Nigerian Journal of Management Studies
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The Impact of Banks' Credit on Agricultural Productivity in Nigeria: An Empirical Analysis

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Abstract

This study examines the impact of banks' credit on agricultural production in Nigeria by means of autoregressive distributed lag (ARDL) model using a time series data from 1981– 2016 to measure the short and the long run relationship between agricultural production, banks' credit, government expenditure on agriculture and interest rate charged on agricultural lending. The study reveals that in the short run, except for interest rate, that posted a conditional negative impact on agricultural sector performance, banks' credit and government expenditure impacted positively on agricultural sector. These statistical signs were maintained also in the long run. In the same vein, the application of the Error Correction Model (ECM) reflects that increased commercial banks' lending to agriculture will lead to increase productivity. This development thus justifies the need for increased federal government participation in facilitating funding and related activities. Basically, thesecoordinated efforts should be CBN driven via optimizing the benefits offered by Enhanced Agricultural Credit Guarantee Scheme Fund (ACGSF) and Nigeria Incentive-based Risk-sharing System for Agricultural Lending (NIRSAL etc, to de-risk the agricultural sector. Beyond these lies the unavoidable requirement to invest adequately in agricultural infrastructure.

Keywords: Banks' credit, agricultural sector, agricultural production, government agricultural expenditure, interest rate, ACGSF, NIRSAL, CBN

1.0 Introduction

Agric-sector related issues areprominent features of Nigeria's economic discussion.Following the crash in the price of crude oil which pushed the economy into recession in 2016 occasioned by the Americas' relentless desire to purse her shale oil production to its logical conclusion, the glut in the oil market, the accelerated research effort on the concern for environment have all combined to dampen the global need and consequently the demand for oil which inevitably reflected in pricing. This exposed the fragility of the Nigerian economy hence the need to diversify the economy has become inevitable.

According to the United Nations Food and Agricultural Organization production year book, agriculture was defined to include cereals, starchy roots, sugar, edible oil, crops, nuts, fruits, vegetables, wine, cocoa, tea, coffee, livestock and livestock products. Also included in the group are industrial oil seeds, tobacco, fibre, vegetable and rubber.

It is difficult to imagine a that nation so richly blessed like Nigeria with a vast arable land and good weather is facing acute food shortages occasioned by declining agricultural productivity. This has led to massive food importation with the scarce foreign earnings majorly from a source that is not sustainable in the long run. The resources that ordinarily should have been used to develop the much needed infrastructure for development are being expended on consumables which the nation has the capacity to produce in abundance.

In furtherance to the above, theimportance of agriculture in any economy especially a developing one like Nigeria cannot be overemphasized. Prior to the discovery of oil, agriculture was the main stay of the Nigerian economy. Aside providing employment to the majority of the teeming population, food security, raw material for industrial feeds and support balance of trade position, it is a sure strategy to meeting the poverty reduction goals. It thus offers a convenient platform to diversify the Nigerian economy away from almost complete reliance on oil revenue – if the agricultural programs and policies are well articulated and sufficiently funded along the entire agricultural value chain.

The challenges with agricultural production in Nigeria are many and varied.This includes access to finance, access to land, shortage of skilled personnel, poor agronomic practices, climate change and

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132
desertification, poor agricultural infrastructure, dormant research facilities, lack of storage facilities and lately herdsmen issues. This has become a source of worry to successive government.However, one critical factor in the success of any business including agriculture is the issue of access to finance. Over the years, banks have shown disdain and are apathetic to financing agriculture on account of its risk profile. Aside the fact that often times, the return does not cover the risk and the risk itself is difficult to measure on account of data unavailability, production volatility and lack of market connection. Worse still, farmers do not possess assets to secure credit request. In view of the above, banks have therefore classified agriculture as a high risk sector and accordingly "blacklisted" it. The banks do not see agricultural credits as business decision but rather a way to meeting regulatory requirement. Given this background and the need to resolve some of the problems, the government through the CBN came up with a number of initiatives to encourage banks to lend to the sector.

The Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) is one of the government publicly sponsored credit institutions established since 1973 (formerly called the Nigerian Agricultural and Cooperative Bank). In 1978, the CBN introduced Agricultural Credit Guarantee Scheme Fund (ACGSF) which guarantees up to 75 percent of all loans granted by commercial banks for agricultural production and processing. By 2006, Nigeria implemented the Agricultural Credit Support Scheme to enhance access to credit for small and medium scale farmers. Additionally, the Commercial Agriculture Credit Scheme (CACS) was introduced in 2009 to fast-track development of the agricultural sector by providing credit facilities to commercial agricultural enterprises, and to enhance national food security by increasing food supply and keeping food inflation low. In 2011, the Nigerian Government launched a new initiative, the Nigeria Incentive-based Risk-sharing System for Agricultural Lending (NIRSAL), which aims to reduce the risks in agricultural lending to farmers as well as lowering the cost of lending for banks. In 2016, the government launched the Anchor Borrowers Programme, which is being managed by the Central Bank of Nigeria and provides farmers with financial assistance through bank loans. The loan is kept in an account allowing agricultural input suppliers to be paid directly, based on the cost of supplies provided to the farmer.

The computations from CBN statistical bulletin (see Appendix 2) shows that in 1981, the Nigerian agricultural sector was availed the sum of N0.591billion in credit from the commercial banks representing 6.88% of the N8.6 billion total credit granted to the economy. In 1985, total commercial banks credit to agriculture rose further to N1.3102 billion and constituted 10.77 per cent of the overall credit by the commercial banks which stood at N12.170 billion. By 1990, total credit to agriculture rose to N4.2214 billion and represented 16.24 per cent of the overall credit of N26 billion in the economy and agricultural exposure rose further to N25.278 billion in 1995, which also accounted for about 17.49 per cent of the entire credit exposure of N144.570 billion advanced to the economy at large.

However, beginning from 2000, the share of credit to agriculture through increasing in absolute terms, has started to decline relatively. By 2000, total credit to agriculture was N41.0289 billion in 2005, constituting 2.46 per cent of the total credit of N508.3022 billion and in 2010, total commercial banks credit to agriculture had risen to N128.406 billion thereby accounting for only 1.67 per cent of the total commercial banks credit to the economy of N7,706.4 billion. By 2012, total credit to agricultural sector has risen to N316.364 billion, representing 3.9 per cent of commercial bank total credit of N8, 150billion. Agricultural credit rose again from N343.69680 billion in 2013 to N401, 911.78billion in 2014, representing 3.5 per cent of commercial banks total credit of N11, 475.2billion. In 2015, Agricultural credit again increased to N467.307billion representing about 3.4% of the total exposure of N13,222.7billon to the economy While in 2016, the commercial bank credit to agricultural sector further increased to N495.945billion which represents 3.2% of the total of N15,829.3 billion credit granted the economy at large.

Following the preceding analysis, it could be observed that though total credit to agriculture has been increasing in absolute terms but when measured in term of percentage share in total credit to the economy, it is found that the credit to agriculture constitutes an insignificant proportion of the total credit. In the 36 years period to which this study relates, the average increase in commercial bank agricultural lending in relation to the total credit granted the economy is a paltry 8.68% while the population grew by more

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132
than 145% from 73.46 million in 1980 to 180 million people in 2016. This apparent funding neglect largely explains Nigeria current food deficit position.
Thus going by the aforementioned, the objective of this study is therefore unveiled to investigate the impact of the banks' credit on the agricultural productivity in Nigeria. Specifically, this study seeks to examine the impact of bank loans, government infrastructural expenditure and borrowing cost (i.e., interest rate) on the Nigerian agricultural production and to suggest ways that banks can effectively contribute in boosting agricultural production in Nigeria.

2.0 Theoretical Framework

This section focuses on a review of two major stipulations underlying agricultural financing by banks– viz, structural hypothesis and financial liberalization hypothesis.

