The Impact of Commercial Bank Credit on Agricultural Sector in Nigeria (1993-2019)

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Abstract

The study identified poor infrastructure, inadequate financing, lack of appropriate technology, high interest rates, bureaucratic difficulties and unfair conditions required by commercial banks, corruption and nepotism, political instability, difficulty is assessing bank loans, etc. As some of the factors that necessitated this study. In view of these, the research sought to quantify the nature of relationship between Loan Assessment and Food Security in Nigeria. The study was anchored on the Structural Change Theory by Lewis Arthur (1954), descriptive research and correlational survey design was employed in the study using secondary data. The Ordinary Least Square method of estimation (OLS) was adopted for this study consist of multiple regression.The findings of the study revealed that there was a significant positive relationship between Loan Assessment and Food Security in Nigeria. The study concluded that commercial bank credit has an enormous influence in the agricultural sector as it improved food production in the country through food availability, food access and food utilization. Thus, recommends that commercial banks in Nigeria should make more loan/credit facilities available and accessible to farmers all over the country to sustain the increased agricultural product needs in Nigeria. These funds must be made available to serious minded farmers at affordable interest rates.

Keywords: *Agriculture, Commercial Banks, credit, Loans, Food, OLS*

Background of the Study

Agriculture is an inevitable concomitant to the economies of developing countries, as it plays a key role in providing food to the population and supplying other sectors with raw materials for production of goods and services (Food and Agriculture Organization, 2017). Agricultural sector plays catalytic role in modern economy and has many dynamic benefits crucial for sustainable economic development. In advanced countries, the sector is highly regarded and its contributions to the economy in terms of foreign exchange, employment and improved standard of living is immeasurable. Furthermore, it creates investment capital at a faster rate than any other sector of the economy through its complex value chain, thereby creating an effective linkage among different sectors (Emeaghalu, 2018).

In Nigeria, agriculture is still the most important sector of the economy due to the fact that it plays very important role in its developmental process. The performance of the agricultural sector is very crucial in the country's food security and poverty alleviation, due to the fact that majority of the poor are staying in the rural communities and rely mainly on agriculture-based economic activities for their source of livelihood but for more than three decades has not been performing optimally. Its contribution to the Gross Domestic Product has been low and the nation is depending on other countries for food. The Agriculture's share of GDP in Nigeria in 1950 was 69 percent, but declined continuously to 49% in 1970, 22 percent in 1982, 42.2% in 2007, 40% in 2010 and 22% in 2019 (Ogueli, 2020).

Also, agricultural production in Nigeria is dominated by small-scale farmers who account for about 95% of the country's agricultural production. This system of farming is characterized by low asset base, low fixed capital, labour intensive production, small farm size, low investment and expenditure on farm inputs, crude tools and equipment and low productivity, among others (Adewunmi & Ayinde, 2013). The performance of the sector is largely dependent on the provision of affordable financial services basically through credits to both the rural and urban participant in the sectoral value chain. Nnamocha and Eke (2015) opined that funds are needed in agriculture regularly to enable the farmer purchase more land, buy his inputs at the appropriate time and to pay for hired labor or farm machinery, but it is interesting to note that credit to agriculture sector in the last 10 years remains as low as 5%. Credit may be obtained from various sources, including banks, Non-bank financial institutions, stock markets, and so on. Even though the Central Bank of Nigeria (CBN) had at various times dedicated funds to agricultural production through various schemes with the aim of resuscitating the agricultural sector. The Securities and Exchange Commission (SEC) through its annual publications believe that only commercial banks and the capital market has the capacity to unlock better access to credit and finance for the sector through innovative financing structures and products (Okpala, 2018).

Commercial Banks are the major sources of such financial services in form of loans and advances and that is why commercial banks in Nigeria have been directed to devout a major part of their funding to finance this sector, beside other government owned banks like the Nigerian Agricultural and Cooperative Bank (NACB) (Sunny, 2013). The contributions of commercial banks to the agricultural sector have stemmed debate and growing interest among researchers, policy makers and farmers have recognized their immense contribution in agricultural production. The vital role of commercial bank credit in ensuring growth in food production in an economy has been widely acknowledge for instance, Imoughele, Ehikioya and Ismaila, (2014) established that commercial banks facilitate technological innovation through their intermediary role. Their emphasis was that efficient allocation of savings through identification and funding for farmers with best chances of successfully implementing innovative product and production are tools to achieve real economic performance.

