Alternative	Statistic	95% Critical Value	90% Critical Value	
r = 0	r = 1	55.8544	33.6400	31.0200	
r<= 1	r = 2	33.7933	27.4200	24.9900	
r<= 2	r = 3	11.7495	21.1200	19.0200	
r<= 3	r = 4	5.8073	14.8800	12.9800	**Conclusion r = 2**
r<= 4	r = 5	.0048852	8.0700	6.5000	

Sources : Author Regression output

Table 3 above shows the Johansen Cointegration Test result for the GDP model. Eigen value Test indicates 2 co-integrating relationship or vector at the 5% level of significance. To determine co-integrating test, the study compare the Eigen value Test statistics to the critical value, to determine the number of co-integrating equations. If the Eigen value Test statistics is greater than the critical value there is co-integrating equation. For example at rank 1 the Eigen value Test statistics is 55.8544 greater than the critical value 33.6400. Also at rank 2 the Eigen value Test statistics is 33.7933 greater than the critical value 27.4200. Thus, the Eigen value Test statistics value tests indicate 2 co-integrating vector at the 5% level of significance.

Table 4: Regression output (GDP Model Ordinary Least Squares Estimation).

Ordinary Least Squares Estimate			
Dependent variable is GDP			
39 observations used for estimation from 1980 to 2019			
Regressor	Coefficient	Standard Error	T-Ratio[Prob]
BC	348405.3	85290.6	4.0849[.000]
MS	5.4078	.46120	11.7256[.000]
CR	42351.2	332119.9	1.2749[.215]
MPR	-87918.9	86606.5	-1.0152[.321]
CON	-1211894	1847630	-65592[.518]

R-Squared	.98176	R-Bar-Squared	.97884
S.E. of Regression	1332	F-sta.	F(5, 23) 553.4331[.0000]
Mean of Dependent Variable	1.12E+07	SD. Of Dependent Variable	1.133E+07
Residual Sum of Squares	4.09E+13	Equation Log-likelihood	-446.7722
AkaideInfo . Criterion	-446.8741	Schwarz Bayesian Criterion	-456.8741
DW-statistic	1.5211		

The Bank Credit (BC) variable has a positive sign which implies that the relationship between Bank Loan and GDP is positive. This is consistent with the theoretical expectation of the study which says increase in Bank Credit will lead increase in GDP. The value of the coefficient is positive, indicating that a unit increase cash ratio will lead to an increase in GDP by 348405.3. The probability value is .000, indicating that it is statistically significant and also based on economic theory it is significant.

The money supply variable is positively signed, indicating that there is a direct relationship between money supply (M_2) and Gross Domestic Product (GDP). This is consistent with the study a'priori expectation, which says that increase in money supply will lead to increase Gross Domestic Product (GDP). The coefficient is 5.4078; this implies that a unit increase in money supply will increase Gross Domestic Product (GDP) by commercial by 5.4078. The coefficient of the variable money supply is statistically and economically significant, with a probability value of 0.000. This in line with the a priori expectation of the study which state that increase in money supply will lead to increase GDP.

From table 2 above, the summary of the regression results shows that when the value of respective explanatory variables are held constant at zero value, the average value of Gross Domestic Product - 1211894 units.

The Cash Ratio (CR) variable has a positive sign which implies that the relationship between The Cash Ratio (CR) ratio and GDP is positive. This is not consistent with the theoretical expectation of the study, which say that increase in Cash Ratio will lead to decrease in GDP. The value of the coefficient is positive, indication that a unit increase in Cash Ratio will lead to 42351.2 increases in GDP. The probability value is .215, indicating that it is not statistically significant.

The monetary policy ratio (MPR) variable has a negative sign which implies that the relationship between monetary policy ratio and GDP is inverse. A unit increase in monetary policy ratio will lead to a decrease in GDP by -87918.9. This is consistent with the theoretical expectation of the study which says increase in monetary policy ration will lead to a decrease in GDP. The probability value is .321, indicating that it is not statistically significant.

