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An Empirical Study of Agricultural Financing and Its Implication on Rural Poverty Alleviation in Nigeria

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Abstract: The study analyzed the implication of agricultural financing on rural poverty alleviation in Nigeria. The agricultural financing indicators considered as independent variables include government expenditure to agriculture sector, commercial bank credit to agriculture sector, agriculture sector guarantee scheme fund loan to agriculture sector, lending rate loan to agriculture sector. The independent variable for economic growth is considered as real gross domestic product. The data was sourced from central bank of Nigeria (CBN) Statistical Bulletin and it was analyzed using multiple regression analysis. The result revealed that government expenditure to agricultural sector has positive and insignificance effect on gross domestic product in Nigeria, commercial bank credit to agricultural sector has positive and significance impact on gross domestic product in Nigeria, Agricultural sector guarantee scheme fund loan to agricultural sector has positive and significance impact on gross domestic product in Nigeria. It was recommended that government at all level should increase their allocation to the agriculture sector of the economy to enhance the performance of the sectors.

Keywords: Agricultural Financing, Rural Poverty Alleviation, Real Gross Domestic Product, Government Expenditure, Agricultural Sector

1. INTRODUCTION

The role of finance in agriculture, just like in the industrial and service sectors, cannot be over-emphasized, given that it is the oil that lubricates production.

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Public expenditure on agriculture has however been shown not to be substantial enough to meet the objective of the Government agricultural policies, For a developing country with a mono-product oil economy such as Nigeria's, inadequate financing of agriculture portends great danger for many reasons (Badiene, 2008). Government budgetary allocation towards agriculture has consistently been inadequate and short of expectations despite the assumed interests of the respective governments in the past years. For example, only 4% of the federal government's annual total budget has been consistently allocated to agricultural sector since 2006 (Sanusi, 2011). Bank of Agriculture is another good example where the share capital is only 41% paid up by the government despite its 40 years of existence. Solution, among others, is for the government to be alive to its responsibilities and stop the wave of lip services, unfulfilled promises, policies and poor implementations thereof. A case in point is the 2003 African Union Maputo Declaration (AUMD) where it was decided and agreed that member countries should increase their investment in agricultural sector to at least 10% of their national budget by the year 2008. Nigeria is a top member of AUMD and 5 years after the deadline, she is yet to comply with that international agreement.

However, a lot of Nigerian farmers, particularly small holder farmers, are not aware of the ACGSF. The issue of corruption is also another important factor; funds made available for rural farmers as loans so often than not can be diverted to industrial use by top government officials (Ida, 2009). Despite the huge potentials of agriculture in Nigeria, the impact of the sector on poverty reduction and self-sufficiency is perhaps very low. Although, several reasons could be deduced for this development, prominent among them are; the poor private investment in agriculture, inadequate access to assets and resource and poor technology as well as epileptic power supply in the country. The neglect of agriculture is partly the result of an assumption that agriculture is inherently an inferior sector, whose share in the economy is certain to decline as the economy grows. While the falling share of agricultural GDP and employment are statistical facts that can be observed inthe developed and developing economies, these facts do (Dim, 2013). Finance, no doubt, is strategically important in the revival and growth of agriculture but equally important are the other factors of production from which finance cannot be isolated if it was to be effective and efficient. In the light of the above challenges, poor macroeconomic policy stands out as a factors. Management of the resources and infrastructures namely, funds, roads, power, farm produce, marketing and pricing, etc. Resuscitation and management of the commodity boards, efficient storage facilities without overlooking the value added chain possibilities should also be looked into. But, more importantly is the issue of policy somersaulting, inconsistence, and especially, corruption (Eboh, 2012).

Having realized the declining role of agriculture to economic development, the government over the years has put in place certain policy measures and programmes with a view of increasing the contribution of agriculture to economic development. However, a peep into the federal government capital expenditure on agriculture as a ratio of the total federal government capital expenditure, it portraits a gloomy future for the sectors development in the country. From 1980 to 2011, the federal government capital expenditure on agriculture were below 10% except in the following years; 1981, 1982, 1983 (the highest), 1985, 1986, 2001, 2002, 2004, 2005, 2007, 2008 and 2009 because these were the years that coincides or the year after with different government agricultural development policies and programmes such as the Green Revolution in 1980, the structural adjustment programme (1986), The Directorate of Foods, Roads and Rural Infrastructure (1987) although it was 5.7% but increased to 7.1% the following year, food for all programme in 1987, the better life for rural women programme also in 1987, the Rural Agro-Industrial Development Scheme (Gollin, 2002). Hence, the study examined the implication of agricultural financing on rural poverty alleviation in Nigeria The broad objective of the study is to examine implication of agricultural financing on rural poverty alleviation in Nigeria.

2. CONCEPTUAL FRAMEWORK

Agricultural financing is the financing of agriculture-related activities, from production to market. It refers to financial services ranging from short-, medium- and long-term loans, to leasing, to crop and livestock insurance, covering the entire agricultural value chain - input supply, production and distribution, wholesaling, processing and marketing (Tiffin, 2012). Agriculture finance refers to (public or private) resources (in form of equity, gift or loan) for improving social welfare through development of agricultural sector (Shreiner and Yaron, 2011). It encompasses not only government funds but also funds of non-governmental organizations that use matching grants to attempt to promote community and sector development, income equality and local empowerment. The study by Adesina (2016) stated that agriculture finance provides an increased productivity, economic sustainability, poverty reduction, business opportunities, institutional changes, innovation incentives and improvement of economic growth in Nigeria.