Nwanyanwu (2012) also noted that the commercial banks help to make credit available by mobilizing surplus fund from depositor who have no immediate needs of such money and channel it in form of credit to potential farmers who have brilliant structures in their agribusiness on how to create additional wealth in the economy but lack the necessary capital to execute the ideals. However, acknowledging the role of commercial bank credit in the agricultural sector has been enhanced by the various banking reformed has been established by the monetary authority in Nigeria in enhancing credit accessibility. The overall intentions of these reforms have been to ensure financial stability, so as to influence the growth of the industry and also enhance bank to play critical role of financial intermediation in provision and accessibility of credit in the sector and these various reforms have led to the improvement in banking services to agribusinesses.

Commercial banks financing has been identified as a means of transforming the agricultural sector and revamping the Nigeria economy by ensuring food security, job creation and economic diversification. Having pointed these facts, the great need for commercial bank credit to develop the agricultural sector today, more than ever, is necessitated by the recent economic recession that bedeviled the country as a result of its oil dependency and inability to save for rainy days. Thus, there is the need to critically examine the role of commercial banks in agricultural development in Nigeria with a view to highlight areas of its strengths and weaknesses and making recommendations that will go a long way towards encouraging lending to the sector, since as we have observed that access to finance is critical to lifting small scale farmers above the subsistence level. Therefore, this study examines the influence of commercial bank credit on the growth of the agricultural sector in Nigeria.

An honest survey of the current situation in the agricultural sector in Nigeria will immediately reveal not only a progressive decline of the contribution of agriculture to the gross domestic product both in relative and absolute terms, but also a stalemate in the country's ability to maintain its food independence in spite all the government's effort through its policies and programmes to revamp the sector and despite the significance of the agricultural sector to poverty reduction and overall development. The problems faced by the Nigerian agricultural sector are legion and needs to be tackled headlong before severe hunger typified by poverty and lack of adequate nutrient becomes an issue.

Successive governments have come up with numerous programmes to address the inability of agricultural output to keep pace with the country's demand for agricultural products. Finance institutions have over the years shied away from lending to the small-scale farmers who form the larger part of the farming population, citing reasons such as high default rates, difficulty in monitoring numerous individuals whose loans do not provide much return on investment, as well as not being cost effective (Jumare, 2016).

Consequently, the sector has been characterized with low production and robust markets for outputs as small holder farmers still rely on rudimentary methods and technology and they have limited skills and inputs such as improved seeds that would increase yields (Emeaghalu, 2018). Peasant and subsistence farming with the use of rudimentary technologies have been very predominant in the agricultural sector of Nigeria and this has resulted to low levels of production.

The sector's contributions to both the gross domestic product of the economy and its per capita contribution is very insignificant, thus the overall production has not been up to the level that will ensure that the sector makes the needed impact. Factors responsible for this includes poor infrastructure, inadequate financing, lack of appropriate technology, high interest rates, bureaucratic difficulties and unfair conditions required by commercial banks, corruption and nepotism, political instability, difficulty is assessing bank loans, etc. The gross effect of the situation described above is that, most of these farmers lack economies of scale as a result of the small-scale production, resulting in a high per capita cost and generally low production levels. Finance or capital has been identified as been inadequate to expand production in the sector especially by the low- income earners or farmers who hold small farms.

According to Ifeoma (2018) inadequate access to economic resources especially financed by the numerous sparsely located farmers across Nigeria continues to inhibit agricultural development. This calls for critical examinations and the adoption of an approach to avoid declaring farmers "an endangered species". It is important to double efforts to transform the economy and continuously explore pragmatic methodologies to address the problem of our farmers (Maurice & Tashkalma, 2012). Commercial banks have a very important role to play in addressing the numerous constraints bedeviling the agricultural sector. The United Nations Capital Development Fund (UNCDF) has shown that financial institutions play key roles in development (UNCDF, 2011).

The broad objective of the study is to justify the linkage between Commercial Bank Credit and Agricultural Growth in Nigeria. However, the specific objectives are: 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).

Conceptual Review

Commercial Bank Credit

The word credit was defined by Miller (1993) in Aina, Amila, Hassan, Kubalu, Alechenu and Yakubu (2016) as a device for facilitating the temporary transfer of purchasing power from one individual or organization to another. They contended that credit provides the basis for production efficiency through specialization of function. Credit has been described as a continuation of potentially and actually obtaining goods and services (actually) by giving a promise to pay (potentiality).

According to Ijaiya and Abdulraheem (2000), credit is a financial resource that is obtainable from financial institution within a specified period of time based on agreed terms with the promising of paying back as and when due. Njanike (2009) defined commercial bank credit as a debt, which entails the redistribution of the financial assets between the lender and the borrower. The bank loan is commonly referred to the borrower, who got an amount of money from the lender, and need to pay back, known as the principal. In addition, the banks normally charge a fee from the borrower, which is the interest on the debt.