2.1 THE STRUCTURAL HYPOTHESIS

The theory propounded by Gerschenkron (1962), emphasizes imperfections in the banking systems and deficiencies on the demand side of financial services in the initial stages of economic development. According to him, as the relative backwardness of the economy increases, the role of the banks in industrial capital formation declines. To drive home his point, Gerschenkron categorized the countries of Europe according to degrees of historical backwardness with Britain coming first on the list as the most developed. Russia came last as the most backward and Germany midway in the classification. In a comparative developed economy like that of Britain, the role of banks in financing growth and development according to the believers of this view, was minimal because alternative sources of finance were available while in a moderately backward economy, the banks were expected to play a more prominent role as a source of capital for promoting industrialization. In the case of extremely backward or developing economies which Nigeria is inclusive, Gerschenkron argued that the economic structure of those nations would not motivate banks to supply necessary capital for industrialization courtesy relative backwardness, e.g. low standards of honesty and fraudulent bankruptcy. Apparently, our study would wish to down play an extension of this position.

2.2 FINANCIAL LIBERALIZATION HYPOTHESIS

This is associated with the work of McKinnon (1973) and Shaw (1973). The theory emphasizes that financial development would contribute most significantly to economic growth if the authorities were not to interfere in the operations of the financial institutions.According to the proponents of the theory, poor performance by banks and other financial institutions isoften attributed to interest rate regulation, ceiling on deposit and loan rates and official guidelines pertaining to lending operations. Such interferences result in a low and often negative real rate of return on financial assets and therefore inefficient savings mobilized and channeled into investment projects.
To this end, the theorists advocated a positive real interest rate and financial liberalization which would ensure an optimal financial structure for development as well as eliminating the fragmentation of market. It is on these premises that this study has chosen its exploit.

3.0 Empirical Review

There have been extensive empirical research detailed to examine the relationship between commercial banks' credit and agricultural production on one hand and agricultural financing and economic growth on the other hand – focusing mainly on emerging economies as Nigeria. For instance, Olorunsola *et al* (2017) investigated the relationship between credit to agriculture and agricultural output in Nigeria by means of nonlinear autoregressive distributed lag (NARDL) model using a time series data from 1992Q1 to 2015Q4. Results show no evidence of asymmetry in the impact of credit to output growth in the agricultural sector (positive and negative changes) in the short-run, but different equilibrium relationships exist in the long-run. The dynamic adjustments show that the cumulative agricultural output growth is mostly attracted by the impact of the positive changes in credit to agriculture with a lag of four quarters of the prediction horizon. This calls for the need for a policy on moratorium on credit administration to agricultural sector.

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132

Ali Jude Igyo, Jatau Simon, Ekpe Mary Jane (2016) examined the impact of deposit money banks' credit on agricultural output in Nigeria from 1981 to 2014 using CBN data. Unit root, Variance Inflation Factor (VIF) and Heterosckedasticity white Test were used for data diagnosis. Findings revealed that deposit money banks´ credit significantly and positively impacted on agricultural output whilst the result for Deposit Money Banks' lending rate revealed an inverse and insignificant impact on Agricultural output. Udoka and Duke, (2016) posited similar findings. Okafor et al. (2016) examined the causal relationship between deposit money banks' credit and economic growth in Nigeria over the period 1981-2014 using Vector autoregressive (VAR) Granger causality test. The findings show a unidirectional causality from private sector credit to economic growth.

Olowofeso, Adeleke and Udoji (2015) examined the impacts of private sector credit on economic growth in Nigeria for the period 2000:Q1 to 2014:Q4 using the Gregory and Hansen (1996) cointegration test to account for structural breaks and endogeneity problems. They found a cointegrating relationship between output and its selected determinants, though with a structural break in 2012Q1. Furthermore, the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate propels inhibiting growth. Toby, Adolphus and Peterside, Deborah (2014) used Annual Time series data of 1981-2010 to reveal the fact that manufacturing sector had been more favoured than agriculture in terms of credit allocation in Nigeria.The contribution of the agricultural sector to the gross domestic product in the comparative period exceeded the contribution of the manufacturing sector. The bank's risk aversion could have contributed significantly to the liquidity and funding shortages in the manufacturing and agricultural sectors.

The summarized finding shows that there exist some fair levels of concurrent andopposing opinions regarding the impact of bank lending to agricultural and by extension agro-allied industry. The researcher thus rests on the obvious facts that there are: (i) outright positive impact(ii) no impact and (iii) a divergence of short and long run impacts. Our *apriori* expectation of this study favours the positive impact of lending on agricultural productivity but equally acknowledges some snags in the way.

