

Agricultural credit is the financial credit that should be made available to farmers so that they can purchase new equipment and mechanize their farms. It is the provision of credit which is crucial to the development of the farming sector (Ali, 2016)

Challenges of agricultural credit policies

According to Eze, Lemchi, Ugochukwu and Okon (2010), these challenges have been the reason for failure of previous policies, and they continue to threaten existing ones.

a. Lack of adequate skills to deliver services effectively: Most of the credit institutions undertook lending to agriculture without the use of trained agricultural credit officers vested with knowledge of agriculture and the constraints to farmer performance. Additionally, supervision of credit programmes has often been below acceptable standards. Invariably, the schemes fail due to poor repayment performance.

b. Low management capacity of farmer-clients: Most farmers who should benefit from the financing policies, especially the financing schemes, lack the basic skills of farm management, including record keeping. And when these are called up as requirement for accessing facilities, as is always the case, they become ineligible.

c. Unwillingness of conventional banks to support agriculture: Even with mandatory (preferred sector) lending, guarantee of exposure and subsidized fund schemes, most banks prefer not to lend for farming, citing its lower productivity and higher risk relative to the non-agricultural sector as their reason.

d. Paucity of loanable funds: Most of the loanable funds have come from government sources and is not sufficient for any meaningful agricultural investment. The government cannot go it all alone. This creates a finance supply deficit relative to demand. Statistics show that bank credit to agriculture as a proportion of total bank credit to the economy has hardly exceeded 17 per cent since recorded history in 1970, yet the sector contributes over 35 per cent of the gross domestic product annually (CBN, 2007).

e. Weak institutional support in the sector: Infrastructure for processing and storage, land tenure systems, legal system for registration and perfection of collateral, judicial system for the enforcement of loan contracts and foreclosure of collateral, etc, are weak. This does not encourage private sector commitment to the agricultural financing policies.

f. Poor funding of public financing institutions: The NACRDB, for instance, has a capital base of N50 billion to be contributed to by the FGN and the CBN in a 60:40 ratio. However, as of

date, about N23 billion has been paid up. DFRRI and other non-bank institutions were or have been similarly starved of funds. These institutions cannot deliver effectively in the face of this dearth in funding.

g. Undue political interference in lending operations: Any time Government initiates a credit policy; most beneficiaries are those close to corridors of power. The result is diversion of the fund and default in repayment

Loan Assessment in Nigeria

Access to loan may be referred to as, the right to obtain or make use of or take advantage of borrowed money from a lender. In Nigeria, credit is an important instrument for improving and enhancing the productivity capacity of any sector. It also facilitates the flow of savings from surplus units to deficit units (Diagne, 2000). The outcome of this is that only a small proportion of the total number of rural households and farmers credit from the formal sector.

Again, among those with access to the institutional credit, a very small group particularly the rich and the elites in the village receive a very large share of the total amount disbursed. Consequently, the overwhelmingly constrained borrowers are forced to turn to the rather expensive and unreliable informal credit sources (Okuru, 2004). Agriculture loans are specifically designated for use in the industry, and there are plenty of ways you can use the proceeds to get your farm or ranch up and running or expand your operations.

The access to loan and funding among farmers in Nigeria remains largely unmet despite government's efforts of diversifying the country's economy through its agricultural revolution initiatives supported by the Central Bank of Nigeria. The challenges are not only on the farmers themselves but also on financial institutions that can hardly identify genuine farmers from those who have been described overtime as political farmers.

Food Security

Food security can be defined as access by people at all times to enough food for an active, healthy life and includes at a minimum: the ready availability of nutritionally adequate and safe food, and the assured ability to acquire acceptable food in socially acceptable ways without resorting to emergency food supplies, scavenging, stealing and other coping strategies (Adetiloye, 2012). The World Health Organization (2013) states that there are three pillars that

determine food security: food availability, food access, and food use and misuse. The Food and Agriculture Organization (2012) adds a fourth pillar: the stability of the first three dimensions of food security over time. In 2009, the World Summit on Food Security stated that the "four pillars of food security are availability, access, utilization, and absorption.