Mohammed (2012) disclosed that the intermediation role played by commercial bank can be said to be a catalyst for economic growth and development based on the premise that banks collect savings and resources from individual, entities, government and corporate bodies as investment funds and channel the savings to the users of resources for investment activities. This implies that the rate at which banks advance financial resources to the real sector determines the pace of a nation's economic growth.

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 and 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 Review

The theoretical base of this paper is from the intellectual works of McKinnon and Shaw (1973), Stiglitz Weiss (1981), Bernanke Blinder (1988) and Lewis Arthur (1954) in their Financial Liberalization Theory, Loan Pricing Theory, Bank Lending Credit Channel Theory and Structural Change Theory respectively.

The Financial Liberalization Theory

Under this theory, the consideration is central on the part played by government intervention in the financial markets as a critical setback to growth, investment and savings mobilization. The role of government in interest rate control and credit allocation to the productive economic sectors in developing countries hinders the mobilization of savings and discourages financial assets holding, economic growth and capital formation. Interest rate ceiling on deposit indirectly inhibited financial saving which resulted in excess liquidity outside the banking industry.

Government pervasive intervention and financial system involvement through the supervisory and regulatory framework, especially interest rate control and credit allocation tend to facilitate financial market distortions. As such, the intervention of government is adversely affecting the market players' decision regarding investment and savings and resulted in financial mediation fragmentation. The resultant effect of this scenario is an economy that is financially repressed.

Loan Pricing Theory

Banks cannot always set high interest rates. Banks should consider the problems of adverse selection and moral hazard since it is very difficult to forecast the borrower type at the start of the banking relationship (Stiglitz and Weiss, 1981). If banks set interest rates too high, they may induce adverse selection problems because high-risk borrowers are willing to accept these high rates. Once these borrowers receive the loans, they may develop moral hazard behavior or so-called borrower moral hazard since they are likely to take on highly risky projects or investments (Chodecai, 2004). From the reasoning of Stiglitz and Weiss, it is usual that in some cases we may not find that the interest rate set by banks is commensurate with the risk of the borrowers.

The Bank Lending Credit Channel Theory

The banking lending channel stated that monetary policy also affects the external finance premium by shifting the supply of the intermediated credit, especially loans from commercial banks. It indicated that if supply of bank loans is disrupted for some reason, bank dependent borrower may not be necessarily shut off but incur cost of finding lenders. Therefore, a reduction in the supply, relative to other forms of credit is most likely to increase external finance premium and reduce real activity.

The Structural Change Theory

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 (AGRIC, IND)

Where; Y = Economic development,

AGRIC =Agricultural sector and

IND = Industrial sector.

Empirical Review

Numerous studies have been conducted to reveal the impact of commercial bank credit on agricultural sector in both developed and developing economies. Majority of these studies seems to suggest that commercial bank credit has a positive effect on agricultural growth and development. For instance, Imoughele, Ehikioya and Mohammed (2013) investigated the impact of commercial bank credit accessibility and sectoral output performance in Nigerian economy for the period which spanned between 1986 and 2010. An augmented growth model was estimated via the Ordinary Least Square (OLS) techniques to ascertain the relationship between various commercial bank credits and sectoral output growth. The variables were tested for stationarity and co-integration analysis was also carried out using the Augmented Dickey-Fuller test. The study found that the various commercial bank credit supply and other included variables has a long run relationship with sectoral output performance i.e agricultural, manufacturing and services sector. The study concluded that consistent expansion of monetary policy which engenders supply and demand for commercial bank credit by the manufacturer, Farmer and services provider promote the sectors productivity and recommended that continuous credit accessibility in a deregulated financial market economy has the capacity to induced the nation sectoral output performance which will promote economic growth and development.

Medugu, Musa and Abalis (2019) examined the impact of Commercial Banks' credit on Agricultural output in Nigeria, covering the period 1980 to 2018. Annual time series data was employed, which was sourced from Central Bank (CBN) publications such as Statistical Bulletins and Bullions, and National Bureau of Statistics (NBS) publications. Stationary test was conducted on variables to ascertain whether they have unit roots. the study showed positive and significant relationship exists between commercial banks' credit and Agricultural output in Nigeria. The study recommended that Government should as a matter of policy through the Central Bank make credits from Commercial Banks available and affordable by lowering interest rate.