Shreiner and Yaron (2011) define agriculture credit refers to (public or private) resources (in form of equity, gift or loan) for improving social welfare through development of agricultural sector. It encompasses not only government funds but also funds of non-governmental organizations that use matching grants to attempt to promote community and sector development, income equality and local empowerment. Public funds are subsidized funds and private funds regardless of their price, are not subsidized, unless a contribution is tax free or the market price is affected by an explicit or implicit state guarantee of the liabilities of a development finance institution. The agricultural credit/finance can be divided into the non-debt (non—leverage) and debt (leverage) categories.Agricultural financing is the financing of agriculture-related activities, from production to market. It refers to financial services ranging from short-, medium- and long-term loans, to leasing, to crop and livestock insurance, covering the entire agricultural value chain - input supply, production and distribution, wholesaling, processing and marketing. Whereas financing may take various forms, our main concentration in this study is financing through borrowed funds, that is, credit (Sandri, 2007).

Agricultural credit can be defined as the mobilization of resources at all levels in order to increase production and productivity in agriculture and to enhance the productive capacity. Agriculture credit in an emerging world could have positive effects on the growth of gross domestic products, which translates to the entire economy's wellbeing. Agriculture credit/finance brings about growth and it solves the problems militating against the agriculture sector's productivity (Wiggins, 2009). Economic growth is define as "a long term rise in capacity to supply increasingly diverse economic goods to its population; this growing capacity is based on advancing technology, and the institutional and ideological adjustments that it demands" (Todaro, 1992). This definition implies that economic growth is synonymous with a sustained rise in national output, provision of wide range of economic goods, presence of improved technology and institutional, attitudinal and ideological adjustments.

3. THEORETICAL FRAMEWORK

Commercial loan theory of liquidity was propounded by Adam Smith in1776. Commercial loan theory state that the bank liquidity that is short-term loans advanced to finance salable goods on the way from producer to consumer are the most liquid loans the bank can make. These are self-liquidating loans because the goods being financed will soon be sold. The loan finances a transaction and the transaction itself provides the borrower with the funds to repay the bank. According to Adam Smith these loans are liquid because their purpose and their collateral were liquid. The goods move quickly from the producers through the distributors to the retail outlet and then are purchased by the ultimate cash-paying consumer (Aliyu, 2002). The study was rooted on Commercial loan theory. Multiple lending theory was propounded by Jeses in 1976. Multiple lending theory state that banks should be less inclined to share lending (loans syndication) in the presence of well developed equity markets and after a precise consolidation. Both outside equity, mergers and acquisitions increase banks' lending capacities, thus reducing their need for greater diversification and monitoring through share lending (Ewubare, 2016). This theory has a greater implication for banks in Nigeria in the light of the 2005 consolidation exercise in the industry. In this line of argument, the classical system views the interest rate, exchange rate, deposit rate, and financial ratio of banks as strong and uncompromising factors that determines granting of loans and advances to private individuals and corporate organisations. This is called the real theory of interest rate. This is because these factors do not in any way depend on monetary conditions. Meanwhile, in the classical system, the supply of capital is the same as saving (Baghebo, 2011).

4. EMPIRICAL REVIEW

Agugo (2021) analyzed the implication of agricultural financing on rural poverty alleviation in Nigeria.The agricultural financing indicators considered as independent variables include government expenditureto agriculture sector, commercial bankcreditto agriculture sector, agriculture sector guarantee find loan to agriculture sector, lending rate loan to agriculture sector. The independent variable for economic growth is considered as real grossd omestic product. The study adopted ex-post facto research design. The data was sourced from central bank of Nigeria. (CBN) Statistical Bulletin and it was analyzed using multiple regression analysis. The result revealed that government expenditure to agriculture sector has positive and insignificant effect on gross domestic productin Nigeria, commercial bank credit to agricultural sector has positive and significance impact on gross domestic productin Nigeria, Agricultura lsector guarantees chemefund loan to agricultural sector has positive and significance impact on grossd omestic productin Nigerian and that lending rate loan to agricultural sector has negativean dsigni ficance impact on gross domestic productin Nigeria.It was recommended that government at alllevel should increase their allocation to the agriculture sector of the economy to enhance the profane of the sector.

Oyakhilomen and Zibah (2014) conducted a study on the relationship between agricultural production and the growth of Nigerian economy with focus on poverty reduction. Time series data were employed in this research and the analyses of the data were done using unit root tests and the bounds (ARDL) testing approach to cointegration. The result of the data analysis indicated that agricultural production was significant in influencing the favourable trend of economic growth in Nigeria, Despite the growth of the Nigerian economy, poverty is still on the increase and this calls for a shift from monolithic oil-based economy to a more plural one with agriculture being the lead sector. It was recommended that pro poor policies should be designed for alleviating rural poverty through increased investments in agricultural development by the public and private sector. Oluwasegu, Toluyemi and Opeyemi (2016) conducted a study on various investment options in the agricultural sector and their implications on poverty reduction in Nigeria. The study adopted a time series econometrics analysis based on two models while Cobb-Douglas Production Function forms the theoretical underpinning. The two models have the Agricultural Sectors Share on GDP (Qt) and the annual poverty rate (PRt) as dependent variables respectively. Time series secondary data from 1985 to 2012 were used for this analysis. The test for stationarity (unit root test) indicates all the variables were stationary at first difference; this suggests a short-run disequilibrium among the variables. Hence, the Johansen cointegration test was conducted to ascertain the existence of long run relationship among them. Hence, Error Correction Model (ECM) was laterintroduced. The lag effects of Capital, Labour and ACGS were found to be statistically significant at reducing poverty level in the current year. The study therefore recommends that; private investment in agricultural sector should be given a considerable boost via the expansion of credit facilities under ACGS, public investment in the agricultural sector should be diverted toward provision of infrastructural facilities, procurement of fertilizers and agrochemicals and labour intensive method of production should be pursued because of the higher labour sensitivity to productivity which is also found to reduce poverty by one year lag period, this may not be unconnected to its capacity to curb the massive youth unemployment in the country.