This is sometimes referred to as the availability and safety of consumable food through the production and preservation processes up to the time of consumption. Food insecurity is described as the unavailability of food, safety and intake at individual, household, sub-national and global levels (Oladeji, Ayegbusi & Olowe, 2004). This goes to show that a nation that cannot feed itself is food insecure. A more straightforward definition of food security concerns the availability of food in sufficient quantities to meet the sustenance of the population. Hunger is a severe manifestation of food insecurity.

The National Agency for Food and Drug Administration and Control (NAFDAC) is involved in quality control and safety of packaged foods in Nigeria especially of meat and poultry. The emphasis should be first on production before preservation of the produce. Eugenio, Babinand & Thomas, (2002) believes in the possibility of a globalizing world being fully food secure via the circulation of safe affordable food throughout the world. Nevertheless, for a country like Nigeria this should be avoided as much as possible given the outflow of scarce resources.

Theoretical Framework

The study adopted the Structural Change Theory as framework. The Structural Change Theory was developed by Lewis Arthur in the year 1954 and called it "development with unlimited supply of labour". The assumption of this theory states that an economy is made up of two sectors. One is the traditional (agricultural or subsistence) sector while the other is the modern (capitalist, industrial or manufacturing) sector. This gave rise to the two-sector model. The theory also assumed that the development of an economy is dependent on the growth of the two sectors.

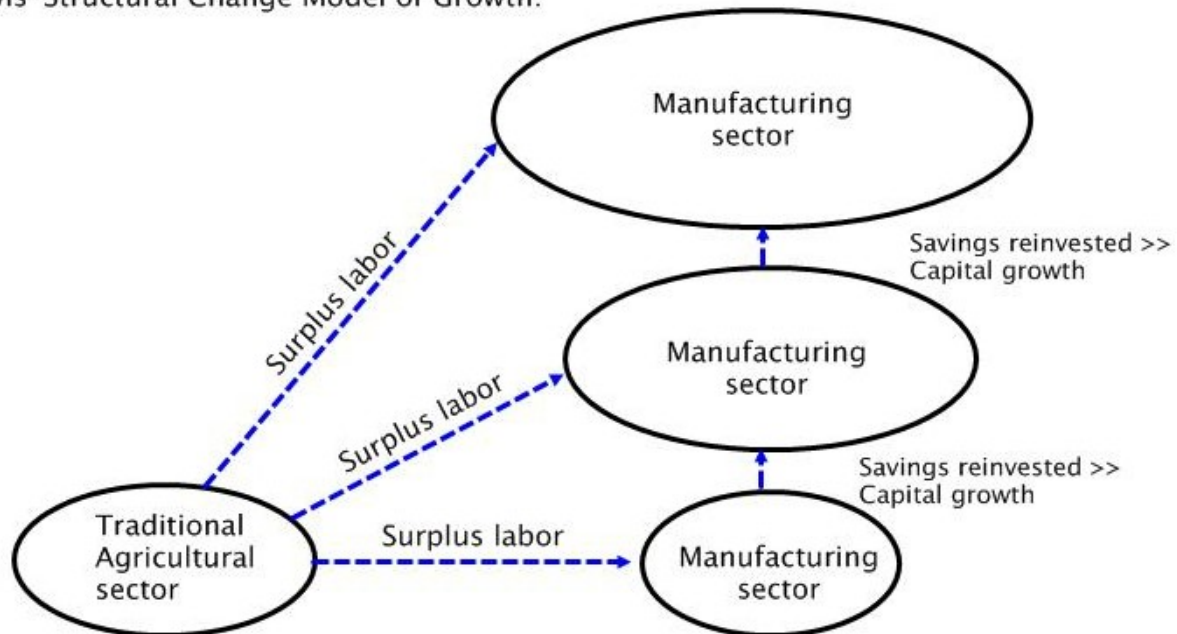
$$Y = f(\text{AGRIC}, \text{IND})$$

Where; Y = Economic development,

AGRIC =Agricultural sector and

IND = Industrial sector.

Lewis' Structural Change Model of Growth:



Source: Pinstруп-Andersen, (2009).

The agricultural sector and the industrial sector are interrelated. The agricultural sector employs capital inputs, labour expertise and also a final consumer of the output of the industrial sector, while the industrial sector employs labour and output of the agricultural sector. This theory is important to this study because agricultural development cannot be possible without proper funding. The proper funding of agriculture is made possible through the provision of agricultural credits schemes; the proper funding of these schemes will lead to increase in agricultural output which will, in turn, lead to adequate food security through food availability, food utilization, food absorption and food access and consequently, economic development.