Nnamocha and Eke (2015) investigated the effect of Bank Credit on Agricultural Output in Nigeria using the Error Correction Mode (ECM). A yearly data (1970- 2013) obtained from the Central Bank of Nigeria was used for the analysis. The study, it showed that, in the long-run bank credit and industrial output contributed a lot to agricultural output in Nigeria, while; only industrial output influenced agricultural output in the short-run. The study recommended that loans for the farmers should be disbursed in good time with low interest.

Aina, Amila, Hassan, Kubalu, Alechenu and Yakubu (2016) analyzed the impact of commercial bank lending on agricultural production and productivity in Ondo and Ekiti State of Nigeria. Descriptive statistics, gross margin, elasticity of production, return to scale as well as regression analysis were used to analyze the data. The study found that commercial bank credits is positively related to agricultural production and shows a significant impact on output levels. The study recommended that there should be active involvement of government and the private sector at boosting in flow of funds into agriculture and agribusiness.

Bassey, Akpaeti, and Udo (2014) investigated the impact of bank credit financing on agricultural output in Nigeria between the periods of 1970-2011. Employing Ordinary Least Square (OLS) regression method, the result shows that in order to boost agricultural GDP, emphasis should be directed towards proper funding of the sector by the government and other financial stakeholders. Akintola (2004) identified banks' traditional roles to include financing of agriculture, manufacturing and syndicating of credit to productive sectors of the economy and opined that credit of banks to the Nigerian economy has been increasing over the years.

Ogbanje, Yahaya and Kolawole (2012) examined the relationship between commercial banking sector loans and agricultural development in Nigeria from 1981 to 2007 using descriptive and inferential statistics. The result revealed that during 1981-1991, there was substantial increase in commercial banks' loans to the agricultural sector, while the loans more than tripled during the subsequent periods. Thus, commercial banks showed great concern for the growth of the agricultural sector in Nigeria. Result also revealed that commercial banks' loan to the agricultural sector considerably and progressively affected agricultural sector contribution to GDP in Nigeria.

Agunuwa, Inaya, and Proso (2015) examined the impact of commercial banks' credits on agricultural productivity in Nigeria. The statistical tool of analysis is the Ordinary Least Squares (OLS) techniques. However, the variables were subjected to the Unit Root Test to ensure stationarity before the application of the OLS. On the whole, three hypotheses were tested; all the alternative hypotheses were validated by the OLS result. The study showed a significant positive relationship between commercial bank credit and agricultural productivity in Nigeria. The study recommended that the Agricultural Credit, Guarantee Scheme should improve on their conditions for credit guarantee in order to make agricultural financing attractive to commercial banks.

Okezie and Erendu (2016) examined the determinants of agricultural credit in Nigeria between 1981 and 2014, using secondary data obtained from the CBN statistical publications. A multiple regression analysis was used to determine the effects of these variables on the amount of credit supplied to the agricultural sector through the Agricultural Credit Guarantee Scheme Fund (ACGSF) of the federal government. The results indicated that there has been increase in the supply of credit to the agricultural sector under the scheme, especially between 2000 and 2012. It was recommended that the on-going policies of the federal government aimed at attracting foreign investments be sustained and also the financial institutions need to review their lending rates downwards since the real interest rate was seen to inhibit supply of credit to agriculture.

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.

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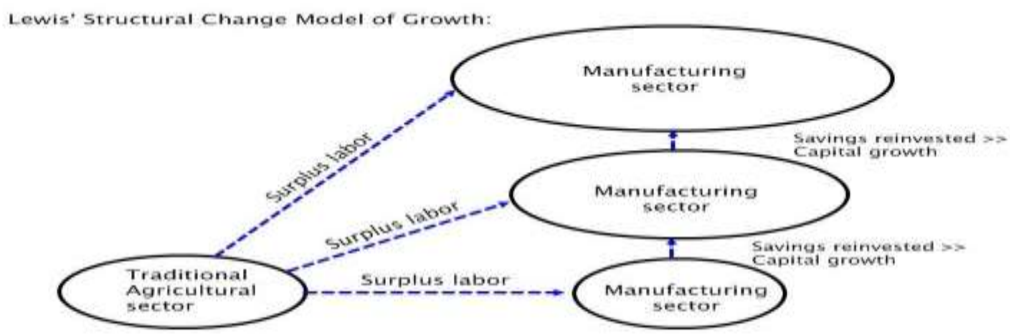

Source: Pinstrup-Andersen (2009).

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 loans and credits from commercial banks; 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.

Methodology

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.

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.

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. EVIEW 7 software was used for the analysis.