Christopher, Ugochukwu and Okon (2017) conducted a study to examined the agricultural financing policies of the government of Nigeria and effects on rural development. The study found that though the government has made serious efforts at making good agricultural policies through schemes, programmes and institutions, it has not been able to back them up with adequate budgetary allocation and financing coupled with corruption in the execution of the policies. It is recommended that for the government agricultural financing policies to achieve its target of rural development, Nigeria will need an adequate level of strategically targeted investment in agriculture, upgrade rural infrastructure, boost productivity, and increase competitiveness of the farm output, in addition to fighting corruption. Mallum (2016) conducted a study on review of agricultural finance policies and the role of credit on agricultural development in Nigeria. It is well known that agricultural financing is the life-blood and nerve centre of agri-business enterprise with which all other inputs would be procured. It is in recognition of the role of finance in agricultural production that the Nigerian government has over the years formulated agricultural finance policies, programmes and institutions meant to encourage food production and better the lives of farmers. These agricultural finance policies, programmes and institutions are highlighted and discussed. The role of credit in agricultural development is crucial and its constraints can affect farmer's investment behaviour. It is found that loan beneficiaries often obtain more farm income than nonbeneficiaries. Generally, small scale farmer's low access to credit facility is due to the requirement for collateral and the perceived high risk and uncertainty of agricultural production. The paper recommends that since farmers constitute the majority of population of Nigeria, they deserve government attention through the provision of incentives, particularly finance, in the form of credit. It is also recommended that policies geared toward diversification of agricultural credit activities should be encouraged in order to minimize risk and specialised staff should be allowed to handle loans granted to farmers so as to avoid default.

Akinola (2013) conducted a study to analyse the performances and achievements of the ACGSF; BOA Ltd and the most recent CACS since their respective establishments about 40years ago. These are some of the Federal Government initiated policies, schemes and institutions established to ensure adequate funding of agricultural subsector of the economy with a view to sustaining agricultural and economic revival and growth. Its revival and development has been affirmed as one of the factors that could enhance the economic growth and resuscitation of the nation's wellbeing which is still far from being achieved despite her oil wealth. Using mainly, the secondary data sourced from the reports of these institutions, the CBN, journals, interviews and presentations of various stakeholders, the study concluded that though important as a factor of production, finance per se, cannot work in isolation of other factors to successfully achieve the much expected result in agricultural sector. These identified factors include among others, policy inconsistency and somersaults, absence of commodities marketing and pricing institutions, lack of effective and adequate storage, inadequate insurance coverage and more importantly, corruption. Okezie and Njoku (2015) examined the relationship between Nigeria government expenditure on the agricultural sector and its contribution to economic growth, using time series data from 1980 to 2011, obtained from the Central Bank of Nigeria Annual Report and Statement of Account, Journal of Food Research and Federal Office of Statistics. It employs the Engle-Granger two step modeling (EGM) procedure to cointegration based on unrestricted Error Correction Model and Pair wise Granger Causality tests. From the analysis, our findings indicate that agricultural contribution to GDP (Gross domestic product) and total government expenditure on agriculture are cointegrated in this study. The speed of adjustment to equilibrium is 88% within a year when the variables wander away from their equilibrium values. Based on the result of granger causality, the paper concludes that a very weak causality exist between the two variables used in this study. Therefore, the policy implication of these findings is that any reduction in government expenditure on agriculture would have a negative repercussion on economic gro'Ath in Nigeria.

Obansa and Maduekwe (2013) conducted a study to investigate the impact of agriculture financing on economic gro'Ath appears more imperative for Nigeria. This paper employed secondary data and some econometric techniques such as Ordinary Least Square (OLS); Augmented Dickey-Fuller (ADF) unit root test; Granger Causality test. The results of the various models used suggest that there is bidirectional causality between economic growth and agriculture financing; and there is bidirectional causality between economic growth and agricultural growth. It further suggests that productivity of investment will be more appropriately financed with foreign direct private loan, share capital, foreign direct investment and development stocks. And also capital-output ratio be more appropriate financed with multilateral loan, domestic savings, Treasury bill, official development assistanç foreign direct investment and development stock. It is recommended that maintenance of credible macroeconomic policies that is pro-investment; and debt-equity swap option are necessary for a agricultural-led economic growth. Nwankwo (2013) conducted a study on agricultural financing in Nigeria and its implications on the growth of Nigerian economy using ordinary least square method and quantitative research design. The study observed that there is significant relationship between agricultural financing and the growth of Nigerian economy and that the level of loan repayment rate over the years has indeed negatively impacted significantly on the growth of Nigerian economy. The result has an important implication in terms of policies that will enhance economic growth through agricultural financing. We therefore recommend that, having seen that there is long run relationship between NACRDB agricultural financing and economic growth in Nigeria. There is need to increase the level and size of NACRDB agricultural loan through the reduction of interest rate to allow for more economic development in the country