Empirical Review

Ekwere and Edem (2014) examine the effect of agricultural credit on agricultural production among small scale farmers. Structured questionnaires were administered to 136 farmers, who had been selected using the stratified random sampling technique, and the data obtained were summarized into percentages. Regression analysis was adopted to assess the impacts of socio-economic factors on loan size among farmers. The analysis revealed that access to agricultural credit impacts positively on agricultural production. The study concluded that agricultural credit enhances productivity and promotes standard of living by breaking vicious

cycle of poverty of small-scale farmers and recommended that government and the organized private sector should regularly and timely offer credit to farmers.

Ijioma and Osondu (2015) focused on agricultural credit sources and determinants of credit acquisition by farmers in Idemili local government area of Anambra State, Nigeria. Ninety farmers were randomly selected by multi stage random sampling technique. Semi-structured questionnaire was used to elicit data for the study. Descriptive statistics and multiple regression model were used in achieving the objectives. The result of the multiple regression analysis revealed age, household size, membership of cooperative societies, marital status, education level, farm size and amount of loan repaid at varied signs and levels as significant predictors of amount of agricultural credit acquired by farmers. The study recommends that the state government should pass policies aimed at providing free educative seminars to all illiterate farmers to teach them possible ways and methods of acquiring credit.

Ojiegbe and Duruechi (2015) evaluated the impact of these agricultural loans on food production, the problems and prospects. Data for the study were sourced through secondary means and hypotheses formulated in order to attain the objective of the research. The data were analysed with SPSS (multiple regression) and formulated hypotheses tested with F-ratio and student t-test. Findings revealed that agricultural loans have significant and positive impact on food production in Nigeria. The study concluded that there is need to increase and sustain the amount of credits disbursed to the sector if the rate of food production is to meet with the pace at which the population is growing and recommended that more loan facilities should be extended to the agricultural sector to sustain the increase in food production, given the demographic state of Nigeria.

Nzomo and Muturi (2014) examined the effect of Agricultural credit programmes on the productivity of rural farming households in Kimilili Bungoma Sub County. The study adopted a cross sectional survey design, where data was collected, with the use of a well-structured questionnaire from 123 randomly selected small-scale rural farmers, who are users of micro-credit based on their statement, through multi-stage sampling technique. The data was processed and analyzed using the Statistical Package for Social Sciences (SPSS). The findings of this study showed that, Agricultural credit has the capacity to enhance the income of farmers who utilize it by more than 100% and concluded that credit not only helps to expand the economies of size but

also helps to increase the productivity of farms from the available resources. The study recommended among other things that the government should provide attractive incentive system to farmers so as to boost production from the smallholder sector.

METHODOLOGY

Research Design

Research design is a plan or blueprint which specifies which specifies how data relating to a given problem should be collected and analysed (Onyeizugbe, 2013). The study adopted descriptive research and correlational survey design; this type of study seeks to establish what relationship exist between two or more variables. Usually, such studies indicate the direction and magnitude of relationship between the variables (Nworgu, 2006). The study used time series data from the period of 1990 – 2018.

Method of Data Collection

The study used only secondary data. These data were sourced from the Central Bank of Nigeria Statistical Bulletin, Bank of Agriculture, African Development Bank, the Food and Agriculture Organization, National Bureau of Statistics yearly publications, World Bank Publications, Internet, Journals and Articles.

Method of Data Analysis

The data analysis techniques that was adopted for this study consist of multiple regression using the Ordinary Least Square method of estimation (OLS). This statistical tool seeks to establish the strength or degree of association between the dependent and independent variables. EVIEW7 software was used for the analysis

Model Specification

- ❖ **Loan Assessment Equation:** To quantify the nature of relationship between Loan Assessment and Food Security in Nigeria.

For the purpose of this study, it is essential to decompose Loan Assessment with Loan Assessment and Food Security with Food Availability (FA), food assessment (FAS), Food Utilization (FU) and Food Absorption (FAB).