From table 3 above, the coefficient of determination (R^2) is .97884 this implies that 98 percent of the total variation in Gross Domestic Product is explained by changes in the explanatory variables when the coefficient of determination is adjusted for degree of freedom. This implies that 2 percent is unexplained due to error term. The F-Statistic is highly significant at 5% level of significance with the pro-value of .000. Durbin Watson Statistic of 1.5211 indicates that there is absence of serial autocorrelation. Thus we can say that the model has a high goodness of fit. From table 2 above, the summary of the regression result shows that when the value of the respective explanatory variables are held constant at zero value. The average value of Gross Domestic Product - 1211894 units. This is not consistent with the a'priori expectations. The constant is expected to be positive.

Summary, Conclusion and Recommendations

5.0 Summary/Conclusion of Findings

This research work empirically examines the effects of Bank Credit on Economic Growth Nigeria, from 1980 to 2019. The research made use of secondary data which were collected from the Central Bank of Nigeria Statistical Bulletin (Various Editions).The lag criteria test was carried out, stationary test was

also carried out using ADF statistics, co-integration test was carried out to test for long run relationship. Since the co-integration test shows long run relationship, the Ordinary Least Squares Regression Techniques (OLS) was employed in the analysis of the data for the long run. The empirical test reveals the following findings:

The Bank Credit (BC) variable has a positive sign and the probability value is .000, indicating that it is statistically significant, and also economically significant. The money supply variable is positively signed, indicating that there is a direct relationship between money supply (M_2) and Gross Domestic Product (GDP). The coefficient of the variable money supply is statistically and economically significant with a probability value of 0.000. The Cash Ratio (CR) variable has a positive sign which implies that the relationship between The Cash Ratio (CR) ratio and GDP is positive. The probability value indicate that it is not statistically significant. The monetary policy ratio (MPR) variable has a negative sign which implies that the relationship between monetary policy ratio and GDP is inverse. The probability value shows that it is not statistically significant.The result of the coefficient of determination (R^2) shows that 98 percent of the total variation in Gross Domestic Product was explained by changes in the explanatory variables. The policy implication is that any time the government through the Central Bank wants to increase economic growth; it has to increase Bank credit and money supply as the most important variables that are highly statistically significant as shown by the result. For cash ratio and monetary policy rate are not statistically significant as shown by the probability value result, efforts should be made to improve them.

5.1 Recommendations

Base on the findings made in the course of this study, he following recommendations are made;

The government through the Central Bank should encourage economic growth by increasing Bank credit for investment purpose that may lead to increase in GDP and money supply should be increase that will bring about increase in economic development. The federal government should adopt an expansionary monetary policy. This will boost the Nigeria economic activities and subsequently lead to economic growth in the country.The government should also endeavor to make the financial sectors less volatile and more viable as it is in developed countries. This will allow for smooth execution of the Central Bank monetary policies. Law relating to the operation of the financial institutions could be made a bit less stringent and favorable for the operators to have room to operate more freely.The Federal Government should direct financial institution to direct their loan and advances to deficient sector so as to encourage even growth and development in the economy.

References

Akinkunmi,M.A. (2017). Determinants of Banks' Profitability in Nigeria: Does Relative Market Power Matter? *Journal of Finance and Bank Management*, 5(1), 42-53. Available at http:// doi.org/ 10. 15640/jfbm.v5n1a4.

Anyanwu, F,Ananwude,A&Okoye, N. (2017).An Empirical Assessment of the impact of Commercial bank ' Lending on Economic Development of Nigeria, *International Journal of Applied Economics Finance and Accounting*, 1(1),14-29.

Aribaba, F.O., Ahmodu, A L O., Oladele, R., Yusuff,A.S., &Olaleye, R.B. (2019). The Role of Deposit Money Bank Loan Facilities in Financing Small and Medium-Scale Enterprises in Nigeria, *Academic journal of Interdisciplinary studies*,8(2),277-284.