Kamil, Sevin and Festus (2017) conducted a study to examine the impact of agricultural sector on the economic growth of Nigeria, using time series data from 1981 to 2013. Findings revealed that real gross domestic product; agricultural output and oil rents have a long-run equilibrium relationship. Vector error correction model result shows that, the speed of adjustment of the variables towards their long run equilibrium path was low, though agricultural output had a positive impact on economic growth. It was recommended that, the government and policy makers should embark on diversification and enhance more allocation in terms of budgeting to agricultural sector. Agbaeze and Onwuka (2013) conducted a study on the Financing of Agriculture in Nigeria: The CapitalMarket Option. However, a major challenge facing many developing countries, especially in Africa, is devising appropriate development strategies that will capture the financial services requirements of farmers who constitute about 70 percent of the population. In fairness, the Federal Government of Nigeria has instituted various policies to achieve this aim, including a commercial bill financing scheme; regional commodity boards (later called national commodity boards); an export financing and rediscount facility (1987); the Nigerian Agricultural Cooperative and Rural Development Bank Ltd; Community Banks, People's Bank; the Agricultural Credit Guarantee Scheme Fund (ACGSF); and the Small and Medium Enterprises Equity Investment Scheme among others. In retrospect, these policies have impacted minimally in improving agricultural production in Nigeria. This paper therefore takes a cursory look at agricultural financing in Nigeria, presenting the capital market source of funding as a viable option for financing agriculture by all tiers of government in Nigeria. The capital market option if pursued will provide the much needed long tenn financing for accelerated agricultural development.

Egwu (2016) conducted a study to examine the impact of agricultural financing on agricultural output, economic and poverty alleviation in Nigeria. In an attempt to do this, ordinary least square regression technique was employed in which T-test, R-Square, Standard Error Test and Durbin Watson test ADF/PP unit root and cointegration test were used in the data analysis. The research findings revealed that Commercial Bank credit to Agricultural sector (CBCA) and Agricultural credit Guarantee Scheme Fund Loan to Nigeria's Agricultural sector (ACGSF significant to Agricultural sector output percentage to gross omes (ASOGDP) the dependent variable, thereby alleviated the poverty rate and induced to economic growth in Nigeria, that there exist a longrun relationship among the variables in Nigeria under the study period. In the light of the research findings, the researcher recommended that there is the need for the Central Bank of Nigeria to reduce the cash-reserve ratio. However, funds that accrue from such policies must be added to the agricultural credit portfolios. There is the need to review the land use decree to enable Nigerians have free access to land. This will consequently increase the farmers that could eventually serve as collateral for credit facilities from the banking system. Finally, agricultural commercialization has been found in the study to be of high significance. To this extent, there is need for government to put in place policies to stimulate agricultural commercialization through cooperative system, agricultural subsidies and zero-tariff for importation of agricultural inputs.

Onukwuru and Ekine (2018) examine the effect of deposit money banks credit on agricultural sector performance in Nigeria from 1986 to 2016. The data for the empirical analysis was sourced from secondary data sources various issues of the CBN statistical bulletin. The study used agricultural sector output (ASP) to proxy agricultural sector performance as the dependent variable whereas Deposit Money Banks' Credit to Agricultural Sector (BCA) was the major explanatory variable while Interest Rate (INR) and Government Expenditure on Agriculture (GEA) are the check regressors as to enhance the explanatory power of the model. The study employed descriptive statistic, Ordinary Least Squares (OLS), unit root test, co-integration and ECM methods of analysis as the analytical tools. The results revealed that there is no co-integrating (or long run) relationship between deposit money banks' credit agricultural sector and the performance of agricultural sector in Nigeria during th period of study; Deposit money banks' credit to agricultural sector (BCA) had positive and a significant impact on Agricultural Sector performance (ASP); Interest Rate (INR) had a negative insignificant relationship with Agricultural Sector performance (ASP). Also, the study revealed that government expenditure on agricultural sector (GEA) had a positive insignificant relationship on Agricultural Sector performance (ASP). Consequent upon the above, it is recommended that efforts should be made by the government and private individuals to encourage or increase investment in the agricultural sector. The lending rate on loans to the agricultural sector should be reviewed and fixed at a rate that would encourage farmers to acquire loans from deposit money banks.

Mulubrhan and Nathaniel (2017) conducted a study on the factors that hinder or accelerate agricultural productivity. Additionally, we seek to understand whether agricultural productivity, measured using land productivity, improves household consumption growth using nationally representative Living Standards Measurement study - Integrated surveys on Agriculture (LSMS-ISA) panel datasets from Nigeria, merged with detailed novel climate and bio-physical information. The results show that agricultural productivity is positively associated with labor and farm inputs. Consistent with the inverse land size-productivity relationship so often observed in the literature, land productivity decreases with increasing farm size. We also find that climate risk and bio-physical variables play a significant role in explaining agricultural productivity. Moreover, agricultural productivity has a positive impact on household consumption growth. The results also indicate that while agricultural productivity has a positive impact on welfare growth for non-poor households, it has a negative impact for poor households. Michael (2016) conducted a study on Achieving Sustainable Economic Development in Nigeria through Financial Inclusion in the Agriculture Sector. It was observed that financial inclusion in the Nigerian agriculture sector can be used to achieve sustainable development. The study recommends the siting of more financial institutions in rural areas and financial discipline, amongst others, as measures to achieve financial inclusion in the agricultural sector. Adetiloye (2012) conducted a study on the provision of credit to agricultural sector along with the performance of the ACGSF while at the same time evaluating the food security status of Nigeria. It adopts the available data for the period 1978 to 2006 because of data uniformity. It finds out that though credit to the agricultural sector is significant it has not been growing relative to the economy. The ACGSF settled claims are negatively significant and the tardiness is observed in the claims process. The food security aspect shows that that Nigeria is food insecure as the import of food is on the rise as the tests show. Among the recommendations made to improve the current situation includes further enlightenment campaigns to bring the youth into agriculture and the management of the ACGSF by professional