Model Specification

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

$LS = f(FA, FAS, FU, FAB)\ e_t$ . . . . (i)

This model is restated in econometric form as follows:

$LS = a_0 + a_1LFA + a_2LFAS + a_3LFU + a_4LFAB + e_t$...…………..(ii)

Where:

e_t = Stochastic or error term

LLS =Log of Loan Assessment

LFA = Log of Food Availability

LFAS = Log of Food Assessment

LFU = Log of Food Utilization

LFAB = Log of Food Absorption

$a_0 - a_4$ = parameters of the model

Result and Discussion

Data Presentation

Commercial Bank Credit and Agricultural Sector in Nigeria (1993–2019)

Year	Food Assessment	Food Absorption	(%) of Total Credit (Loan Assessment)	Food Utilization (%)	Food Availability
1993	2622	3.4	17.41	52.6	2294.6
1994	2266	3.2	14.32	52.5	1554.2
1995	1854	1.9	15.86	52.4	2060.4
1996	1309	2.8	16.60	52.3	7999.1
1997	1000	3.4	13.12	52.2	10283.8
1998	1300	3.5	11.53	52.2	12728.7
1999	2908	17.5	10.43	52	15351.8
2000	1926	13.1	7.58	52	15944.0
2001	746	13.6	6.21	51.8	26721.3
2002	431	12.6	8.68	51.1	31563.8
2003	1200	14.8	7.49	51.2	67568.1
2004	1413	14.4	3.62	51.0	59744.6
2005	1012	11.9	2.54	50.6	109455.2
2006	1501	12.1	0.99	50.8	79436.1
2007	1367	12.7	0.85	50.9	93767.9
2008	1900	14.9	0.17	51.0	94219.7
2009	1671	19.7	0.17	51.3	89141.2
2010	1908	21.1	0.14	51.4	92376.2
2011	1802	21.7	0.16	51.1	90758.7
2012	1110	22.3	0.13	51.1	91660.3
2013	1607	21.7	0.13	51.3	91598.4
2014	1506	23.9	0.12	51.3	91339.1
2015	1110	22.3	0.13	51.1	91660.3
2016	1607	21.7	0.13	51.3	91598.4
2017	1506	23.9	0.12	51.3	91339.1
2018	5433	27.9	0.13	51.2	91532.6
2019	4946	24.5	0.13	51.3	91490.0

Source: CBN Statistical Bulletin (Various Issues), National Bureau of Statistics (Various Issues), World Bank Development Report (Various Issues), Food and Agriculture Organization, Online Publications.

Regression Analysis
Dependent Variable: LS
Method: Least Squares
Date: 08/13/20 Time: 11:04
Sample: 1993 2019
Included observations: 27

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		

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 explained up to 86 per cent changes of the dependent variable.

Specifically, the coefficient of Food Availability (FA) carries a negative sign and is statistically significant at 0.02 percent which implies that Loan Assessment contributes negatively to the quantum of Food Availability in the country. Food Assessment (FAS) bears a positive sign and is statistically significant at 0.04 percent which means that Loan Assessment has a positive impact on the level of Food Assessment in Nigeria. Food Utilization (FU) is positive and statistically significant at 0.01 percent which implies that Loan

Assessment contributes to Food Utilization in Nigeria. Food Absorption (FAB) is positive and significant at 10%.

The Regression equation shows that

Descriptive Statistics

	FA	FAS	FU	FAB	LS
Mean	217052.6	28770.30	36396565	394271.2	5847.286
Median	227991.0	14610.88	38884325	412707.0	5693.000
Maximum	361360.0	89043.62	73895559	647823.0	9946.000
Minimum	63505.00	2907.360	121331.0	105290.0	4062.000
Std. Dev.	57057.45	30125.12	23077172	211476.0	1566.662
Skewness	-0.354535	0.944310	-0.293281	-0.095535	0.873795
Kurtosis	5.510674	2.245544	2.227769	1.293689	3.326173
Jarque-Bera	5.955479	3.619078	0.744480	2.579504	2.765403
Probability	0.050908	0.163730	0.689189	0.275339	0.250900
Sum	4558104.	604176.2	6.92E+08	8279695.	122793.0
Sum Sq. Dev.	6.51E+10	1.82E+10	9.59E+15	8.94E+11	49088620
Observations	27	27	27	27	27

Conclusion and Recommendations

The regression result shows that there is a significant positive relationship between Loan Assessment and Food Security in Nigeria. This paper concludes that commercial bank credit had an enormous influence on the agricultural sector, as it improved food production in the country through food availability, food access and food utilization. In line with the above conclusion, the study recommended that commercial banks in Nigeria should make more loan/credit facilities available and accessible to farmers all over the country to sustain the increased agricultural product needs in Nigeria. These funds must be made available to serious minded farmers at affordable interest rates.

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