4.0 Methods

The study adopts both descriptive and analytical methodologies in analyzing and estimating the relevant relationships. The descriptive methodology employs statistical tools such as simple tables, percentages and correlation analysis in analyzing trend performances of the variables captured in the study and examining the degree of relationship among the variables. The analytical methodology applied in this study was the Auto-Regressive Distributed Lag (ARDL) model on the time series data from 1981 – 2016. Nevertheless, before estimating the model, the properties of the variables will be substantiated in terms stationarity and long term relationship. The econometric tools that will be used for these verifications are the Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test for stationarity and Johansen co-integration test for long term relationship given that the variable are integrated of the same order, especially order one I(1).

4.1 Sources of Data

The data for this study were basically from the secondary sources such as Central Bank of Nigeria (CBN) statistical bulletins (2010 and 2016) and CBN statement of accounts and annual reports of various years. The data were collected on annual basis from 1981-2016.

4.2 MODEL SPECIFICATION

The study specified agricultural production as a linear function of credit disbursed by commercial banks to agricultural sector, government expenditure on agriculture, and interest rate. Agricultural output as the dependent variable is being proxied by agricultural gross domestic product (AGDP). Based on these determinant factors, the model for this study is formulated and specified functionally as:

$$AGDP = f(CAGRIC, AGRICEX, INT) \text{---------- (1)}$$

Where:

AGDP = agricultural output, measured by agricultural gross domestic product in Nigeria.

CAGRIC = commercial banks' credit to agricultural sector in Nigeria

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132

AGRICEX = government expenditure on agriculture in Nigeria
INT = interest rate, represented by Prime Lending Rate
μ_t = Error term
The above model can be expressed in its estimated form as:

$$\Delta AGDP = CAGRIC_{t-1} + AGDP_{t-1} + AGRICEX_{t-1} + INT_{t-1} + \sum_{i=0}^{p} \Delta CAGRIC_{t-i} + \sum_{i=0}^{p} \Delta AGRICEX_{t-i} + \sum_{i=0}^{p} \Delta INT_{t-i} + \vartheta_{t-1} + \mu_t \text{---------- (2)}$$

The theoretical expectations about the signs of the coefficients of the parameters are:

$$CAGRIC > 0, AGRICEX > 0, INT < 0$$

5.0 Analysis and Interpretation

PRE-ESTIMATION UNIT ROOT TEST:
The properties of each of the variables were examined using Augmented Dickey Fuller (ADF)-Fisher and Philip-Perron (PP).

Table 1Result of Unit Root Test

Variables

	ADF	P-Value	PP	P-Value	Remarks
AGDP	-6.388698	0.0000	-6.378045	0.0000	I(1)
CAGRIC	-4.439742	0.0001	-4.566167	0.0000	I(0)
AGRICEX	-6.946249	0.0000	-13.44367	0.0000	I(1)
INT	-5.848776	0.0000	-9.470768	0.0000	I(1)

Source: Author's Computation from E views 9.5

I (1)-stationarity of the series at first difference.
I (0)-stationarity of the series at level.
Note: Since the stationarity of the series are of different order, at levels and first difference, ARDL model is best appropriate for the model

Table 2Bond Test (Cointegration)

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	3.777077	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

Table 3ARDL Estimation of Impact of Agricultural Credit on productivity

Variable	Coefficient	Std. Error	t-Statistic	Prob.
`1D(AGDP(-1))	0.426319	0.169592	2.513794	0.0194
D(AGRICEX)	0.021337	0.012495	-1.707717	0.1012
D(CAGRIC)	0.008591	0.005111	-1.680899	0.1063
D(INT)	-0.065481	0.040091	1.633302	0.1160
ECM(-1)	-0.585872	0.124212	-3.911650	0.0007
Long run coefficient				
AGRICEX	0.456895	0.075573	-1.851119	0.0770
CAGRIC	0.214706	0.006833	-2.152361	0.0421
INT	-0.196148	0.092110	2.020942	0.0551
C	36.912658	7.647150	6.134659	0.0000
F-Stat			26.47043	0.0000
R2	0.92		DW	1.49