Agbada (2015) conducted a study to examine Agricultural financing and optimising Output for sustainable economic development in Nigeria. Agricultural financing is proxied by the endogenous components of government secured Agricultural Credit Guarantee Scheme (ACGS) loans and output is proxied by Gross Domestic Produ Data were sourced from CBN statistical bulletin, 2012 and analysed using Multiple Regression techniques. Research findings indicate that though there is a positive relationship between ACGS funds and Output growth in Nigeria, the trends in their growth rate as revealed by their graphs is not commensurate. The graphs characteristics suggest that Agricultural sector contribution to GDP growth was very minimal during the period under review. However, other statistical parameters passed the test of significance. We therefore conclude that there is a positive relationship between the variables though it appears insignificant. We recommend that Government should take proactive decisions by making deliberate efforts to improve the finances of stakeholders in the Agricultural sector rather than just policies. Also, we recommend that regulatory authority surveillance on sectorial credit allocation by banks should be strengthened considering the consequences and implications of the shortage of food production for domestic consumption, earnings from Agricultural exports and the adverse effects on the living standard of citizenry.

Asogwa and Ochoche (2014) conducted a study on agricultural credit in Benue State, Nigeria. Data were collected from 130 randomly sampled peasant farmers in Benue State using a structured questionnaire. Descriptive statistics and inferential statistics were used to analyse data collected. The study showed that majority of the farmers (69.23%) had access to agricultural credit. Majority of the farmers (42.22%) accessed amount of credit ranging between 5,000 and less than 50,000 Naira. The predominant source of credit among the respondents was money lending (44.44%). The result of the binary logistic regression showed that at 5% level of significance, age, farm investment, access to extension services, household size, awareness, education, farm size, membership of cooperative society had significant influence on access to agricultural credit among rural farmers in the study area. Delay in approval/disbursement (supported by 52.31% of farmers), credit and lack of collateral security (supported by 52.31% of farmers) constituted the most limiting constraint to sourcing agricultural credit among the respondents. Efforts should be made to create more awareness about the existence of formal agricultural credits for agricultural production among the peasant farmers. The farmers should also be enlightened on how to go about accessing agricultural credit facilities. There should be a deliberate policy to ensure that peasant farmers have access to adequate credit facilities. Efforts should be made to improve the access of peasant farmers to relevant extension services as this would help increase their access to credit facilities. In addition, more rural farmers should be encouraged to join cooperative associations as this can increase their chances of accessing formal agricultural credit.

Awotide, Abdoulaye and Manyong (2015) conducted a study on the impact of access to credit on agricultural productivity in Nigeria using the Endogenous Switching Regression Model (ESRM)). The first stage of the ESRM reveals that total livestock unit and farm size are positive and statistically significant in determining the farmers' access to credit. The second stage reveals that total livestock unit and farm size are negative and statistically significant in explaining the variations in cassava productivity among the farmers that have access to credit, while household size, farm size, and access to information assets are negative and statistically significant in explaining the variation in cassava productivity among the farmers without access to credit. Access to credit has a significant positive impact on cassava productivi Thus, credit institutions should consider boosting their credit services to rural farminé households in order to guarantee that more households benefit from it.

Evbuomwan and Fankun (2017) conducted study on aimed at evaluating agricultural financing, policies, programmes and initiatives for a sustainable development in Nigeria, from 1990-2014, covering a period of 25 years. The dwindling oil prices in the international market necessitate the needs for diversification of the economy, into agriculture for a sustained development in Nigeria. Data for the study were the secondary ones, sourced from the Central Bank of Nigeria (CBN) Statistical Bulletins, Annual Report and Statements of Accounts, Bullion, The Economic and Statistical Review of National Planning Commission, conferences Journals and Publications, World Bank and United

Nations publications and text books, using the descriptive and inferential techniques. The findings of the study show that Nigerian Government failed to show enough commitments to agricultural activities for its development towards realization of agricultural sustainable development. This is evident in lack of meeting the minimum 10% and 25% budgetary allocation to agriculture as stipulated by Maputo declaration and the Food and Agricultural Organization. It was also found out that commercial bank credits to total credit were too low. There were too many agricultural policies and initiatives that were not matching to actions. Giving the importance of agriculture to any economy,(provision of food, foreign Earnings, creation of jobs etc) the study recommends the following among others; complying with the minimum 10% and 25% minimum agricultural budgetary allocation to agriculture, Government should match words with actions as regards agricultural policies and initiatives, improve investment in agricultural equipment and other inputs to guarantee the achievement of agricultural sustainable development in Nigeria.

Uma and Eboh (2013) conducted a study on effect of agriculture on Nigeria's economic growth from 1970-2009. It examined the influence of output of various types of agricultural practices on real gross domestic product (Rgdp), a proxy for economic growth. Data for the study were sourced from the Ade (2016). Augmented DickeyFuller and Phillips Perron tests were carried out to test for unit-root and Johansen cointegration test confirmed a long-run relationship of the dependent and independent variables. Error correction model was established. The method of ordinary least square was employed in the data analysis. The study found that the contributions of crop production, livestock and fishing on economic growth were statistically insignificant. Only forestry contributed significantly to growth at the period of study. However, the combined effect of the variables was significant. On this note, among the recommendations made are that it is imperative for the federal, state and local governments to establish integrated agriculture in all the wards in each local government; corruption should be tackled, and there is need for emulation of the radical reform of food production adopted by the Chinese government.