Awad, I.M.,& AI Karaki, M.S. (2019). The impact of bank lending on Palestine Economic Growth: an Econometric Analysis of Time Series Data, *Financial Innovation*, 5(14).

Ayman, M.,&Khalaf, A. (2017). Does banking sector performance promote economic growth? Case study of Jordanian commercial banks.*Problems and Perspectives in Management*, 15(2), 55-64.

Benson, M. O. (2017). Bank credits and its impact on Nigerian Economic Growth, *International Journal of Development Strategies in Humanities, Management and Social Sciences*, 7 (3), 39-52.

Gbadebo, A. D., Adekunle, A. O..Muritala, T., &Fadeyi, F. J. (2017). Banks Credits and Manufacturing Growth in Nigeria, *Nigerian Journal of Management Sciences*, 6(1), 227-284.

George-Anokwuru, C. C. (2018). Deposit Money Banks' credit and agricultural output in Nigeria, *journal of Economics and Management Sciences*, l(1), 230-236 retrieved 07, October, 2018 formhttp://doi.org/10.30560/jems. vlnlp230.

Innocent, I.O., Admola, O.G. & Glory, E.W. (2019).Influence of Bank Credits on the Nigeria Economy.*American& Economics & Social Review ,5* (1), Retrieved 10 October 2019 from:https://www.cribfb.com/journal/index/php/aers/article/240

Oklapo, F.T.,Ojo M.O., &Olaniyan, T.O. (2018).Deposit Money Bank's Credit to Private-Public Sectors and Economic Development Nexus: Nigeria in Focus. *International Journal of Academic Research in Business and social Sciences, 8 (5), 215-233. Available at:* http://dx.doi.or/10.6007/IJARBSS/v8-i5/4096.

Okaro,C.(2016). Deposit money banks' credit and Nigeria Economic Growth and Development (1981-2015),*NG- Journal of Social Development*, 5(5). Available at https://ssrn.com/abstract=29198097.

Okpala, N.E., Ezeanolue. U.S., &Edoko, T. D. (2018). Commercial banking and Economic Growth in Nigeria, *Open Journal of Economic and Commerce*, 1(1),68-75.

Onoh, J.O., &Nwachukwu, T. (2017).Monetare police and credit Delivery in commercial Banks-Evidence from Nigeria, *International Journal of Social Sciences and Management Research*, 3 (7).Available at: www.liardpub.orgdownloadfull-textPDF

Orimogunje, O. E. (2019). The Impact Banking Credit on Economic Growth and Inflation: The Case of Nigeria, *Journal of Business and Management* (IOSR-JBM), 21 (2. Ser.1), 32-44. Available at: www.iosrjournals.org.

Osisanwo, B.G. (2017). Financial Development and Economic Growth Nexus in Nigeria: Further Evidence from Long-run Estimates, Acta University Danubius. (*Economical*, *13*), 5-17.

Serhat, Y., Shahriya, M., Elvin, M., & Mustafa, *ö*. (2018).Determents of Profitability in the Banking www.mdpi.com/journal/economics .

Tobechi, F.A., Kevin, O.O., Micheal, O.E., Solomon S.I., Ogwuru, H.O.R., & Augustine, C.O. (2018). Seemingly Unrelated Regression Analysis of Bank Leading and Economic Growth in Nigeria, *International Journal of Economics and Financial Issue*, *Econjournal*, 8(3), 260-267.

Ubesie M.C., Onuaguluchi, I.F., &Mbah, A.M. (2017). Effect of Deposit Money Bank Credit on Small and Medium Scale Enterprises

Growth in Nigeria, *International Journal of Finance and Accounting, 6* (5), 117-132.

Usman, O.A., Alimi, A.A., &Onayemi, M.A. (2018). Analysis of Bank Intermediation activities on Economic Growth in Nigeria-a Co-integration Approach, *Journal of Accounting and Financial Management,* 4(6), 1-8 Accessed 09 October 20019 at: www.iiardpub.org.