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132
Table 3 above shows the Auto-Regressive Distributed Lag (ARDL) estimation of the model as specified, The result reveals that in the short run, Credit to Agric. Sector and Government expenditure on Agricultural sector have positive influence on the agricultural sector performance, while interest rate, has negative impact on agricultural sector performance even though they are not statistically significant. The long run coefficient suggests Government expenditure on Agricultural sector, Credit to Agricultural Sector have positive impact on Agricultural sector performance only interest rate has negative influence on the sector. Moreso, The Error Correction factor which shows the speed of adjustment suggest that it will take the model 58.5% to converge from short run to longrun equilibrium dynamics.
The coefficient of determinant shows that approximately 92% of the variation in the dependent variable was explained by the independent variable, and 8% is explained by other macroeconomics variables outside the scope of the study. The F-test results, Prob. (F-statistic) is 0.0000 at 1% level of significance, suggesting that the model is adequate for prediction and policy analysis. Finally the Durbin-Watson value of 1.49 suggests the absence of first serial Auto-correlation i.e. Autocorrelation is not a problem.

6.0 Discussion

While the positive impact of banks' credit on agricultural productivity has been established, it is important to acknowledge the fact that addressing this financing gap alone cannot bring about increased productivity except agricultural funding is done along the complete value chain and supplemented with quality investment in critical agricultural infrastructure and a well thought out policy reforms designed to address agricultural challenges in an holistic manner.

7.0 Summary of Findings

From the very onset, the objective of the research effort was set outto examine the impact of banks' credit on agricultural production in Nigeria by means of autoregressive distributed lag (ARDL) model using a time series data from 1981 – 2016. This was meant to measure the short and the long run relationships between agricultural production and the specified independent variables which are commercial banks' credit, government expenditure on agriculture and interest rate charged on agricultural lending. The end point of these analyses resulted in the following summarized findings:

a. The estimated result showed the existence of a significant positive relationship between commercial bank credit to agricultural sector and agricultural production in Nigeria in the long run. The result confirms theoretical proposition that finance drives economic growth and is crucial to economic development. This does buttresses the postulations ofMcKinnon and Shaw (1973) which states that financial development would contribute most significantly to economic growth if the authorities were not to interfere in the operations of the financial institutions.
b. Further, the result revealed the existence of a significant and positive relationship between government spending on agriculture and agricultural production in Nigeria in the long run. This result was also in line with theoretical expectations earlier stated. This reveals that government spending in the agricultural sector brings about a boost in the output of farmers. Thus sharing a similar position with CBN (2016)
c. However, the negative relationship between interest rate and agricultural output also confirms our expectation(Schumpeter (2011), Iganiga & Unemhilin (2011),Obilor, & Ibe (2013).This is because an increase in the rate of interest on agricultural lending will dampen farmers' morale to access credit on account of return and productivity shocks. There is therefore the need to make it possible for farmers to access finance at concessionary rate that cankeep them on the farm.

8.0 Conclusion

This paper examined the impact of banks' credit on agricultural productivity in Nigeria. The role of finance and its impact on economic growth and development is an empirically settled issue. Agriculture as an economic activity is no exception. Therefore, the hope for increased agricultural productivity has

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132
to be accompanied with right quantum of finance which the banking system is not prepared to part with on account of sectoral perception of agriculture as a high risk and low return business. Furthermore, farmers lack assets to secure credit request. It is against this backdrop that the government created incentives like the Agricultural Credit Guarantee Scheme Fund (ACGSF), Commercial Agriculture Credit Scheme (CACS), Anchor Borrowers Programme and The Nigeria Incentive-based Risk-sharing System for Agricultural Lending (NIRSAL). These programmes are designed to provide the needed guarantee to the banks and de-risk the sector in order to provide comfort and encourage them to lend to agricultural sectors. It is therefore not surprising that study result indicates a long run positive and significant relationship between agricultural credit and agricultural production in Nigeria.

Further investigation revealed that, government expenditure on agriculture has a long run positive and significant relationship on agricultural production in Nigeria. The activities of the International Fund for Agricultural Development (IFAD) are very apt. It is important that the government continue to invest in agricultural infrastructure in order to substantially reduce the cost of production and connect farmers to the market.