Udoka,Stephen and Mbat (2016) conducted a study to examine the effect of commercial banks' credit on agricultural output in Nigeria. Four research hypotheses were formulated to guide and direct the study. The ex-post facto research design was adopted for the study. Data for the study were collected from published articles and the Central Bank of Nigeria Statistical bulletin. To estimate the specified equation, the ordinary least squares regression technique was employed, Based on the obtained, the following result arose; the estimated results showed that there was a positive and significant relationship between agricultural credit guarantee scheme fund and agricultural production in Nigeria. This means that an increase in agricultural credit guarantee scheme fund could lead to an increase in agricultural production in Nigeria; there was a positive and significant relationship between commercial banks credit to the agricultural sector and agricultural production in Nigeria. This result signified that an increase in commercial banks credit to agricultural sector led to an increase in agricultural production in Nigeria. Again, there was a positive and significant relationship between government expenditure on agriculture and agricultural production in Nigeria and a negative relationship between interest rate and agricultural output also confirmed theoretical postulations. This is because an increase in the rate of interest charged farmers for funds borrowed discouraged many farmers from borrowing and thus less agricultural investment. The study recommended that the positive effect of agricultural credit guarantee scheme fund on agricultural production called for the proper funding of the scheme by the government. To this end, there was the need for the government to continue to guarantee loans lent to farmers as this would encourage the banks to lend more to farmers.

Odetola and Etumnu (2014) conducted a study on the contribution of the agriculture sector to economic growth in Nigeria using the growth accounting framework and time series data from 1960 to 2011. We find that the agriculture sector has contributed positively and consistently to economic growth in Nigeria, reaffirming the sectors importance in the economy The contribution of agriculture to economic growth is further affirmed from a causality test which showed that agriculture growth Granger causes GDP growth, however no reverse relationship was found. The resilient nature of the sector is evident in its ability to recover more quickly than other sectors from shocks resulting from disruptive events e.g. civil war (1967-70) and economic recession (1981-85) periods. We also find that the crop production subsector contributes the most to agriculture sector growth and that growth in the agriculture sector is overly dependent on growth of the crop production subsector. This indicates the importance of this subsector and probably, lack of attention or investment to the other subsectors. Therefore, increased efforts in developing the livestock, fisheries and forestry subsectors will foster the contributions of agriculture sector to the Nigerianeconomy.

5. METHODOLOGY

The researcher adopted the model as stated by Egwu (2016). Hence, Egwu (2016) model is stated below:

$$GDP = F\ (CBCA, ACGSF, ASOGDP) \qquad 3.1$$

$$GDP = p_0 + P_1CBCA + p_2ACGSF + p_3ASOGDP + U_t \qquad 3.2$$

Where;

GDP = gross domestic product

CBCA= Commercial Bank Credit to Agricultural sector

ACGSF = Agricultural Credit Guarantee Scheme Fund Foan to Nigeria's

Agricultural sector

ASOGDP = Agricultural sector output percentage to gross domestic product
β_0= intercept, β_1-β_3= parameter estimate, Ut = stochastic variables

The model for the study is specified below;

$$RGDP = F\ (GEAS, CBCAS, ASGS, FRFAS) \qquad 3.3$$

The mathematical regression model for the equation above is transformed to the econometric model: thus:

$$RGDP = \beta_0 + \beta_1GEAS + \beta_2CBCAS + \beta_3ASGS + U \qquad 3.4$$

Where:

RGDP = Real gross domestic product

GEAS = Government expenditure to agricultural sector

CBCAS = Commercial bank credit to Agricultural sector

ASGS= Agricultural sector guarantee scheme fund loan to Agricultural sector

β_0 = Intercept

β_1- β_4 = parameter estimates

Ut= error terms

6. RESULT AND ANALYSIS

The regression analysis was carried out to investigate agricultural financing and economic growth in Nigeria: Implication for rural poverty alleviation. As such, the regression analysis was presented in Tables 1 below:

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.**
RGDP	0.694305	0.168957	4.109349	0.0003
CBCAS	0.032956	0.173179	-0.190299	0.0404
ASGS	0.187800	1.536889	-0.122195	0.0036
GEASRAS	0.257223	0.431178	-0.596559	0.5553
C	19.76293	33.12519	0.596613	0.5552
R-squared	0.960122	Mean dependent var		126.0353
Adjusted R-squared	0.954393	S.D. dependent var		175.4432
S.E. of regression	37.46734	Akaike info criterion		10.23583
Sum squared resid	42114.04	Schwarz criterion		10.49975
Log likelihood	-178.2449	Hannan-Quinn criter.		10.32794
F-statistic	8.201683	Durbin-Watson stat		1.870255
Prob(F-statistic)	0.000000			

From the regression results as shown in Table 4.4, the adjusted R-squared of 0.960122 reveals that approximately 96% of the total variations in the dependent variable (RGDP) was accounted for by the explanatory variables (CBCAS, ASGS, GEASLRLAS) while the remaining 4% was due to the error term. The F-statistic (8.201683) indicates that the independent variables (CBCAS, ASGS, GEASRAS) jointly and significantly explained the variations in the dependent variable (RGDP).