Data Analysis Regression Analysis

Dependent Variable: LS
 Method: Least Squares
 Date: 10/08/19 Time: 11:04
 Sample: 1990 2019
 Included observations: 29

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8716.968	1514.912	5.754109	0.0001
FA	-0.005617	0.019081	-0.294356	0.0231
FAS	1.094806	1.63E-05	-0.066870	0.0477
FU	4.152830	3.179259	-1.306226	0.0141
FAB	0.004874	0.004841	-1.006886	0.0724
R-squared	0.861768	Mean dependent var		6024.789
Adjusted R-squared	0.802448	S.D. dependent var		1541.703
S.E. of regression	1130.345	Akaike info criterion		17.15052
Sum squared resid	16609834	Schwarz criterion		17.44877
Log likelihood	-156.9300	Hannan-Quinn criter.		17.20100
F-statistic	4.097025	Durbin-Watson stat		1.162252
Prob(F-statistic)	0.018723			

Model is significant at 0.05 per cent which implies the model is adequate and can be used for decision making. In the test of significant of parameters in the model using t-test, the p-values of parameters are less than 0.05 per cent. The p-values of t-test imply all parameters in the model are significant except Food Absorption (FAB) which is greater than 0.05 per cent. The coefficient of determination (R-Square) of the model is 86 per cent which implies the independent variables contributed up to 80 per cent to the fluctuation of the dependent variable.

The Regression equation shows that

$$LS = 8716.968 - 0.005617FA + 1.094806FAS - 4.152830FU - 0.004874FAB$$

Loan Assessment (LS) was regressed on Food Availability (FA), Food Assessment (FAS), Food Utilization (FU) and Food Absorption (FAB). Model is significant at 0.05%.

The estimated coefficient of the constant term is 8716.968 and it is statistically significant at 0.0 percent.

The coefficient of Food Availability (FA) carries a negative sign and is statistically significant at 0.02 percent which implies that Loan Assessment contributed to the quantum of Food Availability in the country.

The coefficient of Food Assessment (FAS) carries a positive sign and is statistically significant at 0.04 percent which implies that Loan Assessment contributed to the level of Food Assessment in the Nigeria.

The coefficient of Food Utilization (FU) carries a positive sign and is statistically significant at 0.01 percent which implies that Loan Assessment contributed to the manner of Food Utilization in the Nigeria.

The coefficient of Food Absorption (FAB) carries a positive sign and is statistically not significant at 0.07 percent which implies that Loan Assessment did not contribute to the level of Food Absorption in the Country.

The coefficient of R- Square (R^2) is 86 percent indicating a high casual relationship between the dependent variables and independent variables.

Adj. R^2 is 80 percent shows that all the variables are correlated. The value of Durbin-Watson Statistics (1.162252) is greater than the R^2 (0.861768). This means that there is no case for autocorrelation in the model and the result is respectable.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter focuses on the summary of findings, conclusion and recommendations of the study as follows:

Summary of Findings

The broad objective of the study is to justify the linkage between Agricultural Credit and Food Production in Nigeria. The specific objective of the study is to quantify the nature of relationship between Loan Assessment and Food Security in Nigeria. The study utilized the Ordinary Least Square method of analysis using secondary data of required variables from the year 1990 to 2018.

The regression result of the hypothesis; H_1 showed that there was a significant positive relationship between Loan Assessment and Food Security in Nigeria.

CONCLUSION

Finally, based on the econometric result on the linkage between Agricultural Credit and Food Production in Nigeria, this paper concluded that easy access of agricultural credit through loans and subsidies greatly improves food production through food availability, food assess and food utilization in Nigeria since the coefficients of loan assessment on food security shows a significant positive relationship. The role of agricultural credit in the agricultural sector of the Nigerian economy cannot be overemphasized. Government has put in place various policies aimed at financing agriculture and thus, agricultural credit in particular has provided farmers with better access to loans and farm inputs such as improved seeds, chemicals, labour and machinery, among others, which can translate to increased agricultural production.

RECOMMENDATIONS

In line with the above conclusion, the study recommended that more loan facilities and grants should be extended to the agricultural sector by the federal government, state government, various agricultural institutions like the Bank of Industry (BOI), Nigerian Agricultural Credit and Rural Development Bank (NACRDB), African Development Bank (AfDB), etc and other concerned bodies to sustain the increase in food production, given the demographic state of Nigeria. These funds must be made available to serious minded farmers at affordable interest rates.

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