Lastly, the result showed a negative and significant relationship between interest rate and agricultural production in Nigeria. Agricultural sector, the world over enjoys a good element of subsidy – most particularly in the developing economy as Nigeria. It will therefore be appropriate to continue to provide credit to agricultural sector at a concessionary rate in order to bring down production cost, ease access to finance in order to positively impact agricultural production and transform its dynamics to a near self-sustaining one.

9.0 Recommendations

The following recommendations emanated from the findings of this study:

1. The positive and statistically significant relationship between commercial banks' credit to agriculture and agricultural production requires the need for government to expand and probably increase the level of guarantee that the scheme provides on agricultural credits. This will encourage the banks to increase their exposure to the agricultural sectors. The Nigeria Incentive-based Risk-sharing System for Agricultural Lending (NIRSAL) and Anchor Borrowers Programme are steps in the right direction. These programmes should be expanded and sufficient awareness created around them.
2. The positive and statistically significant relationship between agricultural expenditure and agricultural production demands substantial and quality investment in agricultural infrastructure. There is the need for investment in agricultural equipment to assist in land clearing, provision of agricultural inputs, access road to link the market, research and capacity building for farmers. The International Fund for Agricultural Development (IFAD) is doing a lot in this regard – but stands to further its frontier.
3. The negative and statistically significant relationship between interest rate and agricultural production demands that to increase agricultural production interest rate on agricultural credit has to be depressed to encourage the farmers to borrow. This of course can only come by way of subsidy as the banks would not compromise on their returns by lowering the cost of fund.
4. The Nigeria Incentive-based Risk-sharing System for Agricultural Lending (NIRSAL) initiative should be operationalized on the basis of best practices devoid of considerations other than which that will advance the Nigeria agricultural productivity. The board must design a strategy to evaluate and measure the Return on Investment (ROI) on this public expenditure in line with the objective for which the initiative was conceived.
5. The banks should develop capacity and sufficient competencies in the entire agricultural value chain business. The absence of such capacity inhibits the understanding, evaluation and measurement of inherent risks in agricultural business and as such affects the banks' ability to develop appropriate risk response

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132

6. It is highly recommended that there should be an appropriate coordination of the above mentioned independent variables so as to derive a macro-synergetic impact on the overall economy. This can be achieved by constant monitoring and fine-tuning by the monetary authorities.

10.0 Suggestion for further studies

While the study cannot claim to have exhaustively dealt with all the issues relating to the problems of financing agricultural productivity in Nigeria, it is recommended that a more critical look at the government investment in agriculture is further explored. This is because getting agriculture going in Nigeria will require a coordinated strategy comprising policy reforms, institutional restructuring, and well-targeted strategic investments to upgrade degraded rural infrastructure, boost productivity, and stimulate increased competitiveness (World Bank 2005). Therefore, before an effective investment program can be designed and implemented, however, it will be important to have a clear understanding of the current pattern of public expenditure on agriculture, taking into account not only the quantity and quality of spending, but also its degree of alignment with the Government's stated policy goals.

11.0 References

Adebiyi, M. A and Babatope-Obasa, B. (2004). Institutional framework, Interest rate policy and the financing of the Nigerian Manufacturing Sub-Sector'. A paper Presented at the AfricanDevelopment and Poverty Reduction (The macro- linkage) Conference at Lord Charles Hotel Somerset West, South Africa. 13th –15th Oct.

Adediran, O. & Obasan, K (2010). The role of industrial sector in the economic development of Nigeria. *Journal of Management and Society*, 1 (2), 9-16.

Ali Jude Igyo, Jatau Simon, Ekpe Mary Jane (2016) Financial intermediation and agricultural output in Nigeria: An Impact Analysis of Deposit Money Banks' Credit. *International Journal of Agricultural Economics*. Vol. 1, No. 1, pp. 16-25.

Anyanwu, A.C., Anyanwu, B. O. and Anyanwu, V, A. (1979) *Agriculture: its importance and development*. Africana Educational Publishers Nigeria

Anyanwu, C.M. (2010), "An Overview of Current Banking Sector Reforms and the Real Sector of the Nigerian Economy", *Central Bank of Nigeria Economic and Financial Review*, 48 (4), 31-56.