The constant (C) implies that *ceteris paribus* (holding the explanatory variables constant), real gross domestic product (RGDP) will be increasing by 2.364438 units

5. CONCLUSION AND RECOMMENDATIONS

The study examines the implication of agricultural financing on rural poverty alleviation in Nigeria. The findings of the study revealed that;

1. Government expenditure to agricultural sector has positive and insignificance effect on real gross domestic product in Nigeria
2. Commercial bank credit to agricultural sector has positive and significance impact on real gross domestic product in Nigeria
3. Agricultural sector guarantee scheme fund loan to agricultural sector has positive and significance impact on real gross domestic product in Nigeria

Agriculture contributes immensely to the Nigerian economy in many ways, namely; in the provision of food for the increasing population; supply of adequate raw materials to a growing industrial sector; a major source of employment generation, foreign exchange earnings; and, provision of a market for the products of the industrial sector. Hence, the study seeks to examine the implication of agricultural financing on rural poverty alleviation in Nigeria. The findings of the study revealed that government expenditure to agricultural sector has positive and insignificance effect on gross domestic product in Nigeria, commercial bank credit to agricultural sector has positive and significance impact on real gross domestic product in Nigeria, Agricultural sector guarantee scheme fund loan to agricultural sector has positive and significance impact on real gross domestic product in Nigeria and that lending rate loan to agricultural sector has negative and significance impact on real gross domestic product in Nigeria. In conclusion, despite the growth of the Nigerian economy, poverty is still on the increase and this calls for a shift from monolithic oil-based economy to a more plural one with agriculture being the lead sector.

7. RECOMMENDATIONS

1. Government at all level should increase their allocation to the agriculture sector of the economy to enhance the performance of the sector.
2. The regulatory authority surveillance on sartorial credit allocation by banks should be strengthened considering the consequences and implications of the shortage of food production for domestic consumption, earnings from Agricultural exports and the adverse effects on the economic growth of Nigeria
3. Government should implement policies that will be geared toward diversification the Nigeria economy and agricultural credit activities should be encouraged in order to minimize risk and specialized staff should be allowed to handle loans granted to farmers so as to avoid default.
4. Government should make sure that lending rate on loans to the agricultural sector should be reviewed and fixed at a rate that would encourage farmers to acquire loans from Deposit Money Banks.

References

Ade, M. U. (2016). Does production of traded agricultural products help poverty reduction? Evidence from Vietnam. In: *Economics Bulletin* 2(2): 1-17.

Adegeye, L. O. and Ditto, P. S. (2016). Farm productivity and rural poverty in India. In: *Journal of Developmental Studies* 4(4): 2-18.

Adeniyi, A. C.(2010).Drivers and sustainability of agricultural growth inNigeria. AIAE Research Paper 8. African Institute for Applied Economics,Enugu.

Adesina, N. I-I. (2016). Smallholder Agriculture: A critical factor in poverty reduction and food security in Africa. Center for strategic and international studies, *Journal of Developmental Studies* 4(4): 2-18.

Adetiloye, X. Z. (2012). Agriculture as an engine of growth and poverty reduction: What we . know and what we need to know. A framework paper for the African economic.Research consortium project on "Understanding links between growth and poverty reduction in Africa.African economic research consortium, Nairobi.

Agbada, J. K. (2015). Agriculture and poverty reduction: literature review and outstanding issues.lnternational workshop on the role of agriculture in poverty reduction. Centre for strategic economic studies Victoria University, Melbourne, *Journal of Developmental Studies* 4(4): 2-18

Agbaeze, D. E. and Onwuka, K. R. (2013). The political economy of maize production andpoverty reduction in Zambia: Analysis of the last 50 years. In: *Journal of Asian and African Studies* 6(6): 1-16.

Agugo S. W. (2021). Implications of agricultural financing on the rural poverty alleviation of Nigeria, as eminarin finance presented to the Departmen to Finance. Michael Okpara University Agriculture Umudike

Ahmed, U, T. (2011). Agricultural productivity growth and poverty alleviation. In: development policy review, *Journal of Developmental Studies* 4(2): 2-20.

Anríquez, I. A. and Stamoulis, F. D. (2017). The role of agriculture in Nigeria's economic growth a general equilibrium analysis. Paper Presented at the 9th Annual Conference on Global Economic Analysis, Addis Ababa, Ethiopia.

Arokoyo, R. V. (2012). Uncertainty and foreign direct investment: A case of agriculture in Nigeria. *Mediterranean Journal of Social Scienc REFERENCES*

Asogwa, L. E. and Ochoche, T. U. (2014). Government spending and poverty reduction in Nigeria's economic growth. *lnternational Journal of Social Sciences and Humanity review.* 1(1): 1-15.

Awotide, H. K. Abdoulaye, B. V. and Manyong, D. X. (2015). Agriculture and poverty reduction: Literature review and outstanding issues. International workshop on the role of agriculture in poverty reduction. *Journal of Developmental Studies* 4(3): I-1 8.

Baghebo, U. 1. (2011). privatization and poverty reduction in Nigeria. inpro-poor growth in Nigeria. Proceedings at a two day meeting held in London. *Journal of Developmental Studies* 4(2): 1-16.

CBN, (2016). Foreign direct investment and poverty reduction in Nigeria. *Journal of Social Science.* 9(3): 2-11.

Christopher, G. H. Ugochukwu, K. Y. and Okon, N. M. (2017). Linkages amongst government spending, Stockmarket development and output in Nigeria agriculture. *Asian Journal of Business and Management.* 5(2): 2-20.

Cuong, R. J. (2015). Poverty in a wealthy economy: The case of Nigeria. IMF working pap[er] no. 02/114: Washington.

Dim, V. R. (2013) . Poverty and income in Nigeria: Measurements and strategies for reform" A paper presented at the Vision 2010 Workshop, Abuja.

Eboh, Q. R. (2012). Efficiency of the marketing system for ornamental palms in Owerri agricultural zone of Imo state. Proceedings of the 44th Annual Conference of Agricultural Society of Nigeria, "LAUTECH 2010".

Egwu, C. D. (2016). Sources and uses of agricultural credit by small scale farmers in Surulere Local Government Area of Oyo State. Anthropologist 10(4): 1-14.

Enyim, Y. J. (2013). An analysis of loan delinquency among small-scale farmers in South Western Nigeria: Application of logit and loan performance indices. *East African Agricultural and Forestry Journal,* 4(3): 1-13.

Evbuomwan, E. X. and Fankun, A. U. (2017). Agricultural financing policies and rural development in Nigeria. The 84th annual conference of the agricultural economist society, Edinburgh. 29th -3 1st March.

Ewubare, W. B. (2016). Prudential regulation and supervision for agricultural finance: Lessons from Honduras. *Journal of Developmental Studies* 4(2): 2-19.

Kamil, T. R. Sevin, K. U. and Festus, E. D. (2017). Poverty alleviation and economic development in Nigeria. Unpublished MSc thesis, Department of economics, University of Port Harcourt, Port Harcourt, Nigeria

Kolade, V. F. and Fakoya, A, C, (2011). Accounting for poverty in infrastructure reform: Learning from Latin America's Experience. WB Development Studies Washington, DC: World Bank, *Journal of Developmental Studies* 3(2): 1-18.

Kolade, R. 1-1. 92011). Infrastructure, growth and poverty: Some cross country evidence'. Paper presented at the ADB Institute annual conference on Infrastructure and Development: Poverty, Regulation and Private Sector Investment. 6 December. Tokyo.

Kolawole, M. S. (2014). Infrastructure reform and poverty reduction in Africa. African development and poverty reduction: The macro micro linkage" *Journal of Developmental Studies* 2(2): 2-18.

Mallum, E. W. (2016). Infrastructure and poverty reduction implications for urban development in Nigeria". UNUWIDER Working Papers. No. 43, Pp. 3.

Michael, B. T. (2016). Poverty and basic needs: an approach to development in Nigeria. Ph. D thesis, Department of Economics, University of Ibadan.

Mulubrhan, Q. B. and Nathaniel, K. C. (2017). Approach of poverty and poverty reduction stratrirs in Nigeria. Central bank of Nigeria, *Economic and Financial Review* 9(4): l17.

Nwafor, U. R. (2011). Poverty alleviation with economic growth Strategy: Prospects and challengesin contemporary Nigeria. *Journal of social development in Africa,* 3(3): l15.

Nwankwo, A. V. (2013). NEEDS and challenges to poverty reduction in Nigeria", *CBN Economic & financial Review,* 3(2): 1-14.

Obansa, N. K. and Maduekwe, H. Y. (2013). The impact of agricultural finance on agricultural output in Nigeria. Poverty, Globalization and human development. *Journal of Developmental Studies* 4(2): 2-17.

Odetola, G. T. and Etumnu, E. C. (2014). The growth of the banking Industry in Nigeria, Presented at the Annual Seminar of the Chartered Institute of Bankers of Nigeria, Bankers House, Lagos State.

Okezie, C. P. and Njoku, T. R. (2015). Strategic development financing mix and economic growth in Nigeria. *Pakistan Journal of Social Science,* 8(1): 1-12.

Okorji, E. T. and Mejeha, I-I. U. (2014). Non-debt development financing mix and implications on Nigerian economic growth. *Pakistan Journal of Business and Economic Review,* 1(1): 1-13.

Oluwasegu, F. G. Toluyemi, M. W. and Opeyemi, V. S. (2016). Finance and the sources of growth, *Journal of Financial Economic* 5(5): 1-30.

Onukwuru, T. U. and Ekine, C. K. (2018). Does financial development cause economic growth? Time series evidence from 16 Countries. *Journal of Development Economics,* 5(1): 3-11.

Owofemi, F. U. (2011). The ghost of financing gap: Testing the growth model used in international financial institutions. *Journal of Development Economics* 6(4):2-18.

Oyakhilomen, G. H. and Zibah, B. N. (2014). The role of macroeconomic factors in growth, *Journal of Monetary Economics* 3(3): 1-12.

Oyakhilomen, Y. H. (2013). Foreign aid and economic growth: New evidence from panel cointegration. *Journal of Economic Development,* 3(1): 1-18.

Punch, G. R. (2011). Elements of banking in Nigeria, Lagos: F and A Publishers. Agricultural development: A case study of small-scale food production in Ondo State, Nigeria. *Samaru Journal of Agricultural Education,* 3(2): 2-15.

Sanusi, A. Q. (2011). Determinants of formal agricultural credit allocation to the farm sector by arable crop farmers in Benue State, Nigeria. *African Journal of Agricultural Research,* 6(1): 1-180

Shepherd, K. A. (2016). Evaluation of the operational performance of the Nigerian agricultural cooperative and rural development bank (NACRDB) in south western Nigeria. *Journal of Agricultural Economics and Rural Development,* 1(1): I-17.

Shreiner, F. K. and Yaron, U. T. role of financing. The Sprout, a Journal Publication of NACRDB, 5(2): 1-15.

Tiffin, E. O. (2012). An analysis of the determinants of agricultural credit approval/ loansize by commercial Banks in South ^svVestern Nigeria. *Journal of Nigerian Development Studies,* I (l): 6-26.

Udoka, C. S. Stephen, H. N. and Mbat, Z. A. (2016). Trend analysis of the contribution of agriculture to gross domestic product (1960-2012). *Journal of Agricultural and Veterinary Science,* 7(1):1-15.

Uma, G. X. and Eboh, L. P. (2013). Some properties of time series data and their use in econometric model specification. *Journal of Econometrics,* 6(1): 1-30.

Zeller, Y. T. (2015). The empirical investigation of the nexus between agricultural and industrial sectors in Malaysia. *lnternational Journal of Business and Social Science.*