Eyo, E. (2008), "Macroeconomic Environment and Agricultural Sector Growth in Nigeria", *World Journal of Agricultural Sciences*, 4(6), 781-786.

Gerschenkron, A. (1962). *Economic backwardness in historical perspective*, Cambridge, M. A.: Belknap Press.

Hashim, Y. A. (2012). Impact of Financial Intermediation on the Growth of Real Sector of the Nigerian Economy. Being a Thesis submitted to the Post Graduate School, Ahmadu Bello University, Zaria, in partial fulfillment of the requirements for the award of the degree of Master of Science (M.Sc.) in Business Administration- unpublished

Iganiga, B.O., Unemhilin, D.O. (2011). The impact of federal government agricultural expenditure on agricultural output in Nigeria. *Journal of Economics*; 2(2): 78-88

Mckinnon, R.I. (1973). *Money and Capital in Economic Development*, Brookings Institution; Washington D.C.

Mike, J. (2010), "Banking Sector Reforms and the Manufacturing Sector: The Manufacturers Association of Nigeria Perspective" *Central Bank of Nigeria Economic and Financial Review*, 46(4), 57-65.

Muftau, A. I. (2003), "Commercial Bank Credit to the Agricultural Sector and the Nigerian Economy: An Analysis of the Future Trend" Advances in Management, 3(1), 86-94.

Nwanyanwu, O.J. (2011), "An Analysis of Banks' Credit on the Nigerian Economic Growth (1992-2008)", Jos *Journal of Economics*, 4(1), 43-58.

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 124-132

Obilor, Sunny Ibe (2013). The impact of commercial banks' credit to agriculture on Agricultural development in Nigeria: An Econometric Analysis. *International Journal of Business, Humanities and Technology*. 3 (1), 85-95

Ogen, O. (2007), "The Agricultural Sector and Nigeria's Development Comparative Perspectives from the Brazilan Agro-Industrial Economy, 1960-1995", Nebula, 4(1), 184-194.

Okafor I. G., Ezeaku, H. C., and Ugwuegbe, U. S. (2016). Relationship between Deposit Money BankCredit and Economic Growth in Nigeria under a VAR G-Causality Environment. *IOSR Journal of Economics and Finance*, Volume 7, Issue 2. Ver. III: 41-46

Olokyo, F. O. (2011),"Determinants of Commercial Bank Lending Behaviour in Nigeria", *International Journal of Financial Research*, 2(2), 61-72.

Olorunsola E. Olowofeso, Adeyemi A. Adeboye, Valli T. Adejo, Kufre J. Bassey and Ochoche Abraham (2017) "Agricultural Sector Credit and Output Relationship in Nigeria: Evidence from Nonlinear ARDL". *CBN Journal of Applied Statistics* Vol. 8 No. 1: 101-122

Olowofeso E. O., Adeleke A. O. and A. O. Udoji (2015). Impact of Private Sector Credit on Economic Growth in Nigeria. *The CBN Journal of Applied Statistics* Vol. 6 No. 2: 81-101

Shaw, E. S. (1973). *Financial Deepening in Economic Development*. Oxford University Press, New York.

Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, Mass: Havard University Press.

Schumpeter, J. A. (1911). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and Business Cycle*, Cambridge Mass: Harvard Univ. Press.

Toby, Adolphus J. and Peterside, Deborah B. (2014). "Analysis of the role of banks in Financing the agriculture and manufacturing sectors in Nigeria"*International Journal of Research in Business Management*; 2(2):9-22.

Udoka, C. O., Mbat, D. O. and Duke, S. B. (2016). "The Effect of Commercial Banks' Credit On Agricultural Production in Nigeria", *Journal of Finance and Accounting*, 2016, Vol. 4, No. 1, 1-10. DOI: 10.12691/jfa-4-1-1

Were, M., Nzomoi, J. and Rutto, N. (2012). "Assessing the Impact of Private Sector Credit on Economic Performance: Evidence from Sectoral Panel Data for Kenya" *International Journal of Economics and Finance*, 4(3), 182-190